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THE BVILDER

AN : ILLUSTRATED : WEEKLY JOURNAL : FOR : THE : ARCHITECT : AND : CONSTRUCTOR.

"EVERY man's proper mansion-house, and home, being the theater of his hospitality, the seate of selfe-fruition, the comfortablest part of his own life, the noblest of his sonne's inheritance, a kind of private princedome, nay, to the possessors thereof, an epitome of the whole world, may well deserve, by these attributes, according to the degree of the master, to be decently and delightfully adorned." - - - - - - - -

"Architecture can want no commendation, where there are noble men, or noble mindes."

—SIR HENRY WOTTON.

"OUR English word TO BUILD is the Anglo-Saxon Byldan, to confirm, to establish, to make firm and sure and fast, to consolidate, to strengthen; and is applicable to all other things as well as to dwelling-places."—DIVERSIONS OF PURLEY. - - - - -

"ALWAYS be ready to speak your mind, and a base man will avoid you."—WILLIAM BLAKE. - -

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THE PRESERVATION OF HISTORIC HOUSES.

THE methods of preservation to be applied to ancient monuments are now better understood, and the repairs carried out with the least possible violation of their ancient character. This should remind us of the equal responsibility to secure that the same appreciative care is applied to the great houses of historic and architectural interest now passing out of the hands of their hereditary owners, in some cases to become public property. For this is a matter not only affecting the locality becoming possessed of them but, as part of the national inheritance, one in which we are all concerned; so that it should not be left entirely for the locality, however public-spirited, to carry out changes or additions to such buildings without previous consultation with those best able to advise them—and there are now many well-informed sources to which they can look for help. Commercial appreciations are more likely uppermost in many local authorities than artistic ones, and it may seem to them that in paying a good price and depending on local knowledge only they have done all that is necessary. Under the changed conditions resulting from the war, not one or two, but many ancient historic houses are falling into the market, in certain cases as bequests to societies—as in the instance of Sulgrave Manor—or to become the property of the locality in which they are situated.

Houghton Towers, to which Professor Richardson calls attention in a letter we give on p. 6, is in danger of destruction, and in such circumstances it appears to us that the First Commissioner of Works might well intervene and carry out the provisions of the 1913 Act—and we could mention other cases. We fully recognise the difficulty of finding the kind of security required, and do not suggest any way as infallible. Only when a nation is held together by a tradition powerful enough to bind its work together does the present flow in orderly progress from the past, and we could wish that the nation were thus so happily endowed, that the thousand alternatives—the experts, committees and multifarious organisations whom lack of this more inspired endowment can do so little—were not now left the fragile security to take its place. Life moves in beauty where a people seek the best things in the best way. In such a case additions or alterations to existing buildings follow a natural course, the aim inspiring them being the same—as Early English followed Norman, to be followed by other succeeding styles. But the ancient England is gone, and industrial England is not in such harmonious relation to the past that the one grows undisturbedly out of the other. It is the peril and insecurity of the time that it does not do so. We are not preaching here any doctrine of sterility, but recognising that the aims of an industrial England have superseded more ancient and different ones, have familiarised us with utilitarian methods and to drastic changes in the handling of materials, because the machine has so much replaced the hand. This is not the whole story, and architecture can claim to dispute this industrial intervention with buildings of dignity as well as use, while we may see evidence of a return from unenlightened economic shibboleths to sounder religious beliefs.

Lest there should appear some contradiction in arguing at the same time in favour of opposites—for public responsibility and freedom from control as against over-dependence on machinery—we would point out that these opposites resolve themselves into a unity where there is the respect for knowledge outside our own and belief in the value of counsel, fortifying ourselves through the co-operation of other minds, instead of despising what we do not understand. Were this to be granted, the less interference and control the better. But local pride is forgetful of any higher claims than its own will, much harm is entailed, and this is sometimes seen in the case of historic houses becoming public property. Municipalities and public bodies are not usually composed of artists, nor are they always furnished with the kind of experience to entitle them in the case of these historic buildings "to do what they like with their own." Do we not recall the instance of a fine old house and park acquired for the locality as a public building and recreation ground, attached to which was a brick-built building of delightful character, which we came one day to find nearly destroyed and the beautiful Dutch tiles which lined the whole interior from floor to roof being brought down in showers of fragments by the house-breakers?

If the public interest compels us to challenge as unsuitable the character of the alterations being made to a home of historic interest, we have only in mind to labour the necessity of some outside reference before such changes are made, not to criticise individuals. And a visit to Temple Newsam at the present time fills us with apprehension. This famous seventeenth-century seat has recently been acquired by the City of Leeds, and the alterations now in progress there compel us to consider the need of a greater security which would be secured by means of such reference. We seem to recall that on the public occasion when the house was handed over to have read much talk of the "zealousy to preserve the amenities," to do nothing which would "detract from the glory," &c. But what are we to say when instead of keeping industrial Leeds away from Temple Newsam, we find Leeds brought to it—whole buildings and other additions being erected in a hard-faced machine brick of ugly colour? Was it not advisable at least to have secured a hand-made brick of similar character to that used for the house itself? Nor do we see the justification for violating the appearance of what would appear to be the stable entrance with additions in this same alien material! A correspondent writing on the subject says: "The design of these additions also appears to disregard the style of the surroundings and to deface the previously undisturbed charm of the buildings. Nor in such an instance can the inconsiderable extra cost of working in accordant materials justify the neglect to use them." We do not suggest any such reason as animating the authorities in their failure to do so; we do not discredit the aim, but challenge the experience. But when the Corporation took over the property they also took over a responsibility in acquiring it.

We dwell on the matter with the more anxiety because other such historic houses are passing from their original owners, and we have to foresee the danger to such buildings if there is not some better security than is included in an unfettered local control, and it has to be considered whether in the case of ancient buildings a reference to some outside consultative authority ought not to be made before any changes are proceeded with. We do not regard the matter as one easy of solution at all, nor is there any patent medicine conducing to certain remedy, as we have already pointed out. The less control and curbing of local initiative, or any other for that matter, the better, but we may seek counsel without fetters, and fortify our labour from the best minds. It is an appeal only to a more shared life and communal spirit, and we have fortunately the means of reference and advice in a direction where experience shows it can be capably given. We refer to the First Commissioner of Works and the Department which deals with ancient monuments. Before such additions were made at Temple Newsam their advice should have been requested, or reference made to some other better services of information than has apparently been the case.

We distinguish a good deal between repairs and the addition of new work, but where additions are to be made it is safer to work closer on the lines of the old unless there is some commanding reason to include new treatment. Given the acquirement doubtless this should not be denied, for there is harmony between all that is good. The danger lies in finding it all too easy, the fatal view that money will purchase of itself what we need.

We can appreciate the revolt of practical men where a sort of superstition is made of the past belieing the work of our own time. But we must not forget this fundamental difference, which has dulled our senses, depriving us of appreciation when we come in contact with traditional beauty—the virtue of which lies in no accident, but is the witness of the best things held dear.

NOTES.

The Manchester War Memorial.

The Manchester sub-committee, says the *Guardian*, "which was appointed to obtain a design for a war memorial has not, it appears, been instructed to find an architect, but, to approach a particular architect 'who can be trusted to prepare a suitable design.' The architect has been named to the sub-committee by the War Memorial Committee. This procedure was adopted after the War Memorial Committee abandoned the choice of design by competition, being unable to promise to accept the assessor's award as final." By this decision a very important issue for the profession is raised, for the rule which is now almost invariably followed, thanks to the pressure of the R.I.B.A. and the Society of Architects, is being ignored by an important public body. The competition system leaves much to be desired, but we should have thought, in spite of the defects of the system, the balance of advantage would have appealed to all public bodies, although we know that some of them hesitate to accept without question the decisions of an assessor. In the present case, the Memorial Committee would have been well advised to accept the award of the assessor, Dr. Worthington, of Manchester, who had been previously appointed assessor, but their objection to doing so gives point to the suggestion which architects themselves frequently make that a jury of at least three should make the decision.

Professor Beresford Pite, M.A., Hon. A.R.C.A.

Professor Beresford Pite's retirement from the Professorship of Architecture, which he has held at the Royal College of Art at South Kensington for twenty-three years, is felt to be a fitting occasion for some acknowledgment of his services in the cause of art education, and it is proposed to hold a dinner in his honour at Pagani's Restaurant, Great Portland-street, W., on Friday evening, July 20, when no doubt a large company will be present. It is difficult to estimate the value of the work of any teacher, but even a slight knowledge of Professor Pite's work at the Royal College of Art is enough to show what an important part he has taken in art and architectural education, while those students who have passed through his courses can have no other feeling than gratitude for his inspiring guidance and influence. We have still a lively recollection of a valuable criticism addressed to students on bridge designs many years ago, and our readers have no doubt heard with pleasure and admiration Professor Pite's stimulating addresses. Ninety-five per cent. of the art students of the College have passed through his architectural courses, and as most of them have become art teachers, his influence has been very far-reaching. We are glad to know that Professor Pite will be continuing his private practice. Mr. L. M. Austin, A.R.I.B.A., Royal College of Art, South Kensington, is acting as hon. secretary for the dinner. Tickets can be obtained from him, price 7s. 6d. each.

Leeds University War Memorial.

Now that the period of storm and stress which greeted this memorial has somewhat abated, and it has since got itself decently dedicated, we may regard its permanence as assured, and in such circumstances it is of interest to consider dispassionately its title to a work of art, or otherwise. "The most criticised memorial in Yorkshire," as we heard it described, should not receive less than justice, though a contemporary, no doubt voicing a very considerable body of opinion, was anxious that it should not be dedicated, being against its retention as the war memorial at all, and there were many others who, by reason of personal loss, were deeply concerned, and who also objected to it. We confess to a difficulty in taking a determined view as to its claims as a work of art, nor can we easily put into words our feeling on the matter. The riddle that it sets up in the mind is far, however, from any condemnation to it, and though it seems to escape what can easily be put into words, this also is not without virtue. Yet, such aim as it includes cannot be disregarded, and it may be granted at once as a quality that it is neither commonplace nor decadent, nor does it mistake realism of the imitative sort for art, being wholly creative and sincere. Primitive, if we like to find it so and judged by "classical" standards; but the best sort of art has in it something elemental, and is not concerned to woo our everyday appreciations, though this memorial is not without plenty of realisation of its own particular kind. We have therefore to be careful lest a hasty criticism should chill what are, perhaps, but searchings towards a new light which may change the face of present time art—and greatly for the better. For here we have first-hand experience and inward vision, hardly touched by the world. We do not say it is successful, but there lies deep significance in such work in its detachment and disregard of any desire



Monument to Marcus Aurelius Antonius, Florence.



Detail of Fountain in Saltsjobaden, Stockholm.
C. Eriksson (Sweden), Sculptor. (*See p.* 7).

to win us. We do not agree that a work of art is bad because it fails of recognition, and, though we feel the difficulty of framing a pronounced verdict, we ought in no way to be contemptuous of new forces that may be making for a new renaissance of art. This memorial is, in any case, far more successful than the quantity of quite commonplace memorials which raise no criticism whatever.

The Durham War Memorial.

It is to be hoped that the protest against placing a County War Memorial on the Palace Green at Durham will be successful. The letter from the President of the Northern Architectural Association (Mr. W. T. Jones), which we print this week, affords another illustration of the necessity for unremitting watchfulness in safeguarding the amenities of our towns. Only the other day we noted the removal to a scrap heap of a war memorial which had been both inadequate and badly placed.

The Housing Problem.

The following extract from a letter published in a daily newspaper is interesting: "It may be remembered that in order to protect the poor population rents were kept extremely low, so that the great bulk of the Viennese still pay comparatively little for their apartments. This has stopped most private building, practically everything being left to the municipality." We like this simple statement of fact. In this country we have similar conditions, but it has pleased many to believe that causes and consequences have ceased to operate, and they have never been at a loss to find some reason to explain away the economic failures. The truth is that idealism and economics do not work well together, particularly when combined under a measure of legislation, yet most of our difficulties and disappointments are the result of believing that we can do both things at once. What we cannot do upon an economic basis we must leave to philanthropy, though it is an ugly word to substitute for idealism. We do not alter the significance by placing our burdens upon the State. Controls and Rent Restriction Acts represent artificial factors that can only be met by adopting remedies which are equally artificial and economically unsound. There is nothing to be gained by pretending anything else; on the contrary it is almost certain in the end to react and prejudice the main principles for which we are all striving.

The Building Art.

Professor Lethaby's article this month on "The Building Art—Theories and Discussions" (see p. 16) is more than usually suggestive, and it cannot fail to provoke thought and, we hope, profitable discussion, which is what we all desire. "The modern architect," he says, "must come out of his bogey-hole of myth and make-belief, and work in the open, aiming at precision and perfection, and giving a fair opening to the artists whom he organises, from bricklayers to sculptors and painters. It is his duty as a distributor of patronage and employment to see that he calls for fine types of workmanship. He is not only erecting architecture, but he is building lives as well. I would suggest, as a general rule, that there can be no 'decoration' which is not vital workmanship; and none should be tolerated which is not by a free artist. Scientific structure and personal ornamentation is the thing to aim at."

A Wren Society.

Hardly had the bicentenary celebrations abated when a group of admirers of the great architect met together under the shadow of St. Paul's, at the suggestion of Mr. Mervyn Macartney, to devise the means of setting up a permanent and trustworthy record of Sir Christopher Wren's life and work. It was agreed to form a Wren Society, whose objects should be to hunt out his drawings and other documents—portraits, letters, reports, accounts and miscellaneous documents throwing light upon that long and admirable life and its multifarious activities—and to issue them in published form to subscribers. There is a wide field for such a work. The work of the Walpole, Vasari, Durer, Henry Bradshaw and similar societies shows what can be accomplished by a body of subscribers animated by a single object, and the Wren Society, which has already received promises of support from many eminent persons and bodies, has every reason to hope that its publications will be equally useful in the cause of art and history and equally full of interest. These it is proposed to issue annually, over a period of some twenty years, in the form either of portfolios of reproductions of Wren's drawings or other illustrations of his works, or of volumes containing ascertained facts and unpublished records. The subscription will be one guinea, and the Society's publications—supplied free to members—will not be obtainable through other channels. The Earl of Balfour has exhibited his interest in the Society's work by consenting to become its President, and the Hon. Secretary is Mr. W. H. Ward, 2, Bedford-square, W.C.1.



Bronze Statue of Mr. F. H. Royce.
Mr. F. Derwent Wood, Sculptor.
[This statue was unveiled at Derby on June 27.]

GENERAL NEWS.

Professional Announcements.

Mr. F. Lessore, sculptor, has changed his address to 7, Bruton-place, New Bond-street, W.1. Telephone: Mayfair 2573.

Mr. C. L. G. Modin has joined Foy, Morgan & Co., of 11, Bishopsgate, E.C.2, as a partner.

Leicester's Sewage Farm.

Serious financial losses in regard to Leicester's sewage farm formed the subject of a long discussion at the City Council meeting. It was decided to refer the report of the Special Committee to the Farm Committee.

St. Giles' Christian Mission.

The sixty-third annual report of St. Giles' Christian Mission gives many interesting facts concerning its great work among destitute people. During the past year the Mission provided 8,713 ex-prisoners with a free breakfast, assisting many to make a fresh start in life; admitted 133 friendless juvenile offenders into its homes, and obtained situations for 185 men and boys.

Sir Aston Webb, P.R.A.

An honorary doctor's degree has been conferred on Sir Aston Webb (President of the Royal Academy), by Cambridge University.

Tribute to Mr. Paul Waterhouse.

At the conclusion of the general meeting of the R.I.B.A., on June 25, after the presentation of the Royal gold medal to Sir John Burnet, Mr. Arthur Keen reminded those present that that was the last occasion on which Mr. Paul Waterhouse would take the chair at their meetings as President. He said he thought they all appreciated—certainly no one appreciated more fully than himself—the value of the services he had rendered to the Institute during the time that he had held the position of President. He (Mr. Keen) had been altogether surprised to find how much of his valuable time he was willing to devote to the service of his fellow-members. There was nothing that he had been called upon to carry out that he had not applied himself to with his utmost ability. He had presided over their meetings with the utmost distinction, and there had hardly been an occasion when he had been expected that he had failed to be present. They had to be profoundly grateful for all that he had done, not only in the way of carrying on the business of the Institute, but in advancing the very best interests of that great Society. In the matter of education he had distinguished himself exceedingly; he had taken an enormous interest in the business of their Board of Architectural Education, and he had carried the work of that Board to a very high point of efficiency. There was no aspect of the work of that Institute with which he was not fully familiar, and in connection with which he had not carried a considerable step further than it had reached before.

Dinner to Professor Beresford Pite, M.A.

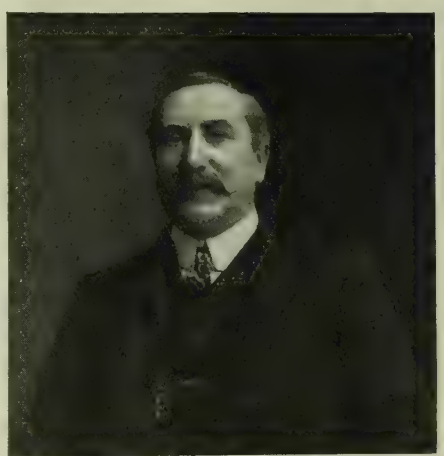
A dinner has been arranged in honour of the retirement of Professor Pite from the Professorship of Architecture at the Royal College of Art, as an acknowledgment of his services in the cause of art education. Professor Pite was appointed to the School of Art in October, 1900, at the same time as the appointments of Professor Lethaby and Professor Moira at South Kensington, so that he retires at the end of twenty-three years' occupancy of the professorial chair. Professor Pite will continue his private practice and will still hold the Architectural Directorship of the L.C.C. School of Building at Brixton. His lectures at the School of Architecture, at Cambridge, will, of course, be also continued. The dinner will be given at Pagani's Restaurant, Great Portland-street, W., on July 20. Applications for tickets (7s. 6d.) should be made to Mr. L. M. Austin, who is acting as Hon. Secretary, Royal College of Art, South Kensington.

OBITUARY.

MR. J. H. MORTON.

Well known throughout the Northern counties as an architect of considerable ability, particularly with regard to the designing of churches and public buildings, Mr. Joseph Hall Morton, of Dinsdale House, Westoe Village, South Shields, died on the 28th ult., at the age of 73. He had offices in South Shields and in Westgate-road, Newcastle, and since 1900 his son, Mr. R. H. Morton, had been in partnership with him. The deceased gentleman was a Fellow of the Royal Institute of British Architects, having obtained his earlier training with the late Matthew Thompson, F.R.I.B.A., of Newcastle. He had occupied the presidential chair of the Northern Architectural Association, and in the course of his career had designed poor law institutions and infirmaries in various parts of the country, including South Shields, Gateshead, Leeds, Bradford, York, Doncaster, Hartlepool, Hexham, Burton-on-Trent, and Stamford, the South Shields building being the first built upon the "pavilion system" in the country, the remainder following upon these lines.

The beautiful outline of many local parish churches is due to his skill, particularly those of St. Aidan's, South Shields; St. Jude's, South Shields; St. Aidan's, West Hartlepool; and St. Aidan's, Horrington, Sunderland; and in addition he planned a colony for the feebleminded at Prudhoe to accommodate about 2,000 patients.



The Late J. H. Morton.

In various parts of the country, hotels, theatres, public offices, scholastic establishments, banks, and infectious hospitals, baths and washhouses bear the outline of his craftsmanship, and throughout Northumberland and Durham he took quite a prominent part in the preparation of housing schemes for the various councils.

Mr. Morton was a Freemason, and was the designer of many notable buildings of the craft in the neighbourhood, a member of the St. Hilda Lodge, South Shields, and he was a past provincial grand superintendent of works (Durham). He was a Churchman connected with St. Hilda's, South Shields, and for many years was a member of the ancient vestry and a churchwarden. In politics he was a Conservative. He leaves an upgrown family of two sons and three daughters, his wife having pre-deceased him thirteen years ago.

Mr. Morton had the honour of sending designs for workhouses and infirmaries to the Russian Government in the time of the late Tzarina, who was interested in this class of building. He was also asked by the Government to send similar designs to the Government of Venezuela. His design for the Stamford Infirmary formed part of the exhibit of the Local Government Board at the last Paris Exhibition, and was awarded "Hors concourse."

COMPETITION NEWS.

"THE BUILDER" COST OF BUILDING COMPETITION, No. II.

Some notes on Part II of *The Builder* Cost of Building Competition (open to builders) are given on p. 26.

Bournemouth Pavilion Competition.

The Assessor, Sir Edwin Cooper, F.R.I.B.A., has made his award as follows: First, Mr. G. Wyville Home, A.R.I.B.A., and Mr. Shirley Knight, A.R.I.B.A., of Lincoln Chambers, Portsmouth-street, Lincoln's Inn-fields; second: Mr. H. V. Ashley, F.R.I.B.A., and Mr. Winton Newman, F.R.I.B.A., of 14, Gray's Inn-square, London, W.C.; and third: Messrs. Collcutt & Hamp and Mr. J. F. Watkins, associated architects, of 20, Red Lion-square, London, W.C. 1. The premiated designs are illustrated in this issue.

General Post Office, Singapore.

The design of Messrs. Edmond Coignet, Ltd., of 125, Gower-street, W.C., has been selected for carrying out the new General Post Office at Singapore in reinforced concrete, for the Crown Agents of the Colonies. The building is to be erected on a triangular site, and will be 120 ft. in height (six stories). The principal facade will be 400 ft. long, and the other two facades 300 ft. long; it is to be built on a reinforced concrete raft foundation, and will have a flat roof. The intermediate courtyards will be covered. The reinforced concrete columns, &c., on the elevations will be cased with granite. The architect is Major P. H. Keys, D.S.O., F.R.I.B.A., of Singapore. A perspective view of the building, from the exhibit at last year's Royal Academy Exhibition, was given in our issue for July 28, 1922.

Anzac Memorial at Port Said.

The High Commissioner for Australia has been officially advised that the Assessors appointed by the Commonwealth Department of Defence to make the awards offered for designs for the memorial to be erected at Port Said to the memory of soldiers of the Australian and New Zealand Forces who fell in Egypt, Palestine and Syria, in the Great War, have allotted the awards as follows:—First: Mr. C. W. Gilbert (250 guineas); second, Mr. G. Gavin Lawson (100 guineas); third, Mr. W. L. Bowles (50 guineas). The competition was open to sculptors and architects of British nationality permanently resident in Australia or New Zealand, and to Australian and New Zealand sculptors and architects resident in other countries.

Assessors Appointed by the R.I.B.A.

The President of the Royal Institute of British Architects has nominated the following assessors:—Proposed Library, Armstrong College, Newcastle-upon-Tyne, Mr. Henry M. Fletcher, F.R.I.B.A.; proposed Hospital for the Burton-upon-Irwell Union, Manchester, Mr. William A. Pite, F.R.I.B.A.; proposed Public Hall, Truro, Sir A. Brumwell Thomas, F.R.I.B.A.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Singapore College (Jan. 1, 1924; March 30). Greenwich Baths (Aug. 25; May 4). Hull Art Gallery (Nov. 5; May 4). Mint competition for plaques (Sept. 30; May 25). Birmingham Masonic Temple (Sept. 12; June 22). Hull Cenotaph (June 22). Colour scheme (Sept. 30; June 29). Glasgow Pavilion (June 22).

Barking's Old Court House.

In a letter to *The Times*, Mr. A. R. Powys, Secretary of the Society for the Protection of Ancient Buildings, states that the Society has been informed by the District Council that the old Court House, Barking, is to be demolished. Mr. Powys announces that he is returning to subscribers the sums given for the repair of the building.

BOURNEMOUTH PAVILION COMPETITION.

We appear to have got well back again into a time of competitions after the lapse caused by the war, and, much as we have to say against them, we must admit that they seldom fail to interest the profession. Even if the bulk of the competitors do not rise to their opportunities, we are sure to find in any well-conducted competition the interesting comparison between various carefully considered treatments of the subject. In some competitions it is unlikely that anyone will realise the full possibilities of the problem unless they have themselves prepared a design, and we venture to think it not unlikely that in the Bournemouth Pavilion Competition the assessor has himself produced a design.

The site may be the most suitable and attractive one available in Bournemouth, but it certainly presents some special difficulties, largely owing to the great fall of 20 ft. from one end of the site to the other, though difficulties of this kind have a way of turning into positive advantages in the hands of a skilful designer.

After the issue of the conditions, over two hundred questions were asked by intending competitors.* The accommodation asked for was a concert hall on the higher level entered from Westover-road; administration offices, billiard and reading rooms; tea and refreshment rooms and lounge, also from the same level; large refreshment room (licensed) and offices for beach undertakings on the pier level; green and dressing-rooms, scenery and music storage and tea balcony on mezzanine floor. A public stair was desired from the pier level to communicate with the higher level in Westover-road. To provide this accommodation with a convenient interrelation of parts was a problem requiring some thought, and the cost had to be borne in mind, as the promoters held themselves at liberty to abandon the scheme if the cost exceeded £110,000. The separate departments of the group of buildings might be let to different tenants. The whole scheme with its attractive park surroundings obviously lent itself to a fine effect of architectural grouping with the concert hall at the north end, or in the centre, dominating the whole. Though some clever designs have been submitted, it can hardly be said that any one of them rises to the full possibilities of the occasion, or that any particular one has been so outstanding in its precedence of merit as to make the task of selection a very obvious and easy one.

The first premiated plan, which we illustrate this week, is simply and well laid out, and would build economically. The grand entrance from Westover-road is some 40 ft. deep to the back of the corridor space, and suggests some lack of light; it gives direct access to the concert hall (88 ft. 3 in. square) and to corridors on either side, which continue on a direct line to the lounge tea room at the south end. There is an open area between the concert hall and the tea room; and on the east and west sides of this are the billiard and reading rooms opening from the corridor. The lower ground floor on the south front has a restaurant for 350 with flanking corridor, and kitchen to the rear; the dispensing counter is small. Staircases lead up from the front angles of the restaurant to the mezzanine balconies. Advantage is taken of the plan for good outlook over the gardens and sea round the east and west and south fronts. The exterior is well treated and the concert-hall portion should develop well; but the south front is rather forbiddingly heavy—it has certainly anything but a joyous appearance, and the whole design would be improved by modification and lightening of this part.

The second premiated plan has a concert hall some 55 ft. from the Westover-road entrance. It is 100 ft. by 108 ft. with canted angles. There is an open court between the concert hall and the refreshment lounge, but in this case the billiard room (to the east) and the reading room (to the west) are both lighted from the outer main wall. A drawback in this scheme is that too much of the south front is taken up with stairs and entrance halls. The plan scheme is an able one. The exterior is treated in a well-known manner of modern Renaissance and seems far too dull and formal for its purpose.

The third premiated plan is distinguished by a free use of curves. The great circular end to the sea front would make a pleasant lounge and gallery, and the curved connecting corridors from the lounge to the concert hall would be a good feature, but the curved sides to the south end of the concert hall appear a little doubtful; the entrance corridor to the hall is also curved; in fact, the plan is quite a study in curves. The plan is certainly ingenious, but the exterior, which might to some extent have justified it, is not much unlike or more exhilarating than a drapery store.

There are few, indeed, of the designs which call for comment, but No. 23 is certainly amongst the best; probably it would have made the best exterior treatment of all, for it has breadth of effect, whilst it is picturesque and would have produced a telling effect of light and shade with its wide, overhanging eaves and pillared corridors; the interior treatment is also good. The plan is well laid out and coherent, and the assessor must have found vital defects in it which are not, perhaps, at first sight apparent.

In No. 31 we have an exceptionally able design with a fine domed concert hall coming near the centre of the site. Such a design would be costly, but an admirable building and fine dome like this would be worth paying for. There are many points of excellence in the plan and the whole scheme, whilst appearing too grandiose for its purpose, ranks about first in excellence. The line drawings are excellent, but the perspective loses the dignity and character of the design.

No. 26 is a well-balanced scheme with one of the best exteriors; the lobby in the centre of the south front is a mistake. The perspective spoils the effect of the elevations, which should work out well.

An excellent set of drawings illustrates No. 25, which has a simply treated good exterior. The circular end to the concert hall was surely hardly worth while.

A well-conceived plan is No. 45, which, with modifications, would have ranked with the best. The exterior fails in that the south half of the building group does not join in satisfactorily with the northern point. Some of the competitors have, we think, exaggerated the need for lofty erections over the stage.

The plan of No. 52 shows an oblong concert hall, and the authors—perhaps wisely—have put its axial line well over to the east, and so get a good reading room and lounge balcony on the west front. The exterior dome is pleasing, but has no apparent connection with other parts of the building. The general effect from the sea and gardens is somewhat heavy for the subject.

A good point in No. 20 is that the east side corridor ends with the concert hall, so that a reading room and billiard room have direct outlook to the east.

No. 82 is a good plan, but perhaps making rather too much of the grand vestibule. The design is an effective one in its perspective, with its four towers at angles of the hall and curved outside stairs, but suggests a rather heavy cost.

Amongst the best designs is No. 4, and though well laid out in plan and well treated elevationally has some defects, such as the approach to the concert hall down steps from the Westover-road entrance.

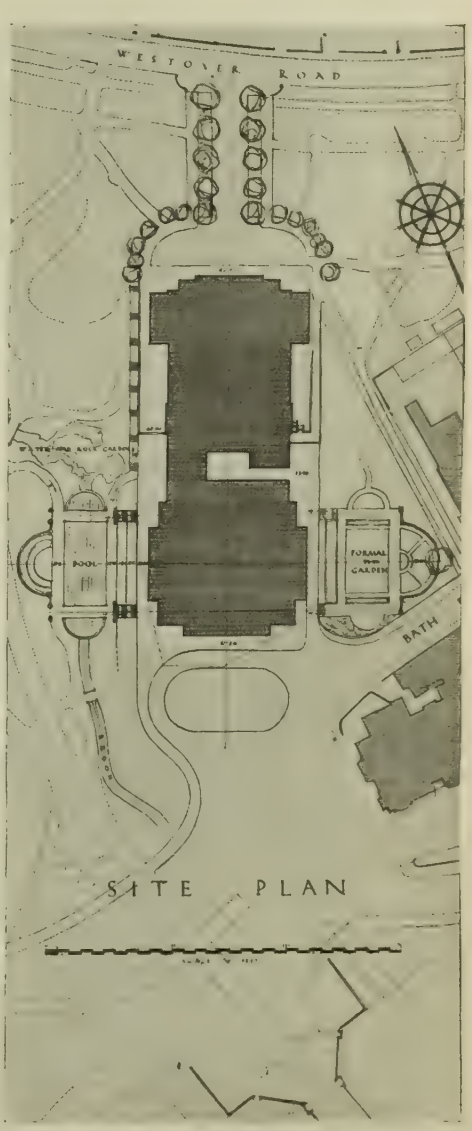
No. 14 is a good plan, with nice exterior treatment. The plan gives a fine series of rooms on the west front by keeping the axial line of the concert hall over to the east. The reading room, billiard room, and lounge on the west front are a good feature. No. 35 is a meritorious design.

No. 1 is one of the most noticeable designs. Its plan has much merit; the elevations are simple and good, and the whole scheme is admirably illustrated. It suggests to one whether it did not deserve a place.

No. 43 is one of the noticeably clever designs and admirably illustrated.

It will probably have occurred to some competitors that if they had been free of all conditions they might have done better; and we have always thought that suggestions are better than conditions and that it is wise to leave those entering a competition as free a hand as possible. It is well to know what promoters want, and perhaps the general form in which they prefer it; but, if a competitor is left with a fair amount of freedom, he may be courageous enough to put forward a scheme which runs counter to the suggestions of the promoters.

We may feel inclined to wonder why such a subject as this pleasure pavilion for Bournemouth does not evoke ideas of more lightness and gaiety in building expression, and why the designers do not forget town halls and temples and business premises. A building may have grace as well as dignity; it may produce some sense of joy and freedom without a sacrifice of good, sound architectural forms. Doubtless there is something lacking in this respect in our national temperament, but we should make a much stronger appeal to the public if we could deal in a more sprightly and cheerful way with buildings designed for public pleasure.



Bournemouth Pavilion Competition.

First Premiated Design, by Mr. Wyville Home, A.R.I.B.A., and Mr. Shirley Knight, F.R.I.B.A.

CORRESPONDENCE.

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Houghton Towers.

Sir,—I have just heard that a proposal is on foot to demolish the very considerable remains of the famous "House Beautiful," Houghton Towers, at Ampthill, in Bedfordshire. The house is little known to the ordinary man, yet it is one of the few houses of the early seventeenth-century that can be definitely attributed to the joint labours of John Thorpe and Inigo Jones. The mansion was projected by the Countess Pembroke, "Sidney's sister, Herbert's mother," in 1615, John Thorpe being responsible for the "Du Cerceau" plan and Inigo Jones for the Palladian finishings, including the loggias, the tower over the south porch, and the internal fitments. At the present time sufficient of the fabric remains to show the character of the work as these architects left it.

The owner will demolish the walls and dispose of the valuable architectural features unless immediate action is taken. Only two ways of saving this historic building remain—first by private purchase, or, what is more certain, Government action.

In connection with the latter, few people realise that the First Commissioner of Works has power to issue a preservation order in just such a case; this power, to the best of my knowledge, has not been exercised hitherto. Surely the present issue offers a golden opportunity to the Government to carry out the provisions of the 1913 Act.

A. E. Richardson,
University College, London.

Durham County War Memorial.

Sir,—Attention has lately been drawn to the proposal to erect the County War Memorial upon the Palace Green at Durham. Durham has suffered so greatly in the past from destruction and mistaken zeal that any proposal, however well intentioned, cannot be allowed to proceed without close scrutiny. Presumably the war memorial is a public memorial; at any rate, an open appeal was made, but up to the present moment the public have been allowed no information and no opportunity of forming any judgment upon it.

In any case, a matter affecting the surroundings of the Castle and Cathedral of Durham is of interest, not only to the promoters of the memorial, but to the citizens, the county, and the country. Individuals will doubtless differ as to the conception of the memorial, but on the question of the proposed site northern architectural and archæological opinion is unanimous, and is fortified by the highest authority existing on architectural grouping. It may, therefore, be of interest to know that the question was considered and condemned by the Council of the Northern Architectural Association. This body later referred it to the Council of the Royal Institute of British Architects, who confirmed the opinion of the Northern Association. The matter was also considered by the Society of Antiquaries (London) and the Newcastle Society of Antiquaries. All these bodies united in condemning the proposal to erect the memorial upon the central line of the Palace Green, and have notified the promoters to that effect.

No one would deny to the memory of those who fell the best site possible, but the proposed site and its surroundings would overwhelm the memorial and reduce it to an object of insignificance; it would remain simply an irritating obstruction in the view of the great Church.

The "Palace Green" was formed by Bishop Flambard before 1120, and has remained for some 800 years free and unobstructed, and its clear space in front of the Church is unique, and is necessary for the display of the magnificence of the dominating feature—the great tower. It is earnestly to be hoped that the authorities will see their way in the near future to clear away the modern grass mound and tree which upset the balance and detract so much from the impressiveness of the scene.

In endeavouring to preserve this historic open space as a setting to the tower, architectural opinion offers no disrespect to the dead. There remain, in the neighbourhood and elsewhere, excellent sites, more appropriate to the scale and nature of the proposed monument, upon any of which the memorial would assume a rightful predominance without hurt to its surroundings.

W. T. Jones,
President, The Northern Architectural Association.
Newcastle.

Stoke Poges.

Sir,—I read in one of your contemporaries that new plans are being proposed for the preservation of the Gray "monument" and "the neighbourhood of the churchyard from the too close intrusion of building"; and attention is drawn to the "great monument in memory of the poet Gray," with a view to inducing "some moderately wealthy person



The Gray Memorial.

who will, with a single splendid gesture, safeguard from spoliation for ever the amenities of one of England's most cherished possessions."

May I be allowed, as a constant reader of *The Builder*, an occasional contributor, and a collateral relative of the poet (as having with him a common ancestor), to say that a recent visit to the monument, the church, and the surroundings, failed to bring to my notice anything at all approaching to a "too close intrusion of building," or to inspire me with the greatness of the monument, except in a purely literal sense. "Great" it certainly is, more fitted for the reception of the mortal remains of an Adamastor, a Gog or a Magog, than of the moderate human proportions of our *vates sacer*. Anyone who will examine for a moment the accompanying view will observe the incongruity of the *innigkeit* of the design with Gray's own sentiments: a man who looked with scorn and disfavour on the "storied urn" is poorly honoured by such a monstrosity as the ponderous sarcophagus, more resembling a Victorian wine-cooler usually seen under a rich man's sideboard than the *denkmal* of a world-worshipped poet. And although it is true that many illustrious persons have been honoured with inscribed tablets and other memories, surely so transcendently great a man, as Gray was in the realm of prophetic poetry, deserves an effigy rather than an empty coffer. How much more deeply does the simple medallion portrait in the "poets' corner" of Westminster Abbey affect our veneration and appreciation of the man than does the commonplace tea-caddy erection standing in a field adjacent to Stoke Poges Church, inscribed with a few extracts from the immortal "Elegy," already deteriorating from the inroads of the wind and the rain. Surely a seated figure pointing to the "churchyard" and the "ivy-mantled tower," the "mouldering heap," or the "straw-built shed," or with uplifted finger calling attention of the listener to the tolling of "the curfew," would have been far more appropriate, and let us hope that if ever the present memorial were to be replaced with one more in harmony with Gray's character, as displayed in his poetry, a more inspiring design may be materialised.

Chiswick. Walter de Gray Birch.

Small House Plans.

Sir,—Professor Kerr, in his admirable book on House Planning, laid down as an axiom that there should be direct communication between the kitchen and scullery, without any intervening lobby; also that the scullery sink should be as close to the kitchen fire as possible. Many of the housing scheme plans published do not follow these reasonable rules. Messrs. Culpin & Bowers, judging from their plans in your issue of the 29th ultimo, which are rather put forward as the last word on the subject, do not appear to think it necessary to regard them. The distance from the sink to the living room, which is equivalent to kitchen fire, in plan "A," is particularly great. It would be interesting to know why they did not put a door communicating directly between the scullery and living room, say between the gas cooker and the sink. It may be said the gas cooker alters matters; it might in summer, but in winter there always would be a fire in the living room, and it would, therefore, be wasteful to have to light the gas for every simple cooking operation, such as boiling a kettle, or have a long way to walk to fill it. In "D," which is said to be "an extraordinarily economical plan," the larder and back porch seem to take up a good deal of space in a scheme in which every foot super is of paramount importance.

London. W. J. H. Leverton.

Staining Oak.

Mr. Ernest G. Smith, of Messrs. Girling & Smith, of Cross-street, Cromer, writes as follows, in reply to "Readers'" inquiry in our last issue:—

"Your correspondent who asks for a method of lime staining oak does not give any indication of the kind of work to be done. If it is outside rough oak, and it is desired to get a good aged effect, it can be obtained by making a slurry of Buxton lime and applying it thickly; when thoroughly dry the lime should be brushed off. If a roughened surface is required, use a wire brush, scrubbling with the grain.

"If the work is wrought, like oak panelling, the same process can be used, but will leave the granules of lime in the pores of the wood. Should this be an objection, and merely a stain required, lime water can be used. This can be made by putting some Buxton lime in a tank and filling up with water. Stir it well and then allow the lime to settle until the water is clear. If possible immerse the wood, being careful not to stir up the bottom. If the work is too large, soak it well with the lime water until the desired tone is obtained. It should be noted that all oak will not stain alike, and sapwood not at all. A sample should be tested.

"I have found carbide sludge gives a good nut brown stain, and a piece of English oak immersed for two or three weeks was impregnated to a depth of an eighth of an inch. Common soda and potash will make good stains for English oak."

ARCHITECTURE AND SCULPTURE IN SCANDINAVIA*.

By KINETON PARKES.

As early as 1100, when Lund Cathedral was built, there was a symbolic union of the two arts—the twin arts—of architecture and sculpture in Sweden. In the crypt of the cathedral there is the celebrated pillar known as the "Giant Finn embracing the column." To-day in Sweden, Norway, Denmark, and Iceland that symbol has justified itself. In the three former countries there is a close alliance of the two arts; in the last-named there is a union, for, in the person of Einar Jónsson, we have sculptor and architect combined, a man who has designed and built a national memorial which contains, and will further contain, the plastic works which he intends for the glorification of Iceland.

Whatever cosmopolitanism the three major countries indulged in—and Sweden certainly was very cosmopolitan at one time—there is no doubt that they now possess a distinct and favourable nationalism. Swedish, Danish, and Norwegian artists had to go abroad in the early days of last century to learn their trade, but they learned also the necessity of acquiring it at home, and so the academies of Stockholm and Copenhagen were founded, and they in turn served as schools for the teaching of foreigners, who came to them from Finland and farther away. Christiania was later in joining this movement, but has now levelled up.

The whole of the Scandinavian nations had an accomplished early art, and the peasant arts still persist, and often from them there emerges one who attains to rank as sculptor or painter. There are notable examples, especially among the modern sculptors. From among these peasant craftsmen, carvers and builders were selected for the early churches and castles, especially those of Sweden, and there are sensible remains of ornament preceding the Gothic, and there is beautiful architecture in the remains of such a church as that of the Helgeandsorden at Visby, that picturesque coast town. The portal of Etelhem church shows the characteristic union of Romanesque and Gothic of the Gotland edifices, while English influence is distinct in the nave of Linköping Cathedral. The application of sculpture is amusingly seen on a console in Upsala Cathedral, which represents the suckling of Jews by a sow, and is again illustrated in the excellent frieze of mounted figures around the baptismal font, in low relief, of Tingstad church in Ostergötland of about the year 1200. In the fifteenth century carving for the churches came from Germany and Belgium, but there is one famous native product, by Berndt Notke, the St. George and Dragon in Storkyrka, at Stockholm, built by Birger Jarl. Mural painting, too, was prevalent, as in Osmo church, in Södertörn.

In the celebrated castles of the Vasas decoration was used, an example being a frieze in relief-painted stucco at Kalmar. In the court of this castle is a fine fountain by Dominicus Pahr and Roland Mackle, in which mediæval and Renaissance elements are combined. Domestic city architectural sculpture was not neglected, and the portico of Erik von der Linde's house in Stockholm, built at the time of the Thirty Years' War, is a handsome specimen. The Hall of Knights, designed by Simon de la Vallée and his son Jean, belongs to the end of the seventeenth century. The architect of the Royal Palace was Nikodemus Tessin, and he was associated with Burchardt Precht, the German sculptor in wood, and the surprising pulpit in Upsala Cathedral shows the extent to which they were exhilarated by the princely treatment they received at Versailles.

French and English influences then prevailed, but the next event of importance was the appearance of Johan Tobias Sergel, born in Stockholm of German parents, and destined to become the greatest name in Swedish sculpture. Sergel for nearly fifty years dominated the arts in Sweden, and at a period when Classicism was rampant, diverted, in his own work, the current making so rapidly for the vacuous formation of the first half of the nineteenth century. His Faun, in the National Museum, shows him at his best in his Classicism; his bust of Countess Charlotta Fredrika von Fersen shows how his feeling for naturalism saved him from becoming another Thorvaldsen or Canova.

The recent history of sculpture and architecture includes several symptomatic sculptors, such as John Börjeson, Teodor Lundberg, and Per Hasselberg—a splendid trio—while Christian Eriksson, Carl Eldh, and Carl Milles are hailed as the great artists of the contemporary period. After the dull time of 1860 to 1890, from which most countries suffered, the work of the modern architects was applied to dwelling houses and business premises. Two important architects of this time, Helgo Zetterwall and Ernst Jacobsson, both died in the earlier years of the present century, and their places were taken by Aron Johansson, Axel Anderberg, Frederik Lilljekvist, Gustav Clason, Ferdinand Boberg, Carl Westman, Ragnar Ostberg, Lars Wahlman; and there are many others of equal powers, who are responsible for the astonishing output of modern buildings rendered possible by the great commercial prosperity of the country and the love of the arts manifested by its merchants and financiers.

Architecture in Denmark cannot show a corresponding national tradition with that of Sweden. It was mostly derived from the south until the advent of the "Gothic Renaissance," when stair-towers and spires were much in vogue in buildings other than the churches. The Dutch influence seen in Vallö Castle, Frederiksborg, and the Copenhagen Exchange gave place in the eighteenth century to the baroque and rococo, in which styles most of the best buildings near Copenhagen were designed; Thura's Hermitage in Dyrehaven and the Prince's Palace in Copenhagen vie with Eigtved's four palaces of Amalienborg Plads in beauty, these latter having a claim to be the finest examples of restrained baroque in Europe. The colonnade of wood connecting these palaces is the work of Harsdorff, and is the finest piece of neo-Classic work in Denmark, and to this architect are due the best of the simply designed houses of the capital. The Classic Courthouse was the work of Chr. Fr. Hansen.

Harsdorff inspired M. G. Bindesböll, another neo-Classical architect and designer of the Thorvaldsen Museum, a severe squared block, devoid of pillars or columns or other ornament, although Harsdorff always tried to introduce colour and pictorial effect, a desire engendered during his travels in Europe, to Pompeii, Sicily, and Turkey. This museum is the masterpiece of Danish architecture. There was not enough work in Denmark for several great architects, and the brothers Hansen were both at times resident abroad, Christian in Athens, and Theophilus in Vienna, and so lost to their native art.

About the middle of the nineteenth century Johan D. Herboldt led a movement in favour of old Danish feeling, but did not confine himself to it, as his Late Italian Renaissance National Bank in Copenhagen shows, and his University Library was also Italinate. His

* Scandinavian Art by Carl Laurin. By Emil Hannover and Jens Thiis, with an Introduction by Christian Brinton. For the American-Scandinavian Foundation. (London: Humphrey Milford, Oxford University Press. Illustrated. Price 35s.)



The "Wave" Fountain.
Anders Svor (Norway), Sculptor.

pupil Storck was the architect of Hirsch sprung's Museum. The movement, at any rate, resulted in the activity of several architects, and the erection of a number of more or less important buildings, including Dahlerup's Ny Carlsbad Glyptotek, the great art museum paid for by the rich brewer, Carl Jacobsen, which is the home of most that is vital in Danish art. Following on this group is a still younger body, at the head of which the name of Martin Nyrop has to be placed. Again the national feeling, still active, lay in abeyance, while the great Copenhagen Town Hall, Tuscan as to its exterior, Roman as to its interior, came to completion at the beginning of the twentieth century.

Whatever may be said of Thorvaldsen and his Classicism, it has to be admitted that Danish sculpture is a real school unto itself. It is claimed for him that he escaped the exploitation of the sugary form, the southern sensuality, the sentimentality and the virtuosity of Canova. He is indeed a more virile Classicist than the great Italian, and if Classicism must be, then it is best to have Thorvaldsen's, modified by northern strenuousness. He did indeed believe in and practise the study of nature: he used models instead of casts. If anything could be said for neo-Classicism Thorvaldsen said it, and thus contributed Denmark's share to European culture. This was only the beginning, however, for ever since there has been a succession of competent sculptors to carry on the work until the advent of the modernist spirit. An associate of Thorvaldsen in Rome was Herman H. Freund, who, in opposition to the trend of culture at the time, acclaimed Michelangelo, and in this burst of freedom took part in the Scandinavian renaissance, which consisted largely in applying myth and saga as subjects in national art. Freund was commissioned to do the frieze in the new Christiansborg, which was unfortunately burnt in 1884, but fine works of the same inspiration exist in Loki and the Goddess of Fate. A contemporary was J. A. Jerichau; another, H. V. Bissen, and these men are responsible for the thin end of the wedge of realism, which was to lift the plastic art of Denmark entirely from the hard level of neo-Classicism.

Bissen's many pupils carried on the good work, and Vilhelm, his son, made a statue called The Girl Painting a Crock, which is a beautiful example of the union of the old and new ideas. With this group the art was carried through the middle years of the century, aided by others, such as Hasselriis, Schultz, Axel Hansen, and Kröyer.

The new school of Danish sculptors is one of the most vigorous in Europe, and perhaps the most original. It is not nationally Danish, but it is making for itself a reputation which sets it apart from any other in the world. There are great artists in Denmark now, and not the least great are the plastic ones. There is J. F. Willumsen, painter and sculptor; Anders Bungaard; Rudolf Tegner; Viggo Jarl; Johannes Kragh; Hans Larsen; Ludvig Brandstrup, whose portrait busts are admirably naturalistic; there is Niels Hansen-Jacobsen, an extraordinary genius who disregards anatomy in its entirety; and Niels Skovgaard.

The quite recent school includes the men preoccupied with technique, who are producing some of the most fascinating work in bronze that Europe has seen since the Renaissance: Jens Lund, Johannes Bjerg, Utzon-Franck, and others; and lastly there is Kai Nielsen, a prophet of the most recent theories of simplification.

Norway offered painting in preference to architecture and sculpture as its contribution to the culture of the nineteenth century, but happily there is sufficient vitality of the two latter arts to enable them to maintain a foremost place. The handicrafts have an honourable history in Norway, and the carvings on the Romanesque wooden churches provide evidence of the existence of the veritable forerunners of the accomplished carvers in wood of to-day which Norway possesses. In the mediæval stone churches, too—as the masks and heads of Trondhjem Cathedral—there are indications of the same character. From craftsmanship such as this the first plastic artist of the country emerged in the person of Magnus Berg, who worked in wood and ivory and also painted. He died in 1739, and fifty years after Hans Michelsen made for himself a similar career, in the course of which he was a pupil of Thorvaldsen in Rome. For the most part it was a career of set-backs and misery. Norway was not in a position to encourage the plastic arts, and Michelsen had to take refuge in Stockholm, after having carved his Apostles in the Trondhjem Cathedral and made statues of four Norse kings for Oscarshal. He died in 1859.



Grave Monument. J. F. Willumsen (Denmark), Sculptor.

It was this little king's palace of Oscarshal that started a real tendency towards sculpture, and Christopher Borch was engaged to carve some saga reliefs there, and Borch advanced in the direction of national Romanticism as against Michelsen's Classicism, and so paved the way for the greater artists who followed him. Julius Middlethun was the most celebrated of the earlier men, and was a son of a coin-engraver and a pupil of Bissen in Copenhagen. He lived eight years in Rome, and his fine bust of the poet Welhaven, in the students' room at Christiania, shows how he succeeded in grafting on to the best spirit of Roman work the touch of naturalism which made him a great portraitist. Another student in Bissen's atelier was Brynjulf Bergslien, whose rival was Carl Jacobsen, an inferior sculptor, also trained abroad.

Then, in the 'seventies, a change dawned. The pupils of Middlethun began to assert themselves; Classicism prepared for its departure; nationality, originality, and naturalism made their appearance in force. Stephan Sinding, Mathias Skeibrok, and Sören Lexow-Hansen were already trained, the first having come of an artistic family. He managed to achieve a reputation with one work, and it is indeed a very fine one—the barbarian woman carrying her son off the battlefield. Carl Jacobsen, the brewer, became his patron in Copenhagen. There existed but one nude female figure in Norwegian sculpture, the Shulamite of Borch, and Sinding challenged his native country with his studies of the nude; the Two Human Beings was considered a daring achievement; in very fact it was a striking and a useful one, for it awakened the nation to a realisation of sculpture. Sinding's influence has been more than Norwegian.

Mathias Skeibrok died in 1896, a quarter of a century before Sinding; he did many statuettes, but his chief work is the great decoration of the pediment of the University main building in Christiania, in which he was only partially successful. In the National Gallery is the fine draped statue of Vala Rising from the Sea, by Lexow-Hansen, showing a complete separation from the Classical method of presentation, and indicating how the suggestions of new subjects create a reaction in treatment.

While Norwegian painting had reached its zenith towards the end of the century, the opportunity was offered the sculptors by the competition for the Holberg statue at Bergen. It was not made use of, although the sense of failure served to spur on the younger sculptors; but further misfortunes occurred, such as the departure to America of Fjelde, and the death of Hertzberg, while Lars Utne was in Berlin for some years, only returning to do some work for the National Theatre.

The situation was saved, however, by Anders Svor, Jo Visdal, Ingebrigt Vik, and Borghilde Arnesen, for Gustav Vigeland, who, born in 1869, is the greatest plastic artist Norway has ever had, and is by way of possessing genius. He was not systematically trained, but he made visits to the studios of Bergslien, Skeibrok, and Bissen, and Middlethun had a certain influence on him. He travelled, and by so doing developed his imagination, and now he allows his individuality to have full play. Naturalistic in his method, he has made use of impressionism, and is revealing new things which neither naturalism nor impressionism are accountable for—new visions. His relief Hell contains 200 figures in bronze, and is in the National Gallery. Vigeland is a Norwegian Rodin in his eager research for form and for emotion. He is much concerned with the mystery of man and woman, and his detail of two figures in a fountain indicates this. His curiosity in relation to pure form is seen in the Torso of a Woman in the National Gallery.

FRANCO-BRITISH UNION OF ARCHITECTS.

The third general meeting of the Franco-British Union of Architects, which took place in London, proved to be a very successful conference, and the French delegates and members who visited London returned to Paris with some happy memories of their stay. The object of the Union being social rather than purely technical, official business was limited as usual to one meeting, preceded by a meeting of the Bureau (or Council) earlier in the day, and the rest of the programme was almost entirely devoted to visits to buildings of architectural or historical interest, and social functions.

The French delegates were met on their arrival by the Secretary-General, and after a brief rest started out on a tour of inspection, which ended with dinner at the Trocadero.

On Monday, June 25, after the meeting of the Bureau—at which officers for the coming session were nominated and the names of candidates for election formally approved—a visit was made to Lansdowne House, where members were received by Mr. H. Gordon Selfridge, who personally conducted the party over the house and explained the treasures of his valuable collection of early Italian manuscripts. The visit concluded with a luncheon, when the French and British members attending the conference were the guests of Mr. Selfridge. Among those present were :—MM. J. Godefroy (Vice-President F.-B.U.A.), Legros (President S.A.D.G.), Chifflot (Inspecteur - Général des Batiments Civils, representing the Ministry of Fine Arts), Louvet (Past President S.A.D.G. and F.-B.U.A.), Arfvidson (Vice-President S.A.D.G.), Schneider (Secrétaire-Général S.A.D.G.), Chretien-Lalanne (representing the Société Centrale des Architectes), Hebrard, Lish, Lefebvre, de Saint Maurice, Paul Waterhouse (President R.I.B.A.), Sir John J. Burnet, A.R.A., Arthur J. Davis (Hon. Sec. British Section F.-B.U.A.), H. P. Cart de Lafontaine (Secretary-General), le Vicomte de Sibour, Prince Weasemsky, &c.

After the customary loyal toasts had been duly honoured, Mr. Selfridge proposed the health of the guests, which was briefly acknowledged by M. Godefroy and Mr. Waterhouse.

The general meeting of the Union took place at the R.I.B.A. at 3 p.m. The chair having been taken by M. Godefroy, the Secretary-General read a letter from the President (Mr. J. W. Simpson) expressing his great regret at being unable to attend.

M. Godefroy was unanimously elected President, with Mr. Paul Waterhouse Vice-President, for the session 1923-24. The following members were elected as members of the British Committee :—Messrs. P. Abercrombie, S. D. Adshead, Fernand Billerey, Sir R. Blomfield, Arthur J. Davis, A. N. Paterson, and W. G. Newton.

The official business then terminated, and members next met at the Burlington Hotel, as the guests of the R.I.B.A. Council.

Immediately after dinner members and guests adjourned to the R.I.B.A. galleries for the Gold Medal meeting, when Mr. Waterhouse called on two of the visitors to support his presidential remarks to Sir John J. Burnet, the Royal Gold Medallist.

Monsieur Godefroy (who spoke in French) referred to the pleasure which it gave Sir John Burnet's French colleagues to be present on the occasion of his receiving the highest award which the Royal Institute could confer on an architect. He desired, in the name of the architects of France, and more particularly of Sir John's old colleagues of the Atelier Pascal, to assure him of their pleasure at being present on such an occasion to add their congratulations to those of their British colleagues on the well-merited honour of which he was the recipient that evening.

Monsieur Legros (President of the Société des Architectes Diplomés) also expressed on behalf of his society their cordial endorsement of the award as well as the pleasure it gave members of the Franco-British Union to be present on that occasion, when a high distinction was conferred on one of the original members of the Union.

On June 26, the first item on the programme was a visit to the British Empire Exhibition under the guidance of Mr. Maxwell Ayrton. This proved a most interesting visit, and the French members were particularly interested in seeing the details of construction in various stages in the exhibition building. On the conclusion of this visit they were the guests of the Architectural Association at an informal luncheon and subsequently paid a visit to the A.A. Schools and the First Atelier of Architecture, the latter proving particularly interesting, as the resemblance to the Beaux Arts Atelier, which at the same time had a definitely British character, interested the visitors considerably. A rapid visit to the British Museum extension and to Mr. Lanchester's office was interposed on the way to the R.I.B.A.

In the evening members were the guests of their British colleagues.

On June 27 a full day was spent, commencing with a visit to Buckingham Palace by special permission of His Majesty King George V. The visit was limited to French delegates and the officials of the British Section. On arrival at the Palace members were met by Sir Lionel Earle, who introduced the French delegates to Sir Douglas Dawson and Sir Derek Keppel before the party proceeded to inspect the Palace and grounds. The visit was greatly appreciated by the French visitors.

Immediately after this visit members of the Bureau and French delegates were entertained to luncheon by the First Commissioner of Works on behalf of His Majesty's Government at the Ritz Hotel. This proved a most successful function, and the French members were particularly pleased by the speech in their own language addressed to them by Sir John Baird in giving the toast of " Our Guests."

A visit was subsequently made to Knowle Park, by kind permission of Lord Sackville, and this quite charmed the French members, most of whom had not previously had an opportunity of seeing a typical English country house of historic interest. On their return to town the delegates were entertained to dinner at the Automobile Club by Mr. Arthur Davis, and this provided an extremely agreeable termination to the conference.

THE NATIONAL PHYSICAL LABORATORY, TEDDINGTON.

The inspection of the work of the Laboratory by the General Board is made the occasion of a series of demonstrations of various particular lines of research that have been carried out during the past year. The activities of the Laboratory are extended in many directions, no fewer than 130 exhibits being arranged for the instruction of visitors at the annual visitation on June 26.

One new experiment of great interest which will doubtless result in information of considerable practical value is an investigation into the nature of the cutting action of steel tools. The processes of removing a fragment of steel from a revolving disc by means of a turning tool have been photographed to a greatly enlarged scale, with the surprising result that direct cutting action is seen to play a very small part in the operation. The particles of metal are roughly bruised and broken away from the edge of the mass and undergo very considerable and rather inexplicable distortion of shape in their forcible removal. It is hoped by following up this line of inquiry to determine the appropriate forms of tool for specific operations, having regard both to speed of cut and the durability of the tool. A problem in metallurgy upon which a great deal of attention is being concentrated is the preparation of aluminium alloys of great lightness and strength.

For the crank shafts of aeroplane engines a material which combines these qualities, with the ability to resist changes of temperature without becoming brittle, is of the utmost importance. The most promising compound yet discovered is the " Y " alloy, consisting of 4 parts of copper, 2 parts nickel, 1½ parts manganese, and 92½ parts aluminium, and this is being made the subject of continued research. The proportions having been arrived at by one series of experiments, the effects of casting the metal in chilled moulds of varied sectional area have also been studied. With the same metal different degrees of strength have been obtained by merely pouring the metal into the mould at a greater or less speed. That the crystalline structure of the metal is very obviously affected by these apparently trivial factors is illustrated by a collection of photographs to an enlarged scale of surfaces polished and then etched with alkali. By a process of heating for six hours at a temperature of 520 degs. centigrade, great additional strength is obtained in the same alloy. More prolonged heating, followed by tempering, has resulted in the production of still greater strength, and test pieces have been subjected to a tensile strain of 26½ tons to the square inch. The melting points of the various ingredients of this valuable engineering product have been made the subject of elaborate chart models designed in three dimensions and constructed of coloured wires. It has been found that the fusion factors of the material have a marked effect upon the strength. These models are in the nature of composite graphs tracing out the effects of combining the different constituent materials in different proportions at different temperatures.

Apparatus for subjecting materials to extreme heat by the agency of high frequency electric current was also exhibited in action in the metallurgy department, the electric induction furnace having the great advantage of generating heat in the object to be melted and permitting of the operation being carried out with a maximum of cleanliness and a minimum of wasted heat. In the concrete testing building, sample floors of large span, constructed of steel joists embedded in concrete, were in process of being tested. The press is capable of dealing with floor slabs and pillars of more than average dimensions, and by its use pressures up to 60 tons can be applied. In testing pillars, micrometer readings for deflection have revealed an initial torsional action of the pillar upon the application of pressure, the torsion reaching a maximum and partially returning towards normal before the ultimate stress is reached.

At the Froude National Tank experiments are being conducted in the steering of ships and in the damaging effect upon the rudder head of putting the rudder over at excessive speed. The efficiency of various forms of propeller is also being tested, the model propellers being designed and made in the Laboratory. The stability of sea-planes in starting or alighting upon the water is also being experimented with in the tank.

The buildings and equipment are excellent. A uniform type of structure has been adopted with red brick walls and brindled dressings externally arranged in the simplest and most straightforward manner. The great wind tunnels of the aerodynamics department are also interesting as exhibiting some exceptionally fine pieces of joinery, particularly in connection with the curved funnels leading up to the fan chambers. Minor fittings of great technical suitability, devised and made in the Laboratory, abound in all departments.

Scottish National Library.

The Prime Minister announced in the House of Commons that Mr. Alexander Grant, of Messrs. McVitie & Price, of Edinburgh, had offered £100,000 as a permanent endowment of the proposed Scottish National Library. This gift will enable the Government to accept the offer by the Faculty of Advocates of their historic library. Mr. Baldwin had every reason to anticipate that Scotland would soon be in possession of a library in scope and character well worthy of the style of the National Library of Scotland.

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ILLUSTRATIONS.

Bournemouth Pavilion Competition.

The authors of the design placed first in this competition — Messrs. G. Wyville Home, A.R.I.B.A., and Shirley Knight, F.R.I.B.A.— have sent us the following brief description of their design :—

The planning generally has been carried out on broad direct lines, the flow of the public from portion to portion of the building having immediately called for an arrangement of corridors and staircases with an absence of angles and deviation of line generally associated with intricate planning. Excavation of the very steep site has been avoided except at the south-east corner. The northern end of the ground floor plan follows an average of the line of the existing retaining walls.

The building generally is roughly divided into two parts—the Concert Hall and the Restaurants—while between these two blocks are placed a pumping station, workshops and storage in connection with beach repairs.

The Concert Hall has been designed so that it can be used for either concerts, operatic, dramatic or cinematograph performances. The hall seats 1,300 on the ground floor and 700 in the gallery, which also has a promenoir on all three sides. The silence corridor on the ground floor is also used for purposes of access to the restaurants and tea rooms, &c. The stage accommodation has been planned to meet the various requirements according to the uses to which the building will be put, including five large dressing rooms for theatrical artistes, band room and green room, &c.

The restaurants have been planned together with the tea rooms and balconies to seat over 1,450 people, and have extensive sea and garden views. A great feature has been made of these balconies, which extend around three sides of the building at the southern end. Great importance has been attached to the intercommunication between this suite and the Concert Hall, enabling patrons to leave the hall and obtain quick access to any of the various rooms, while kitchens of an extent demanded by modern requirements have been provided for their service.

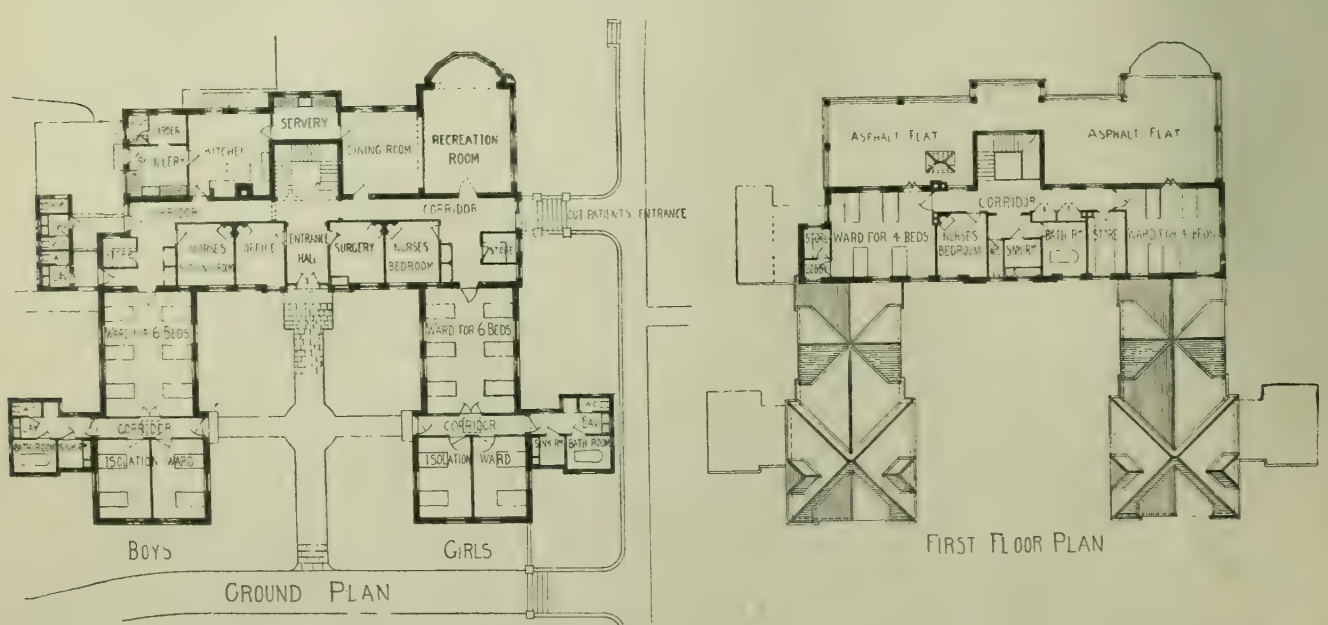
With regard to materials, purple facing bricks with stone dressings and red pantile roofs have been specified, while for internal effect reliance has been placed almost entirely on colour decoration. In accordance with the conditions the plans are coloured, showing what portion can be erected for the sum of £100,000, and the total estimated cost of the complete building is given at £126,171. The second and third premiated designs by Messrs. H. V. Ashley & Winton Newman, FF.R.I.B.A., and Messrs. Collcutt & Hamp and Mr. J. F. Watkins, are also illustrated this week.

The National Bank, Liverpool.

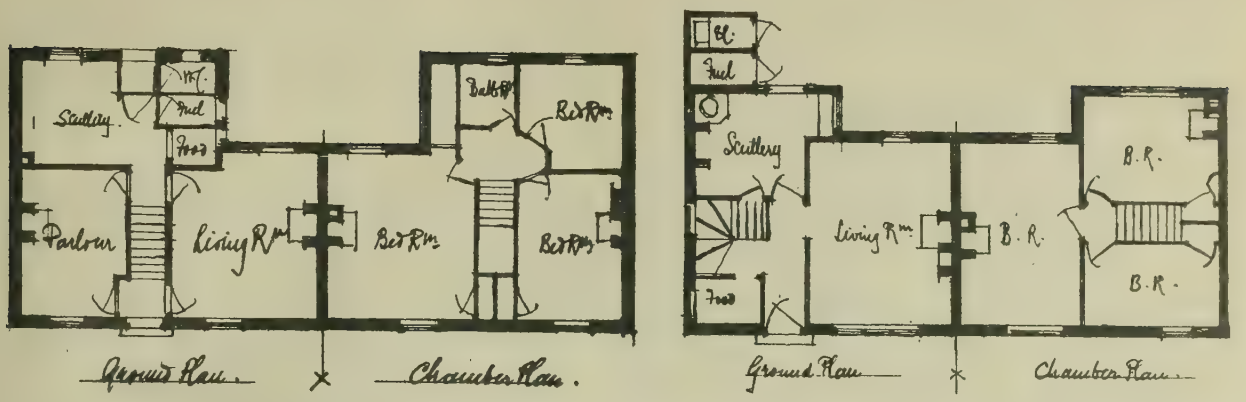
This building is of steel-frame construction, with main elevations to James-street and Fenwick-street of Portland stone. The floors throughout are fireproof construction of hollow reinforced concrete, cast *in situ*, with oak wood-block covering to all offices and corridors. Central heating is installed on the low-pressure, hot-water system, with radiators under windows on each floor. In addition to the radiators, fireplaces will be provided and the smoke extracted by induced draught through electric fan chambers on the roof. Ventilation is by ducts connected to extractor fans, which draw up all vitiated air. In addition, natural ventilation will be provided for by vertical pivot-hung casements. The building will be lit throughout with electricity, and gas will also be laid on. There will be, in addition to the banking premises on ground floor and basement, seven floors of offices, with sanitary accommodation on the eighth floor, comprising in all nine stories. Motor-rooms, fan chambers, and water storage tanks are constructed on the flat roof. The various floors will be reached by a reinforced concrete fireproof staircase and two electric elevators. Storage compartments and fuel lockers will be provided for each tenant in the basement.

The National Bank occupies the ground floor and part of the basement. The banking hall is approximately 70 ft. by 50 ft. and 17 ft. high, with rooms for the manager and sub-manager, and also a waiting-room adjoining. The banking hall is entered from a central position in James-street through revolving-doors, the public space and counter being planned semi-circularly on this axial line. For the staff immediately occupied at the counter the "compartment" system has been adopted. The compartments are divided from each other by glazed screens and bronze grilles. The scheme of decoration in the bank is as follows:—Dado of polished Hopton Wood stone with black marble skirting; frieze, cornice, beam casing, and ceilings in enriched fibrous plaster. The columns and pilasters are of green scagliola marble standing on black marble bases and terminating with fibrous plaster capitals. The floor of the public space is paved with black and cream marble in a radiating "key" pattern. The counter, screens, and desks are all in Cuban mahogany polished to a dark colour and dull gloss, with *carton-pierre* ornament. The general basis for the design of the decoration is Greek. Large windows on both front and back elevations extending up to the ceiling give natural light to all parts of the banking hall, no artificial lighting being required during the day, and warmth is provided by low-pressure hot-water radiators. Fresh air is admitted through opening sashes in all windows and the vitiated atmosphere drawn off through a ceiling grille by induced draught. The main artificial lighting is obtained by semi-indirect bowls suspended from a central point in each bay of ceiling, and the localised lighting is by standards fixed on screens and desks, providing each separate employee with adequate light for his individual work. The bank's portion of the basement is occupied by the strongrooms and accommodation for staff, stores, &c., with direct access from the banking hall by a private staircase and bullion and book lift. Messrs. T. Arnold Ashworth & Son, of Castle-street, Liverpool, are the architects.

The general contractors for the building were Messrs. William Moss & Sons, Ltd., and the following were among the sub-contractors:—Steelwork, Dorman, Long & Co., Ltd.; bank security, Chatwood Safe Co., Ltd.; heating, ventilating and smoke extraction plant, Richard Crittall & Co., Ltd.; reinforced concrete floors and staircases, J. Gerrard & Sons (1920), Ltd.; plaster work, John Tanner & Son; tiling, Craven, Dunnill & Co., Ltd.; terrazzo staircases and landings and marble divisions to lavatories,



Police War Memorial Hospital, Twickenham.
Mr. H. J. S. Abrams, Architect.



Houses at Dereham for the Dereham R.D.C. **Houses at Wymondham for the Forehoe R.D.C.**

Mr. George J. Skipper, F.R.I.B.A., Architect.

The Arts Pavements and Decorations, Ltd.; grates, E. A. Clark, Ltd.; wood block paving, William Moss & Sons, Ltd.; electric lighting, Boothroyd Repairs, Ltd.; cast iron window frames, staircases, balustrades, and balcony, The Carron Co.; steel sashes, Ockleston, Drayton & Johnson, Ltd.; lightning conductors, Aird & Anderson, Ltd.; stone carving, Martyn & Co., Ltd.; carving on bank entrance doors, Edward O. Griffith; sanitary goods, Musgraves (Liverpool), Ltd., and F. E. Pescod; general ironwork, Geo. Lowe & Sons; locks and furniture, Quiggin Bros., Ltd., and James Gibbons, Ltd.; glazing, J. S. Nicholls, Ltd.; passenger elevators, Express Lift Co., Ltd.

The main contractors for the bank decorations were:—John Tanner & Son; bullion and book hoist, Express Lift Co. Ltd.; scagliola columns, Bellman, Ivey & Carter; revolving doors, T. B. Colman & Sons, Ltd.; marble and Hopton Wood stone in banking hall, John Stubbs & Son. The main contractors for the bank fittings were:—Trollope & Colls, Ltd.; electric light fittings, Simplex Conduits, Ltd.; grilles, &c., to bank, James Gibbons, Ltd.

Metropolitan and City Police War Memorial Hospital.

This building has been erected in the grounds of the Orphanage at Strawberry Hill as a permanent memorial to the memory of those officers of the Metropolitan and City Police who made the supreme sacrifice in the war, and to provide the requisite treatment and care for the children of the Orphanage.

The hospital has been designed to receive those cases that are constantly occurring in a residential institution of this description, and where immediate treatment can be given under constant supervision without losing touch with the home atmosphere.

Provision has been made for (1) minor ailments which receive out-patient treatment allowing the patients to continue with their studies; (2) a general ward to accommodate six bed cases; (3) a small ward for four bed cases; (4) two isolation and observation wards each for two beds; (5) open-air treatment.

In all the above, except the out-patients' department, separate wings and accommodation have been provided for each sex.

In planning the building special attention has been paid to the fact that the number of cases for treatment will vary to the extent of using the whole of the beds down to only one or two minor cases, which will necessitate the closing of practically the whole of the ward accommodation, but still maintaining separation of the sexes and complete supervision.

A recreation room for convalescent patients of both sexes is provided, with a dining-room adjoining, separated by a movable partition to enable the two rooms to be thrown into one when required.

The administration offices have been centralised and reduced to the minimum consistent with efficiency.

The building is constructed in brickwork faced with special Crowborough bricks, red brick arches, Portland stone dressings, and covered with thick Westmorland slates laid in graduated courses.

The general contractors for the work are Messrs. John Laing & Son, Ltd., of Carlisle. The sub-contractors employed are:—Fireproof floor construction, Messrs. Homan & Rodgers; heating and hot-water installation, Messrs. Young, Austen & Young; sanitary fittings, Messrs. Farringdon Works, and H. Pontifex & Sons Ltd.; wall tiling, Messrs. W. B. Simpson & Sons; ironmongery Messrs. Comyng Ching, Ltd.; wood-block flooring, Messrs. Jefferies & Co.; electric wiring and bells, Messrs. Read & Partners; fire alarms and appliances Messrs. Fredk. Hodgson & Son. Mr. George Jones acted as clerk of works.

The architect is Mr. H. J. S. Abrams, of 19, Buckingham-street, Strand, W.C.2.

Cottages in East Anglia.

Mr. George J. Skipper, F.R.I.B.A., is the architect of the cottages illustrated this week.

The ten houses on the Wymondham housing scheme for the Forehoe Rural District Council, are of the non-parlour type, and were built at the end of the Government's late housing scheme. Mr. Bidewell of Wymondham is the contractor.

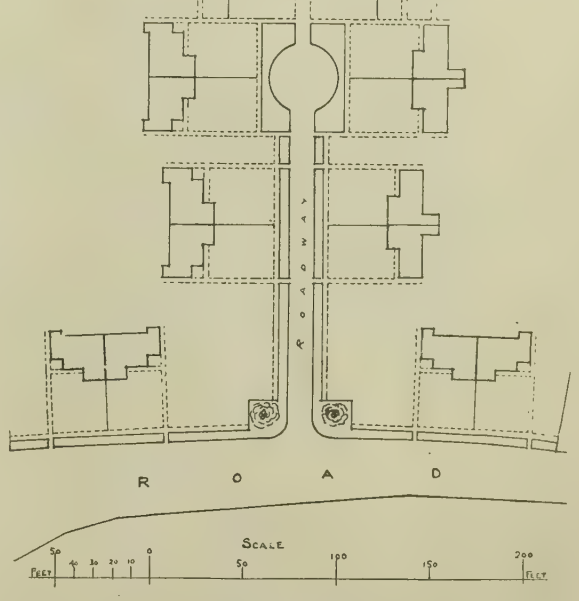
The Holt housing scheme, for the Erpingham Rural District Council is near the Norfolk coast. The scheme is carried out in flint, which abounds in the gravel pits of the neighbourhood, with brick dressings, &c. The contractor, Mr. Bullen, of Cromer, has carried out the architect's ideas so as to produce a characteristic piece of local work. All the houses are of the parlour type. There are in all sixteen houses on four acres of land.

The East Dereham scheme is for the East Dereham Urban District Council. These ten houses of parlour-type in pairs, are erected on the Norwich road. There is plenty of clay suitable for "lump" making in Dereham, but preparations for its use could not be made in time, so that bricks were employed for the walls. Mr. Greengrass, of Norwich, was the builder.

MEETINGS.

Saturday, *July* 7.

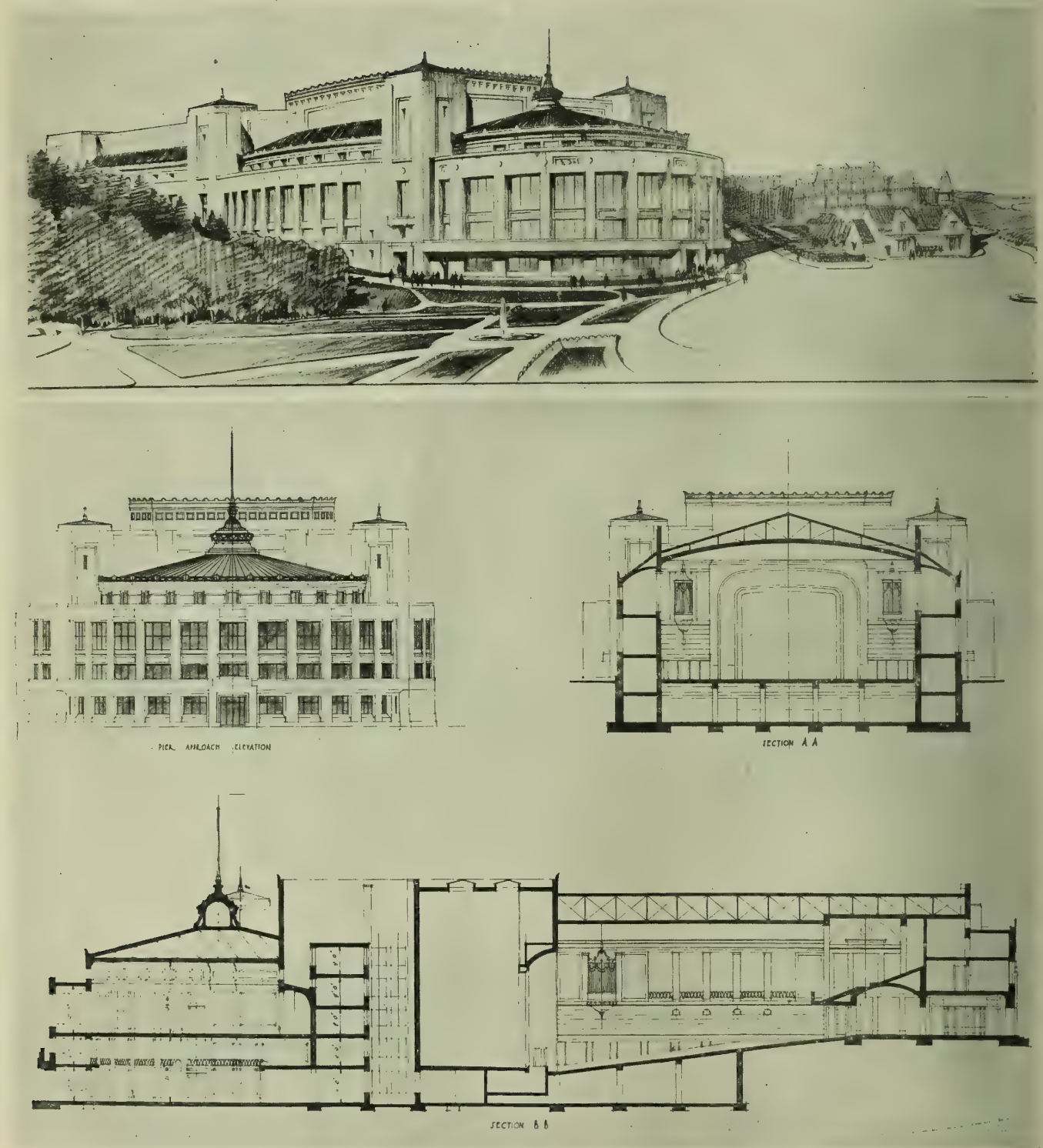
Edinburgh Architectural Association.—Visit to Messrs. Shanks & Co., Barrhead.



Lay-out Plan.

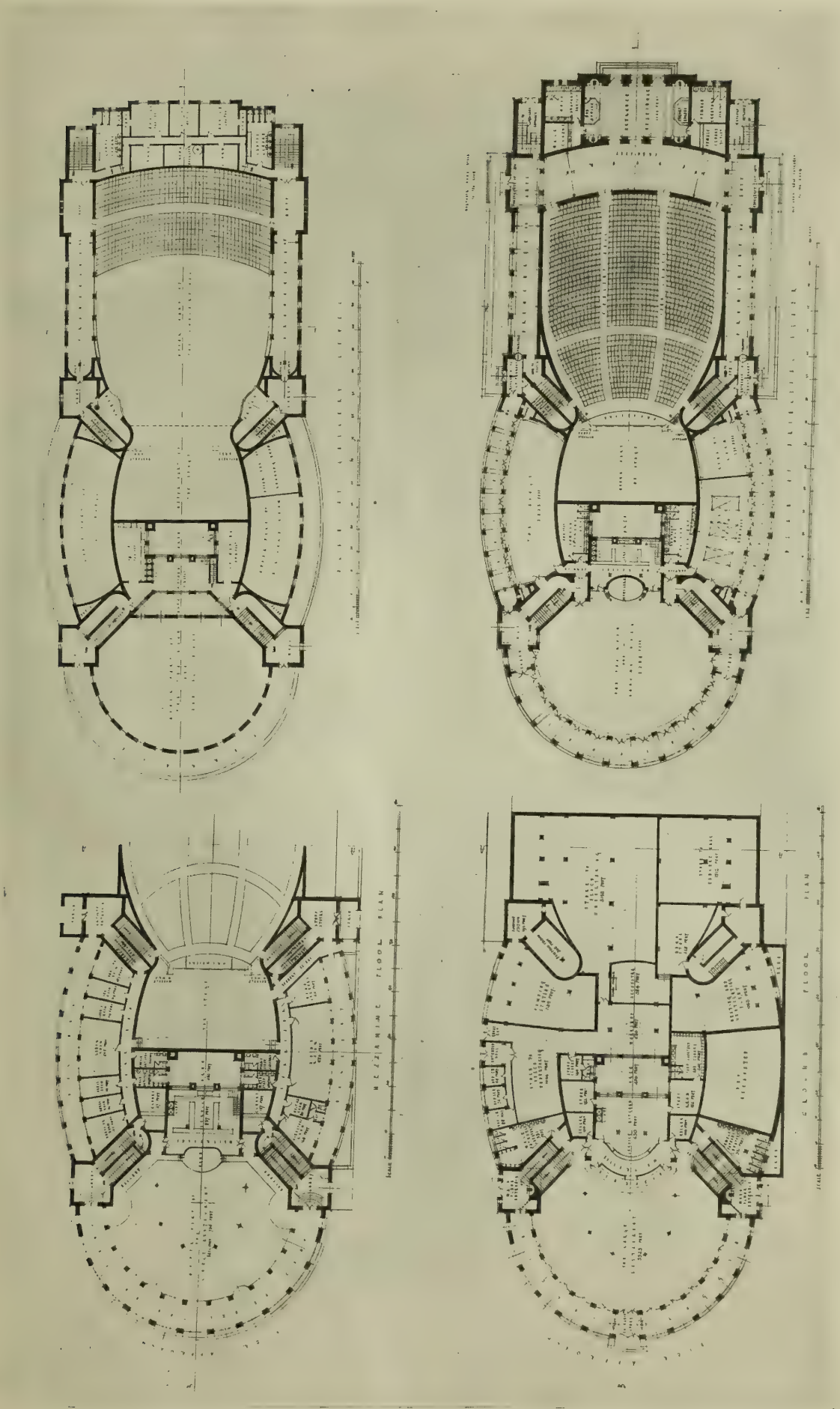
Holt Housing Scheme for the Erpingham U.D.C.

Mr. George J. Skipper, F.R.I.B.A., Architect.



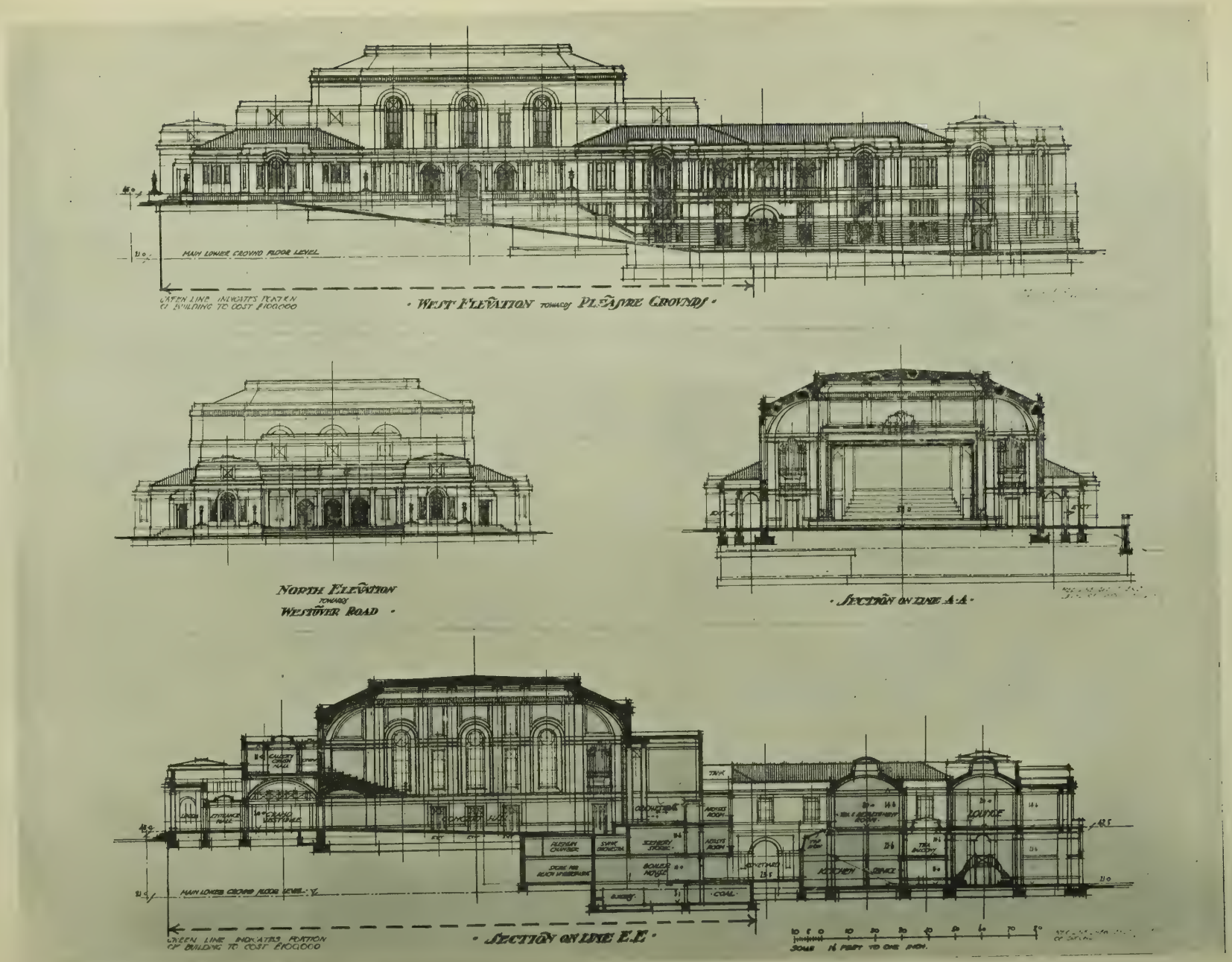
Bournemouth Pavilion Competition

Third Premiated Design, by Messrs. Collcutt & Hamp and Mr. J. F. Watkins.



Bournemouth Pavilion Competition.

Third Premiated Design, by Messrs. Collcutt & Hamp and Mr. J. F. Watkins.



Bournemouth Pavilion Competition.

Second Premiated Design, by Mr. H. V. Ashley, F.R.I.B.A., and Mr. Winton Newman, F.R.I.B.A.



THE NATIONAL BANK BUILDING, LIVERPOOL. MESSRS. T. ARNOLD ASHWORTH & SON, ARCHITECTS.



HOUSING SCHEME AT HOLT NORFOLK
ERPINGHAM RURAL DISTRICT COUNCIL

MR. G. J.



GROUP OF 10 HOUSES FOR EAST DEREHAM U.D.C.

MR. G. J.



.R.I.B.A., ARCHITECT.



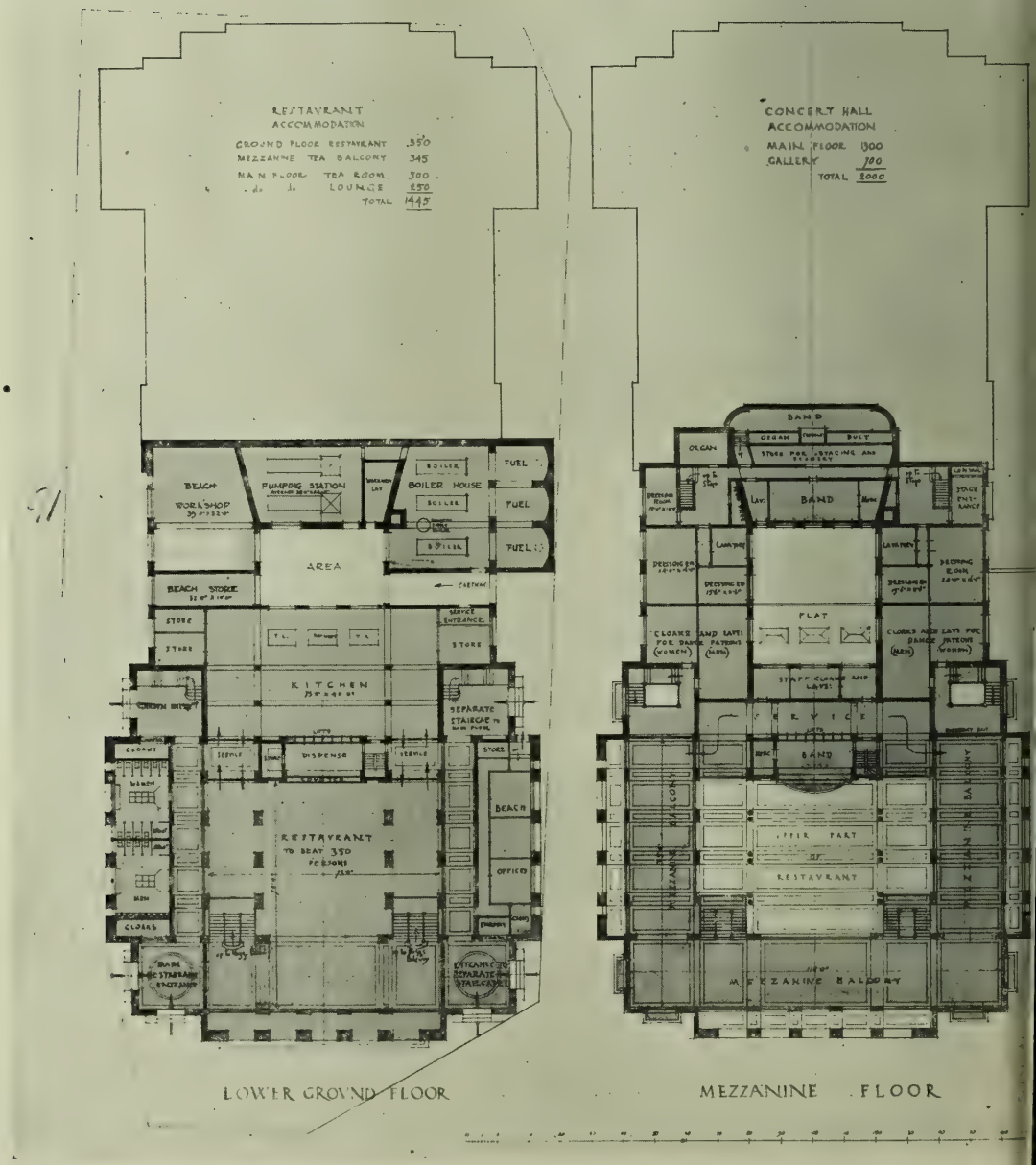
A PAIR OF COTTAGES (NON-PARLOUR TYPE) WYMONDHAM, FOR FOREHOE R.D.C.

.I.B.A., ARCHITECT.



POLICE WAR MEMORIAL HOSPITAL, TWICKENHAM. MR. H. J. S. ABRAMS, ARCHITECT.

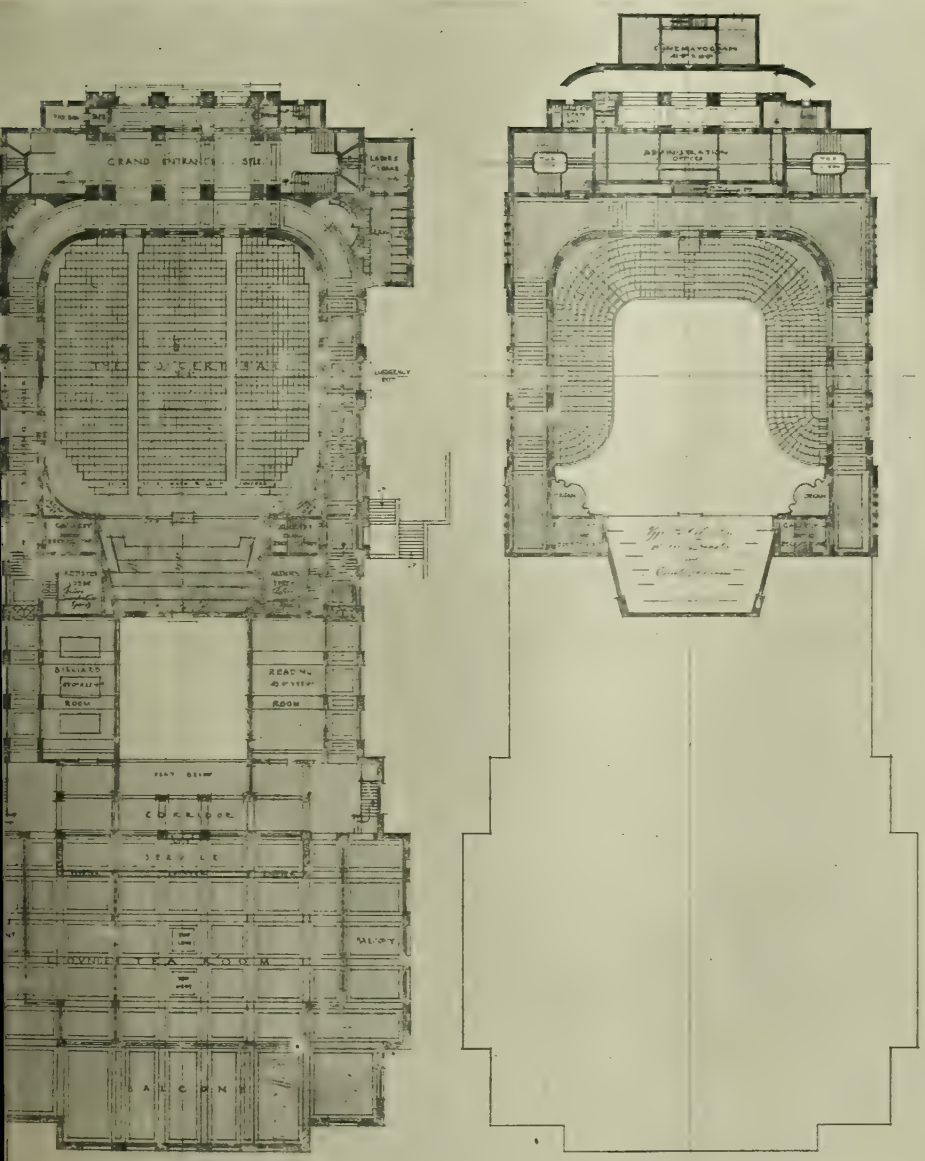




BOURNEMOUTH

First Premiated Design, by Mr. Wyville H

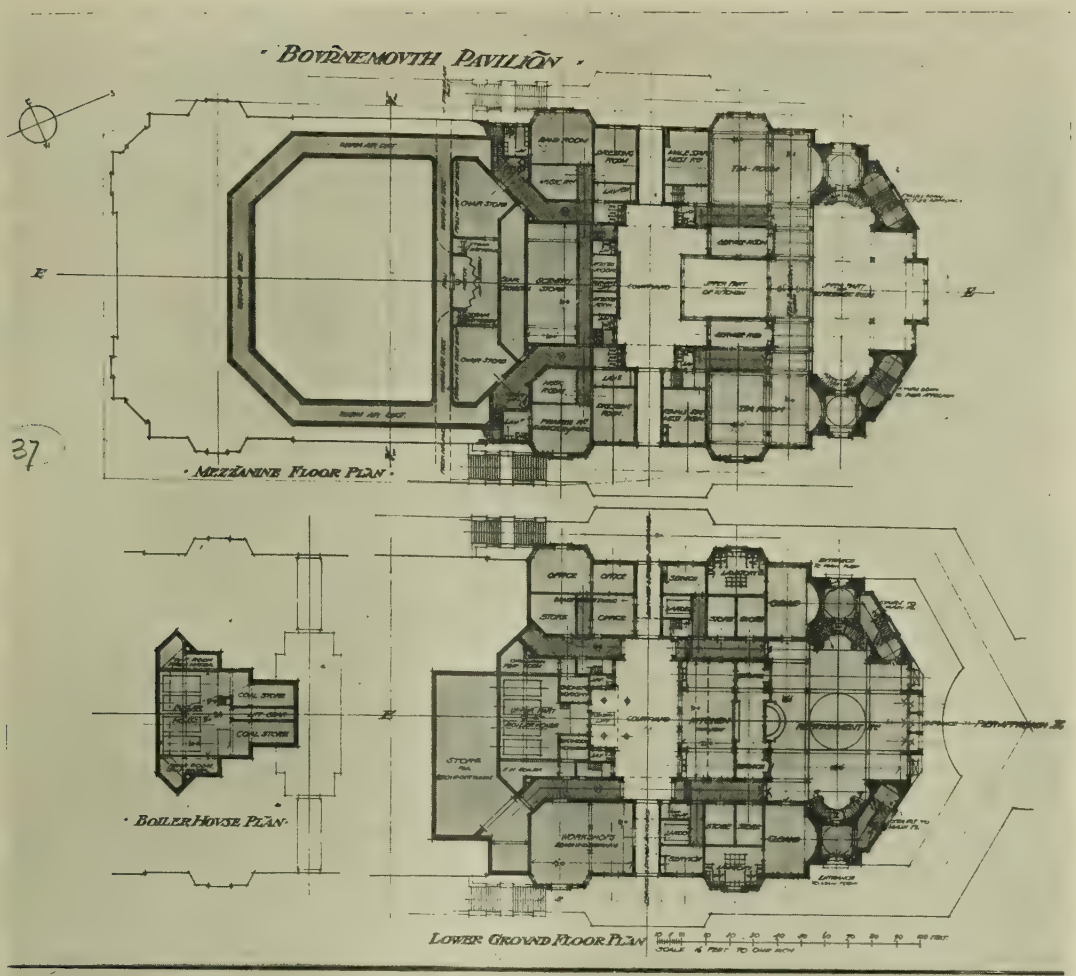




MAIN FLOOR GALLERY

COMPETITION.

B.A., and Mr. Shirley Knight, F.R.I.B.A.



Bournemouth Pavilion Competition.

Second Premiated Design, by Mr. H. V. Ashley, F.R.I.B.A., and Mr. Winton Newman, F.R.I.B.A.

THE BUILDING ART: THEORIES AND DISCUSSIONS.—VII.

By W. R. LETHABY.

CLERKS AND ARTISTS.

"*Painters lived like other craftsmen and were paid according to a fair scale; they lived simply, and their work was first of all good and next beautiful.*" (Sir M. Conway, "The Van Eycks.")

One general characteristic of the time we have been going through has been the emergence and domination of the clerkly kind of person, the official, the organiser, the recorder. Of course, he has been necessary up to a point—in the kind of world we have made. But it may well be doubted whether the development has not gone—or may not go—too far. All that the system involves has never been seen. Even the thing itself has hardly been understood—the necessity that organising persons should magnify their office, entrench their position, and tend to increase, while those they organise are step by step subjected, eliminated, and destroyed.

Again, the chief clerk always requires more and more junior clerks, and the clerkly sphere tends to become a self-justified mechanism, whizzing round by its acquired momentum. When it is in going order a reciprocal action is set up between the head of a "staff" and the members of the clerkly body among themselves, more and more regardless of the world outside and final objectives. Sometimes a man at the centre of control seems to become the creature of his band of clerks, who brings before him the details of business so dexterously that he does little more than select among alternatives and approve and sign documents already prepared. Put extravagantly, it may be suggested that public organisations of the modern type tend to be run by the office boys.

One of the pressing needs of a reasonable modernism in architecture is to understand the relation between organisation and workmanship, between ordering clerkship and executing art.

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The modern architect, by professing expertism in style-tasting, is liable by the very nature of things to fall into opposition to a general distributed excellence of building. The whole history of "architectural" fashions in the nineteenth century shows it. About 1800, not to go back further, a way of building had come to be generally accepted and understood. It was founded in part on the practice of Wren, Gibbs and Adam—that is, some notion of "style" had been absorbed by the builders and workers of the country—but building *custom* was also carried forward by them independently. They knew what windows, doors, fanlights and mouldings were, as well as the professing architect. Indeed, some of the best and, I think, quite the most interesting building in the country was just done all in the day's work. Moreover—and this is an intermediate element of the same phenomenon—

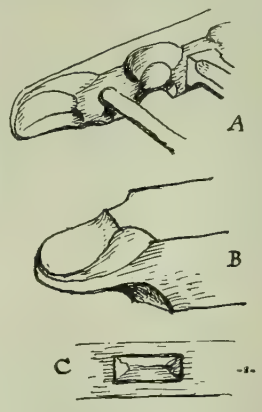


FIG. 2.

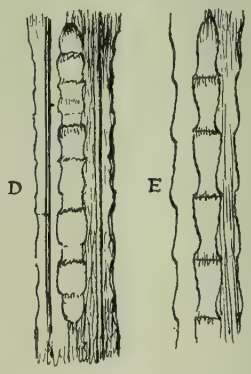


FIG. 3.

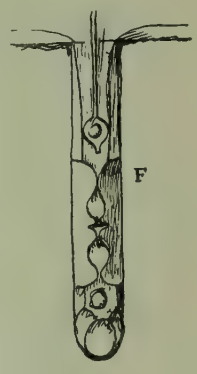


FIG. 4.

country architects of the half-builder kind did work which is even now academically recognised. Really delightful things were produced, which were fairly modern and at least half-living, although they had been reached by way of what we think of as the "classic style." Craftsmen thoroughly mastered their trades. The refined joinery of mahogany doors, thin barred sash-windows with their ingenious shuttering, staircases with complicated geometry and hand-railing, were all reasonable, civilised and rightly "commonplace." The cast-iron work of the same time—grates, balconies, and balustrades—was of extraordinary excellence, really perfect of its kind; and all or most of this seems to have been done in the ordinary way of trade. The plasterers, marble masons, and the rest, all knew what they were expected to do, and did it. There was still room for craftsmanship, although it may have been of a secondary order. The workman had not been completely beaten down to a hand executing he knows not what. Still, the thought lasted on that architecture was solid workmanship, not a phantasy in the air.

This settlement was not to be tolerated by designing architects, who are impelled by the nature of their being, as now conceived, to superior views which cannot be understood by the common people. The Gothic revival gave them a new chance to be priests of a superior cult—not that they understood the forces that were pushing them on—and they enthusiastically set about ordering the workmen to alter their manner of work. For neatness and precision, they were to substitute the rough and ready; smoothness became a thing to mock at; and "texture" was the cry. Of course, the attempt to "revive the Gothic style" fell in—or, at least, was contemporary with—a whole movement associated in literature with Wordsworth, Scott, Ruskin, and others; but architects were the guardians of building customs and had a special responsibility in the matter. As it worked out in the sphere of building, the whole thing was a tragedy, for in aiming at a higher theoretical ideal a lower level was reached in real practice. At the same time it should be recognised, and this may be a net gain on the whole transaction, a much wider scope was given to our ways of approaching building problems.

From about 1870 arose the cut-brick and terra-cotta "revivals" and the workmen had to find out ways of rubbing specially made bricks and setting them with fine white putty joints; also the making and use of terra-cotta. These booms lasted only about twenty-five

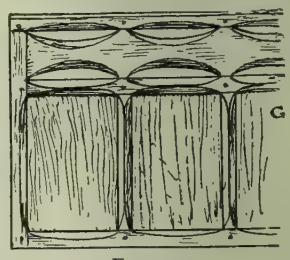


FIG. 5.

years as against the fifty of full "Gothic" vigour and two hundred of the "antique." At one time, however, there was such a rush for rubbing bricks that classes at ratepayers' charges were set going in Polytechnics to teach the new style of whim-work required by the eminent architects of the moment. Then, in a few years, as the builders themselves got hold of the tricks, the "style" fell dead as Queen Anne herself, and the specially trained workmen were no longer required. The waste of all this is obvious; but the material waste, which we reckon up in pounds, is nothing to the human waste, the futility of it, the puzzlement in the minds of the building artists who so patiently carry out our clerkly commands. The suggestion I am trying to bring out is that modern architecture which professes to supply correct "style" *must* always be "changing its front" to remain in front; as says a nice Chinese proverb I saw quoted the other day: "He who rides a tiger cannot dismount."

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To try to come to some general conclusions, I would suggest that there is a deep difference between the very nature of ancient and modern



FIG. 1.

architecture. The ancient was necessarily an expansion and experimentation in workmanship; it was an art. The modern is a feat of clerkly organisation—a profession. I have not in mind now anything which I think a fault, but only a question of fact. It is necessarily the same with all forms of large modern production. Ship building has become naval architecture under highly-trained direction. Engineering is only another form of architecture which has developed under the charge of scientific experts. We may hope to continue to find a place for architecture which pretends to be "style," but I believe and hope that such bluff stuff will not last much longer. Either architects will change their ideas of what they are about and aim at being modern organisers of efficient building, cutting away sham art and style nonsense, or they will be superseded by other types more like we might conceive building engineers to be if they, too, were not what they are. The modern architect must come out of his bogey-hole of myth and make-believe and work in the open, aiming at precision and perfection, and giving a fair opening to the artists whom he organises from bricklayers to sculptors and painters. It is his duty as a distributor of patronage and employment to see that he calls for fine types of workmanship. He is not only erecting architecture, but he is building lives as well. I would suggest, as a general rule, that there can be no "decoration" which is not vital workmanship; and none should be tolerated which is not by a free artist. Scientific structure and personal ornamentation is the thing at which to aim.



Fig. 6.

While I am writing this, illustrations are published of some newly-discovered Pompeian wall painting from a series in "A Shop in the Street of Abundance." These are typical decorations, seemingly as good as others found in the better houses. Evidently—and this is the point—they must have been the common "painter and decorator's work" of the time done at ordinary ancient rates of wages. One of the paintings is really like a Watts—a tall, graceful woman half leans on a winged Cupid, while two others fly towards her with wreaths.

It is common knowledge that mediæval decoration was ordinary journeymen's work, and I am convinced that we could have it so now, if we wanted it. Our workmen—"the British workmen" of the scoffer—are amazingly skilful of hand and adaptable, if only we would employ them for human workmanship instead of for blank slavery. Only two or three centuries ago the words "artist and artizan" had not been differentiated.

Perhaps someone may be inclined to ask, "What does it matter? Why should we worry: and isn't one way of building as good as another if it pleases those who have money to spend?" One great reason is that of loyalty to those we are supposed to lead and represent, but of whom nothing is ever said in architectural discussions. The next is that of loyalty to ourselves, for "architecture" as it is practised makes the kind of men that are architects. The next is loyalty to employers, our people, and country. Another is loyalty to our ancient art itself. Architecture was made for man, not man for the architecture of architects.

. . . . . .

In a generation or two it may be possible to deny that works of craft which are also works of art were ever freely created by labourers just doing their work without any superior designing person standing over them and telling them what to do. It may then be possible to assert that works of beauty were all and always designed by R.A.'s. Still, up to this very day things are made in the ordinary ways of craft which are so perfectly beautiful and right that no one takes any notice, but accepts them for granted. Such are basket work, farm-gate making, boat building and, above all, wagon building (Fig. 1). Wagons have been made in this century and are still being made here and there in country districts, which seem to me quite perfect. In them most of the mysterious questions which bother us so in architecture as to the relation of structure to use, and ornament to structure, seem to be triumphantly solved by doing it in the traditions of workmanship. In a cart-shed close by where I am staying are a wagon, two butts, and a wheelbarrow, all simply right and kin to the fine craft-art of the world. The wagon is really an extraordinarily intricate piece of work, but it looks as easy and simple as if it grew. The whole is obviously in perfect "proportion" and admirably strong. Interposed between the back axle and the body is a sort of rack of open framing to give spring. It is framed up of stuff cut in graceful curves, finished with most ingenious and inventive chamferings and covered with gay red and blue paint. The complicated iron work, stays, straps, and bolts is equally perfect. The sketches here given are of little details (Fig. 2). A and B are terminations of rails, C is an ordinary tenon, D and E are examples of chamfering (Fig. 3). F of chamfer on chamfer; (Fig. 4). G is from a lighter cart which came up to the gate the other day (Fig. 5). Some of the chamferings of the wagon are picked out in two different colours and the painting is finished with firmly-struck lines and flourishes. These cart builders have the secret of decoration as well as of craftsmanship. One of these masterpieces was dated 1922. From the wagons I pass in H to the cart-shed (Fig. 6), and in Fig. 7 to the farm. The buildings are as admirable—indeed perfect—as the carts. From the look of it I should think the buildings were erected about 1850; they are evidently the



Fig. 7.
Wiltshire Farm Buildings.

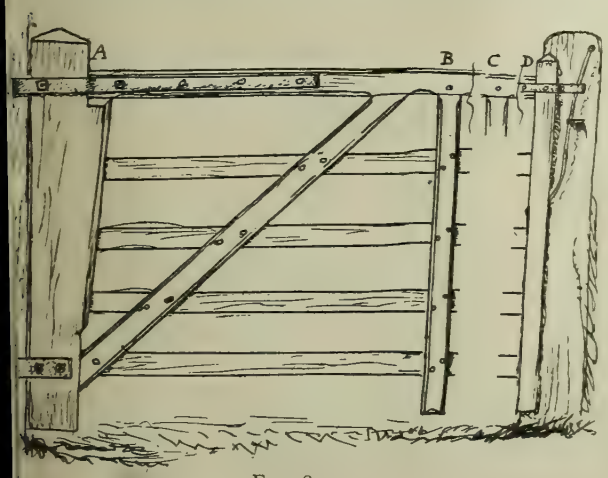


Fig. 8.
The Intervals to B, C, D are about equal, but there is only one Strut.

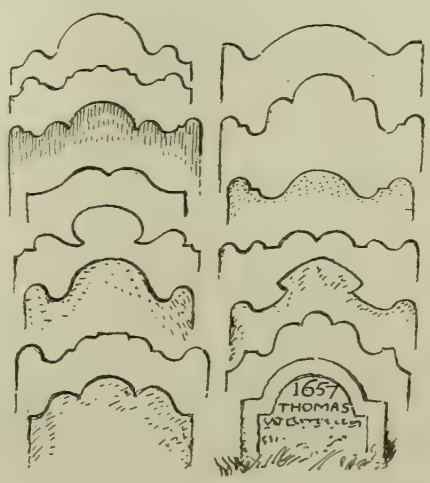


Fig. 9.

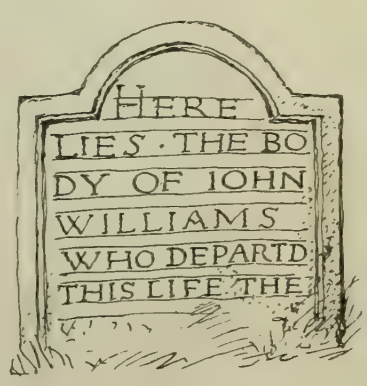


Fig. 10.

result of local endeavour, thought and material, and skilled craftsmanship. Of such is the beauty of England.

Again I have been "out for a walk" and have found a field-gate which has just been put up; this is doubtless a work of art of the present year (1923) and it is a beautiful traditional piece of work. The stock is of heavy stuff and supports the top rail in such a way that the weight is taken on a cantilever. It is of oak, neither rough nor smooth in finish, just workmanlike, and again perfect. A thing like this could not be designed by a designer; it is the resultant of long evolution for fitness and economy (Fig. 8). The size is 10 by 3½ ft. From here I go into the beautiful old churchyard and study the tombs. They were customary, reasonable and right up to about 1860, when "art" anarchy set in. Fig. 9 gives a selection of the forms, all natural and playful variations on the rounded top. The first date I found was 1657; earlier inscriptions are simple and in one kind of lettering (Fig. 10). Later ones have verse compositions—home-made, we may suppose, as they should be.

"Whilst here on earth I did remain
My latter days were full of pain;
But God, whose mercy's ever free,
Hath from these pains released me."

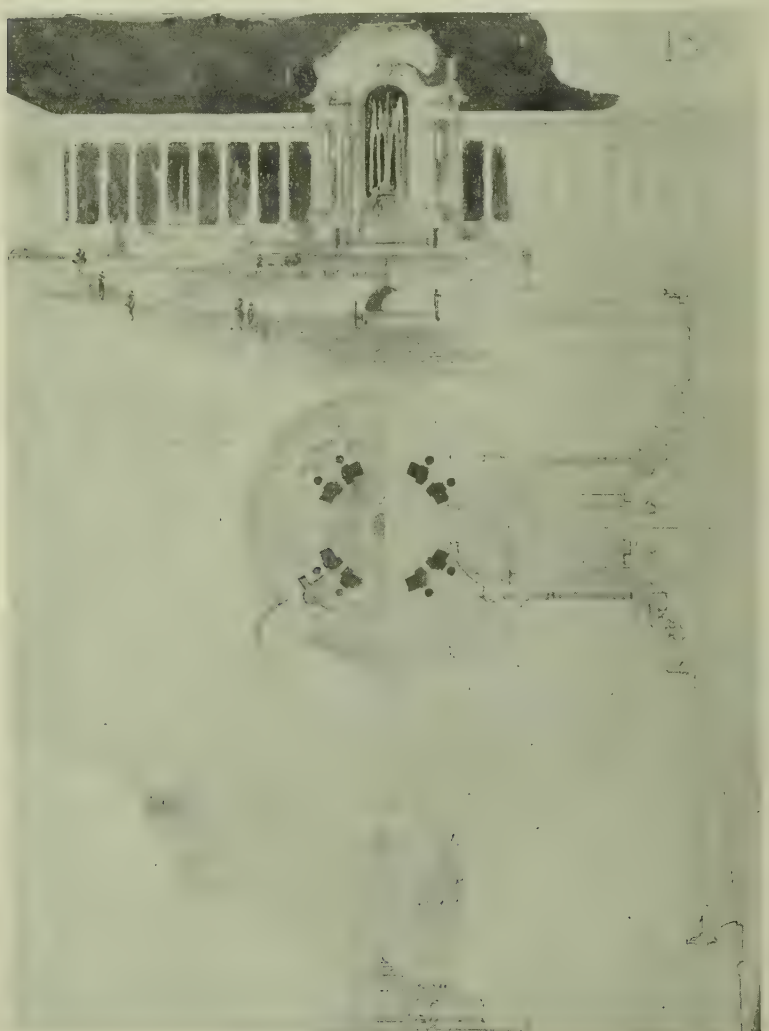
The headstones, dated about 1800, have delicate scroll work in the lowest possible relief. All are in local stone; the earliest were doubtless done by the village mason; the later and more ornamental were from some regular tombstone maker in the market town. All are natural products of workmanship.

. . . . . .

Again a cautionary postscript must be added. When the words modern and modernism have been used I have meant the real thing, not any pretence that may be called by those names. By modern building we should mean logical, serviceable, economical and convincing realities, not just another way of "making faces." It is next to impossible, however, to think of architecture except in terms of "style," for our whole minds have been trained and twisted to see things in that way. Only in to-day's paper some illustrations are given of buildings at the Swedish Exhibition at Gothenburg which are labelled "Modernist Architecture and Decoration." These things are modern only in the sense that they are the latest, but they are in very fact more *style conscious* than older buildings with the accustomed labels.

Some illustrations appeared in *The Builder* of June 1 from an Exhibition of Dutch Students' Work at the Architectural Association. These, again, if I may say so, seem to me "style designs," not building projects. Even in a so-called "Classic" or "Gothic" design we should see more of the reasonable necessities of lighting and roofing than here. These designs look like projects for Doom dungeons in a new Apocalypse of terror. It is curious, indeed, and symbolic, what dislike to the need for plenty of light in our northern countries is shown in the "art designs" of Ateliers—it recalls the saying, "their deeds are evil." While "style" is in the mind the effort to produce something "original" and up to date will only intensify artificiality. This, I believe, is good psychology, and we can only lesson the evil of the style mania in the degree that we cease to worry about it and *think of something else*, as, for instance, lighting, use, construction, economy. Sham style can only be avoided by going around the corner.

Such frantically furious "original designs" are not truly projects for modern buildings for daily use any more than were certain strange designs of twenty years ago, conceived in style and misshapen in absurdity and called "New Art." Although it seems almost beyond our mind's power to imagine of architecture as other than style, yet we do not think of ships and cranes or ploughs and haystacks as exercises in style. We think of these things as things indeed. The very beginning of better wisdom in building can spring only from a renewed ability to see buildings behind their disguising and usually disgusting masks of style. In forgetting style we should find it, not that its recognition is of much importance anyway! "Style" is conceived as the look of a thing. If we could have sound, warm, well-arranged, properly lighted buildings made by men who cared, the works would have *that style*. Think of service, soundness, structure, and the style will take care of itself. I would commend to your consideration the admirable saying of the late Mr. Philip Webb: "I am never satisfied until my things are commonplace." We go on working by "taste," even in fields where definite rulings of science and sense have long been known. The question of lighting followed up would revolutionise our style, so would the ideas of perfect structure and right use of materials. The architecture of shows and shams will some day have to give place to honest human building, and the clerkly architect will have to get higher types of workmanship from the artists who do the actual work.*



Society of Architects' Victory Scholarship Competition.

Design by Mr. J. A. Coia.

Design for a Monumental Fountain (Selected to take part in the Final Competition).

DEVON AND EXETER ARCHITECTURAL ASSOCIATION.

The annual meeting of the Devon and Exeter Architectural Society, which embraces Devon and Cornwall, and is in alliance with the R.I.B.A., was held on Saturday at West Southernhay, Exeter. The chair was taken by the President, Mr. Percy Morris, F.R.I.B.A. (Exeter), and those present were Messrs. A. S. Parker, R. A. Mill, F. A. Vercoe (Plymouth), L. F. Tonar, O. Ralling, J. A. Lucas, W. J. M. Thomasson, A. J. Pinn, A. Cunes and J. Challice, Asst. Hon. Secretary (Exeter).

The annual report showed a total membership of 94, an increase of four on the year. Several matters affecting the profession were dealt with.

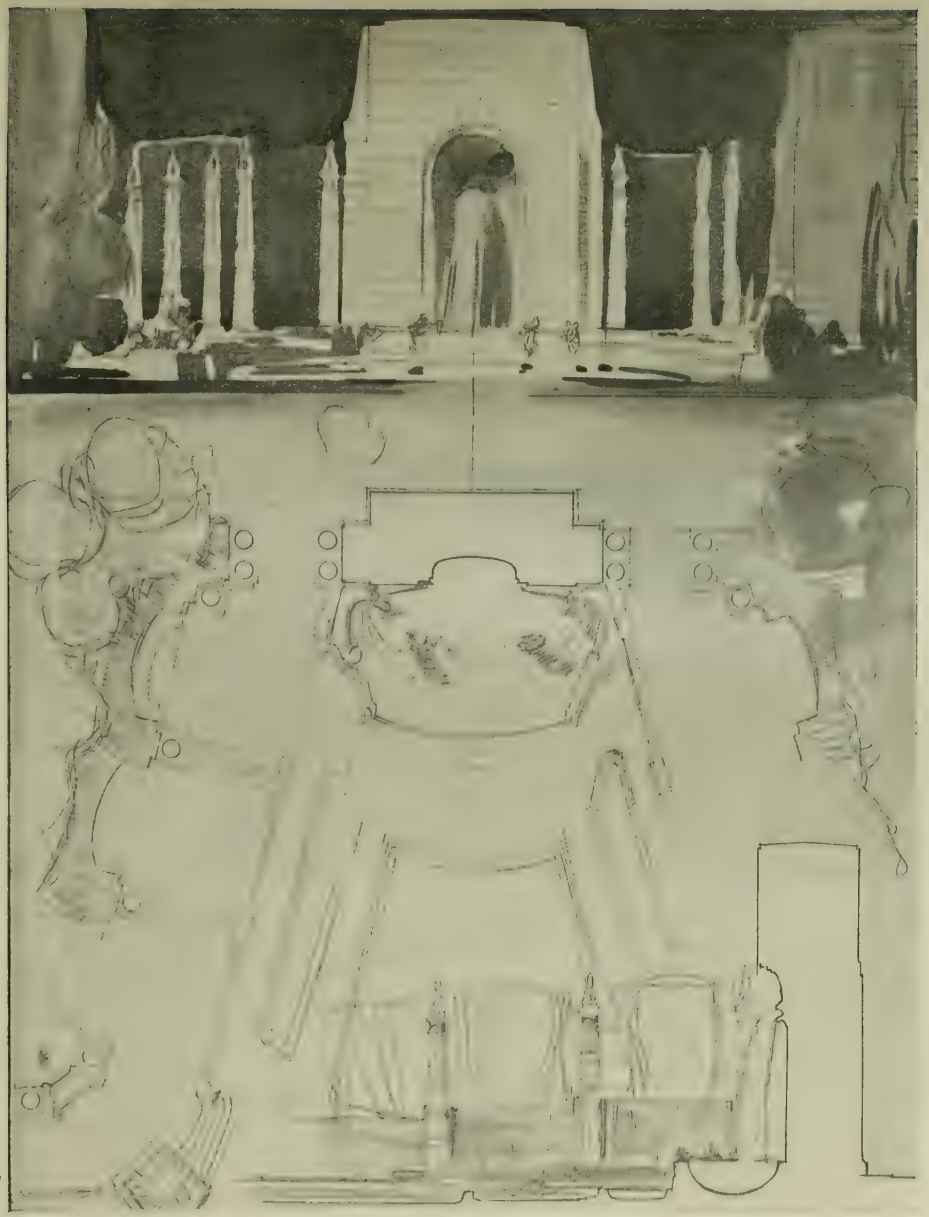
The Chairman expressed regret at the Society's loss in the death of Mr. James Crocker, a past president.

The president then delivered his address, a report of which we hope to give next week.

The following officers were elected for the ensuing year:—Mr. Percy Morris, F.R.I.B.A. (Exeter), President; Messrs. Allan J. Pinn, A.R.I.B.A. (Exeter) and B. Priestley Shires, F.R.I.B.A. (Plymouth), Vice-Presidents; Messrs. R. A. Mills, A. S. Parker, C. S. Appleton, F. H. Hooper, and O. Ralling were elected members of the Council, and Messrs. F. R. Tothill and S. W. Ackroyd, Associate Members of Council. Mr. S. Dobell was re-elected Hon. Treasurer, Mr. A. R. Holman, Hon. Secretary, Mr. J. Challice, Hon. Asst. Secretary, and Mr. L. F. Tonar, Hon. Auditor.

Subsequently members lunched together.

* Since this was written I have seen a review of "*The Wheelwright's Shop*: *by George Sturt*": "All the seeming quaintnesses of ornament, save for a line of beading and a device on the heads of iron stays is entirely the result of adaptation to necessity. The chamfering is to reduce weight, the curves are devices for getting capacity and load. Wagons grew into beauty not to please artists but to satisfy carters and to suit the field and road."



Society of Architects' Victory Scholarship Competition.

By Mr. J. C. Shepherd.



By Mr B. M. Flegg.

Designs for a Monumental Fountain (Selected to take part in the Final Competition).

THE SURVEYORS' INSTITUTION.

CONFERENCE AT EDINBURGH.

The Surveyors' Institution held its annual conference in Edinburgh from June 27 to June 30. For the first time in the history of the Institution a surveyor practising in Scotland is President, namely, Mr. J. I. Davidson, Saughton Mains, Edinburgh.

On Wednesday, the opening day, a reception was held by the President in the North British Station Hotel, when about 200 members were received. Among those present were Sir John Oakley, London, past president; Sir Edwin Savill, vice-president; Sir Edgar Harper, Chief Valuer for England; Mr. J. D. Wallace, Official Arbitrator for England, senior vice-president; Mr. J. M. Clark, Northumberland, past president; Mr. John Willmot, Birmingham, past president; Mr. Dendy Watney, London, vice-president; Mr. Reginald Powell, Sussex; Mr. J. A. Rutherford, Berkshire; Mr. Napier, Bristol; Mr. F. Tuckett; Mr. A. G. Cross, London; Mr. J. Campbell Murray, Glasgow, chairman of the Scottish Branch; Mr. James Mather, of the Board of Agriculture for Scotland; Mr. Alex Blair, Chief Valuer for Scotland; Mr. Wm. Fraser, Glasgow; Mr. T. P. Marwick, Edinburgh; Mr. Thomas Blair, Hoprig, East Lothian; Mr. J. Lyon Guild; Mr. W. W. Philip, Lanark; Mr. James Barr, Glasgow; Mr. G. B. Mitchell, Aberdeen; and Mr. A. Goddard, London, the secretary.

On the following day the Lord Provost of Edinburgh and Magistrates received the members of the Conference in the City Chambers, and offered an official welcome on behalf of the City.

After the reception by the Lord Provost, the President took the chair, and the remainder of the morning was devoted to the reading of papers.

Mr. T. P. Marwick (Edinburgh) read the paper on "Edinburgh: its Rise and Progress," which he gave at the recent R.I.B.A. Conference, and a summary of which appared in *The Builder* for June 22.

British Forests and Home Timber.

Mr. John D. Sutherland, of the Forestry Commission for Scotland, read a paper on "British Forests and Home Timber." He said that this country possessed less growing timber than any kingdom or Dominion; in fact, our woodlands were infinitesimal, and our reserve of wood the most meagre in the world. It was doubtful if the marketable woodlands in the country at the present time covered 3,500 square miles (2,000,000 acres). A census was being taken by the Forestry Commission, by which this estimate would ultimately be corrected. Of these woodlands less than one-tenth could lay claim to the description of true forest. A real or true forest should embrace a block of 1,000 or more acres of woods and plantations, properly stocked and grown in regular rotation. It was the extensive, well-cultivated agricultural farm that produced the largest crop, and it was precisely the same with sylviculture. The more comprehensive the forest, if well managed, the better the crop. The State was now creating forests, and the Forestry Commission since 1919 had planted 30,000 acres. Owners of property were restocking their woodlands, but there was no co-operation among them for the formation of forest blocks, and he suggested that it would be to their advantage to combine, so that by united effort forest centres might be formed. Inquirers asked whether there was any commercial promise in the creation of forests. It appeared to him that there never was a time when the prospect of a reasonable financial return was better than now. The prices paid by this country for imported soft-woods, which could be well grown in Britain, had gone up between 1890 and 1922 from 105 per cent. to 200 per cent., and in the case of Archangel red deals as much as 270 per cent. Manufactured home soft-woods had increased in the same time by from 73 per cent. to 80 per cent., and standing timber of the same class was 80 per cent. to 90 per cent. dearer than in 1890. He represented that increasing consumption, combined with the curtailment of supplies, must tend to raise the value of wood grown in this country, and therefore benefit the enterprising planter. He concluded by inviting them to support co-operation in forest block construction upon the lines suggested, and in particular asked them to advocate the use of home-grown wood throughout the country.

Rating and an Income Local Tax.

"Rating and an Income Local Tax" was the subject of a paper by Sir Henry Keith. He outlined his scheme for a new system of rating and an income local tax. The Inland Revenue officials, he said, who had criticised his scheme, spoke of the enormous labour it would take to administer. As a matter of fact it was simplicity itself compared with the existing income-tax system. The only efficient substitute for rates was one which as nearly as could be devised placed the cost of all national and quasi-national services—such as education, public health in every form, police, poor relief, main roads, public institutions—on the basis of ability to pay, and services which were directly and peculiarly beneficial to individuals or property on the basis of benefit received. He retained the skeleton of the rating system for the latter purpose and for collecting the cost of non-approved or non-recognised expenditure. The removal of onerous rates from houses would give an enormous natural impetus to building, to the improvement of housing conditions, and it would establish economic rents. Legislation to abolish or modify rates by substituting an income tax would also require in Scotland to provide for the reduction of rents by the amount of owner's rates cancelled. By the removal of rates, manufactories and industries of every kind, subjected to rates alike in bad times and good, would be relieved of an incubus that sometimes imperilled their existence; by their removal, social progress would not be hampered by the limitations imposed by the rating system; finally, the development of land would be stimulated and encouraged by the knowledge that there would be no punitive tax placed on its mere ownership, but that its revenue-yielding capacity would be the measure of its contribution to local and national needs.



Figure of Joan of Arc, Winchester Cathedral.

Designed by Mr. J. N. Comper.

[This figure, which was recently unveiled by the French Ambassador, was executed by Mr. W. D. Gough, of Kennington, and decorated by Mr. H. A. Bernard Smith, of Staple Inn.]

In the course of the discussion Mr. Brickwell, C.B.E., London, said that if they adopted the proposition of Sir Henry Keith they, as surveyors, were invited to commit suicide. He reminded Sir Henry Keith that the basis of contribution of local rates placed on the rent which the property would let at from year to year had been, so far as England was concerned, in operation for the last 400 or 500 years. He disagreed with the lecturer's proposals.

Sir Henry Keith, in reply, said he was not under his scheme going to abolish the work of the surveyors at all. He favoured the Scottish method of valuation. If they in England had had their system, some of the problems which now arose would have been settled as they went along. The position of the landlord in Scotland was infinitely worse than the position of the landlord in England, but at the same time the system was wrong in both countries. Let them see that every man contributed according to his ability, and give back to the people the money he had received from the people.

The Dinner.

In the evening the members dined at the North British Station Hotel, under the chairmanship of the President. There was a company of 160, which included the Duke of Buccleuch, K.T., Lord Alness, Lord Murray, Lord Constable, Principal Sir J. Alfred Ewing, Sir Henry Keith, Sir Robert Greig, Lord St. Vigeans, Sir Harry Hope, Sheriff Crole, Mr. J. D. Sutherland, Mr. J. Campbell Murray, chairman of the Scottish Branch of the Institution, and Sir John Oakley, past president.

The President proposed the loyal toasts, and the toast of "The City of Edinburgh" was proposed by Mr. John Willmot, past president, and Councillor Deas, in the absence of Lord Provost Hutchison, responded.

Lord Alness proposed "The Surveyors' Institution." He said if there was one lesson which the professions of this country had learned more thoroughly than another it was the advantage of a central organisation duly decentralised to guide its affairs and inspire its efforts. The three ideals which were set out in 1868 when the Institution was formed were—first, intellectual advancement by promoting a better standard of educational training; second, social elevation by raising the status of the profession in the public eye; and, third, moral improvement by fostering the best spirit of professional conduct. These three ideals were conceived rather in the public interest than in the private interest of the profession. In intellectual advancement much had been achieved since 1868, and since

1881 the examination test had become indispensable to membership. It was impossible in these days to exaggerate the importance of the educational branch of the Institution's activities with the growing complexity of civilization in general and of modern legislation, which related to land, rent, finance, rating, and mining. It was manifest that if the surveyor was to march with the times his educational equipment must be exact and comprehensive, and he was glad that their Institution was fully alive to that fact. From a membership of 200 in 1868 their membership to-day approximated to 6,000; therefore, they might regard their past as having been successful, and they might regard the present as being prosperous.

Presentation to the President.

At this stage a presentation of two silver salvers was made to the President, Mr. James Inglis Davidson, by Mr. J. Campbell Murray, Glasgow, on behalf of the members of the Scottish branch, as a mark of appreciation of the services rendered by Mr. Davidson as their chairman.

The President, after returning thanks, said the past few years had marked the breaking up of many large estates and the establishment of occupying ownerships, with its consequent effect on the profession of the land agents. Time would tell whether the altered system would stand the strain of the agricultural crisis through which they were passing as well as the old system did in the 'eighties, when landlords generally met their tenants so generously. One wondered whether the time might not come—if indeed it had not already arrived—when in the much larger problem of maintaining the agricultural labour population on the land and preventing an increase of unemployment, and at the same time maintaining a larger proportion of the nation's food supply, some temporary relief might not be afforded to the greatest of their national industries. This was a matter which affected all the interests in land and the national interest not least.

The toast of " The Guests " was given by Sir Edward Savill, vice-president, and responded to by the Duke of Buccleuch and Mr. J. Condie Sandeman, K.C., Dean of the Faculty of Advocates. The Duke of Buccleuch said it was the duty of those who owned and occupied land and of those who advised them to develop that land to the best of their ability. The one thing they wanted was sound and trained knowledge. He believed the future of this country was bound up with the land and what it produced. He fully believed that the high traditions of that Institution were a great safeguard not only for the security of those who owned land, but still more for the benefit of the nation at large.

The members of the Conference took part in several excursions, visiting the places of interest in and near the city. One party under the directions of Messrs. G. H. A. Connor, Thomas Blair, and J. Lyon Guild, proceeded to East Lothian, where they saw some of the finest farming in the county. Another party, under the direction of Messrs. Alexander Blair, A. A. Ralston, J. T. M'Laren, and James Mather, visited Rosyth Dockyard and Garden City. On Saturday a number of the members visited Longniddry golf course as the guests of the president, Mr. J. Inglis Davidson.

Builders' Deaths.

The death occurred at Driffield of Mr. Joseph Berry, retired builder, at the age of eighty-five. Mr. Berry had been a widower for a number of years, and leaves several sons and daughters. Mr. Berry was the Chairman of the Driffield and East Riding Building Society for some years.

The death occurred at his residence, Glanffwryd, Morriston, Glam., of Mr. James Knoyle, builder, at the age of 43 years. He was a well-known social worker, and leaves a widow and daughter.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS.

Conference at Leeds.

Over 200 delegates attended the Jubilee Conference of the Institution of Municipal and County Engineers, at Leeds, last week. The proceedings opened on Wednesday, in the Town Hall. The retiring President (Mr. E. J. Elford, Wandsworth) presided during the earlier stages of the proceedings; but afterwards the chair was taken by the new President, Mr. W. T. Lancashire (the City Engineer of Leeds).

The Report.

The report stated that the Council had called the attention of the Ministry of Health to the difficulties experienced by local authorities in disposing of pulverised house refuse, in consequence of the higher rate of railway carriage charged on this material than on other similar refuse. The Ministry was asked to make representations to the Railway Rates Tribunal, and subsequently it was reported that certain reductions had been granted. The Institution expenditure for the year had amounted to £5,343, and, with an income of £6,281, this had enabled £938 to be carried to the accumulated fund, which now amounted to £3,602.

A resolution was adopted having the effect of limiting the future election of members to those who had passed the appropriate examination of the Institution, or who, in the opinion of the Council, possessed such other degree or diploma as was equivalent.

It was announced that Mr. C. Brownridge (Birkenhead) had been appointed Hon. Treasurer in place of the late Sir James Lemon.

The Lord Mayor on Housing.

The meeting was then thrown open to the public, and an official welcome to the city was extended to the delegates by the Lord Mayor of Leeds (Alderman F. Fountain).

The Lord Mayor said it was pleasant to think that there had been in recent years an advance in regard to municipal work, but if some municipal bodies would only give their engineers a chance to make improvements things would have been even better to-day. It was time that the working people had some degree of decency in the places in which they had to live. Day by day there was some thought impressed on the minds of the rising generation, and it was invariably bad if the environment was bad in which they were reared. They all wanted fine cities, and engineers were doing right in meeting together, considering problems and finding solutions to present to their authorities. He urged them to insist upon such schemes being carried out if the necessity for them had gripped them. It was not always correct to consider the financial cost, but to regard the cost in ill-health, disease, and misery among those who were forced to live in and work under unfavourable conditions.

Referring to the new President (Mr. W. T. Lancashire), the Lord Mayor said that he, the Council, and the citizens of Leeds were proud that their City Engineer had been elected to that position. He was a man who, without display or splash, knew his business.

President's Address.

In his Presidential address, Mr. Lancashire said the Institution had now a membership of 3,202. Pointing out that the larger authorities were able to appoint and pay properly for officers, he suggested that in any reconsideration of local government areas the right thing for Parliament to do was to arrange areas large enough to employ well-educated and trained men. This need not eliminate the valuable element of local interest and autonomy. The ill-regulated growth of towns and cities had resulted in housing for the working classes of a nature which now appeared to be, if not a crime, at any rate a fearful waste of life and efficiency. Evidently the view of later years had stirred the country deeply. He had little doubt that in the near future, as soon as the housing shortage was remedied, greater efforts would be made to deal with slum areas. The passing of time also would necessitate more activity in the way of closing the older dwellings and the provision of new ones. The question was whether this process would continue to be without regulation, or whether by the extension of town-planning powers they would have the opportunity of partially rebuilding industrial cities and towns on right lines. The Acts governing town planning were of immense value, and the inclusion in the Bill of this Session of a clause to give longer time for depositing town-planning schemes was welcome news.

Awards.

The following awards were made :—

Richard Pickering Prize and Medal for 1922-23.—Major Leslie Roseveare (Eastbourne).

Premiums for best papers submitted to the Institution during the year.—Messrs. G. A. Ballard, H. Race, T. McLaren, and H. R. Sayer.

The Scorgie Challenge Shield for the district contributing the largest amount per member to the Widows and Orphans' Trust during the year was awarded to the East Midland Division, and the President announced that Messrs. W. J. Hadfield and H. H. Humphreys would also have been awarded premiums, but were ineligible by virtue of their membership of the Council.

In the afternoon the delegates visited Temple Newsam Mansion and Park and Roundhay Park, and were entertained to tea by the Leeds Parks Committee at the Roundhay Mansion. In the evening a reception was held by the Lord Mayor in the Art Gallery.

On Thursday in the Philosophical Hall Sir Henry P. Maybury, K.C.M.G., Director-General of the Roads Department in the Ministry of Transport, delivered an address on road traffic problems.

Town Planning.

On Friday, the concluding day, a morning session was held in the Philosophical Hall, under the presidency of Mr. W. T. Lancashire, after which visits were paid to various works in the city.

An interesting paper was presented under the joint authorship of Mr. J. E. Acfield and Mr. W. Dixon, the chief assistants of the Leeds City Engineer. This dealt with the question of town planning, housing, and reconstruction, and emphasised the importance of regional planning as a means of securing co-ordination in the various schemes now being put forward. The authors gave a detailed account of the progress of the Leeds housing schemes, and discussed the necessity for slum clearances and reconstruction. It was a matter of local and of national importance that the slum question should be dealt with at the earliest possible moment to the fullest possible extent, and that those who had the misfortune to be housed in slum areas should be benefited by the action taken. They would certainly be in a worse position if demolition on a large scale were immediately undertaken.

Major Leslie Roseveare (Eastbourne) declared that the general feeling with regard to the new municipal houses built under the supervision of the Ministry of Health since the war was that they were a misfortune and that the concrete houses were a tragedy.

Mr. E. Willis (Chiswick) urged that the Government should promote legislation, if necessary, to permit the inclusion of existing buildings and developed areas in town-planning schemes in order that the amenities of the whole district should be safeguarded as well as the existing amenities of undeveloped areas.

Mr. A. H. Campbell (Edinburgh) remarked that if the extent of slum property in Leeds was lamentable that city was only in the same position as all large centres of population. In Edinburgh, he said, there were densities of population in slum areas which would appal even residents of Leeds. There were areas where one found 130 to 140 houses to the acre.

Saturday was devoted to a visit to the Leeds Corporation Waterworks in the Washburn Valley.

GOOD WILL IN THE HOUSING CAMPAIGN.

By J. P. ORR.

The purpose of this article is to urge the importance of good will in the housing campaign, and to suggest that the policy of the Government should be directed towards encouraging and rewarding such good will. The chief difficulty in the housing campaign is the difficulty of getting the cost of a reasonably comfortable house down to a figure on which a fair profit can be made without levying a rent beyond the reach of those in need of relief.

There would seem to be less hope of a solution of this difficulty through legislation than through good will. What is wanted is mutual good will—

(i) between capitalists, the building trade, and the community—those who supply houses and those who need them.

(ii) within the building trade—between employers and employed.

(iii) within the community—(*a*) between taxpayers represented by the Government, and ratepayers represented by the local authority; (*b*) between rich and poor—those who have more than they need and those who need more than they have.

As to (i), the effect of good will may be to induce those who hold capital, whether in land or in money, to offer it on easy terms to local authorities, public utility societies, or even private individuals, on condition that it is used for the furtherance of approved schemes for the relief of the many who are suffering from overcrowding or other bad housing conditions. Easy terms would include a low rent for land and a low rate of interest for a long-term loan. If a house costs £400, a reduction of about 1s. 6d. can be made in the weekly rent for every unit by which the annual rate per cent. for debt charges is reduced. A further effect of good will may be to induce building manufacturers, merchants, contractors, and transport agencies to accept a little less than their pre-war rate of profit, paying rather higher wages than before the war, in order that the workers, having more to spend on rent, may command housing of a somewhat higher standard than the average pre-war standard.

As to (ii), good will may induce the employee, in gratitude for his improved wages, to give the maximum daily output of work within his physical capacity. Increase of output reduces the cost and, therefore, the economic rent of houses in two ways: it not only reduces the item of wages, but, by expediting construction, reduces overhead charges, *e.g.*, charges for supervision, hire of plant, etc.

As to (iii) (*a*), good will may induce local authorities to put upon the rates much more than the 1919-21 burden of one penny in the pound, in return for substantial aid from Government. As to (iii) (*b*), good will may create in those who are well housed a readiness to stint themselves and contribute their savings to the public purse in the shape of rates and taxes, to the end that their less fortunate brethren may have better houses. It may be hoped that such good will will draw a response from the needy in the shape of readiness to do with something lower than the ideal standard of comfort, in order that their housing may not involve too heavy a burden on the public purse.

There was a fine manifestation of good will to the needy just after the war, when the community, through their representatives in Parliament, readily adopted the programme put forward by the Government in 1919 for the housing of two and a half millions of workers within three years. This programme put the capital required for the 500,000 houses at £300,000,000, and the loss to be borne by the ratepayers and taxpayers at £6,500,000 per annum for sixty years—*i.e.*, at £13 per annum for each family housed—a heavy burden to add to the already almost intolerable burdens created directly by the war. Good will towards the men who had served the country so well in the war created the early enthusiasm for the principle deliberately adopted in this programme—that the new houses should afford a far higher standard of comfort than the workers' pre-war houses; but good will and enthusiasm soon vanished when the magnitude of the difficulties encountered in the execution of the programme was realised, and it became evident that cost of production was rising by leaps and bounds, and that the public burden would be much greater, and the benefit to workers much less, than was originally intended. It is instructive to compare (A) the main items of the programme with (B) what was actually accomplished.

	No. of houses to end of March, 1922.	Estimated cost in £ millions.	Average cost per house.	Estimated annual loss in £ millions.	Average loss per house.
(A)	500,000	300	£600	6.5	£13
(B)	100,923	190	£1,080	9	£51
% of (B) to (A)	20	63	180	140	400

The programme was, in July, 1921, limited for the time being to 176,000 houses, 35 per cent. of the original programme; but these have not yet been completed. The figures of cost and loss against (B) are those of official estimates given in 1922 for the whole 176,000. If they prove correct, the loss per family housed will be four times the loss originally anticipated, while the whole burden on the public purse for 35 per cent. of the original programme will be 40 per cent. more than the burden originally undertaken for the whole. Small wonder if good will languished; and all the more honour to the Government, the local authorities, and the building trade, if they succeed in reviving it and bringing it to bear on the solution of the housing problem.

Experience gained in the 1919-22 campaign, as reflected in the above figures, shows up the futility of one-sided good will. Initially there was ample good will on the part of the general community towards the needy; but good will in the building trade was conspicuous by its absence, and those who spoke for the needy were perhaps too insistent on the rapid supply of vast numbers of houses, whatever the cost. They thus played into the hands of profiteers, with the inevitable result that the good will of those who had to pay the piper was alienated, and a halt had to be called when barely 35,000 of the dwellings had been completed, and most of these had been let at rents which, though far below the economic rents, were far beyond the means of the great majority of those for whose benefit the campaign had been started.

Taught by this sad experience, let us now consider what can be done by the Government and the local authorities to revive and foster that mutual good will which is so essential to the success of the new housing campaign. Good will cannot be created by legislation, nor can a remote central authority do much towards creating it in distant places. The matter is one for the local authority, for mutual *rapprochement* between all concerned in each particular place. The Government can, however, foster the creation of local good will by offering any subsidy they may have to grant towards local housing first to those local authorities whose housing schemes show the most evidence of this much-needed good will. Such evidence will be found in the shape of—

(i) local offers of cheap land or of capital on loan at low interest and for long periods.

(ii) low tenders, indicating that, thanks to good will, contractors are content with small profits and can find cheap materials and willing workers.

(iii) readiness of local authorities to accept part of the loss on housing as a burden on the rates.

For the encouragement of local offers of cheap land or of capital on loan at low interest and for long periods for local authorities' housing schemes, the Government might appropriately grant cheap loans to local authorities equal in amount to those raised locally. It might be a good policy to charge even less interest than the Government have themselves to pay, and to let the loan run for eighty years. If the Government raise the money at 4½ per cent. and lend it to local authorities at 3½ per cent., the loss to the Government on each £400 house will be only £4 per annum, and this not for the whole eighty years, but only until the original 4½ per cent. loan can be replaced by one at 3½ per cent. The opportunity for this conversion will surely come with the return of prosperity which this housing campaign will materially expedite.

Another way in which the Government can encourage private offers of cheap capital is by refunding for the next four or five years income tax paid on interest on capital lent for approved housing schemes. Income tax has so far reduced 6 per cent. interest on housing bonds to something between 4 and 4½ per cent.; so the proposed concession might be made in respect of capital lent at 4 per cent. for, say, sixty years. The Government would not stand to lose a great deal by this concession: for, conceivably, the capital which they would thus attract into housing would otherwise be sent abroad or put into investments which escape income tax. There would be some revenue in house duty and income tax on the new houses to set against any loss.

For the attraction of capital to private housing schemes nothing is wanted so much as a clear declaration of the Government's policy, by which the doubts and suspicions which deter people from investing in houses may be removed. First and foremost, it needs to be made clear that the Rent Restriction Act is not to have a permanent place on the Statute Book; that interference with private dealings between landlord and tenant by such legislation is to cease on the revival of pre-war normal activity in the building of houses, and is meanwhile gradually to be relaxed; and that there is to be no building by local authorities in competition with private builders. So long as builders do not resume the building of dwellings of the kind most needed in any locality, the local authority must supply the need, with the aid, if necessary, of the rates and taxes; but their schemes should be capable of execution by sections, and they should be prepared to drop a scheme as soon as private enterprise will take over the outstanding sections.

Local authorities might themselves encourage local capitalists to offer housing loans on easy terms by giving them the right to nominate the first tenants for, say, half the houses. They might also assist public utility societies who are short of capital by accepting them as contractors for any group of houses in the approved scheme, and letting them gradually buy both land and houses in the group by instalments of capital and interest in the shape of annual rent for, say, twenty-eight years. This is the plan adopted by the Bombay City Improvement Trust to assist employers in providing dwellings for their employees. Local authorities could materially add to the security of housing investments, and so attract capital to them, by town planning so as to give permanent residential surroundings to new building estates.

The fostering of the good will evidenced by low tenders can best be left to local authorities. The Government cannot do much to help a local contractor; for it is very undesirable that they should again resort to commandeering materials or transport. It is to be hoped that rings, if formed at all, will be broken by exposure to public opinion through the Special Committee recently appointed by the Minister of Health to watch the position, and by the holding up of schemes until materials are available at reasonable prices. Local authorities can provide a strong incentive to that good will which produces industry among workers by making it clear that the object of the housing scheme is to provide good houses *at rents within the reach of workers*, and by announcing the rents for the several types before the building contract is given. They might, further, offer the first refusal of the first few houses completed to men actually working on the scheme.

With regard to the fostering of that local good will which will induce the ratepayers, through their representatives, the local authorities, to push on with a scheme in spite of the burden it may put upon the rates, the most effective policy will probably be for the Government to give local authorities a very free hand in the preparation and execution of their schemes, while at the same time requiring them to give the fullest publicity to all details of the schemes. The Government should, I suggest, consider all local protests against any scheme before approving it; but, if a scheme is solidly backed by local opinion, they should not refuse to aid it just because the number of houses per acre is not as low, or the standard of accommodation not as high, as in the majority of the expensive post-war schemes heretofore sanctioned. Nor, in my opinion, should a scheme be rejected just because, with a view to reducing the loss, it provides some types of houses at rents beyond the reach of the lowest-paid workers. The scheme should provide for all or any of the working classes (including clerks) who are compelled through shortage of houses either to pay unduly high rents, or to live under conditions of overcrowding, or at an unduly low standard of comfort.

Each scheme should be considered as a whole, and not scrutinised as to its financial effect in regard to particular types of houses. It may sometimes be wise to include high-standard houses at high rents for families with several earners, as well as small houses at lower rents. There will probably be a lower average loss per family in such a scheme than in a scheme which caters only for the poorest.

Local needs are better known to local people than to the central Government, and now that local rates have to bear a substantial share of any loss on the scheme, the Government, as representing the taxpayer, need not do more than insist that on the whole scheme:

(*a*) the average capital cost per family shall be within a prescribed maximum. (This determines the maximum annual cost to the taxpayer.)

(*b*) the rents shall be within prescribed limits.

The prescribed maximum cost and the prescribed rent limits need not be the same for all times and all places. There may be justification for a general reduction of the maximum as money becomes cheaper. There may be some places in which housing has always been more costly than in others. There may be rural areas in which the earning capacity of the people is too low to permit of their being housed at a reasonable standard of comfort at as high rents as elsewhere. There may be other places in which people have got on well enough hitherto with something less than the average standard of comfort, and would prefer to adhere to that standard rather than adopt a higher one at the cost of higher rent.

The estimate submitted to the Government for approval should assume that a Government loan will be forthcoming for half the cost at 3½ per cent. interest for eighty years. If on this assumption it is estimated that the capital cost will be within the prescribed maximum, then ordinarily Government sanction should be given at once. In cases in which the annual loss to the local authority is much less than the loss the Government incur by their loan, the period of the loan might be reduced so as to establish equilibrium between the two losses. In cases in which the local authority's loss is far heavier than that of the Government, it may be feasible to establish equilibrium by grant of the taxes and house duty on new houses to the local authority for a few years. In other cases the Government may make this special grant, in order to enable the local authority to raise the standard of accommodation or to decrease the rents, or to encourage co-operation by public utility societies by passing the grant on to them for houses they build.

Take, for instance, a scheme of 500 houses estimated to cost £200,000.

		Average per house.	
Debt charges on Government loan of £100,000	£4,000	£20 0	
Debt charges on Local loan of £100,000	6,000		£28
Annual outgoings (maintenance, repairs, &c.)		8 0	
Annual rent at, say, 7s. 6d. per week (rates being paid by tenant)		19 10	£28
Annual loss per family housed		8 10	

If this loss is more than the local authority can bear, the Government can give relief to the extent of annual taxes on the 500 houses for ten years. Alternatively they may withhold sanction until the local authority can raise the £100,000 locally at an annual debt charge of 4 per cent., thus reducing the annual loss to £4 10s., which may be further reduced by a temporary grant of tax revenue to the local authority. The local authority may find an increase of rent feasible, or they may in time find a contractor who will tender for the construction on terms which will bring the average cost per house down to £360, and so reduce the loss by one-tenth of the original estimated debt charges.

Since this note was prepared, the Government have announced that their subsidies to approved schemes will take the shape of an annual grant of £6 per house for twenty years. This will make the calculation of average annual loss per dwelling throughout the loan period more difficult; but the suggestions made above still hold good, *mutatis mutandis*. In any case, the principle governing the decision as to whether the scheme can be approved should be that the loss to the public purse must be known beforehand, and must be within a certain maximum approved by the two parties concerned, viz., the Government on behalf of the taxpayers, and the local authority on behalf of the ratepayer. If the loss cannot at first be brought within this maximum, then the scheme must be held over till it can. The neglect of this principle seems to me to have been the underlying cause of the heavy loss involved in the schemes of 1919-21; its adoption should checkmate profiteers and encourage and foster local public spirit and enterprise.

Blue Funnel Line.

It is reported that Messrs. Alfred Holt & Co., of the Blue Funnel Line, with their associated companies, the China Mutual Steam Navigation Co., Ltd., and the Ocean Steamship Co., Ltd., are about to provide a building at Liverpool in keeping with their world-wide shipping services.

THE RENT BILL:

SECOND READING.

THE attitude of the opposition to the Rent Bill is somewhat instructive. The mover of the Labour amendment only emphasised the necessity of prolonging Rent Restriction, deplored the fact that any houses should be removed from control, regretted that no reduction in rent was provided for, and asserted that the Bill gave the landlord further power to coerce the tenant. It would have been interesting had he specified the clauses which would have that effect.

A Member speaking for Liberals, according to the report, did recognise that control should not be continued indefinitely, but suggested a further continuance of the Act for a period of four years from the present date apparently without any modification. Several Members, as we had anticipated, objected to Part II of the Bill. The Minister of Health recognised that we were moving in a vicuous circle, as Restriction had scared investors from house property, and yet shortage of housing accommodation was the *raison d'etre* of Restriction, but we notice that throughout the debate it seemed accepted that the provision of houses must precede decontrol, an effort apparently to square the circle.

The whole debate, in our opinion, again illustrated how ill-advised has been the policy of Rent Restriction from its very inception. It is, we believe, the only war measure which took something from one particular class to benefit another class. Other measures affected the sanctity of property, but made the subject make sacrifices for the State, which is a very different thing. The relaxation of those measures brought relief to all subjects alike and was easily effected, but the relaxation of Rent Restriction involves taking a privileged position from one class and restoring freedom of contract to a class from which it was taken away, and hence all this opposition to a return to normal conditions.

There never was the slightest justification for bringing houses of the higher value into the Rent Act at all, and we think the Commission recommended a wise course when it advised decontrol by stages, as this would have brought about a clean cut step by step. The Parliamentary Under Secretary of Health for Scotland made a good point when he said it had always been asserted that decontrol of foodstuffs would bring about a rise in prices, but no such effect had followed. That is an illustration we gave in these pages some months ago, and it bears out what we have said above. The decontrol of foodstuffs affected all classes alike, and the whole community benefited, but it would have been otherwise if food had been controlled at the expense of one class of producer for the benefit of another class, and the same dispute would have arisen between the classes affected as is now being experienced in connection with Rent Restriction.

It is, however, no good shutting the eyes to the position as it stands. Houses are urgently required, but they will never be provided so long as the market is fettered by Restriction, and the landlords are apt to be hailed before the Courts on every pretext. A clean cut is the only way to attain the provision of houses, just as it was to obtain the provision of food. Every restriction in the future will hinder building, and uncertainty as to the continuance and duration of restriction is preventing a free market and the production of houses.

Parliament is trying to attain the impossible and to hunt with the hounds whilst running with the hare, and, as we said in our recent article, it is coming to this—either freedom must be restored to the market or the State must take over the housing question. That, in our opinion, would be an impossible and most disastrous course, and, therefore, we can only trust that wiser counsels will prevail and riot in Restriction will be put an end to definitely at a fixed date.

THE WEEK IN PARLIAMENT.

Westminster, *Wednesday.*

Rent Restrictions.

Good progress is being made by Standing Committee D of the House of Commons, which is considering the Rent and Mortgage Interest Restrictions Bill. Paragraph (*b*) of Clause 3 has been further amended so as to enable a landlord to obtain possession of a dwelling-house for a person in his whole-time employment, or in that of some tenant from him, "or with whom, conditional on housing accommodation being provided, a contract for such employment has been entered into." The provision in the paragraph as to alternative accommodation has been to secure that it is "reasonably suitable to the needs of the tenant and his family as regards extent, character, and proximity to place of work, and is reasonably suitable to his means." Clause 7 (Amount of rates where rates are compounded) has been withdrawn, and Clause 8 (Amendment of Section 7 of the principal Act, which relates to restriction on the calling in of mortgages) has also been deleted. An amendment by the Labour Party to set up a rent tribunal in place of a county court to determine questions as to standard rent, &c., has been negatived by 23 votes to eight.

The Committee stage was concluded on Monday. Clause 14, which deals with regulations as to reference committees, was passed, with only minor alterations; and the following clause, dealing with rules as to procedure, was passed without amendment.

Housing Bill.

The Housing (No. 2) Bill has been read a second time in the House of Lords. Lord Burnham, in criticising the measure and pleading for its extension, said that the Bill, though well meant, would do very little to remedy the evil conditions prevailing to-day. As one who had for several years been Chairman of the Building Employment Committee of the Ministry of Labour in that part of England, he said that there was not a master builder in London who believed that this measure would lead to the erection of a single house by private enterprise. Until they got back the speculative builder, they could do very little to solve the housing problem. The remission of local taxation would not cause any private builder to put up a house. The only way in which they could induce the small builder to come back into business was by the grant of a lump sum.

Lord Dawson of Penn, in supporting the Bill, said nothing could be more productive of permanent good than the extension of town-planning and of garden suburbs. In these new communities, where land was available and costs were low, experiments in public health could be made, and the way could be shown for useful and healthy development in the future. He urged the Government to give as generous a trial as possible to the garden suburb schemes set forth in Part II of the Bill.

Lord Salisbury, replying for the Government, foreshadowed the introduction of a Bill next year to consolidate all the Housing Acts.

Scottish Housing.

Mr. Hardie asked the Under-Secretary to the Scottish Board of Health, whether, seeing that the actual shortage of houses in Scotland was at least 100,000 and that the number of men employed on housing schemes decreased from 12,871 in April, 1922, to 7,077 in December, 1922, what action it was proposed to take to increase the number of houses under construction and to provide employment for unemployed workers in the building trade?

Captain Elliot said the figures given in the first part of the question were believed to be correct. As regarded the second part there remained to be constructed 3,256 houses under schemes approved in terms of the Housing, Town-Planning, &c. (Scotland) Act, 1919. In addition arrangements were being made for the provision by local authorities, with the aid of State grants, of houses for the accommodation of persons dispossessed by slum clearance schemes. Further provision for assisting the erection of houses was made in the Housing (No. 2) Bill. The Board were hopeful that under these schemes additional employment would be provided and a substantial number of new houses would be erected.

Houses Approved.

Lord E. Percy informed Captain W. Benn that the number of houses approved which would rank for assistance under the new Bill was 13,401.

Building Materials.

In reply to Mr. T. Thomson, who asked whether, in view of the continued advance in prices in building materials, which threatened to absorb the whole of the subsidy for houses payable under the Housing Bill, facilities would be given for the passage into law this session of the Bill to deal with trusts, Viscount Wolmer, Parliamentary Secretary to the Board of Trade, said he must ask the hon. member to await the Report of the Departmental Committee on prices of building materials.

Captain W. Benn: When will the report be published?

Viscount Wolmer: I understand an interim report will be published almost immediately.

Mr. T. Thomson asked the Minister of Health whether he was aware that the action of the Unemployment Grants Committee in refusing to make grants to local authorities who purchased building or other materials from abroad was assisting trusts and combines to force up prices of materials against the public; and would he therefore withdraw circular No. 400, of May 15 last?

Lord E. Percy said the Unemployment Grants Committee did not insist on the purchase of home materials as a condition of grant where such action would be likely to have the effect suggested. The answer to the last part of the question was in the negative.

Repayment of Assessment.

Sir A. Holbrook asked whether, in the case of owner-occupiers whose houses had been reassessed since 1919-20 without any individual valuation, contrary to the Halifax judgment, and which had subsequently been reduced on objection, it was proposed to make any provision that any sums demanded and paid since 1919-20 in excess of the sum payable as fixed on objection should be refunded?

Mr. N. Chamberlain said that where an assessment to local rates had been reduced in consequence of an objection to the valuation list, the ratepayer was under the existing law entitled to repayment of the excess amount paid by him in respect of the rate current at the date of the objection and any subsequent rate.

Entertainment Tax.

During the report stage of the Finance Bill, Sir W. Joynson-Hicks, Financial Secretary to the Treasury, moved a new clause, which was agreed to, exempting from Entertainments Duty, among other things, an entertainment provided by a society, not established or conducted for profit, for "the purpose of promoting graphic art, sculpture, or arts craftsmanship." A second new clause was proposed by the Government, exempting from the scope of the duty payments for amusements to the British Empire Exhibition, but the opposition to this was so strong that the clause was withdrawn.

The New Assessments.

Sir W. Joynson-Hicks also moved a new clause, which was agreed to, embodying the concessions which he announced in the Committee stage, and which were given in *The Builder* a fortnight ago, with regard to inhabited house duty.

RENT BILL IN COMMITTEE.

Most of the amendments moved by the Labour party to the Rent Bill seem framed in an endeavour to leave the law as it stands, and to hinder any alteration. We have already alluded to the amendment introduced into subclause 1 of clause 2, but subclause (2), which relates to the granting of leases, has been also amended. To take the house out of the Act the lease or agreement must end at some time after June 24, 1926, not June 24, 1925, as provided in the Bill, and the lease or agreement must be for a period of at least two years.

In clause 3 already an amendment has been made which serves to illustrate our observation above, that any amendment of the law is resisted. The clause relates to the grounds on which possession can be claimed, and as it stood in the Bill it was provided as one of the grounds that the house was required by the landlord for occupation as a residence for himself "or for his children," the latter words not occurring in the Act of 1920. This has now been amended by inserting the words "or for any sons or daughters of his over the age of 18 years." This seems entirely to alter the effect of the clause. For instance, a man engaged in business has a delicate family, and he has purchased a house at the sea that they may reside there. He does not require the house for his own occupation, but for his children, and the clause permitted him to show the reason he required possession. *i.e.*, for young children. As it stands the clause assumes he requires the house for the occupation of some adult child, which is not at all the same thing. The clause also provides that the house might be required for some person engaged in the whole time employment of the landlord "or to be engaged." These words were introduced because of the decision in Spencer *v.* Fox (*The Builder*, April 19, 1922), that for the paragraph to apply the man must actually have commenced to work for the employer. The result of this decision was that in country districts where housing accommodation is scarce the man engaged could not take up his post because there was nowhere for him to live, whereas the man who had given up the post occupied the landlord's house, and he in his turn might be far from his new work.

It might be imagined that Labour Members would have seen such an arrangement stood in the way of employment, and that the amendment in the Bill would be gladly accepted, but many members spoke against this alteration in the law, and, although the effort to alter the clause was defeated by a considerable majority, it illustrates the tenacity of some persons to cling to the Rent Restriction Act whatever may be its effect.

Staff Outing.

The staff of Messrs. Keeble (1914), Ltd., resumed their annual outings and dinner on Saturday for the first time since 1913. Special saloons conveyed the party of 63 to Hastings, and after a very enthusiastic sports meeting a dinner followed at the Adelphi Hotel, at which Mr. Herbert Keeble took the chair, supported by Mr. Arthur Keeble as vice-chairman and Mr. A. H. Stevens, who acted as toast-master.

After the loyal toasts proposed by the chairman, Mr. E. H. Littlewood proposed the toast of "The Firm," and Mr. A. Brasier "The Chairman and Vice-Chairman"; while Mr. Arthur Keeble proposed "The Visitors." All these toasts were drunk with enthusiasm, and after the distribution of prizes to the winners of the sports events and a very enjoyable day, the party returned by special train to Charing Cross.

THE BUILDING TRADE

ESTIMATING FOR SMALL BUILDERS—II.

By J. H. BARNS, F.I.O.B.

— yards cube cement concrete to trenches, mixed in the proportions of six parts Thames ballast to one part of Portland cement.

Example:—

6 yds. Thames ballast delivered, at 12s. 6d. yard	£3	15	0
1.1–20 tons Portland cement, at 60s. ton	3	3	0
Use of 12 sacks, at 3d. each		3	0
Labour mixing and depositing concrete, 6 yds. at 4s. 6d. yd.	1	7	0
	£8	8	0
Add for diminution in bulk consequent upon mixing and consolidating, 15 per cent.	1	5	2
	£9	13	2
Add on-costs and profit, say 15 per cent.	1	9	0
Total for 6 yards	£11	2	2
Price per cu. yd.	1	17	0

The above method is simple, free from liability to arithmetical error, and sufficiently nearly accurate that it may be used for all practical purposes.

Portland cement concrete to trenches in underpinning would be worth at least 50 per cent. extra for labour, as it is usually in small quantities.

To find the cost of concrete mixed in any other proportions than those mentioned above, it is only necessary to alter the various quantities to suit. In this example 6 yds. has first been taken to arrive at the price of 1 yd., which is simpler than to attempt to arrive directly at the price of 1 yd. of concrete, as if this is done it involves the use of several fractions. If 6 yds. of ballast are required to 1 yd. of cement, the quantity of cement would be 1.1–20 tons, as there are 21 bushels per yard, and each bushel of British Standard Portland cement weighs 112 lbs., equalling 1.1–20 tons.

During the mixing the cement goes into interstices in the ballast without increasing the bulk, and during and consequent upon ramming and consolidating the bulk will be further diminished, and for this 15 per cent. has been allowed, which should be sufficient. It is almost impossible to state the exact quantity of diminution in bulk consequent upon mixing, &c., even if a definite example of aggregate were seen, but usually the estimates are prepared long before the ballast is even dredged from the river bed, so that it is impossible to state exactly the percentage of voids in the ballast quoted for. The cost of labour will depend upon how near the materials can be delivered to the actual point at which concrete is to be deposited. Machine mixing is a doubtful economy except in special cases.

— yds. super 6 in. Portland cement concrete (mixed as before), spread and levelled over surface, at 6s. 3½d. yd.

This rate is arrived at by taking one-sixth of the price per cu. yd. for Portland cement concrete illustrated above and adding 10 per cent. for extra labour. Concrete floors filled in on centering around steel joists (centering and steelwork measured elsewhere) are worth about 10 per cent. per yd. super for labour over and above the price of surface concrete. Should any hoisting be necessary to the various floors this must be added.

Brickwork.

— rods super reduced Fletton brickwork in cement mortar mixed in the proportion of three sand to one of cement.

Example:—

4,356 Fletton delivered, say, at 60s. 1,000	£13	1	4
3 yds. sharp sand, at 14s. yard ..	2	2	0
1.1–20 tons Portland cement, at 60s. ton	3	3	0
Use of 12 sacks, at 3d. each		3	0
Labour (Bricklayer and Labourer), say	8	10	0
Scaffold, say	1	0	0
	£27	19	4
Add for on-costs and profit, say, 15 per cent.	4	3	11
	£32	3	3

A standard rod of brickwork is presumed at 16 ft. 6 in. long by 16 ft. 6 in. high and 1½ bricks thick, equalling 272 ft. 3 in. super. In such a wall there will be 66 bricks per course, and 66 courses high, totalling 4,356 bricks of London size. For simplicity of working 4½ thousand bricks may be taken. It is customary not to make any allowance for wasted bricks. The quantity of mortar required varies with the thickness of the wall and the size of the joint. Speaking generally, 3 yds. of sand would be sufficient.

The labour is calculated—bricklayer and labourer laying 600 bricks per day. The number of bricks which can fairly be laid in a day varies from 500 to 1,200, according to the class of work and quality of materials. Supervision and organisation count for a great deal. A bricklayer with few bricks handy and a frequently empty spot board will hardly break records. The brickwork at the lower stories of buildings will cost less than at the top, as the walls are usually thicker at the bottom, and brickwork at the top of a building requires considerable labour for hoisting materials. Long, straight walls cost less for labour than walls with piers or openings, as the plumbing to angles takes comparatively a long time and is not specially measured. The scaffold is a very difficult item to analyse, as the amount paid to scaffolders on a job is not necessarily an indication of the cost of scaffolding, as these men do all sorts of work on the job which is not strictly scaffolding. The lower portion of the wall will require very little scaffolding, the upper part needing most of all. Each item in the building should have a percentage added for scaffolding as all the trades share its advantages. Some firms adopt the method of adding 1½ per cent. upon the estimated cost of the building for the general scaffolding. Brickwork in cement costs for labour about 5 per cent. more than brickwork in lime mortar, as the lime mortar is fatter and works more freely, and cement mortar is short and is not easily retained on the trowel. In the early days of using cement mortar for brickwork some firms paid their bricklayers ½d. per hour extra, as it was deemed to involve extra skill. Brickwork in underpinning is worth from 25 per cent. to 50 per cent. extra for labour. Stocks would take a little longer than Flettons to lay, but frequently no difference is made in estimates on account of this slight difference in labour, but any difference in cost of materials should be added.

— rods super Reduced Blue Staffordshire Brickwork in cement mortar, mixed as before.

Example:—

4,356 Blue Staffordshire Bricks at 190s. 1,000	£41	7	8
3 yds. Sand at 14s. yard	2	2	0
1.1–20 tons Portland Cement at 60s. ton	3	3	0
Use of 12 sacks at 3d. each		3	0
Labour—Bricklayer and labourer, say	14	15	0
Scaffolding, at say	1	0	0
	£62	10	8
Add oncosts 5 per cent., and profit 10 per cent.—15 per cent. ..	9	7	7
	£71	18	3

This is calculated on the basis of a man laying 350 Blue Staffordshire bricks per day. Blue bricks cost more to lay, as they are heavier, less absorbent, and "swim" in the mortar.

Facings and Pointing.—The presumption is that the brickwork has been measured in common bricks and that a superior brick will be used as facing. The cost of facing would depend upon the bond to which the brickwork is laid. English bond would take about 8 bricks per ft. super; Flemish Bond about 7 bricks per ft. super; Norfolk Bond about 6 bricks per ft. super.

Example:—

— ft. super. Extra to facing with stocks and pointing in cement—

		s.	d.
Stock Bricks ..	per 1,000	80	0
Fletton „ ..	„ „	60	0
Difference		20	0

= 2d. per ft. super.

This can roughly be arrived at by stating that £1 per 1,000 is ¼d. per brick—

English Bond—8 at ¼d.—2d. per ft.
Flemish Bond—7 at ¼d.—1¾d. „ „
Norfolk Bond—6 at ¼d., 1½d. „ „

Other prices can be worked on similar lines, which are sufficiently nearly accurate for ordinary purposes. To this must be added the cost of pointing, probably 1½d. per ft. super. Another method of arriving at the price of eight bricks is by taking the 20s. and dividing by 10, and calling the result pence. This will be suitable for English bond, but not for Flemish or Norfolk bond.

Pointing.

Example:—

— ft. super. Extra over Fletton brickwork for facing with blue pressed Staffordshire facing bricks and pointing in cement—

		s.	d.
Blue pressed Staffordshire bricks	per 1,000	200	0
Deduct cost of Flettons	„ „	60	0
Difference	„ „	140	0

= English bond, per ft. super, say 1s. 2d.

Number of Flettons laid per day		600	
„ „ Blues	„ „	350	
Difference		250	

	£	s.	d.
Additional cost of labour per rod	6	5	0
= additional cost per ft. super reduced to 1½ brick thick, say			5½
= cost per ft. super ¾ brick average for facing, say			2¾

Summary:—

Additional cost, bricks per ft. super	1	2	
Additional labour „ „		2¾	
Pointing, say .. .. „ „		1½	
„ „	1	6¼	

Add profit, &c.

— ft. super. Extra only to facings with best white glazed bricks and pointing in cement (a bricklayer will lay about 300 white glazed bricks per day)—

		s.	d.
White glazed bricks, average cost	per 1,000, say	460	0
Deduct cost of Flettons	„ „	60	0
Difference .. „ „		400	0
Cost of eight bricks, say ..		3	4
Extra labour as before, say ..			3
Pointing, say			1½
		3	8½

Add profit, &c.

— ft. run. Extra to Flettons bullnosed angle—

Example:— s. d.

Cost Fletton bullnosed bricks, delvd. per 1,000 75 0
Deduct Flettons (ordinary) „ „ 60 0

Difference .. „ „ 15 0
Cost of eight bricks 1½

Cost of four bricks .. .. ¾
Extra labour .. .. .. ¾

Total 1½

If worked out on these or similar lines, other items in the bill could be dealt with.

NORTHERN POLYTECHNIC INSTITUTE.

Apprentices in the Building Trades.

The following are minutes of a meeting of the Advisory Committee dealing with the Architecture, Surveying and Building Dept. of the Northern Polytechnic Institute, Holloway:—

Mr. T. P. Bennett reported that Mr. E. Kearney had offered a prize of five guineas to be competed for by the students of the Masonry Class. The Committee instructed the Secretary to record its sincere appreciation of Mr. Kearney's generosity.

The School curriculum was discussed. Mr. Bennett explained the work of the Junior Day School, and the Committee considered the hours allotted to each subject. Mr. Trollope suggested that chemistry seemed to be given some prominence, and Mr. Bennett stated it was necessary for the boys to understand clearly the composition of the materials with which they worked, and this could only be obtained in the chemistry laboratory. Mr. Bennett placed before the Committee a list of the subjects treated by the chemistry classes.

With regard to the time-table of the Senior School, Mr. Roberts inquired as to the value of the esquisse programme. Mr. Bennett explained that the students were allotted one day per week in which to produce a given subject, and it was found that this method developed (*a*) draughtsmanship, (*b*) ability to concentrate on the work in hand, (*c*) power to see and eliminate all unnecessary detail. Mr. Bennett, in reading the esquisse programme for the term, pointed out that one design per week enabled the students to deal with a very wide range of subjects during the year.—Mr. Campbell Reid suggested that students of architecture should spend a given number of hours per week in the workshops, with the object of keeping in touch with the practical side of the work. The Committee agreed as to the value of this suggestion, and Mr. Bennett promised to give the matter his serious consideration.

Mr. Bennett stated that permission had been obtained for the employment of a whole-time lecturer in quantity surveying, but that difficulty had been experienced in obtaining a competent instructor. Mr. Trollope thought the remuneration offered (about £300 per annum) was not sufficient. Mr. Desch considered it would be better to engage a part-time lecturer, particularly as instruction of any value could only be imparted by a surveyor in touch with modern conditions: theory was of little value in quantity surveying. Dr. Clay said that a whole-time instructor need not necessarily give up his own practice, as only a limited number of hours per week was devoted to this subject.

Mr. Trollope said that if the Committee would leave the matter open he would endeavour to obtain the services of a capable instructor.

Mr. Bennett asked those members of the Committee actively engaged in the building industry to meet him and consider the whole programme of the Building School. Mr. Trollope, Mr. Desch, and Mr. Edward Deacon agreed to meet Mr. Bennett, and it was also agreed to ask Mr. Roberts to be present.

Mr. Bennett stated that the number of apprentices in the building trades in London was about 150, whereas the operatives in the painting trade alone numbered approximately 60,000. The result was that the normal wastage in the building industry could not be made up by qualified workmen, and the great danger was that when a boom came an undesirable element of unskilled labour would get into the industry. Mr. Bennett was of opinion that the solution to the problem of recruiting suitable labour in the building trades could be found in the technical schools; he considered that a boy who left an elementary school and entered a technical school, where he was trained in all branches by experts, proved to be an infinitely more capable workman than a boy who entered a workshop and picked up his knowledge in a haphazard manner.

Mr. Bennett expressed the hope that members of the Committee would visit the school and compare the work produced by students in the trade school with that of the apprentices; and that some effort would be made to impress upon the L.M.B.A. and the non-federated firms the superiority of the boy who is trained in a first-class technical school.

Mr. Woodward asked (1) whether the trade unions were against apprenticeship; and (2) whether the reluctance of employers to take apprentices was due to lack of money. In reply Mr. Bennett stated that (1) the trade unions appeared to be actively interested in the growth of the apprenticeship scheme, and (2) in his opinion the difficulty was that employers, in these days of fluctuating businesses, did not feel able to bind themselves to employ boys and to pay wages over a period varying from five to seven years ahead; also, with the shorter hours of labour, employers could not afford the waste of material and the time of skilled workmen which were involved in teaching apprentices.

The matter was referred to the meeting between Mr. Bennett and Messrs. Trollope, Desch, Deacon, and Roberts already mentioned.

A question was asked whether students, on leaving the school, were prepared to accept appointments on probation; Mr. Bennett replied that all students were prepared to accept positions on probation.

Mr. Bennett placed before the Committee the names of several students who were anxious to secure positions during the summer vacation.

The next meeting of the Committee was fixed for October 18, at 6 p.m.

"THE BUILDER" COST OF BUILDING COMPETITION—No. 2.

The last date for sending in applications for the Conditions of Competition No. 2, in which builders are submitting tenders for the erection of the two houses, designs for which were accepted by Professor S. D. Adshead in the first part of the Competition, was June 23.

A selection of nearly forty plans, elevations, and details, from about 300 designs submitted in Competition No. 1 (open to architects only), including the designs which won the £75 prize for class "A" (houses with three bedrooms and parlour), and class "B" (houses with four bedrooms and two sitting-rooms), have now been published in book form (London: *The Builder*, 4, Catherine-street, W.C.2, price 2s. 6d. net.)

Wages in Liverpool and District.

The revised wages, by the hour, in the Liverpool, Birkenhead and Wirral (Cheshire) districts, as from July 16 will be:—Craftsmen, including plumbers, 1s. 8d.; navvies and general labourers, 1s. 3d.; tradesmen's labourers, 1s. 3½d. From Nov. 1 the rates will be: 1s. 7½d., 1s. 2½d., and 1s. 3d. respectively.

COMPARISON OF PRICES OF BUILDING MATERIALS BETWEEN AUGUST 4, 1914, AND JUNE 30, 1923.

Material.	Aug. 4, 1914. £ s. d.	Nov. 11, 1918. £ s. d.	May 31, 1923. £ s. d.	June 30, 1923. £ s. d.	Rise or Fall during Month. (Per cent.)
Bricks—					
Best Stocks	1 16 6	3 3 6	4 2 0	4 2 0	—
Flettons	1 14 0	2 7 8	2 15 0	2 13 3	−3·18
Glazed	13 0 0	17 17 6	22 0 0	22 0 0	—
Thames Ballast	5 9	17 0	13 6	13 6	—
Thames Sand	7 3	17 0	16 6	16 6	—
Shingle (¾ in.)	—	15 0	14 0	14 0	—
Portland Cement	1 17 0	3 8 0	2 18 0	2 18 0	—
Ground Blue Lias Lime	1 0 0	2 2 6	2 13 6	2 13 6	—
Grey Stone Lime	1 8 0	2 7 0	2 10 9	2 10 9	—
Bath Stone	1 7½	1 7	2 10	2 10	—
Portland Stone	2 4½	2 10½	4 4	4 4½	—
Good Sound Building Timber—					
4 in. × 11 in.	16 10 0	53 0 0	34 0 0	34 0 0	—
3 in. × 7 in.	13 0 0	46 0 0	23 10 0	25 0 0	+6·38
3 in. × 11 in.	15 0 0	50 0 0	32 10 0	34 0 0	+4·61
2 in. × 11 in.	—	51 0 0	32 10 0	34 0 0	+4·61
2 in. × 7 in.	—	46 0 0	23 10 0	24 10 0	+4·25
3 in. × 4 in.	—	—	22 10 0	24 0 0	+6·66
Slates—					
24 in. × 12 in.	—	—	37 12 6	37 12 6	—
22 in. × 12 in.	—	—	34 0 0	34 0 0	—
R. S. Joists	9 10 0	—	13 10 0	13 10 0	—
Iron—					
Common Bars	9 0 0	16 10 0	14 0 0	14 0 0	—
Mild Steel Bars	9 5 0	21 0 0	13 10 0	13 10 0	—
Steel Bars	9 5 0	19 10 0	13 10 0	13 10 0	—
Cut Nails	11 10 0	29 0 0	21 10 0	21 10 0	—
Sheet Lead	22 15 0	40 0 0	35 0 0	34 0 0	−2·86
Glass—					
15 oz. Sheet	2	7	3⅜	3⅜	—
21 oz. „	3	8	5	5	—
26 oz. „	3¾	9	6	6	—
Raw Linseed Oil	2 4	8 4	4 2	3 11	−6·00
Turpentine	2 6	11 0	9 6	7 4	−22·81
Ground English White Lead	30 5 0	60 10 0	57 0 0	57 0 0	—
White Lead Paint	—	83 10 0	79 10 0	79 10 0	—
Red Lead	28 10 0	47 0 0	42 0 0	42 0 0	—

NEW WAREHOUSE IN STAMFORD-STREET, S.E.

THE building in Stamford-street, S.E. 1, has just been completed for Messrs. Boots' Pure Drug Co., Ltd. It is T-shaped on plan, formed by two blocks roughly 186 ft. by 75 ft. and 154 ft. by 60 ft. respectively, the former having a frontage of 186 ft. to Cornwall-road. The building covers an area of approximately 23,200 sq. ft., not counting the loading docks, which are roofed over at first floor level, and which increase the area covered to approximately 27,300 sq. ft. The structure is seven stories high, including the basement; the flat roof is 70 ft. above street level. Portions of the roof are carried still higher for the lift, machine rooms and the water tower, and a portion of the basement is sunk to a lower level to form a heating chamber and to accommodate steam boilers. The total floor area for all floors is approximately 168,000 sq. ft., or approaching four acres.

Receiving and despatch loading docks are arranged behind the front block, and are approached by covered cartways at each extremity of the front of Cornwall-road. The roofs of these loading docks are glazed, and a travelling crane is provided for handling heavy packages.

The building is served by four staircases and four goods elevators, and provision is made in the floor construction for installing additional elevators when necessary.

Lavatory accommodation is provided on all floors, and for protection against fire a complete sprinkler system is installed throughout the building, together with the usual fireproof and fire-resisting doors, in accordance with the L.C.C. regulations.

The building consists of complete steel frame, the stanchions having, in some cases, grillage foundations, and in others large cast-iron cone bases and reinforced concrete footings. The walls are concrete, poured *in situ*, and on the street elevation are introduced cornices and pilasters.

The floor panels are poured concrete slabs, reinforced with heavy bars, passing through the webs of the supporting steel beams. The floors are finished with a granolithic surface.

All steelwork is encased with 2 in. of concrete, and the soffits of beams and the casings to the stanchions are formed with pre-cast slabs, the former being wired to the bottom flange of the beams and the latter bonded at the angles. The stanchion casings are filled in to a certain height behind the pre-cast slabs with poured concrete.

Steel window sashes are used throughout, and the bulk of the joinery is in teak. The staircase steps generally are pre-cast, and are supported by steel stringers, part of the steel frame.

Regarding the concreting operations, which form the large bulk of the work on a job of this description, speed and economy of placing the concrete were secured by centralising the concrete mixing plant, and by placing it in a position convenient for the reception of the raw materials and the depositing of the concrete in any part of the building. The plant generally consisted of a ½-yd. concrete mixer, driven by electric power, the mixer discharging into the bucket of a tower elevator, which lifted the concrete to a height from whence it gravitated through chutes to any part of the building.

As the steel frame was practically completed before the concreting started it was impracticable to pour the concrete direct from the chutes to its final position. Storage hoppers were, therefore, used and placed in convenient positions from which hand concrete-buggies were filled and the concrete deposited in the usual way. The concreting of the floors proceeded in advance of the walls, and for placing the comparatively small quantities of concrete used in the walling special chutes were designed which hung vertically outside the building and were charged from the floor above. These chutes are somewhat novel, as to meet the continual shortening by the progress of the work, one side is composed of a number of interlocking plates, which are removed, one by one, as the work progresses. For the walls, steel centering or wood centering was used. The floor centering, however, was entirely wood, and was based on a carefully thought-out scheme at the commencement of the job.

The entire external and internal foundation walls, which are about 18 in. thick, were erected with "Metaforms." The outfit consisted of about 200 assorted sizes of these steel forms and corner units, and no timber braces or struts were used. "Metaform" interlocking steel forms were used to mould the solid concrete external and internal walls between steelwork on the superstructure. A two-course outfit was used, comprising about 1,100 assorted sizes of straight wall "Metaforms" and 570 corner connections. These forms were set up around the entire building, including the difficult frontage, which was composed of pilasters and window openings with a narrow strip of plain wall on each side of each window. The forms were wired together on to 14-in. wall distance pieces with 12-gauge wire, and no braces or struts of any kind were used or required, and the forms kept a true plumb line to the top of the building. A noteworthy feature in connection with this contract was the entire absence of external scaffolding of any description—the steel forms being set up in position and all other necessary work to the exterior of the building being done by men operating from travelling cradles which were suspended by ropes from a rail projecting from the roof steelwork. The face of the concrete came out so smooth direct off the steel shutters that no rendering was necessary, a cement wash being applied to give a level tone.

The architects are Messrs. Bromley and Watkins, FF.R.I.B.A., of Prudential Buildings, Nottingham. The general contractors for the building and finishings were Messrs. F. D. Huntington, Ltd., of 11, Hanover-square, W.1. Messrs. Moreland, Hayne & Co., Ltd., were the contractors for the steel frame. The contractors for the foundations were Messrs. Higgs & Hill, Ltd. The "Metaform" steel forms were supplied by Messrs. A. A. Byrd & Co., of 11, Queen Victoria-street, E.C.4.

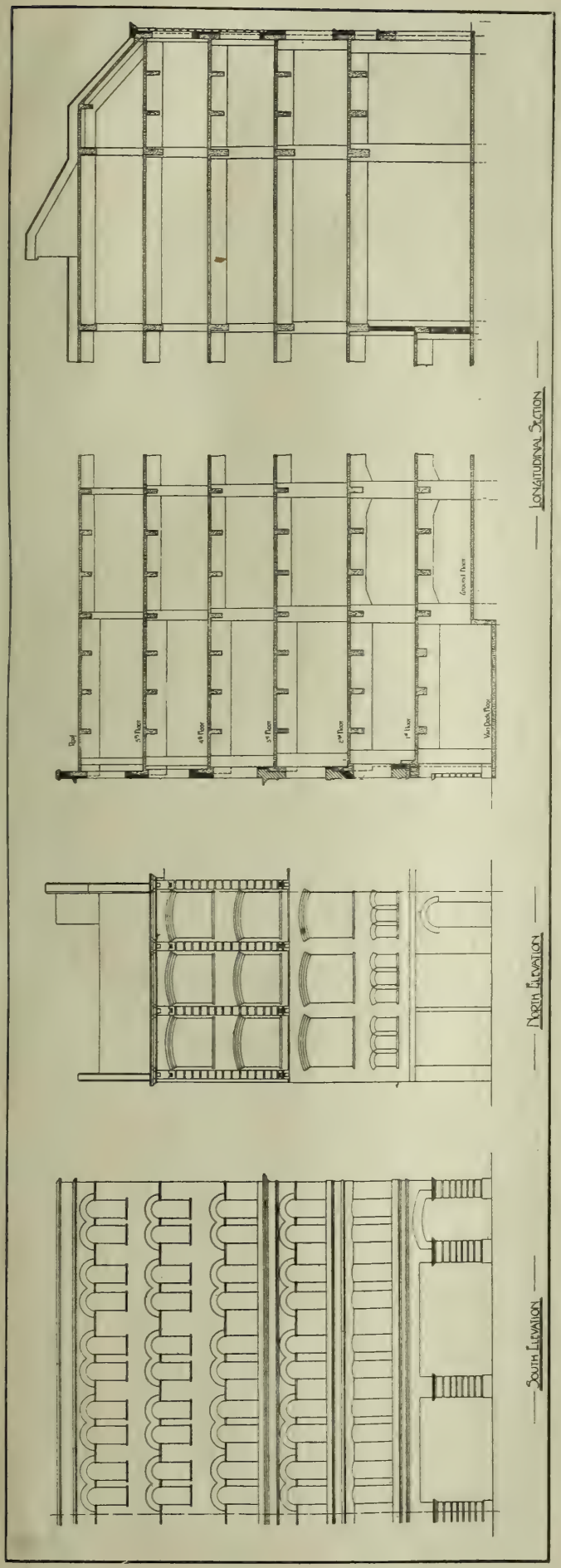


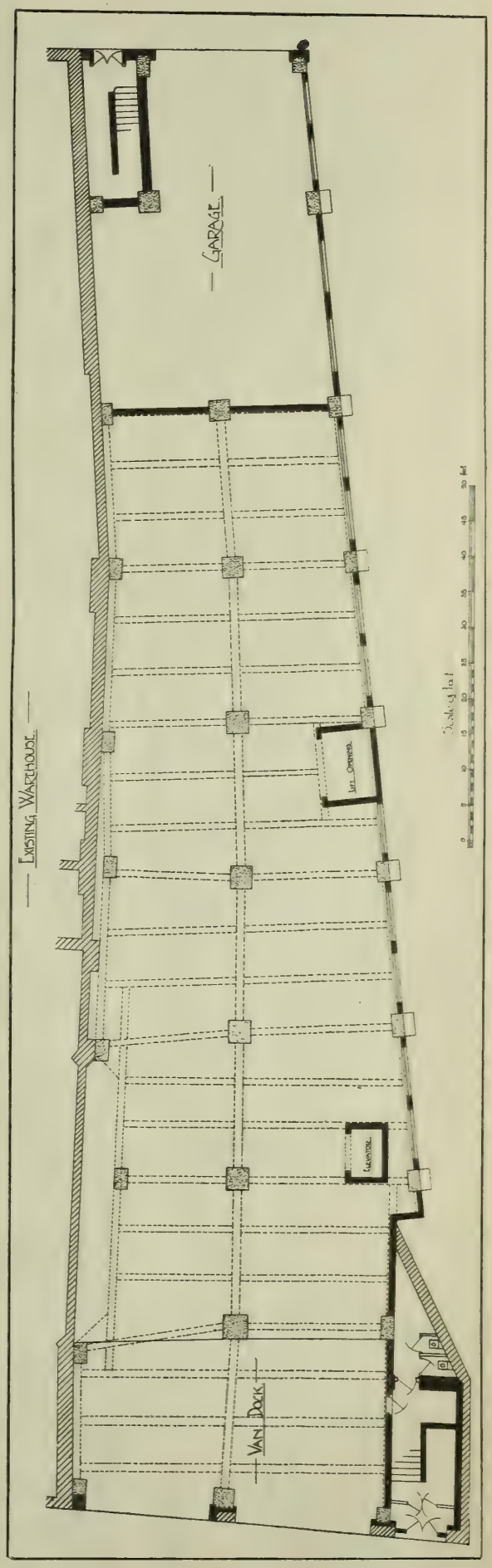
Warehouse in Stamford-street. MESSRS. BROMLEY & WATKINS FF.R.I.B.A, Architects.





New Warehouse in Stamford-street, during Construction. Messrs. Bromley & Watkins, FF.R.I.B.A., Architects. (*See p.* 27.)





New Warehouse at Bethnal Green. (See p. 30)

LARGE WAREHOUSE EXTENSION IN BETHNAL GREEN.

A large extension to the premises of Messrs. Pearks' Dairies, Ltd., at No. 11, Bethnal Green-road, E.1, has recently been completed. The building is a five-story structure, erected in reinforced concrete with wall-panels of brickwork. The main frontage of 56 ft. is in Bethnal Green-road; the depth of the building is 210 ft., backing on to Church-street, with a width of 32 ft. The total area of the site is 8,600 sq. ft.

The building is divided laterally into two bays, and it is intended to extend the premises still further at some future date. To this end the bases to the columns along the west wall have been made sufficiently strong to carry full panel loads; and from the ground level upwards only half-columns have been erected with beams sufficiently strong to carry half-panel loads. Thus it will be possible to erect the future extension without cutting into the present work beyond the half-column connections at ground level, all bracketing work being dispensed with.

The total height of the building from the level of the van dock floor to the roof is 70 ft. The foundations have been carried down to firm ballast, which was found at varying depths up to 16 ft. below ground level.

The temporary wall on the west side is glazed with steel-frame windows but the front elevation is fitted with wood frames to correspond with the elevation of the original warehouse adjacent, the lines of which are followed throughout the new work. In Bethnal Green-road an existing building was pulled down with the exception of the front wall, which has been incorporated in the new building.

The front bay of the building on the ground floor is to be utilised as a van dock, and a garage has been constructed at the back (in Church-street) occupying two bays up to the second-floor level.

Two staircases are constructed in reinforced concrete, cast *in situ*, the stairs being carried on stringers, spanning between beams in each landing. All the floors and stairs are to be surfaced in granolithic; elsewhere the concrete and brickwork is lime-whited only, save in those portions set aside for the offices and board-room, which will be panelled in oak. One elevator and a passenger lift are to be built in to serve all floors and the roof.

The first two floors are designed to carry a superimposed load of 300 lbs. per sq. ft., the other floor to carry 225 lbs. per sq. ft., and the roof 100 lbs. per sq. ft. All the reinforcement is carried out in round steel bars, of which altogether 250 tons have been used.

The architect is Mr. J. H. Storrar, and the complete building is being constructed by Messrs. D. G. Somerville & Co., Ltd., engineers and contractors, 120-122, Victoria-street, Westminster, S.W., who are also responsible for the design of the ferro-concrete work. A section of the building is given on p. 29.

French Requisition of Timber in Germany.

The Board of Trade announce an intimation from the French Government that timber requisitioned at Karlsruhe and Mannheim will be held for fifteen days before being forwarded to the devastated regions in case it should not be German property, and to enable the owner in such event to prove his ownership. All claims should be made to the French "Services de Restitution," at Wiesbaden (Secteur Postal 180). In exceptional cases the examining Commission set up to consider claims is empowered to award compensation to owners of requisitioned timber.

On Saturday last the employees of Mr. George Browning, contractor, of Canterbury, held their annual outing. The party, numbering about 150, left Canterbury on the 7.16 train for London in special coaches. Later they were taken for a tour of London on omnibuses.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Plas-terers Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Bedford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Birkenhead	1/9	1/9	1/9	1/9	1/9	1/10	1/9		1/4½
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bournemouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3		0/11½
Brighton	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Cambridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Chatham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Chelmsford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Colchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Eastbourne	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Exeter	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½		0/11½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3		1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½		1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Great Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Guildford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3		1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Ipswich	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6		1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Liverpool	1/9	1/9	1/9	1/9	1/9	1/10	1/9		1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½		1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Luton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Maidstone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Norwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Oxford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Plymouth	1/5	1/5	1/5	1/5	1/5	1/5	1/4		1/0½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Reading	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Rochester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
St. Albans	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Scarborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3		0/11½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3		1/0
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Torquay	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Tunbridge Wells	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Windsor	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
York	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½

(For rates of wages in the Building Trade in Scotland, see page 31.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

JULY 7.—**Bradford.**—HOUSES.—Erection of houses, Housing Scheme No. 1, Odsal: 218 houses, Class A; 24 houses, Class A2; 28 houses, Class B, for the City of Bradford Corporation. City Architect, Town Hall, Bradford.

JULY 7.—**Chelsea, S.W.**—PLASTERING, DECORATING AND REPAIRS.—Internal plastering, decorating and repairs to one of the wards, and the Annexe thereto at the Infirmary, Cale-street, Chelsea, for the Guardians of the Poor of the Parish of Chelsea. Mr. Edmund J. Harrison, Lic.R.I.B.A., Guardians' Architect, 23, Berkeley-road, Crouch End, N.8. Deposit £2.

JULY 7.—**Chesterfield.**—PAVILION.—Extension of the Women's Pavilon, at the Walton Sanatorium, for the Derby C.C. Mr. G. C. Copestick, Lic.R.I.B.A., New County Offices, Derby. Deposit £1 1s.

JULY 7.—**Chorley.**—HOUSE.—Erection of 24 houses at Hoghton, for the R.D.C. Mr. J. B. Jolly, Architect, Chorley. Deposit £2 2s.

JULY 7.—**Epsom, Surrey.**—GRANITE WALL.—Erection of a granite wall to take names and rallings around the War Memorial, for the Epsom U.D.C. Messrs. J. Hatchard-Smith & Son, 11, Haymarket, London, S.W. 1.

JULY 7.—**Harrogate.**—LANTERN LIGHT.—Erection of lantern light at Market, for the T.C. Mr. C. E. Rivers, Borough Engineer, Harrogate.

JULY 7.—**Llantrisant.**—HOUSES.—For erection of 65 houses at Tyn-y-nant, Llantrisant, for the Great Western Colliery Co., Ltd. Intending contractors should send names and give details of this class of contract experience before date given (July 7) which is last date, not of tender, but for sending in names. Messrs. Thomas & Morgan & Partners, architects and civil engineers, Gelliwastell-road, Pontypridd. Deposit £5.

JULY 7.—**Methley.**—HOUSES.—Erection of 18 houses, for the U.D.C. Mr. T. Thompson, surveyor, Red House, Methley.

JULY 7.—**Newquay.**—BUNGALOW.—Erection of bungalow. Mr. C. Truscott, architect, Downgate. Pensilva. Liskeard.

✱JULY 9.—**Birmingham.**—HOUSES.—Erection of 98 non-parlour type houses, Perry Common-road, Erdington, under contract 136, for the Public Works and Town-Planning Committee of the City of Birmingham. City Engineer, The Council House, Birmingham. Deposit £1.

JULY 9.—**Brodsworth.**—HOUSE AND SHOP.—Erection of house and shop at Highfields, Brodsworth. Messrs. Crawshaw & Wilkinson, architects, Barnsley.

JULY 9.—**Chelmsford.**—PAINTING.—Painting and colour washing at the Victoria Boys' School. Borough Engineer, Municipal Offices. Chelmsford.

JULY 9.—**Darlington.**—HOUSES.—Erection of 26 houses on the Cockerton Site, for the T.C. Mr. George Winter, Borough Surveyor, Town Hall, Darlington.

JULY 9.—**Deopham.**—SCHOOL.—Erection of a new public elementary school at Deopham. Secretary, Education Office, Shirehall, Norwich. Deposit £1 1s.

JULY 9.—**Felling.**—PAINTING.—For painting schools, for the U.D.C. Mr. C. W. Hall, Architect, Council Buildings, Felling-on-Tyne.

JULY 9.—**Kirkcaldy.**—PAINTING.—For painting work at Offices of Parish Council. Mr. D. C. Harvie, Clerk, Kirkcaldy.

JULY 9.—**Knaresborough.**—RENOVATIONS.—For renovations, painting and distempering, at Knaresborough Rural Secondary Schoo Education Dept. County Hall, Wakefield.

JULY 9.—**London, S.W.3.**—PAINTING AND DECORATING.—Cleaning and distempering certain tenements, and the staircases in Sir Thomas More Buildings, Beaufort-street, and Grove-buildings, Manor-street, for the Metropolitan Borough of Chelsea. Borough Surveyor, Mr. T. W. E. Higgins Town Hall King's-road, Chelsea.

JULY 9.—**Manchester.**—BOILER HOUSE.—For erecting boiler house at Moss Side Baths, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

JULY 9.—**Meltham.**—HOUSES.—Erection of 10 non-parlour houses in two blocks and construction of a new street, for the U.D.C. Messrs. Abbey & Hanson, architects, 11, Cloth Hall-street, Huddersfield.

JULY 9.—**Plymouth.**—ALTERATIONS, &C.—(1) Alterations and additions to King-street Council Schools, Devonport; (2) new sanitary conveniences, &c., for the Devonport High School for Boys, for the T.C. Mr. Chas. Cheverton, Architect, Chapel-street, Devonport.

JULY 9.—**Plymouth.**—EXIT.—Construction of emergency exit for the Central Free Library. Mr. T. Peirson Frank, Borough Engineer, Municipal Offices, Plymouth.

JULY 9.—**Porstmouth.**—STAIR TREADS.—For providing and fixing patent treads to the girls' staircase at Portsmouth Town School. Mr. Adrien J. Sharp, Town Hall, Portsmouth.

JULY 9.—**Sutton Coldfield.**—PAINTING.—Cleaning, painting, &c., at various schools, for the T.C. Mr. W. A. H. Clarry, Borough Surveyor, Sutton Coldfield.

JULY 9.—**Welshpool.**—COTTAGE.—Erection of cottage in Salop-road. Mr. H. P. Pritchard, Crown Hotel, Welshpool.

JULY 10.—**Acton, London, W.3.**—DECORATIONS AND REPAIRS.—Internal decorations and general repairs at Central, Rothschild and South Acton Boys' Schools; re-pointing of stonework, Rothschild School; tar-paving of playgrounds (patching and dressing only), Southfield-road and Priory Schools. for the Borough of Acton Education Committee. The Borough Surveyor, Municipal Offices, Acton, W.3. Deposit £2 2s.

JULY 10.—**Colne.**—SHED.—Erection of weaving shed for the Standroyd Shed Co. Messrs. Holgate & Spivey, architects, Colne.

JULY 10.—**Dover.**—PAINTING.—For painting and incidental work at the Isolation Hospitals, Tower Hamlets and Poulton, for the T.C. Mr. Wm. Boulton Smith, Borough Engineer, Maison Dieu House, Dover.

JULY 10.—**Glasgow.**—HOUSES.—The Corporation invite offers for various works in connection with the erection of 138 houses in Campbell-street, Springburn. Town Clerk, Room No. 36, Campbell-street, Springburn. Deposit 10s. 6d.

JULY 10.—**Greenwich.**—CONVENIENCE.—Erection of a convenience at Charlton Cemetery, for the B.C. Borough Engineer, Town Hall, Greenwich, S.E.10.

JULY 10.—**Huntingdon.**—PAINTING.—For painting and renovation work at various schools, for the C.C. County Surveyor, Walden House, Huntingdon.

JULY 10.—**Ilford.**—SUB-STATION.—Erection of a sub-station for motor converters, for the U.D.C. Mr. H. Shaw, Engineer, Town Hall, Ilford. Deposit £2 2s.

JULY 10.—**Maldens and Coombe.**—REPAIRS, &C.—Repairs, &c., to 58 houses on Mount Pleasant Estate, for the U.D.C. Mr. H. Tunbridge, Housing Inspector, Council Offices, New Malden. Deposit £1 1s.

JULY 10.—**Morley.**—PAINTING.—For painting work at three schools, for the T.C. Mr. F. Turner, Borough Engineer, Morley.

JULY 10.—**Newport (Isle of Wight).**—PAINTING.—For painting at various schools, for the Isle of Wight C.C. Mr. S. R. Cocks, County Surveyor, Newport.

JULY 10.—**Owlerton, Sheffield.**—TELEPHONE EXCHANGE.—Erection of a new telephone exchange at Owlerton, Sheffield, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

JULY 10.—**Plymouth.**—PAVILIONS.—Erection of three pavilions for tennis courts at Hartley Pleasure Grounds, Devonport Park and West Hoe, for the T.C. Mr. T. Peirson Frank, Borough Engineer, Municipal Offices, Plymouth.

JULY 10.—**Stockton-on-Tees.**—PAINTING.—For external painting of the secondary school, Nelson-terrace, for the T.C. Mr. J. P. Wakeford, Borough Engineer, Stockton.

JULY 10.—**Wallsend.**—HOUSES.—Erection of 72 houses (in flats, *i.e.*, two tenements to a house), for the T.C. Borough Surveyor, Town Hall, Wallsend. Deposit £2 2s.

JULY 11.—**Aberystwyth.**—HOUSES.—Erection of two houses at Llanbadarn-road, for Mr. Phillip Jones Mr. G. T. Bassett, A.R.I.B.A., architect and surveyor, Aberystwyth.

JULY 11.—**Brighton.**—HOUSES.—Erection of eight houses on the Moulsecoomb housing estate, for the T.C. Names to either member of the Panel of Architects:—Messrs. Clayton & Black, 10, Prince Albert-street; Messrs. T. Garrett & Son, 34, Ship-street; Mr. E. Wallis Long, 56, East-street; Mr. W. H. Overton, 22, Ship-street.

JULY 11.—**Bury.**—WARD.—For erection of Children's Ward at Bury Infirmary, for the War Memorial Committee. Mr. J. Ainsworth Settle, Borough Engineer, Bury. Deposit £2.

JULY 11.—**Edinburgh.**—HOUSES.—Erection of 10 houses at Davidson's Mains, for the T.C. Messrs. Murray & Baird, F.F.S., 50, George-street, Edinburgh.

JULY 11.—**Halifax.**—HOUSES.—Erection of 74 houses, for the T.C. Borough Engineer, Halifax. Deposit £2 2s.

JULY 11.—**Hawick.**—HOUSES.—Erection of one block of four houses at Oliver-park, for the T.C. Mr. Alexander Inglis, Lic.R.I.B.A., 14, Bridge-street, Hawick.

JULY 11.—**Heckmondwike.**—PAINTING.—For colour-washing and painting the interior of Secondary School. Mr. H. C. Hebbes, Clerk to the Governors, Heckmondwike School.

JULY 11.—**Kingswood.**—HOUSES.—Erection of 12 semi-detached houses, for the U.D.C. Mr. H. Glynn Warne, Surveyor, Council Offices, Kingswood, Bristol. Deposit £1 1s.

JULY 11.—**Oakham.**—HOSPITAL.—Erection of Rutland Cottage Hospital, Oakham. Messrs. Webb & Gray, architects, Scotch Chambers, Market-place, Dudley. Deposit, £2 2s.

JULY 11.—**Penrith.**—ADDITIONS.—Additions to "Field House," Penrith, for Mr. D. George. Mr. A. Knewstubb, architect, St. Andrew's Chambers, Penrith.

JULY 11.—**Slaithwaite.**—PAINTING.—For painting, &c., Slathwaite Wilberlee Council School and Headmaster's House, Mr W. Hecley, Divisional Clerk, 4, Macaulay-street, Huddersfield.

JULY 11.—**Stockton-on-Tees.**—SUB-STATION.—For erecting sub-station in Maritime-street, for the Electricity Department T.C. Borough Engineer, Stockton-on-Tees.

JULY 11.—**Twickenham.**—PAINTING.—Cleaning and painting at the Free Public Library, Garfield-road, for the T.C. (local firm). Mr. Fred W. Pearce, Surveyor, Town Hall, Twickenham.

JULY 12.—**Brighton.**—HOUSES.—Erection of 28 houses in Nesbitt-road, for the T.C. Borough Surveyor, Town Hall, Brighton.

JULY 12.—**Greenwich.**—(1) Construction of chimney shaft and foundations; (2) erection of brick subsidiary buildings; (3) construction of concrete and brick dwarf retaining walls at Refuse Disposal Works, for the B.C. Plans, Borough Engineer, Town Hall, Greenwich, S.E.10. Deposit £3 3s.

JULY 12.—**Harrogate.**—CHURCH PAINTING.—For painting and decorating the Baptist Church, Harrogate. The Secretary, Baptist Church, Harrogate.

JULY 12.—**Kensington, W.8.**—ALTERATIONS, ADDITIONS AND REPAIRS.—(1) Alterations and additions to the Guardians' Offices in the Marloes-road: (2) Alterations and additions to the Assistant Medical Officer's House, at the St. Mary Abbots Hospital; (3) Alterations and additions to the Post Mortem Room, and alterations and decorative works to the Mortuary Waiting Rooms at the St. Mary Abbots Hospital; (4) Repairs to the eaves of Blocks "I" and "K" of the Kensington Institution, for the Guardians of the Parish of Kensington. Mr. W. R. Stephens, Clerk to the Guardians, Guardians' Offices, Marloes-road, Kensington, W. 8.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-masons' layers' Labourers.	Plasterers' Labourers.
Aberdeen	1/7	1/7	1/7	1/6	1/7	1/7½	1/4	1/– to 1/2	
Airdrie	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/5	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/7	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Fort William	1/7	1/6	1/6	1/6	1/6	1/6	1/6½	1/1½	
Galashiels	1/7	1/5	1/5	1/5	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Hawick	1/7	1/6	1/6	1/6	1/7	1/6	1/6½	1/1½	
Helensburgh	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Inverness	1/7	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 30.

JULY 12.—**Leeds.**—PAINTING.—Inside painting at Block K. of the Township Infirmary, Beckett-street, for the B.G. Mr. James H. Ford, Clerk, Poor Law Offices, South Parade, Leeds.

JULY 12.—**Newport (Mon).**—CONSTRUCTION OF WEIGH-HOUSE.—For constructing, for the Corporation, a Weigh-house at Cardiff-road, Newport. Borough Engineer, 8, Corn-street, Newport (Mon.). Deposit £2 2s.

JULY 12.—**Newquay.**—BUNGALOW.—Erection of bungalow residence, at Ulalia-road, Newquay. Mr. Leonard Winn, architect, 27, Boscawen-street, Truro.

JULY 12.—**Redruth.**—PAINTING, &C.—Painting and sundry repairs to the West Cornwall Miners' and Women's Hospital, at Redruth. Mr. Leonard Winn, architect, 10, Clinton-road, Redruth.

JULY 12.—**Winchester.**—REPAIRS.—For decorative repairs and maintenance of the houses on the Stanmore Estate, for the T.C. for one year. City Accountant, The Guildhall, Winchester.

JULY 13.—**Croydon.**—ALTERATIONS.—For conversion of 10 houses in Wilford-road into tenements, for the T.C. Borough Engineer, Croydon. Deposit £2 2s.

JULY 13.—**Devonshire.**—RENOVATIONS.—Renovations, &c., at the undermentioned Council Schools: Abbotskerswell, removal of gallery, new floor, &c.; Alphington; Bradninch (boys); Bradninch (girls); Bradninch (infants); Chivelstone, East Prawle; Dawlish, Cockwood; Great Torrington; Hatherleigh; Hemyock; Morthoe, Woolacombe; Newton Abbot Secondary; Northtawton; Whitchurch, for the Devon C. C. Architect's Office, 1, Blackall-road, Exeter.

JULY 13.—**Glamorganshire.**—BUILDING AND PAINTING.—For the following works for the Glamorganshire County Council: (1) New playsheds and retaining walls, erection and levelling of playgrounds, at Rhiwfawr Council School, and (2) painting as follows by arrangement with the County School architects, during the Schools' summer vacation:—Eastern Division: Internal painting, two schools and one house; Western Division: External painting and internal painting and colouring of schools at three centres; painting externally and colouring internally of houses, schools and special tuition centres at six places within the division; painting externally of schools, houses and cottages at ten centres and painting and colouring internally only at schools, &c., at four places in division. Several buildings may be required to be done at each centre (centre or place meaning separate locality within division). Mr. H. D. Rowland, Assistant Secretary, Education Committee, County Hall, Cardiff.

JULY 13.—**Leeds.**—HOUSES.—Erection of 100 houses, for the T.C. Mr. W. T. Lancashire, City Engineer, Leeds. Deposit £1 1s.

JULY 14.—**Ash-next-Sandwich.**—REPAIRS.—Repairs, &c., to cottage at Potts Farm, Ash-next-Sandwich, for the Kent C.C. Mr. P. W. Cox, Chief Agricultural Officer, Sessions House, Maidstone.

JULY 14.—**Featherstone.**—HOUSES.—All trades connected with erection of 14 houses for the U.D.C. at Purston, near Pontefract. Council's Architect, Mr. S. Chesney, Council Offices, Featherstone. Deposit £2 2s.

JULY 14.—**Llangeinor (Glam).**—VESTRY.—For erecting a new vestry at Llangeinor, near Bridgend, for the Building Committee of Tylegwyn Baptist Chapel, Llangeinor. Messrs. P. J. Thomas & Son, architects, Court-road, Bridgend.

JULY 14.—**London, E.6.**—DEPOT BUILDINGS.—Completion of the erection of depot buildings at Arragon-road, East Ham, for the County Borough Council of East Ham. Borough Engineer, Town Hall, East Ham. E.6. Deposit £2.

JULY 14.—**London, E.6.**—MORTUARY AND POST MORTEM ROOM.—Erection of a mortuary and post mortem room for the County Borough Council of East Ham. Borough Engineer, Town Hall, East Ham, E.6. Deposit £2.

JULY 14.—**Port Talbot.**—PAINTING.—For painting the Arcade Buildings, Aberavon, for the T.C. Borough Engineer, Port Talbot.

JULY 14.—**Port Talbot.**—PAINTING.—For the painting and colouring of the Eastern Boys' and Girls' Departments, and the Iron Buildings at the Central and Aberavon Council Schools; also alterations at Aberavon Council School and additions at Bryn School. Borough Engineer, Aberavon, Port Talbot.

JULY 14.—**Treharris (Glam).**—ROOFING.—For stripping and re-slating the roof of St. Matthias Church, Treharris. Messrs. Teather & Wilson, FF.R.I.B.A., architects and surveyors, Queen-street, Cardiff.

JULY 14.—**Walsall.**—PAINTING.—For painting at various schools in the borough. Mr. J. Taylor, Borough Surveyor, Walsall.

JULY 14.—**Winchester.**—TIMBER HALL.—Erection of a timber-framed Badminton Hall at Winchester. A. Lawrence Bowker, 17, Southgate-street, Winchester.

JULY 16.—**Denny.**—HOUSES.—Erection of 12 houses for the T.C. Messrs. James Strang & Wilson, architects, Falkirk.

JULY 16.—**Harrogate.**—METER HOUSE.—For the erection of a meter house, for Harrogate Gas Co. Mr. Frank H. Robinson, Assoc.M.Inst.C.E., Gas Office, James-street, Harrogate.

JULY 16.—**Hendon, N.W.4.**—FLATS.—Erection of 13 blocks of flats, Bittacy Hill and Sanders-lane, Mill Hill, for the Hendon Urban District Council. Mr. A. O. Knight, A.M.I.C.E., Engineer to the Council, Town Hall, Hendon, N.W.4. Deposit £3 3s.

JULY 16.—**Huddersfield.**—BUNGALOWS.—Erection of two bungalows, Royd-street, Longwood, Huddersfield. Messrs. Lunn & Kaye, architects, Milnsbridge, Huddersfield.

JULY 16.—**Kirkcaldy.**—HOUSES.—Erection of 32 houses for the T.C. Mr. William Syme, architect, 62, High-street, Kirkcaldy. Deposit £1 1s.

JULY 16.—**Mexborough.**—SECONDARY SCHOOL.—Tenders are invited for the repair and renovation to this school: (1) Interior decorating of certain parts; (2) interior decorating of temporary buildings; (3) repairs to temporary buildings; (4) re-pointing brickwork and building of ashes pits; (5) tar painting and repairs to asphalting. Mr. Isaac W. Chipp, Secretary, Montagu-square Chambers, Mexborough. Deposit 10s. 6d.

JULY 16.—**Ravensthorpe.**—HOUSES.—Erection of steward's house for the Ravensthorpe and Northorpe Conservative Club, Ravensthorpe. Secretary at the Club.

JULY 16.—**Reading.**—COVERED CATTLE SALE RING.—Construction of a covered cattle sale ring at the Corporation of Reading Cattle Market in Great Knollys-street. Borough Surveyor, Town Hall, Reading. Deposit £1 1s.

JULY 16.—**Rowley Regis.**—PAINTING.—Painting and renovating works, at Council Schools. Sec., Education Committee, Council House, Old Hill, Staffordshire.

JULY 16.—**Spenborough.**—PAINTING.—For painting and cleaning of various schools for the U.D.C. Mr. A. Rothera, Surveyor, Town Hall, Cleckheaton.

JULY 16.—**Tilbury, Essex.**—HOUSES.—Erection of a further 118 houses in Tilbury, for the Tilbury U.D.C. Mr. A. W. Buckner, Clerk to the Council, Council Offices, Tilbury.

JULY 16.—**Trowbridge.**—REPAIRS.—For repairs to various schools. Mr. T. Walker, County Architect, Trowbridge.

★JULY 16.—**Whitehaven.**—HOUSES.—Erection and completion of 58 houses near Arrowthwaite, for the Borough of Whitehaven. Borough Surveyor, Town Hall, Whitehaven. Deposit £2 2s.

JULY 17.—**Andover.**—SCHOOL.—Erection of a new secondary school at Andover for 168 girls. Mr. A. L. Roberts, County Architect, The Castle, Winchester. Deposit £5 5s.

JULY 17.—**Epsom.**—MORTUARY.—Erection of mortuary and post-mortem room at the Guardians' Institution. Mr. A. C. Williams, architect, of Ashley-road, Epsom.

JULY 17.—**Hemsworth.**—LAUNDRY.—Tenders are invited for the erection of a laundry. Mr. W. T. Lynam, A.M.I.C.E., Engineer and Surveyor, Hemsworth Rural District Council. Deposit £2 2s.

JULY 17.—**Liverpool.**—ALTERATIONS.—For alterations to the Custom House, Liverpool. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

JULY 17.—**Liverpool.**—CONVENIENCES.—Erection of two new conveniences in Smithy-lane Recreation Ground, Walton, for the T.C. Land Steward and Surveyor, Municipal Buildings, Liverpool.

JULY 17.—**Liverpool.**—PAINTING.—For painting railings, shelters, lodges, conveniences, &c., Stanley Park, for the T.C. Office of the Land Steward and Surveyor, Municipal Buildings, Liverpool.

JULY 17.—**Mountain Ash.**—SCHOOLS.—For undertaking for the Mountain Ash (Glam.) Education Committee: (1) Rebuilding of west wing of Abercynon Boys' and Girls' School, and (2) forming corridor and other alterations at Trerobart Infants' School, Ynysybwl. Mr. W. H. Williams, M.S.A., Town Hall, Mountain Ash.

JULY 17.—**Rampton.**—EXTENSION.—For superstructure of the new male block, additions to laundry, erection of cottages and drainage work at the Rampton State Institution, for H.M. Commissioners of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

JULY 17.—**Salford.**—REBUILDING.—For rebuilding portion of buildings at Central Car Depot, for the T.C. Borough Engineer, Salford. Deposit £2 2s.

JULY 17.—**Watford.**—COTTAGE.—Erection of cottage on the Radlett Outfall Site, Oakridge-lane, for the R.D.C. Surveyor, 9, Market-street, Watford. Deposit £2.

JULY 18.—**Chester.**—HOUSES.—Construction of 49 houses on the Heath-lane site, for the T.C. Mr. Charles Greenwood, City Engineer, Town Hall, Chester. Deposit £3 3s.

★JULY 18.—**Dartford and Sutton.**—CLEANING, ALTERATIONS, &C.—For (1) cleaning and painting at the Darenth Training Colony, near Dartford, Kent; (2) structural and sanitary alterations at the Downs Hospital for Children, Banstead-road, Sutton, Surrey, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1 each.

JULY 18.—**Guildford.**—ALTERATIONS.—For alterations at the Corporation Depot, Bedford-road, for the T.C. Borough Surveyor, Tuns-gate, Guildford.

JULY 18.—**Guildford.**—IMPROVEMENTS.—For carrying out certain improvements and alterations to the Cattle Market, for the T.C. Borough Surveyor, Tuns-gate, Guildford.

★JULY 18.—**London, S.W.17, and Dartford.**—TEMPORARY BUILDINGS AND ALTERATIONS, &C.—(1) Adaptation of laundry and temporary buildings as staff accommodation at the Grove Fever Hospital, Tootingrove, S.W.17; (2) drainage alterations, sanitary improvements and cleaning and painting at the Southern Hospital, Dartford, Kent, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1 each.

JULY 18.—**Lossiemouth.**—HOUSES.—The T.C. invite offers for various works in connection with the erection of four four-apartment houses in Commerce-street and four three-apartment houses in Church-street (whole or part). Town Clerk, Mr. J. H. Clennie.

JULY 18.—**Portinscale.**—HOUSE.—Erection of a detached house at Portinscale. Mr. P. M. Hope, M.S.A. Architect, 21, Station-road, Keswick.

JULY 18.—**Upton Park.**—WORKS.—Erection of new works at Upton Park, for the New London Electron Works, Ltd. Secretary, Regent's Dock, Limehouse, E.

JULY 18.—**Various Places.**—CLEANING, PAINTING AND REPAIRS.—Separate tenders for cleaning, painting and repairs at (1) Northern Convalescent Fever Hospital, Winchmore Hill, N.21; (2) South-Western Fever Hospital, London-road, Stockwell, S.W.9; (3) Southwark Casual Ward, Great Guildford-street, S.E.1; (4) Holborn Casual Ward, Little Gray's Inn-lane, W.C.; (5) Lambeth Casual Ward, Wincott-street, Kennington-road, S.E.; (6) South Wharf, Trinity-street, Rotherhithe, S.E.16; (7) North Wharf, Managers-street, Blackwall, E.; (8) Princess Mary's Hospital for Children, Cliftonville, Margate, Kent, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1 in respect of each work.

JULY 19.—**Bridgend.**—ERECTION OF FIRE STATION.—For erecting a steel-framed fire station complete with hose tower within the area of and for the Bridgend U.D.C. Surveyor, U.D.C. Offices, Bridgend, Glam.

JULY 19.—**Guildford.**—CONVENIENCE.—Construction of a public convenience in the Market, Woodbridge-road, for the T.C. Borough Surveyor, Tuns-gate, Guildford.

JULY 20.—**Merthyr Tydfil.**—PAINTING.—For externally cleaning and painting Ebenezer Chapel, for the Trustees. Mr. Griffith Owen, 16, Gladstone-terrace, Merthyr Tydfil.

JULY 20.—**Newcastle-on-Tyne.**—JETTY.—Extension of timber jetty, Howdon-yard, for the Tyne Improvement Commissioners. Mr. Richard Aughton, General Manager, Bewick-street, Newcastle-upon-Tyne. Deposit £2 2s.

★JULY 21.—**Greenwich, S.E.10.**—HOUSES.—Erection and completion of 50 houses in two sections on the Charlton Housing Estate (portions of), for the Metropolitan Borough of Greenwich Council. Town Clerk's Department, Town Hall, Greenwich. Deposit £2 2s.

JULY 21.—**West Riding of Yorkshire.**—RENOVATIONS.—For painting and distempering in connection with the following schools: Bolton-on-Dearne Council School; Boys', Girls' and Infants' Departments, Bolton-on-Dearne: Highgate Council School: Boys', Girls' and Infants' Departments; Mexborough Adwick-road Special Subjects Centre. Also for minor repairs at Mexborough Adwick-road, Doncaster-road, Dolcliffe-road, and Garden-street Council Schools, Conisborough Balby-street Council School, Thurnscoe Council School, Bolton-on-Dearne, Goldthorpe, and Highgate Schools. Mr. W. H. Jones, Divisional Clerk, Education Offices, Mexborough.

JULY 23.—**Birkenhead.**—ALTERATIONS.—Alterations and additions to laundry buildings at the Union Institution, Tranmere, for the Board of Guardians. Messrs. Edmund Kirby & Sons, architects, 5, Cook-street, Liverpool.

JULY 24.—**London, E.14.**—HOUSES.—Erection of 55 houses (in block) and a block of six flats on sites at Cubitt Town, Poplar, for the Poplar B.C. Borough Surveyor, Council Offices, Poplar, E.14. Deposit £3 3s.

★JULY 24.—**Sheffield.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Sharrow, Sheffield, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s. Cheques payable to the Secretary.

JULY 25.—**Bournemouth.**—CONSTRUCTION OF PROMENADE.—Construction of proposed promenade and sea wall, for the County Borough of Bournemouth. Mr. F. P. Dolamore, Borough Engineer, Town Hall, Bournemouth. Deposit £2 2s.

JULY 26.—**Douglas.**—DEMOLITION AND ERECTION OF HOUSES.—Demolition of the existing buildings and the erection of twenty houses on the Hills House site in Circular-road, for the Housing Committee of the Douglas Town Council. Borough Surveyor, Town Hall, Douglas. Deposit £1.

★JULY 26.—**Liverpool.**—DEMOLITION AND ERECTION OF DWELLINGS.—Demolition of the existing buildings and for the erection of 60 tenement dwellings on Prince Edwin site—only tenders for the whole of the works considered—for the Housing Committee of the City of Liverpool. Director of Housing, Municipal Buildings, Dale-street, Manchester. Deposit £2 2s.

★JULY 27.—**Colwyn Bay.**—CHURCH.—Erection of a new church (in local limestone) for the Building Committee of the English Congregational Church, Old Colwyn. Mr. S. Colwyn Foulkes, Architect, Central Chambers, Colwyn Bay. Deposit £1 1s.

AUGUST 21.—**Cape Town.**—RESIDENCES, &C.—For erecting residences for men and women, Principal's house, and other contingent works at the site of the new University buildings, Groote Schuur, for the University Council. High Commissioner for South Africa, Trafalgar-square, London, W.C., and Messrs. Hawke & McKinlay, and C. P. Walgate, The Rhodes Buildings, St. George's-street, Cape Town. Deposit £10.

AUGUST 28.—**Cape Town, South Africa.**—MEDICAL SCHOOL.—Erection of a new Medical School and other contingent works at Groote Schuur, near Cape Town, for the Council of the University of Cape Town. High Commissioner for the Union of South Africa. Trafalgar-square, London, W.C. Deposit £2.

NO DATE.—**Ammanford.**—WALL AND TOWER ERECTION.—For erecting new boundary wall and completing erection of the tower at All Saints' Church, Ammanford. Mr. Charles W. Mercer, M.S.A., architect and surveyor, Castle Buildings, Llanelly.

NO DATE.—**Brecon.**—REBUILDING OF CHURCH.—For rebuilding of St. David's Church, Brecon, for the Rev. J. Simon. Mr. J. B. Fletcher, architect, Dumfries-place, Cardiff. Deposit £3 3s.

NO DATE.—**Harrogate.**—VARIOUS.—For various work in new Mission Church at Dacre Bank. Bland & Brown, architects, Harrogate.

NO DATE.—**King's Lynn.**—STAND, &C.—Erection of grand stand, ring, paddock, &c., for gala on Bank Holiday. Mr. F. A. Bush, Hon. Secretary, King-street, King's Lynn.

NO DATE.—**Peeblesshire.**—ALTERATIONS.—Alterations to Holylee House, Peebles-shire. Messrs. R. Carruthers, Ballantyne & Taylor, architects, 28, Queensgate, Inverness.

NO DATE.—**Rutherglen.**—HOUSES.—The T.C. invite offers for works in connection with the erection of houses for the second section of the housing scheme. Mr. Hugh Inglis, Burgh Engineer and Architect, Town Hall Buildings, Rutherglen.

NO DATE.—**Selkirk.**—HOUSES.—Erection of one block of four houses at Goslawdales, for the T.C. Burgh Surveyor, Municipal Buildings, Selkirk. Deposit £1 1s.

NO DATE.—**Selkirk.**—PAINTING.—For painting Lawson Memorial Church, Selkirk. Mr. W. Fowler, 17, Tower-street, Selkirk.

NO DATE.—**Sheffield.**—HOUSE.—Erection of house in the Hope Valley. Messrs. Chapman & Jenkinson, architects, 18, Norfolk-row, Sheffield.

NO DATE.—**Wakefield.**—HOUSES.—For two houses, May Bush-road; all trades except joinery. Mr. S. Powell, joiner, May Bush-road, Ashrigg-road, Wakefield.

NO DATE.—**Watford.**—SHOP, &c.—Erection of shop and offices, at High-street, for Mr. F. E. Fisher. Mr. S. Dawe, Architect, High-street, Rickmansworth. Deposit £2.

NO DATE.—**Williamthorpe.**—HOTEL.—Erection of an hotel at Williamthorpe (near Heath Station, G.C. Railway) for the Hardwick Colliery Co., Ltd., Mr. W. M. Ashmore, Architect, Highfield-road, Chesterfield. Deposit £1.

FURNITURE, MATERIALS, etc.

JULY 7.—**Dewsbury.**—CHAIRS.—For supplying 400 beech Windsor chairs, for the T.C. Mr. J. Hall, Town Clerk, Town Hall, Dewsbury.

JULY 9.—**Bridlington.**—MATERIALS.—Supply of ranges, hardware, and sanitary fittings required for twelve houses on the Postill Estate, Bridlington, for the T.C. Borough Engineer, 1, The Crescent, Bridlington.

JULY 9.—**Edinburgh.**—MATERIALS.—Supply of pavement box frames and covers and fireclay pipes for the Electricity Department. Mr. Frank A. Newington, Manager, Electricity Supply Offices, Dewar-place, Edinburgh.

JULY 9.—**Middleton.**—MATERIALS.—Supply of road and other materials to the T.C. Borough Engineer, Town Hall, Middleton.

JULY 9.—**Southampton.**—GRANITE.—Supply of broken granite to the T.C. Mr. J. A. Crowther, Borough Engineer, 35, French-street, Southampton.

JULY 10.—**Manchester.**—GRANITE SETTS.—Supply of granite setts to the Tramways Committee. Mr. H. Mattinson, Tramways Manager, 55, Piccadilly, Manchester.

JULY 11.—**Coulsdon.**—ROAD MATERIALS.—Supply of gravel, granite and slag chippings to the U.D.C. Mr. Robt. Chart, Surveyor, Council Offices, Purley.

JULY 11.—**Darlington.**—DISINFECTOR.—Supply of steam disinfector to the Infectious Diseases Hospital, Darlington. Borough Surveyor, Town Hall, Darlington.

JULY 11.—**France and Belgium.**—HEADSTONES.—Supply of 11,000 headstones. Secretary, Works Department, Imperial War Graves Commission, 82, Baker-street, London, W. 1.

JULY 11.—**Reigate.**—ROAD MATERIALS.—Supply of macadam, flints, cement, &c., to the T.C. Mr. F. T. Clayton, Borough Surveyor, Reigate.

✱JULY 14.—**France and Belgium.**—HEADSTONES.—For a total supply of 11,000 headstones packed and delivered f.o.r. to be divided into a number of contracts, none of which shall be for less than 100 headstones. The Secretary, Works Department, Imperial War Graves Commission, 82, Baker-street, London, W. 1, marked Headstone Contract, 5079/Q.

JULY 14.—**Nottingham.**—WOOD BLOCKS.—Supply of 200,000 creosoted deal paving blocks to the T.C. Mr. T. W. Gordon, City Engineer, Nottingham. Deposit 5s.

JULY 31.—**New Zealand.**—STEEL WINDOW SASHES, &c.—Supply of galvanised steel window sashes and doors, for the Mangahoo Electric Power Scheme. Department of Overseas Trade (Room 48), 35, Old Queen-street, S.W.1.

AUGUST 8.—**Durban.**—MATERIALS.—Supply of stone ware pipes, bends and junctions to the T.C. Department of Overseas Trade. 38, Old Queen-street, S.W.

NO DATE.—**Aberdare.**—MATERIALS.—Supply to the Directors of the Powell Duffryn Steam Coal Company of oils and greases, paints, &c. Stores Manager, Aberaman Offices, Aberdare.

ENGINEERING, IRON AND STEEL.

JULY 7.—**Oxford.**—BRIDGE.—Reconstruction of Seacourt Bridge (pile foundation and concrete superstructure), for the C.C. Mr. J. E. Wilkes, City Engineer, Oxford. Deposit £5 5s.

JULY 7.—**Warrington.**—BRIDGE.—Widening and strengthening of Causey Bridge, situate in the township of Burtonwood, near Warrington, for the Lancashire C.C. County Surveyor and Bridgemaster, County Offices, Perston.

JULY 9.—**Bolton.**—ELECTRIC LIGHTING.—For electric light installations at the Townleys Hospital, for the B.G. Mr. John Ward, Guardians' Architect, 24, Mawdsley-street, Bolton.

JULY 9.—**Bridgend.**—FOOTBRIDGE.—Construction of a steel footbridge across the River Ogmore, for the U.D.C. Mr. J. T. Howells, Clerk, 11, Adare-street, Bridgend.

JULY 9.—**Bridlington.**—PIPES.—Supply of cast-iron water mains and specials, to the T.C. Mr. W. Thompson, Waterworks Engineer, Marton-road, Bridlington.

JULY 9.—**Edinburgh T.C.**—Pavement box covers and frames. for the Manager, Electricity Department.

JULY 9.—**Horncastle.**—BOILER.—Supply and Installation of a high-class steam boiler at the Gas Works, for the U.D.C. Mr. R. Chatterton, Clerk, The Court House, Horncastle.

JULY 9.—**Kidderminster.**—BRIDGE WIDENING.—Widening the Cape of Good Hope Bridge (three ring brick arch about 23 ft. span), for the T.C. Mr. J. Hawcroft, Borough Engineer, Town Hall, Kidderminster. Deposit £1 1s.

JULY 9.—**Maldon.**—QUAY.—Construction of reinforced concrete quay at the Hythe, for the T.C. Borough Engineer, Maldon.

JULY 9.—**Manchester.**—BOILER.—Supply and erection of one Lancashire boiler (16 ft. by 6 ft. 6 in.), at the Pryme-street Public Washhouse. City Architect, Town Hall, Manchester. Deposit 10s. 6d.

JULY 9.—**Walton-on-Thames.**—FILTERS.—Construction of primary and secondary filters, &c., at Walton-on-Thames, for the Metropolitan Water Board. Offices of the Board, Chief Engineer's Department, 173, Rosebery-avenue, E.C. 1. Deposit £20.

JULY 9.—**Whaley Bridge.**—BRIDGE.—For the widening of Whaley Bridge, situate on the Buxton-Manchester main road at Whaley Bridge, for the Cheshire and Derbyshire C.C. Mr. J. W. Horton, County Surveyor, County Offices, Derby. Deposit £2 2s.

JULY 10.—**Manchester.**—TRACK WORK.—For supply of permanent-way special track work, for the T.C. Mr. H. Mattinson, General Manager, Corporation Tramways, 55, Piccadilly, Manchester. Deposit £1 1s.

JULY 11.—**Wakefield.**—BOILER.—For installation of a new low pressure sectional boiler at Hemsworth West End Council School, for the West Riding Education Committee. Education Department, County Hall, Wakefield.

JULY 11.—**West Riding.**—HEATING APPARATUS.—For improvements to hot-water heating apparatus at Bradfield Oughtibridge Council School and installation of new boiler at Wadsworth Old Town Council School, for the C.C. Education Dept., County Hall Wakefield.

JULY 12.—**Hemsworth.**—PIPES.—Supply of 2,880 yards of 8 in. cast-iron water mains, to the R.D.C. Mr. W. T. Lynam, Union Offices, Hemsworth.

JULY 12.—**Kensington.**—ELECTRIC LIGHT.—For electric lighting installation at Institution of the Board of Guardians. Clerk, Offices, Marloes-road, Kensington.

JULY 14.—**Ollerton.**—BRIDGE.—Erection of reinforced concrete bridge over the River Maur, at Ollerton, near Newark, for the Notts C.C. Mr. J. C. Haller, County Surveyor, Shire Hall, Nottingham.

JULY 16.—**Chiswick, W. 4.**—BOILERS AND HEATING APPARATUS, &c.—Boiler settings, heating apparatus, and sanitary appliances, in connection with baths and wash-houses in course of erection at Chiswick, for the Chiswick U.D.C. Mr. Edward Willis, Engineer and Surveyor, Town Hall, Chiswick, W. 4.

JULY 17.—**Doncaster.**—PUMPING STATION.—Construction of a new pumping station, superstructure and accessories, at "The Holmes," for the T.C. Mr. F. Oscar Kirby, Borough Engineer, 2, Priory-place, Doncaster. Deposit £5 5s.

JULY 17.—**Hoyland.**—ELECTRIC LIGHTING.—Installation of electric light at Hoyland Common Working Men's Club. Mr. H. Dickinson, Secretary.

JULY 18.—**Dartford.**—ELECTRIC LIGHTING.—For electric lighting installation at Fever Hospital, for the Metropolitan Asylums Board. Offices, Embankment, E.C. Deposit £1.

JULY 18.—**Southend-on-Sea.**—PIPES.—Supply of 148 tons of cast-iron pipes and specials. Mr. R. H. Dyer, Borough Engineer, Southend. Deposit £2.

JULY 21.—**Honiton.**—BRIDGE, ETC.—(*a*) Reinforced concrete bridge on the Kahn Bar System of the Trussed Concrete Steel Co., Ltd.; (*b*) reinforced concrete culvert on the Kahn Bar System, &c., for the T.C. Mr. J. W. Jones, Borough Engineer, Honiton.

JULY 25.—**Bournemouth.**—PROMENADE.—Construction of Boscombe promenade and sea wall. Mr. F. P. Dolamore, Borough Engineer, Town Hall, Bournemouth. Deposit £2 2s.

JULY 31.—**Lochboisdale.**—PIERS.—(1) Repairing Lochboisdale pier and shed, and (2) stiffening up of Castlebay pier. Messrs. Carter & Wilson, engineers, 51, Queen-street, Edinburgh.

AUGUST 31.—**Chile.**—HARBOUR WORKS.—**Extension of the mole of the Port of Valparaiso and complementary harbour works, depots, &c., for the Navy. Chilean Legation in London.**

NOVEMBER 30.—**Sydney.**—BRIDGE.—**Construction of the superstructure and substructure of a cantilever bridge across Sydney Harbour; also an alternative tender for the construction of the superstructure and substructure of an arch bridge across Sydney Harbour. Agent-General for New South Wales, Australia House, Strand,** W.C.

NO DATE.—**Exeter.**—ELECTRICAL INSTALLATION.—For electric light installation, for the Committee of Management of Wonford House Hospital, Exeter. Messrs. Charles E. Ware & Son, architects, 18, Bedford-circus, Exeter. Deposit £2 2s.

NO DATE.—**Salford.**—VARIOUS WORKS.—(1) Providing and fixing "Robin Hood" boiler at Salford Town Hall; (2) providing and fixing "Robin Hood" boiler at Buile-hill Museum; and (3) electric lighting of the Assembly Room at Salford Town Hall. Borough Engineer, Town Hall, Salford.

ROAD, SANITARY, AND WATER WORKS.

JULY 7.—**Bootle.**—ROADS.—(1) Widening Park-lane, and (2) surfacing work in Merton-road. Borough Engineer, Town Hall, Bootle. Deposit £1 1s.

JULY 7.—**York.**—ROADS.—For making-up various roads, for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £1 1s.

JULY 9.—**Eccles.**—ROADS.—Construction of roads and sewers in connection with Peel Green Estate, for the T.C. Borough Engineer, Town Hall, Eccles. Deposit £3 3s.

JULY 9.—**Edinburgh.**—ROADS.—For making footways, &c., at Abercorn Housing Area, for the T.C. Burgh Engineer, City Chambers. Edinburgh.

JULY 9.—**Edinburgh.**—ROADS.—For tar-spraying roads at Gorgie and Wardie Housing Areas, for the T.C. Burgh Engineer, City Chambers, Edinburgh.

JULY 9.—**Islington.**—ROADS.—For repairing and re-making macadam and other roadways at their Institution, St. John's-road, Upper Holloway, for the Board of Guardians. Mr. E. J. Harrison, Lic.R.I.B.A., 23, Berkeley-road, Crouch End, N.8. Deposit £2.

JULY 9.—**Kidderminster.**—ROADS.—For private street improvement works, for the T.C. Mr. J. Hawcroft, Borough Engineer, Town Hall, Kidderminster. Deposit £3 3s.

JULY 9.—**Lanark.**—ROADS AND SEWERS.—The District Committee of the Lower Ward of Lanarkshire invite offers for the construction of (1) roads and (2) sewers at Lambhill Housing Site, and (3) roads at Garteosh Housing Site. Mr. James A. McCallum, District Clerk, 15, West George-street, Glasgow. Deposit £1 1s.

JULY 9.—**London, N.19.**—MACADAM ROADWAYS, &c.—Repairing and remaking certain macadam, paved and other roadways, the Institution, St. John's-road, Upper Holloway, N.19, for the Guardians of the Poor of the Parish of St. Mary, Islington. Mr. E. J. Harrison, Lic.R.I.B.A., 23, Berkeley-road, Crouch End, N.8. Deposit £2.

JULY 9.—**London, N.**—ROAD MAKING.—Foundation of a new road at Muswell Hill, N. Messrs. Vige & Co., 4, Frederick's-place, Old Jewry, E.C. Deposit 10s.

JULY 9.—**Reigate.**—ROADS.—Making-up of Market Field-road, for the T.C. Borough Surveyor, Municipal Buildings, Reigate.

JULY 9.—**Reigate.**—RE-SURFACING.—For the resurfacing of Garlands-road, Redhill, with tarviated slag macadam, for the T.C. Mr. Fred T. Clayton, Borough Surveyor. Municipal Buildings, Reigate.

JULY 9.—**Woburn.**—COVERING RESERVOIR.—For covering an existing reservoir at Bow Brickhill. Major John Chadwick, Bletchley, Bucks. Deposit £3.

JULY 9.—**Wallsend.**—ROADS.—Making-up various streets, for the T.C. Borough Surveyor, Town Hall, Wallsend. Deposit £2 2s.

JULY 10.—**Barnes.**—ROADS.—For resurfacing work, &c., in Lonsdale-road, for the U.D.C. Mr. G. B. Tomes, Surveyor, Council House, Mortlake, S.W.

JULY 10.—**Bramley.**—BRIDGE.—Widening of Wonersh bridge and culverts, for the Surrey C.C. Mr. W. P. Robinson, County Surveyor, Kingston-on-Thames. Deposit £2 2s.

JULY 10.—**Bungay.**—WATER SUPPLY.—306 tons of 6 in., 5 in., 4 in. and 3 in. cast-iron spigot and socket pipes, and laying about 10,100 lin. yards of 6 in. pipes, &c., for the U.D.C. Messrs. Taylor & Wallin, Commercial Union Buildings, 47, Pilgrim-street, Newcastle-on-Tyne. Deposit £5.

JULY 10.—**Leeds.**—ROADS.—Paving of portions of highway and of tramway track, for the T.C. Mr. J. B. Hamilton, Commercial Manager, Leeds. Deposit £1 1s.

JULY 10.—**Oswaldtwistle.**—BOWLING GREEN.—For construction of a bowling green, for Conservative Club. Mr. George Riley, architect and surveyor, 24, Albert-street, Oswaldtwistle. Deposit £2 2s.

JULY 10.—**Southall-Norwood.**—ROADS.—For (1) widening and resurfacing Norwood Green-road; (2) tar macadamising part of Beaconsfield-road, for the U.D.C. Mr. J. B. Thomson, Surveyor, Town Hall, Southall.

JULY 10.—**Turton.**—SEWAGE WORKS.—Altering and reconstructing the settling tanks, bacteria beds, &c., at the sewage works of the U.D.C. Mr. V. W. Laithwaite, Surveyor, Council Offices, Bromley Cross. Deposit £3 3s.

JULY 11.—**Cardiff.**—ROADS.—Private street works in 28 roads, for the T.C. City Engineer's Office, City Hall, Cardiff.

JULY 11.—**Chelsea.**—WOOD PAVING.—For paving part of Sloane-street with wood blocks, on concrete foundations, for the B.C. Mr. T. E. W. Higgens, Borough Surveyor, Town Hall, Chelsea.

JULY 11.—**Hull.**—PUMPING STATION.—Construction of the underground works required at the new pumping station at Dunswell, for the T.C. Mr. Charles B. Newton, Engineer, Guildhall, Hull. Deposit £5.

JULY 11.—**Rawreth.**—CULVERTS.—For construction of three culverts and forming new watercourse at Rawreth Wash, for the Essex C.C. Mr. William H. Morgan, County Surveyor, Chelmsford.

JULY 11.—**West Riding.**—TAR ASPHALTING.—For tar asphalting the playgrounds at Bramhope Council School and Menston Council School, for the C.C. Education Dept., County Hall, Wakefield.

JULY 12.—**Greenwich.**—SEWERS, &c.—For the execution of road and sewer works on No. 3 Section of the Charlton Housing Estate, for the B.C. Borough Engineer, Town Hall, Greenwich, S.E. 10.

JULY 12.—**London, E.2.**—TARMACADAM ROADS AND PATHS.—Formation of roads and paths at the Bethnal Green Housing Scheme, Green-street, E.2, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit 10s. 6d., payable to Secretary.

JULY 14.—**Bakewell.**—SEWER.—Construction of 440 lineal yds. of 9-in. stoneware pipe sewer, &c., at Youlgreave, for the R.D.C. Messrs. Brady & Partington Town Hall, Chapel-en-le-Frith. Deposit £2 2s.

JULY 14.—**Haverfordwest.**—FERRO-CONCRETE ROAD.—For laying for the B.B. of a ferro-concrete road from Queen's Hotel to Bridgend-square, Haverfordwest. Mr. H. W. O. Williams, Town Clerk, 12, High-street, Haverfordwest. Deposit £1 1s.

JULY 14.—**York.**—ROAD.—For reconstruction of a portion of Bull-lane, Heworth, York (about 200 yards long). Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £2 2s.

JULY 16.—**Axminster.**—WATER WORKS.—Construction of settling tank and covered service reservoir, for the U.D.C. Messrs. J. Mansergh & Sons, 5, Victoria-street, S.W. Deposit £5.

JULY 16.—**Chiswick.**—PAVING.—For the wood-paving of (*a*) Turnham Green-terrace; and (*b*) Acton-lane, for the U.D.C. Mr. Edward Willis, Surveyor. Town Hall, Chiswick, W. 4.

JULY 16.—**Guildford.**—ROADS.—For making up Agraria-road (part of), for the T.C. Borough Surveyor's Office, Tuns-gate, Guildford.

JULY 17.—**Atherstone.**—ROADS.—Re-surfacing and steam-rolling about 7,500 sq yds of road in the parish of Hartshill, for the R.D.C. Mr. H. J. Coleby, Engineer, Council Offices, 102, Long-street, Atherstone.

JULY 17.—**Christchurch.**—SEWER.—Construction of 1,000 yds. 9 in. c.-i. sewer, sinking ejector chamber, laying rising main, and other incidental works, for the T.C. Mr. Henry J. Farmer, Borough Engineer, Town Hall, Christchurch. Deposit £2 2s.

JULY 17.—**Ealing.**—ROADS.—For making-up Hart-grove, Hillcrest-road and Boileau-road, for the T.C. Mr. W. R. Hicks, Borough Engineer, Ealing. Deposit 10s. 6d. each contract.

JULY 18.—**London, N.W.3.**—REPAIRS TO ROADS.—Repairs to roads at the North-Western Fever Hospital, Lawn-road, Hampstead, N.W.3, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

JULY 18.—**Tavistock.**—SEWAGE DISPOSAL.—For works of sewerage and sewage disposal, at Whitchurch, for the R.D.C. Mr. T. H. Harris, Town Hall Chambers, Tavistock.

JULY 19.—**St. Pancras, N.W. 1.**—CONDENSING WATER MAIN.—Supplying and laying complete of about 190 yds. of 36 in. cast-iron socket and spigot pipes with reinforced concrete outlet into the Regent Canal, for the St. Pancras B.C. The Clerk at the Offices, 57, Pratt-street, Camden Town. Deposit £1 1s.

JULY 19.—**Southport.**—PAVING, &C.—Relaying of tramways and street pavings, Mornington-road, Derby-road, and Sussex-road, for the T.C. Mr. A. E. Jackson, Borough Engineer, Town Hall, Southport. Deposit £3 3s.

JULY 28.—**Wakefield.**—SEWAGE WORKS.—For construction of sewage disposal works, for the T.C. City Surveyor, Wakefield. Deposit £5.

✱JULY 31.—**London, N.**—DRAINAGE WORKS.—Redrainage work at the Money Order Office, Holloway, N., for the Commissioners of H.M. Office of Works, Contracts Branch, H.M. Office of Works, Charles-street, London, S.W. 1. Deposit £1 1s.

Competitions.

(See Competition News, page 4)

Auction Sales, Tenders, etc.

JULY 10.—**Camberwell, S.E.**—Messrs. Veryard & Yates will sell (without reserve), by order of Messrs. John Harrison & Co., at Station Works, Camberwell, useful surplus stock, building plant, &c. Auctioneers, 365, Norwood-road, S.E.27.

✱JULY 11.—**Cardiff.**—Mr. Illtyd Thomas (F.A.I.) has received instructions from the Cardiff Corporation to sell by auction on the site, Municipal Housing Depot, Ely, Cardiff, builders' materials, plant, &c. Auctioneers, 17, Quay-street, Cardiff.

JULY 11. — **East Sheen.**—Messrs. Debenham, Tewson & Co. will sell by auction freehold building estate, East Sheen. Auctioneers, 80, Cheapside, E.C. 2.

JULY 11.—**Edinburgh.**—For sale, within Dowell's Rooms, No. 18, George-street, Edinburgh, the following properties, viz. :—1, Nos. 17-27, Salamander-street and 3 and 5, Bath-road, Leith; 2, Office No. 24. Baltic-street, Leith, consisting of Public Office with two separate rooms, &c.; 3, West Bush Oil Mills, Musselburgh, including two small houses. For further particulars apply to Messrs. W. & J. Cook, W.S., 61, Castle-street, Edinburgh, who have the titles and articles of Roup.

JULY 12.—**Ilford.**—Messrs. Douglas Young & Co. will sell, at the Angel Hotel, The Broadway, Ilford, 32 acres of freehold building land on the Loxford Hall Estate. Auctioneers, 69, Coleman-street, E.C. 2; and 213, Clapham-road, S.W. 9.

✱JULY 17.—255, **Clapham-road, S.W.**—Messrs. Veryard & Yates will sell at 1.30 p.m., without reserve, timber, fitting and building materials, &c. Auctioneers, 365, Norwood-road, S.E.27.

✱JULY 19.—**Greenford. Middlesex.**—Messrs. J. T. Skelding & Co., F.A.I., will sell on site, Oldfield-lane, Greenford, without reserve, on completion of Messrs. J. Lyons & Co.'s new factory at Greenford, surplus builders' and contractors' plant and machinery. Auctioneers, 48, Gresham-street, Guildhall, London, E.C. 2.

✱JULY 19.—**London, E.C.**—Messrs. Marten & Carnaby will sell, at the London Auction Mart, 155, Queen Victoria-street, E.C. (in one lot), Messrs. Lockhart's late premises, 8, 8A, 16 and 18, Paul-street, Finsbury-square, E.C.2, floor area super 45,000 ft. The lease will be offered for sale by auction as above, with vacant possession. 15, New Bridge-street, Ludgate-circus, London, E.C.4.

✱JULY 19.—**High Road, Kilburn.**—Messrs. Veryard & Yates will sell at 1.30 p.m., without reserve. building plant and materials, timber, &c. Auctioneers, 365, Norwood-road, S.E.27.

✱JULY 24 AND 25.—**Marshmoor Mill.**—Messrs. Joseph Hibbard & Sons will sell by public auction, with reserve, by order of Messrs. Timber Operators & Contractors, Ltd., having sold the mill, to clear the site. Stock of well-seasoned English timber. Auctioneers, 15, Newington-green, Islington, London, N.16.

✱JULY 25 AND 26.—**Cambs.**—Messrs. Joseph Hibbard, in conjunction with Messrs. T. A. Neale & Alldridge, will sell without reserve, by order of the owners, who are relinquishing business, at the Merton Saw Mill, Galmingay, near Sandy, saw mill machinery, plant and stock of timber. including 125 B.H.P. National gas engine with Ruston suction plant, four rack-saw benches, buildings, rolling-stock, timber, &c. Auctioneers, 15, Newington-green, Islington, London, N.16.

✱JULY 25.—**Upper Holloway, N.19.**—Messrs. J. T. Skelding & Co. (F.A.I.) will, *re* John Abrahams, Ltd., in voluntary liquidation, by order of the Liquidator, John William Daffarn, Esq., F.S.A.A., at the depots, Cottenham-road and Hatchard-road, Upper Holloway, N. 19, have important unreserved sale of the valuable cartage and road contractors' plant and stock, including 10-ton steam roller, two 6-ton "Sentinel" steam wagons, &c. Auctioneers, 48, Gresham-street, Guildhall, London, E.C. 2.

Public Appointments.

✱JULY 12.—**Gloucester.**—Clerk of Works to supervise the erection of houses by the Corporation of the City of Gloucester. C. J. Scudamore, Assoc.M.Inst. C.E., Acting City Surveyor, Guildhall, Gloucester.

✱NO DATE.—**Hong Kong.**—Architectural Assistant required by the Government of Hong Kong for service as an Engineer in the Architectural Office of the Public Works Department for a period of three years wth possible permanency. Crown Agents for the Colonies, 4, Millbank, London, S.W. 1., quoting M/11928.

✱NO DATE.—**Shanghai.**—Qualified Surveyor and Valuer required in the Public Works Department of the Shanghai Municipal Council. Messrs. John Pook & Co., Agents for the Municipal Council of Shanghai, 68, Fenchurch-street, London, E.C. 3.

PROPOSED NEW BUILDINGS & OTHER WORKS.

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations :—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERDARE.—A grant of £5,000 has been received by the Cwmaman (Aberdare) Institute Welfare Committee from the Miners' Welfare Fund. The Committee's scheme of work is the erection of a ladies' club and reading room as an extension to the present club; and a pit-boys' welfare club and gymnasium. The joint secretaries are Messrs. H. Humphreys and Gwilym Thomas.

ABERDEEN.—Messrs. Brown & Watt, architects, have prepared plans for a public hall for the Cults district.

ABERTILLERY.—The erection of a new infants' school at Six Bells has been sanctioned.

ACCRINGTON.—Messrs. Oldham Bros., builders, propose to erect six houses in Harcourt-road; and Mr. J. W. Dean, six bungalows in Mather-avenue.

AMMAN VALLEY.—The Schools Managers will, immediately plans are approved, put in hand the extension of Bettws School.——Negotiations are nearly completed for land acquirement from the Gellyceidrym Colliery Co. by the local Miners' Welfare Committee (Councillor David Davies, chairman), when the erection of a new workmen's hall will be put in hand by the committee.

ATTERCLIFFE.—The Park Circuit Wesleyans are preparing for the new hall at Attercliffe. More than £21,500 has been promised towards the total cost of about £30,000. Mr. W. J. Hale, F.R.I.B.A., has been appointed architect. The new hall will seat about 1,700 people, and provide accommodation for 1,000 scholars, and convenient arrangements for the social activities of the mission.

AYR.—The T.C. has agreed to build 26 two-apartment, 28 four-apartment and 12 three-apartment houses, at a cost of some £18,000.

BACUP.—Plans are being prepared by Messrs. Hilcton & Pickup, architects, Manchester-road, Burnley, for rebuilding of the "Carriers' Arms" for Messrs. Massey's (Burnley) Brewery, Ltd., Bridge End Brewery, Burnley.

BARNOLDSWICK.—Reconstruction after fire (£10,000 damage), at Butt Cotton Manufacturing Mill. Architects preparing plans, Messrs. Atkinson & Co., Barnoldswick.

BATH.—Plans passed by T.C.: Store, Kensington Garage, London-road; bungalow, Charlcombe-lane; conversion of two shops into one, 3 & 4, Dorchester-street; garages, St. John's-road, Bathwick; bungalow, Sladebrook-road; garage, Grafton Lodge, Weston-road; show rooms, &c., 4, Argyle-street; alterations, Cemetery Lodge, Locksbrook; alterations, Pulteney Hotel; shop fronts, 5 & 6, Upper Borough Walls; alterations, 4, Bridge-street; garage, "Monte Rosa," Wells-road; reconstruction, "Garibaldi" Public House, Avon-street; house, Rockliffe-avenue; w.c., 24, Westgate-street; alterations, 7, Camden-crescent; garage, "The Rosery," Wellsway; alterations, 34, Milk-street; additions, 45, Combe-park.

BEDWELLTY.—The U.D.C. has borrowed £5,000 towards the cost of carrying out the Cwmgelli-Argoed road widening scheme, and has received sanction to borrow £3,000 for the Pengam-Blackwood road improvements.

BELFAST.—Plans passed by T.C.:—Large stores in Norwood-street, for Messrs. W. D. Braithwaite & Sons, architect. Mr. Norman H. Graham; two villas on Ravenshill-road, for Mr. G. F. Thompson, architect, Mr. T. McAlery; four dwelling-houses on Falls-road, for the White Cross Building Society, Ltd., architects, Messrs. F. & J. McArdle; villa in Myrtlefield Park, for Mr. A. McDowell, architect, Mr. T. R. Eagar; nine motor garages at Dunmore, Antrim-road, for the O. D. Cars Co., Ltd.; alteration to shop on Oldpark-road, for Mr. Samuel Halliday, architect, Mr. W. J. Walsh; four villas at College Park, Belfont, for Mr. R. S. Sutcliffe, architect; addition to Masonic Hall on Antrim-road, architect, Mr. D. W. Boyd; addition to Baptist Hall, Beersbridge-road; stores in Ann-street, for Messrs. Jamison & Green, to plans by Miss F. Hobson; large villa in Deramon Park, for Mr. R. Corry, architect, Mr. Thomas Houston; alteration to shops in York-street, for Messrs. Morrow & Co., architect, Mr. C. A. Aickin.

BILLERICAY.—The R.D.C. is awaiting the passing of the present Housing Bill before taking any action regarding local housing.

BILLINGE.—Messrs. Pennington & Unwin, architects, Library-street, Wigan, are preparing plans for the erection of a bungalow in King's Moss-lane, Billinge, for Mr. J. Halsall.

BILLINGHAM.—Plans passed by U.D.C.:—Conversion of dwelling-house into offices at Albert-terrace, Haverton Hill, Messrs. Casebourne & Co., Ltd.; motor garage at 56, Belasis-avenue, Haverton Hill, Furness Shipbuilding Co.; bakehouse, Wyberton House, The Green, Billingham, Mrs. Hollis; steward's house at the Workmen's Club, Haverton Hill; shop at Billingham, Stockton Co-operative Society.

BINGLEY.—Pair of semi-detached houses, near Cottingley Bar, for Mr. T. A. Roberts; canteen at Ellar Carr Mills, Cullingworth, for Messrs. Greenwood & Co.; bungalow, Otley-road, Eldwick, for Mr. D. Perfect; cart shed, Micklethwaite-lane, for Mr. H. Cockcroft; warehouse and garage, Regent-street, for Mr. H. Womersley; garage, Park-road, for Mr. C. Greenwood; additions to foundry at Castlefields, for Carrick & Foster, Ltd.

BLOFIELD.—The U.D.C. proposes to go forward with a scheme for the erection of 100 houses.

BOLTON.—Plans passed by T.C.: George Sykes, pair houses, Ashworth-lane; N. E. Yates, 10 houses, Waverley-road; Denvale Spinning Co., Ltd., extension to boiler house, Union-road; Winder Bros., pair houses, Ainsworth-lane; Moss & Smith, wooden store shed, off Dawson-lane; R. Harwood & Sons, garage, Brownlow Fold Mill; Dart Mill Co., Ltd., boiler and engine house, Alexandra Mill; James Redmond, extension to billiard hall, High-street; Peter Hunt, billiard hall, St. George's road; Barlow & Jones, Ltd., boiler house and engine house, Prospect Mill; H. Webster, house, off Junction-road; H. Whitehurst & Sons, stable, Crown-street; Wm. Gornall & Sons, 28 houses, Crompton Fold Estate; Hy. Peers & Co., extension to shed, off High-street; William Lever, house, Plodder-lane; Bolton Co-operative Society, Ltd., shop premises, 73, St. Helen's-road.

BRACKLEY.—Plans passed by the R.D.C.: Bungalow at Whitfield, for Mr. L. Bonnet.

BRIDGEND.—The U.D.C. has adopted a scheme to expend £3,000 on fire appliances and station equipment, including new motor engine.——The Penybont R.D.C. has called the attention of the County Education Committee to the urgent need of a new infants' school at Laleston.

BURNLEY.—The management of the Bank Hall Maternity Hospital are proposing a new laundry.

BURY.—Mr. C. R. Cooper, architect, Bury, is preparing plans for three semi-detached houses in Seedfield; and Messrs. Inman & Hopkinson, builders, are proposing to erect six houses in Manchester-road, Bury.

CAMBRIDGE.—Plans passed by T.C.: House, Oxford-road, P. J. Young, 106, Oxford-road; garage, store and washing shelter, 199, Milton-road, H. C. Buttress, 199, Milton-road; additions to house and garage, Grange-road, E. D. Adrian, Trinity College; two houses, Rustat-road, H. E. Ambrose, 23, Gwydir-street; house, Milton-road, E. A. Hodgkinson, 1, De Freville-avenue; house, Highworth-avenue, H. W. Hyde, 14, Victoria-road; alterations, 33, Trinity-street, Master and Fellows, Trinity College; alterations, Central Cinema, Hobson-street, Central Cinema (Cambridge), Ltd.; addition, 17, Millington-road, The Provost and Fellows, King's College; house, Milton-road, A. E. Kemp, 28, Huntingdon-road; garage, 9, Adams-road, Mrs. J. Hopkinson, 9, Adams-road; house, Newton-road, P. H. Allin, Park House, Parkside; laboratory and cottage, Huntingdon-road, University of Cambridge Department of Agriculture.

CANNOCK.—Church on site of Hall Court.

CHEPSTOW.—An inquiry has been held into the application of the R.D.C. for sanction to borrow £4,000 for sewage disposal.

CHORLEY.—A new G.P.O. is proposed on a site in High-street. Plans are being prepared by H.M. Office of Works, London, S.W. 1.—It is proposed to extend the schools for St. James. No architect is yet appointed.

COVENTRY.—Plans passed by T.C.: Three houses, Lowther-street, for Mr. E. Woodward; six houses, Rochester-road, for Mr. T. F. Bird; boiler house and chimney stack, London Laundry, for Messrs. C. H. Elson & Sons, Ltd.; garage, London-road, for Messrs. Cross & Co.; extension of factory, Mile-lane, for Messrs. Hollick & Pratt; re-building of premises, 104, Little Park-street, for Mr. E. O. French; extension of garage, Rochester-road, for Mrs. O'Brien; additions, &c., "The Bull's Head" Inn, Binley-road, for Messrs. Phillips & Marriott, Ltd.; house, Kingsway, for Messrs. Hodierne & Atkins; bakehouse and stable, Queen Mary's-road, for Mr. W. F. Frisby; house, St. Paul's-road, for Mr. W. H. Lissaman; shop front, 183, Spon-street, for Mr. V. Wyles; fan house and fume washing chamber, Pridmore-road, for Messrs. Courtaulds, Ltd.; alterations and additions, High-street, for Lloyds Bank, Ltd.; house, Stoney-road, for Mr. A. F. Smith; extension of works, Spon-end for the Coventry Motor and Sundries Co.; six houses, Holbrook-lane, for Mr. J. G. Gray; house, Wyley-road, for Mr. R. Newman; alterations, &c., 13, Far Gosford street, for Mr. S. F. Thompson; extensions of factory, Clay lane, for the Triumph Motor Co., Ltd.

CRICKHOWELL.—The Board of Guardians have been notified by the Abergavenny Guardians that an excellent site is now available for erection at Llanfoist of the proposed joint homes.

DONCASTER.—Developments in the coal industry at Doncaster are about to take place. At Costhorpe, five miles from Worksop, and eleven from Doncaster, shaft sinking operations have been commenced. About 1,000 houses will be needed shortly. It is said that £20,000,000 is waiting to be invested within ten miles of Worksop.

DROITWICH.—A new rectory, estimated to cost £2,000, is to be built. About £1,200 has already been subscribed, and it is hoped to commence the work very shortly.

DUBLIN.—Plans passed :—Alterations, 101, Chapel-street, for Mr. L. Gurevitch; two houses in Inchicore, for Mr. N. D. Levin; store at 66, Marlborough-street, for Mr. T. J. Smyth; 12 houses, Fitzroy-avenue, Drumcondra, for Sir Patrick Shortall; cattle pens, &c., North Wall, for Messrs. Burns and Laird Lines, Ltd.; tobacco factory, Botanic-road, for Messrs. John Player & Sons; shop front at 45, Marlborough-street, for Mr. M. Fowler; cottage at 4, Arbour-place, for Mr. M. Whelan; alterations to store at 15, George's Hill, for Messrs. Shiel & Byrne.

DUMBARTON.—The T.C. has considered tenders for the fourth development of the Borough Housing Scheme, comprising 40 houses, tendered for at £17,203

* See also our List of Contracts, Competitions, etc.

A suggestion that the contract be placed with the Scottish Building Guild has been deferred.

DUNDEE.—Plans passed :—Albert-street, coal store for James Watson & Son ; Arbroath-road, cottage for Trustees of Craigie Estate ; Holly-road, Broughty Ferry, byre for George J. Bissett ; Kerrington-crescent, Barnhill, villas for A. Thomson ; Park-road, dwelling-house for Wm. Clark ; Raglan-street, Workers' Club for Caird's (Dundee), Ltd.

DURHAM.—Plans have been approved by the R.D.C. for dwelling-houses, for Messrs. W. Molyneux & D. Lamb, at Framwellgate Moor ; and for a parish hall and institute at Brancepeth.

EASTBOURNE.—At the speech-day at Eastbourne College the headmaster announced that designs for a new block of buildings, which would cost about £40,000, had been approved by the Council, and that the central tower would be proceeded with immediately as the War Memorial, in addition to a portion of the southern block, which was to be built by the Council.

ECCLES.—Quantities are being prepared for the construction of roads and sewers by the Borough Surveyor, Mr. T. S. Picton, of the Town Hall, Eccles, for Eccles Corporation Housing Scheme.

EDINBURGH.—The Dean of Guild Court has granted the following warrants : The City, retaining walls and light railway bridge, at King's-road, Portobello ; the City, five blocks of dwelling-houses, at Davidson's Mains ; the City, lavatories, at Broomielaw-park, Juniper-green ; Mr. Henry Bennet, cottage, at Saughton-road, Corstorphine ; Mr. T. J. Connolly, dwelling-house and garage, at Lasswade-road, Liberton ; Leith Provident Co-operative Society, Ltd., new premises, bakers' and butchers' shops and stores, at Bridge-street, Leith ; Mr. E. A. F. Howell, bungalow, at Riversdale-road, Murrayfield ; New Laundry Co., Ltd., cottage dwelling-house, at Gilmerton ; Roman Catholic Church, Lady Chapel, at South Gray's Close ; Dr. W. Robertson, dwelling-house and garage, at Drumbrae-road, Corstorphine ; Mr. W. Robertson, dwelling-house and studio, at Barnton-park, Davidson's Mains ; Mr. R. Ebbs, factory, at 122, Salamander-street, Leith ; Mr. J. White, to convert a self-contained house, at 33, Moray-place, into two separate houses ; Bank of Scotland, to convert dwelling-house, at 178, Ferry-road, Leith, into bank premises ; Messrs. Scott, Lyon, Ltd., additions to bakery premises, at 40, Trafalgar-lane, Leith ; Messrs. Scott, Lyon, Ltd., to convert byres into garage, at 86, Trafalgar-lane, Leith ; Mr. J. White, to convert stables into garage, at 8, Church-lane.——An anonymous donor has given £20,000 as nucleus of a fund for a new department of Zoology for Edinburgh University.——The Plans and Works Committee of the T.C. has approved of the Sub-Committee's recommendation to proceed this year with the erection of wash-houses at Abbeymount. The estimated expenditure is £15,000.——Plans have been passed for a Miners' Welfare Institute at Armadale. The building is estimated to cost £5,631.

EXETER.—The T.C. has decided to extend the public library facilities, approving an expenditure of £30,000 on a new building in Rougemont grounds.

FLEET.—Plans passed by U.D.C. :—Bungalow in Alton-road, for Mr. Sisterson ; extensions to Beacon Lodge, for Mr. Mill ; wooden bungalow in Kenilworth-road, for Mrs. Hughes ; bungalow in King's-road, for Mr. Cox ; and additions to Ye Hutte in Clarence-road.

GLASGOW.—At a sitting of the Dean of Guild Court, the principal linings granted were : Cathedral Church of St. Mary and of the Episcopal Church of St. Peter, hall, at St. Peter's Church, Gardner-street ; Duncan M'Kellar, 10, Kingsborough-gardens, Hyndland, dwelling-house, at Crown-terrace ; Corporation Electricity Department, workshops, at Dalmarnock Electricity Works, Dalmarnock-road ; Galbraith's Stores, Ltd., Back Sneddon-street, Paisley, additions to bakery, at Craigton-road, Govan ; Civic Press, Ltd., 164, Howard-street, workshop, at Brown-street, Port Dundas ; James Templeton & Co., William-street, Greenhead, additions to premises, at Crownpoint-road, estimated to cost £26,339 ; The Western Lawn Tennis Co., tennis pavilion, in Hyndland-road ; Royal Bank of Scotland, alterations and additions to premises, at corner of Howard-street and Jamaica-street ; John C. M'Kellar (architect), 45, West Nile-street, to form roadway and sewer and erect six terrace houses, at Great Western-road and Julian-avenue ; Corporation Electricity Department, sub-station, at Virginia-street, at Virginia-place ; Corporation Housing Department, dwelling-houses, at Yorkhill-street and Carfrae-street ; Archd. J. C. Colquhoun, of Killermont and Garscadden, Knockearn, Crieff, to form a road and sewer, off Acre-road, Killermont.——It has been decided to erect a Miners' Institute near Overtown Public School, at a cost of £3,260, towards which a grant of £3,000 has been made from the Miners' Welfare Fund.

GLOUCESTER.—Plans passed by T.C. : Conversion of premises into three shops, Barton-street, for Mr. W. J. Bartlett ; bungalow, Pembury-road, for Miss A. Brown.

GOSPORT.—Plans passed by T.C. : Surgery and garage, "Leventhorpe," Elmhurst-road, Dr. B. Skelton ; two houses, Privett-road, A. J. Smith ; garage, Elson-road, R. Ayling ; store, off Broughamstreet, E. A. Rose ; bungalow, Fareham-road, A. Houston ; house, Privett-road, J. Banrock ; house, Privett-road, H. Tomlin ; addition, 119, Stoke-road, W. H. Smith & Son ; addition, 66, Queen's-road, Grove-road, J. W. Woodford.

HARROGATE.—Pannel Ash College is to have a library in memory of master and old boys who fell in the war. The cost is to be about £1,600.

HEBDEN BRIDGE.—The U.D.C. have decided to erect a dozen houses at Eaves Bottom, subject to the Ministry of Health sanction.

HORNSEY.—Plans passed by T.C. : Twelve dwelling-houses, at Woodside-avenue, by Messrs. Smerdon Bros., Dartmouth Park-road ; two dwelling-houses, at Muswell-road, by Mr. Geo. Bronsdon, Muswell Hill-road ; four dwelling-houses, in Park-road, Crouch End, by Messrs. C. & F. Bryen ; two dwelling-houses, in Montenotte-road, by the Imperial Property Investment Co. ; two garages, in Farrer-road, Hornsey, and an addition at "Eagle Cottage," Fortis Green.

HORSFORTH.—Plans passed :—New picture house and two lock-up shops in Town-street, for Mr. E. A. Hobson ; pair of houses in Victoria-crescent, for Messrs. Read Bros. ; pair of houses in Victoria-gardens, for Mr. J. Furness ; house in Hall-lane, for Mr. Shore.

HULL.—Hull Tramways Committee report a profit on the past year's working of £43,661. It was decided that the manager and engineer should interview the Ministry of Transport in respect of an application to borrow £100,000 for track renewals.—— The City Architect has been instructed to prepare plans and obtain estimates for the reconstruction of the Central Fire Station ; the Ministry of Health have sanctioned the following loans : £9,829 for the widening and improvement of Cottingham-road ; £8,668 for widening and improvement of Beverly-road ; and £962 for acquiring necessary land connected with these improvements.

ILFORD.—Plans passed by U.D.C. :—P. Cornish, bungalow, Tomswood Hill ; F. G. Faunch, two houses, 6 and 8, Brandville-gardens ; W. J. Cearns, temporary church, west side of Burnside-road ; J. H. Storrar, alterations to 158, High-road ; G. Cushing, seven houses 13–25, Perryman's Farm-road ; F. G. Faunch, house, 30, Shawville-gardens ; Fuller's United Electric Works, Ltd., boiler-house, at works, Grove-road ; A. W. Perry, garage, Oaklands Park-avenue ; F. G. Faunch, two houses, 2–4, Brandville-gardens ; C. Sharpe, extension to No. 1, The Facade, Ilford Market, Ilford-lane ; W. G. Smith, bungalow, 31, Quebec-road ; C. T. Genever, four houses, Horns-road ; W. H. Knox, New-road, Meadway ; Meredith & Smith, two shops and dwellings, Becontree-avenue ; F. G. Faunch, house, 14, Brandville-gardens ; Ullyett & Co., garage, 36, Arundel-gardens ; W. J. Lewis, store and garage, 93, Coventry-road ; W. J. Cearns, market, Becontree-avenue, Becontree Estate ; T. J. Macey, garage, High-street, Barking-side ; W. H. Knox, four bungalows, 54–6, Breamore-road ; A. Spicer, store, 1, Broomhill Market, Green-lane ; W. H. Knox, 10 houses, 15–23 and 14–22, Egerton-gardens ; H. Dingle, garage, 129, Woodlands-road ; Fuller's United Electric Works, shed for soot works, &c., Grove-road ; F. G. Faunch, house, 16, Brandville-gardens ; F. G. Faunch, 12 houses, 26–48, Brandville-gardens.

LANCASTER.—Messrs. T. H. Lawson & Son, High-street, propose to erect a number of modern-style flats on the Moor Garden Estate.——Plans passed by T.C. :—Bungalow, Hall Park Estate, for Mr. J. C. Ray ; garage, 3, Hillside, for Mr. F. Burns Bell ; four houses, Franklin-street, for Mr. J. L. Tyson.—— The T.C. have accepted tenders of £438 each for the erection of a further 20 houses.

LEEDS.—The Leeds Improvements Committee have accepted an offer of Mr. G. W. Atkinson to erect 164 type "A" houses on the East End Park Estate, subject to the Corporation agreeing to pay a subsidy of £100 per house.

LITTLEBORO.—Messrs. George Spencer Moulton & Co., Ltd., Whitworth-street, Manchester, are proposing to erect eighteen houses near their works at Littleboro.

LLANELLY.—At the annual meeting of the Governors of the General Hospital, it was announced that £15,000 had been promised toward the cost of the proposed hospital extensions.

MANCHESTER.—Lewis's propose to practically double their present accommodation. Arrangements are to be made to acquire the whole of the block of property bounded by Marple-street, Fountain-street, Meal-street, and West Mosley-street, immediately at the rear of the present premises. When the scheme is complete the space will be equal to 14 acres. The employees will be increased from 1,400 to 2,400. Building operations will begin in about three months' time. Two or three years will be occupied in the work, which will cost not less than £1,000,000. The architects are Messrs. J. W. Beaumont & Sons, 24, Brazennose-street.——Messrs. C. J. Lomax & Son, civil engineers, of 37, Cross-street, are consulting engineers for the pumping scheme at Coppull for Chorley D.C., estimated to cost £3,250. Tenders have not yet been invited.

MERTHYR TYDFIL.—The T.C. has instructed its Architect to prepare plans for the erection of stores.—— An agreement has been reached by the T.C. with the owners of land at Russell-street, by which a scheme for lane widening, &c., will now be carried out.—— The Carnegie Trustees are considering a grant towards the erection by the T.C. of a new public library at Merthyr.——The Ministry of Health has notified the T.C. that it will favourably consider for grant a scheme to erect a ferro-concrete fire station in the town, and has called for detailed estimates, &c.——Sanction has been received to the acquisition by the T.C. of four cottages fronting the cemetery in connection with the scheme to be carried out for improving access thereto. ——Plans and estimates for a new river centre pier in support of Pontyrhin Bridge, which has suffered from traffic vibration, have been called for by the T.C. ; the western side of the bridge parapet is also to be lowered, and the widening of the road leading to the bridge is being considered.

MID-LANARKSHIRE.—Subject to the necessary approval being obtained, the District Committee of the Middle Ward of Lanarkshire has resolved to proceed with a scheme for the erection of additional houses. Their proposals under the new Housing Bill are to make lump-sum payments to private builders, and themselves to carry through their original scheme of 1919. They also propose to undertake a scheme of slum clearance as soon as possible. Over 2,000 houses will be provided under the schemes when completed.

MIDDLESBROUGH.—Plans for the construction of 14 houses by private enterprise, 17 for alterations to shop frontages or to premises, and one for extensions at the North Ormesby Hospital, were approved by the Middlesbrough Plans Committee at its last meeting.

MONMOUTHSHIRE.—The G.W.R. has notified the Abersychan U.D.C. that, as soon as materials have been collected to site, the building of bridges over the railway at Pontnewydd and Abersychan (low level stations) would be carried out.——The Llanfrechfa U.D.C. has decided to convert land at Tir Box into a burial ground, and has applied for sanction for a loan for the work.

MORPETH.—A plan for a proposed Welfare Institute to be erected at North Seaton Colliery, and seven plans showing house and business premises proposed to be erected on the Lynemouth estate have been approved by the R.D.C.

NEATH.—The Ministry of Health has notified the Town Council that, as the result of the recent public inquiry, sanction will be given to borrow £15,000 for acquisition and lay-out of Gnoll House and grounds as a district memorial park.

NELSON.—Mr. R. Jaques, architect, Railway-street, is preparing plans for extensions to the Grove House Nursing Home.

PENARTH.—The U.D.C. has decided to erect houses on Comerswell Garden site, in number up to 70, according to space remaining after allotment under agreement to private persons wishing to build ; the Council has decided that work will be carried out during the present summer months.——The U.D.C. has decided to erect underground conveniences and cloakroom, according to plans submitted by Surveyor some months ago.——Messrs. D. Davies, Penarth, have requested land from the U.D.C. to build 27 houses.

PENDLETON.—St. George's School, Whit-lane buildings to be modernised by structural alterations. Plans being prepared.

PLYMOUTH.—Plans passed by T.C. :—T. W. Box, two dwelling-houses, Cedarcroft-road ; Mr. Essery, bungalow, Bladderley-lane ; J. R. Randall, alterations, 44, Mutley Plain ; S. Edgcumbe, addition, 11, Cornwall-street ; S. Owen, addition, 4, Balmoral-place ; G. Oliver, addition, Russell-buildings, Frankfort-street ; A. Wilton, garage, 5, Holyrood-terrace ; S. Gerry & Son, addition to factory, Norley-place ; J. Horsham, public hall, &c., corner of Wolseley- and Tavistock-roads, Milehouse ; H. Symons, dwelling-house, Peverell Park-road.

PONTARDAWE.—The proprietors of the Pontardawe Steelworks (Messrs. Gilbertson), have offered the Works Committee to provide half the cost of purchasing a new motor ambulance for the employees, the remainder to be found by the men ; the offer has been accepted.

PORT TALBOT.—The U.D.C. has decided upon providing housing accommodation at Cwmavon and Port Talbot, and the Surveyor has been instructed to report on a site for up to 50 houses at each place. In addition, the Council has decided to confer with local master builders to hear suggestions for a building scheme for the district, possibly by action with Council under the Small Dwellings Acquisition Act provisions.

PORTISHEAD.—Plan passed by U.D.C. :—Bungalow South-road, for Mr. R. Thomas.

PRESTON.—Messrs. Spencer & Son, builders, Hershell street, are to erect medium-sized houses on a site of ten acres as an extension to Penwortham Garden Village.

PUDSEY.—Plans passed by T.C. :—New weaving shed at Fartown Mills, for Jas Banks & Sons ; also, several semi-detached houses at Uppermoor, for Mr. Alfred Lund.

RAWMARSH.—Application has been made by the D.C. to the Ministry of Health for approval of a scheme for the erection of 100 houses on the Haugh-road site.

RHONDDA.—The report of the Cwmparc and Treorchy Recreation Association, affiliated to the Ocean Colliery Co.'s Area Recreation Union, shows that land has been acquired for laying out recreation grounds, playgrounds, baths, bowling greens and public park, at Treorchy ; grant of £4,000 has been received from the Miners' Welfare Fund. By a concessionary arrangement with the Association, the Rhondda U.D.C. will build a stone wall to Tynabedw bridge.

RUGBY.—Plans passed by T.C. :—Mr. D. Mitchell, two dwelling-houses in Holbrook-avenue ; Mr. W. James, house, Dunchurch-road ; Mrs. Hinitt, house, Park-road ; Lodge Plugs, Ltd., extension to factory, St. Peter's-road.

SALFORD.—Plans passed by T.C. : Construction of garage, Edmund-street, Pendleton ; garage, 86, Hilton-street, Broughton ; lock-up shop, Port Soderick-street, Salford ; additions to warehouse, Adelphi-street, Salford ; alterations to British Legion Leaf Club (amended plans), 18, Leaf-square, Pendleton ; bank premises, 411, Bury New-road, Broughton ; "Dover Inn," 16, Fenney-street, Broughton ; construction of sanitary accommodation at premises in Worsley-street, Salford ; garage, 34, Fitzwarren-street, Pendleton ; garage, Garden-street, Broughton ; garage, New Hall-road, Broughton ; alterations to sanitary accommodation, "New Ship Inn," 151, Blackfriars'-road, Salford ; dwelling-house, 45, Plymouth-street, Broughton ; additions to works, Frederick-road, Pendleton ; bakery, Park-street, Salford.

SIDCUP.—Plans passed by U.D.C. : Four houses, in Longlands Park-crescent ; detached bungalow, Burnt Oak-lane ; conversion of stable into garage, corner of St. John's-road and High-street ; two detached houses, Christchurch-road ; dwelling-house, Corbylands-road ; garage, Victoria-road ; detached house, Christchurch-road.

SOUTH MIMMS.—Plans of a garage, for Mr. Haslam Walter, at the Corner House, The Avenue, Potters Bar, have been approved by the R.D.C.

SOUTHAMPTON.—Messrs. A. Brocklehurst & Co., architects, of Palatine Bank-buildings, Manchester, are preparing plans for a new Wesleyan Central Hall at Southampton. Plans have not yet been approved.

SOUTHEND-ON-SEA.—At a public inquiry into the proposal to spend £15,000 on a covered way on the pier from the entrance to the pavilion the scheme was opposed.

STANLEY.—Plans passed :—Two houses in Newton-hill, for Mr. W. H. Carr ; pair of semi-detached houses

at Aberford-road, Stanley, for Mrs. A. Furn; a house and bakehouse at Newton-hill, for Mr. A. Ward.

STOCKTON.—Plan passed by R.D.C.: Two bungalows, Preston, for Mr. J. W. Ransome, of Eaglescliffe.

SWANSEA.—Industrial development which, it is computed, will involve an expenditure of £5,000,000, is about to take place at Swansea. A group of Swansea and Port Talbot colliery owners are developing an estate of 700 acres at Ystalyfera in the upper reaches of the Swansea Valley. New cold stores are to be erected at Swansea King's Dock, costing £300,000. The Gravesend Steelworks are adding new mills.

TENTERDEN.—The R.D.C. has approved of plans for two cottages at Woodchurch, for Mrs. Wilson.

TREDEGAR.—The tender of Messrs. Rees Edwards, Derwen-buildings, Tredegar, has been accepted for the extensions to Tredegar Park Hospital, which include a new convalescent ward and a new operating theatre.

THE OUSE.—West Riding County Council Highway Committee has adopted a recommendation by the Bridges Committee to contribute an additional £5,000 to the cost of constructing a new bridge over the Ouse at Boothferry.

TYNEMOUTH.—Plans passed by T.C.: Two houses, corner of Syon-street and Percy Park-road, by Messrs. Cackett & Burns Dick, for Mrs. Connacher; two houses, Broadway, Kenners Dene Estate, by Mr. A. K. Tasker, for Mr. H. D. Burton; warehouse, Reed-street, North Shields, by Messrs. F. R. N. Haswell & Son, for Mr. Richards; two semi-detached houses, Broadway, Tynemouth, by Mr. A. K. Tasker, for Messrs. Middleton & Park; new stable, &c., Suez-street, by Messrs. F. R. N. Haswell & Son, for Mr. G. W. Stephenson; two semi-detached houses, Cleveland-road, by Messrs. Hays & Gray, for Messrs. Hodgson & Swan.

UCKFIELD.—Plans passed by R.D.C.: House, Tilsmore, Waldron, for Mr. G. H. Coates; bungalow, Nutley, for Mr. James; two houses, Horeham-road, for Messrs. Phillips & Sons; bungalow, Luckhurst Farm, Mayfield, for Mr. Morris; cottage, Upper Totease, Buxted, for Mr. S. Denman; two houses, Tilsmore, Waldron, for Mr. C. H. Ryder; cottage, Five Ashes, for Mr. A. Bassett; bungalow, Framfield, for Messrs. Markwick & Baalks; additions, Wood Farm House, Waldron Down, Framfield, for Mr. Hoather; bungalow, Goldstrow, Fletching, for Miss Clippingdale.

ULVERSTON.—Plans passed by R.D.C.: House at Scales, for Mr. F. Postlethwaite; house at Cartmel Fell, for Mr. Brian Batty; alterations to Barrowbanks Cottage, Staveley, for Captain Pickup; garage at Lindale, for Mr. F. Parker; house at Bessie Field, Lowick, for Mr. J. J. Satterthwaite; alterations at Sunny Bank, Torver, for Mr. Jno. Charnley.

WALTHAMSTOW.—Towards the building of the chancel and one bay of the nave of the new church of St. John, Mr. Harry Lloyd has promised a further contribution of £2,000.

WELLINGBOROUGH.—Addition to cottage hospital.

WEST AND EAST ARDSLEY.—Plans passed by U.D.C.:—Two houses at Bradford-road, East Ardsley, for Messrs. W. H. Heald and H. Dews; house at Bradford-road, East Ardsley, for Mr. O. Watson; house in Rein-road, West Ardsley, for Messrs. Harrison, Spenseley & Sons; conversion of house and shop into two houses and shop, at Upper Green, West Ardsley, for Mr. Sam Fisher; cowshed, stable and store room at Woodhouse-lane, East Ardsley, for Messrs. R. Holliday & Sons.

WILMSLOW.—The Conservative Club are proposing to erect new club buildings in Grove-avenue, estimated to cost £3,000. The architect has not yet been appointed. The secretary is Mr. W. O. A. Myles.

WORKSOP.—At a congregational meeting of St. Anne's Church, Worksop, it was decided to erect a new parish hall at an approximate cost of £2,500.

YORK.—The Education Committee have decided to purchase a site for a school on the Tang Hall Estate.——Plans passed by T.C.: W. R. DeBurgh, three streets, Stockton-lane; Mrs. Collinson, alterations, 45, East Parade; W. Dove & Sons, Ltd., workshop, Piccadilly; J. Terry & Sons, Ltd., refrigerating shed and subway, Clementhorpe: Miss Holland, additions, 75, East Parade; Adams Hydraulics, Ltd., store and loading shed, Peasholme Green; C. Grainger, offices, Peasholme Green; H. B. Cooper, garages, Dudley-street; L. Holt, house, Hobgate; Coulson & Layfield, two houses, Heslington-lane.

FIRES.

EDINBURGH.—Extensive damage has been caused by a fire which occurred in the premises of Pinkerton, Gibson & Co., Ltd., wholesale druggists and manufacturing chemists, North-East Thistle-street-lane.

GALASHIELS.—Damage estimated at several hundred thousand pounds was caused by fire on Saturday morning at the Buckholmside Skin Works, Galashiels, belonging to Sanderson & Murray, Ltd.

The Institution of Municipal and County Engineers.

A meeting of the West Midland District will be held at the Council House, Sutton Coldfield, on July 21, at which the following papers will be presented:—"Historical Notes," Mr. Reay Nadin, Town Clerk; "Electricity Works," Mr. T. Bloore, A.M.I.E.E., Electrical Engineer; "Municipal Works," Mr. W. A. H. Clarry, A.M.I.C.E., Borough Surveyor.

Members will be received at the Council House, Sutton Coldfield, by the Mayor (Councillor W. T. Harrison), and later will inspect the Town Hall fire station, electricity works, refuse destructor, Highways Depot, and other municipal places of interest.

NEW BUILDINGS IN LONDON.

Marble Arch.—BUILDING.—Messrs. F. & F. H. Higgs, Ltd., of Station Works, Hinton-road, S.E., are erecting a building at Marble Arch, W.1.

Bayswater. — ALTERATIONS. — Extensive alterations are being carried out at Bayswater-road, near Marble Arch, by Messrs. F. J. Coxhead & Co., builders, of Leytonstone. Mr. Delissa Joseph, F.R.I.B.A., of 2, Basinghall-avenue, E.C., is the architect.

Marylebone.—BUILDING.—Now the old Deaf and Dumb Church has been demolished, a new building is being erected next to Selfridge's in Oxford-street.

Ludgate Hill.—BUILDING.—Messrs. Greenwood & Co;, Ltd., builders, of 301, Brixton-road, S.W.9, are erecting a new building in London House-yard, near St. Paul's.

Covent Garden.—ALTERATIONS.—Alterations are being carried out on an extensive scale at 28, Wellington-street by Messrs. W. Downs, Ltd., builders, of Hampton-street, Southwark, for Messrs. Da Costa Gerald, fruit broker.

St. James' Park.—REBUILDING.—A new building is being erected at Petty France, St. James's Park. The builders are Messrs. C. P. Roberts & Co., Ltd., of 36, Tyssen-street, Hackney.

Ealing.—PAVILION.—The Ministry of Health has given sanction to a loan of £550 for the construction of a sports pavilion in Pitshanger Park.

Bayswater.—RECONSTRUCTION.—Two large mansions, hitherto known as 13 and 14, Connaught-place, having frontages to Hyde Park, Connaught-place, and Stanhope-place, are in course of reconstruction and conversion into eleven residential flats. The average accommodation will consist of inner hall, dining-room, drawing-room, four bedrooms, bathroom, two lavatories, kitchen and kitchen offices. The drawing-rooms on the Hyde Park frontage are 22 ft. by 14 ft., exclusive of the bays, while some of the kitchens are 17 ft. by 12 ft. The entrances from Connaught-place are to be abandoned, and a new entrance, staircase, and passenger lift will be formed in Stanhope-place. The rooms will in many cases be enlarged by the formation of bay windows; and an emergency staircase, enclosed in a tower, has been formed on the Connaught-place frontage; this will also be used as a service staircase to supplement the service lifts already provided. A central system for the supply of hot water, day and night to all the flats will be installed. The present high enclosing wall will be removed and open iron railings substituted, while the forecourts will be laid out as gardens. When the internal reconstruction and modernization has been completed, and the new drainage system installed, the whole of the premises will be redecorated. The work is being carried out by Mr. F. J. Coxhead, of Leytonstone, and the architect is Mr. Delissa Joseph, F.R.I.B.A.

Wood Green.—HOUSES.—The U.D.C. is to encourage builders to erect superior type houses by offering financial assistance, inviting the wider use of the Small Dwellings Acquisition Act, and making it easier for purchasers to obtain advances from building societies.

Lewisham.—HOUSES.—Plans passed by B.C.: Two houses, Baring-road, for C. Cooper; seven houses, Woolstone-road, for Edmonds & Beale; three houses, Wiverton-road, for W. Frampton; addition, 33, High-street, Sydenham, for C. J. Cleeve & Son; house, Senlac-road, for Eaglen Bros; two houses, Stanstead-road, for P. Smith; house, Marvel-lane, for G. W. Crosley.

Party Wall Problem.

We have received an inquiry from a firm who are developing a large estate on the outskirts of London, mostly consisting of semi-detached houses, and are anxious to discover or devise some method of construction of the party walls so as to deaden the sound and noise arising between two houses placed in such close proximity. It is intended to erect two-story houses and to build the party wall in 9 in. brickwork.

NEW BUILDINGS IN SCOTLAND.

Kirkcaldy.—HOUSES.—Plans for the erection of 32 houses on Overton-road have been submitted to the Board of Health by the T.C. for their approval, and plans for 28 houses to be erected in Hendry-road have been sanctioned.——The following plans have been passed: John W. Blyth, garage at Wilby House, Loughborough-road; Pathhead and Sinclairtown Co-operative Society, alterations to shop fronts, 13–17, Links-street, and a joiner's shop in Mid-street; Kirkcaldy Trades Labour Council, conversion of part of Wemyss-buildings into a hall with retiring rooms and committee rooms; the Scottish Cinema & Variety Theatres, Ltd., additions at Picture Palace, Whytes-causeway; W. Paterson & Sons, Dundee, shop front at 79, Dunfermline-arcade, from Wemyss-buildings, High-street, to Douglas-street; J. D. Swanston, alterations at property at corner of High-street, and Redburn Wynd, and the conversion of "Sunnybrae," Milton-road, into two houses; Michael Nairn & Co., chemical laboratory at the Scottish Linoleum Works, Victoria-road; Saxone Shoe Co., alterations at 100, High-street; G. Penman, house and garage in Viewforth-terrace; Woolworth & Co., alterations at the Crown Hotel-buildings, High-street; and the Kirk Session of Pathhead Parish Church, a chancel at the rear of the church in Church-street.

Milngavie.—HOUSES.—The Dean of Guild Court has passed plans for 32 two-apartment houses and eight houses of three apartments, to be erected by the Town Council.

Stirlingshire.—PAINTER WORK AND REPAIRS.—The Education Authority has agreed to spend £2,693 on painter work and over £1,000 on repairs at the various schools in the county during the summer term.

Portobello.—FIRE STATION.—The Plans and Works Sub-Committee of the Edinburgh Town Council has suggested a site for the new fire station in Rosefield-avenue.

Aberdeen.—VARIOUS.—The Corporation Plans Committee have passed the following plans: House and garage, Anderson-drive, for Miss Imlay, Bon Accord-street; alterations, 145, Union-street, for Birrell, Ltd.; alterations at 260–262, George-street, for the Star Boot Co., Ltd.; car-shed at rear of 8, King's-gate, for Mr. G. A. Wilson; additions to auction mart, Powis-terrace, for Reith & Anderson, Ltd.; house, Queen's-road, for Major A. L. Mackinnon; drill and gymnasium hall at rear of 4–5, Golden-square, for Young Men's Christian Association; pavilion, Advocates-road, for Hawthorn and East End Football Clubs; alterations and additions at the Convent of the Sacred Heart, Queens Cross; house on the road from Craiginches to Bridge of Dee, for the Aberdeen Baker Incorporation.

Wages on Public Works.

The Public Works Conciliation Board has issued an award, dated June 22, 1923, fixing the following rates of wages to apply in the City and County of London, and the districts of all the local authorities the whole or any part of whose district lies within the Metropolitan Police district, for the three months of July, August, and September:—Blacksmith, 1s. 8d.; concrete leveller, 1s. 3½d.; duct or earthenware drain layer, 1s. 4½d.; fitter, 1s. 8d.; granite mason kerb, &c., 1s. 9d.; granite sett dresser, 1s. 8d.; jointer, 1s. 4½d.; kerb fixer, 1s. 8d.; pavior, 1s. 8d.; petrol locomotive or roller driver, 1s. 5½d.; pipe jointer (iron up to 6 in.), earthenware or concrete pipes and conduits, 1s. 4½d.; pipe-jointer (iron) above 6 in. diameter, 1s. 5½d.; platelayer, 1s. 4½d. to 1s. 5½d.; platelayer labourer, 1s. 3½d.; pneumatic pick operator, 1s. 4½d.; rammerman, 1s. 4½d.; scaffolder, 1s. 6½d.; screeder, 1s. 4½d.; steam roller driver, 1s. 7½d.; street mason and flag dresser, 1s. 8d.; tarpot man, 1s. 3½d.; timberman, 1s. 4½d.; wood block layer, 1s. 4½d.; watchman, 7s. 6d. minimum day or night; men working in "boots," 1d. per hour extra. The hours of labour and overtime rates remain as agreed on March 11, 1920.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	2 15 3	Do. Bullnose	10 1 6
Do. Bullnose	3 8 3	Blue Wire Cuts	7 11 6

Best Stourbridge Fire brick:—

2½ in.	11 3 0	3 in.	13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
Quoins. Bullnose and 4½in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. "	2 5	4 in. "	3 7

	s. d.		
Thames Ballast	13 6	per yard.	
Pit Sand	16 0	" "	
Thames Sand	16 6	" "	delivered 2 miles radius Paddington.
Best Washed Sand	16 6	" "	
⅜ in. Shingle for Ferro-Concrete	14 0	" "	
¼ in. "	15 0	" "	
½ in. Broken Brick	10 6	" "	
Pan Breeze	5 6	" "	

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to	£3 3 6
51/- alongside at Vauxhall in 80-ton lots.	
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 13 0
Keene's Cement, White	5 8 0
" Pink	5 3 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 12 0
" Finish	4 0 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 37s. 6d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 10
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	3 0½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4½
Do. do. delivered on road wagons at above stations, per ft. cube	4 5½
White basebed, 3d. per ft. cube extra.	

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over "	17/-
Sawn two sides "	27/-
Sawn three or four sides "	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5½
1½ in. to 2 in. ditto, ditto "	1 3
HARD YORK—	
Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto "	6 0½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto. ditto "	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

	s. d.
Delivered in London Area in full van loads.	
Plain per ft. cube	6 9
Moulded " "	8 3
Cills " "	9 0

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	225 0
4 × 9	34 0	3 × 11	34 0
4 × 8	28 0	2 × 11	34 0
4 × 7	26 0	3 × 9	32 0
3 × 8	26 0	2½ × 9	32 0
3 × 7	25 0	3 × 4½	24 0
2½ × 7	24 10	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	20/-	1¼	38/6
⅞	23/-	1½	38/6
1	25/6		

TONGUED AND GROOVED FLOORING.		MATCHINGS (BEST).	
Inches.	per sq.	Inches	per sq.
1	25/6	⅝	17/6
1¼	33/6	¾	22/-
1½	38/6	1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle			0	2	10
Dry Wainscot Oak, per ft. super, as inch		0 2 0 to	0	2	6
¾ in. do.		0 1 6 to	0	2	0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch		0 1 9 to	0	2	6
Cuba Mahogany		0 3 6 to	0	4	0
Teak (Rangoon, Moulmein or Java), per load		45 0 0 to	50	0	0
American Whitewood planks, per ft. cube		0 14 0 to	0	16	0
Best Scotch Glue, per cwt.		4 10 0 to	—		
Liquid Glue, per cwt.		4 7 0 to	5	10	0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London.
	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto handmade ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 0

METALS.

	£ s. d.
JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—	
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
" Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅝ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTEES—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	14 0 0	to	15 0 0
Staffordshire Crown Bars—good merchant quality	14 10 0	..	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	13 10 0	..	14 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 10 0	..	14 10 0
Hoop iron, basis price	16 10 0	..	17 10 0
" Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black—Ordinary sizes to 20 g.	15 10 0	..	16 10 0
" " " 24 g.	16 10 0	..	17 10 0
" " " 26 g.	18 10 0	..	19 10 0

Sheets Flat Best Soft Steel, C.R. & C.A. quality—

Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10 0

Flat and Galvanised Corrugated Sheets—

Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24 10 0

Sheets Galvanised Flat, Best quality—

Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	21 10 0	..	23 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.		
LEAD—Sheet, English, 4 lb. and up	34 0 0	..	—
Pipe in coils	34 10 0	..	—
Soil Pipe	37 0 0	..	—
Compo pipe	38 0 0	..	—

NOTE—Country delivery, 30s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	22 0 0	..	—
Do., ex country, carriage forward per ton	23 0 0	..	—

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	43/6	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
38/-	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1¼ in.	2 in	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES. S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
32/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	120/- "

COPPER—	£ s. d.		
Strong Sheet per lb.	0 2 3	..	—
Thin " "	0 2 4	..	—
Copper nails "	0 2 3	..	—
Copper wire "	0 2 4	..	—
TIN—English Ingots "	0 2 0	..	—
SOLDER—Plumbers' "	0 1 0	..	—
Tinmen's "	0 1 2	..	—
Blowpipe "	0 1 4	..	—

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

Per Ft.		Per Ft.	
15 oz. fourths	3½d.	32 oz. fourths	8½d.
15 " thirds	4½d.	32 " thirds	10½d.
21 " fourths	5d.	Obscured Sheet, 15oz.	4d.
21 " thirds	6½d.	21 "	5½d.
26 " fourths	6d.	Fluted 15oz. 6½d. 21oz.	9½d.
26 " thirds	7½d.	En'lled 15 " 5½d., 21 "	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft
⅛ Rolled plate	4½d.
3/16 Rough rolled	5½d.
¼ Rough rolled	5½d
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.
Cast Plate is same price as rough rolled.	

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

PAINTS, &c.	£	s.	d.
Raw Linseed Oil, in pipes .....per gallon	0	3	9
,, ,, ,, in barrels .... ,,	0	3	11
,, ,, ,, in drums .... ,,	0	4	2
Boiled ,, ,, in barrels .... ,,	0	4	3
,, ,, ,, in drums .... ,,	0	4	5
Turpentine in barrels ..... ,,	0	7	4
,, in drums (10 gall.) .. ,,	0	7	11
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	55	10	0
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots.....per ton delivered	77	0	0
Red Lead, Dry (packages extra)....per ton	42	0	0
Best Linseed Oil Putty.....per cwt.	0	16	0
Filocot.....per cwt.	0	15	6
Size. XD Quality.....fkn.	0	3	6

VARNISHES, &c.	Per gallon £	s.	d.
Oak Varnish ..... Outside	0	14	0
Fine ditto ..... ditto	0	16	0
Fine Copal ..... ditto	0	18	0
Pale Copal ..... ditto	1	0	0
Pale Copal Carriage ..... ditto	1	4	0
Best ditto..... ditto	1	12	0
Floor Varnish..... Inside	0	18	0
Fine Pale Paper ..... ditto	0	18	0
Fine Copal Cabinet ..... ditto	1	2	6
Fine Copal flatting ..... ditto	1	0	6
Hard drying Oak ..... ditto	0	18	0
Fine Hard drying Oak ..... ditto	0	19	0
Fine Copal Varnish ..... ditto	1	0	0
Pale ditto ..... ditto	1	2	0
Best ditto ..... ditto	1	12	0
Best Japan Gold Size.....	0	12	0
Best Black Japan.....	0	12	0
Oak and Mahogany Stain (water).....	0	12	0
Brunswick Black.....	0	9	0
Berlin Black.....	0	14	0
Knotting (patent)	1	5	0
French and Brush Polish.....	0	17	6
Liquid Dryers in Terebine.....	0	9	0
Cuirass Black Enamel.....	0	7	0

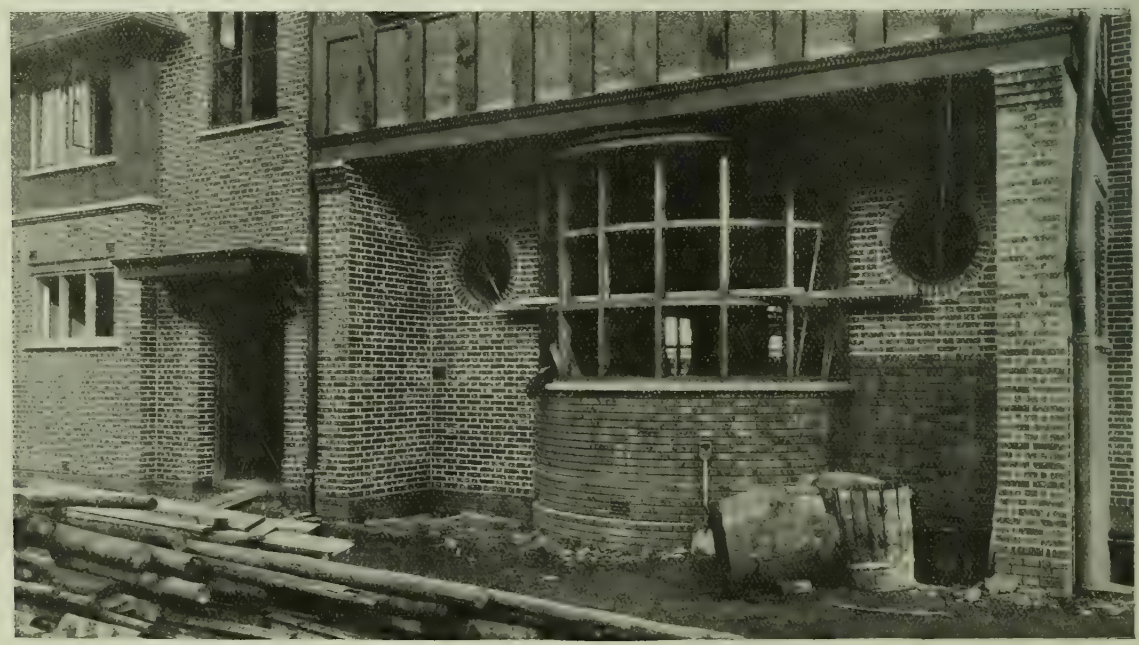
L.C.C. Central School of Arts and Crafts.

In view of the Imperial Education Conference to take place in London this month, it has been decided that the present exhibition of work of the L.C.C. Central School of Arts and Crafts, Southampton-row, W.C.1, shall remain open from 10 to 5 daily, Saturdays 10 to 12, until July 20. On the opening of the London Education Exhibition at the adjoining London Day Training College, on Tuesday, it will form a part of that exhibition. Admission is free on signing the visitors' book.

PATENTS.

195,661.—T. Gare: Method of treating wood.
195,699.—Oritur Manufacturing Co., Ltd., and J. W. G. Starkey: Door furniture.
195,724.—S. L. Duncombe: Grip for slats used on lifts, stairs and corridors.
195,772.—W. H. Dorman & Co., Ltd., and O. H. G. Steed: Pipe joints.
195,823.—T. Greaves, W. H. Darbourne and V. Warner: Timber-drawing appliances.
195,859.—M. Kahn: Centering or false work for concrete floors.
195,862.—F. Hatcher: Mortise and tenon joints.
195,771.—Parker, Winder & Achurch, Ltd., and G. P. Achurch: Concrete mixing-machines.
195,886.—C. W. Dwyer: Fumigant preparation for destroying woodworm.
195,909.—Ryan Manufacturing & Construction Co., Ltd., and J. Ryan: Process of manufacturing ceiling and partition slabs, or building blocks.
195,914.—J. C. White: Ceiling roses and junction boxes.
186,937.—J. Mesple: Fastenings for doors.
196,687.—E. J. Logan: Concrete castings for structural steel and other members.
196,769.—W. Anderson: Means for preserving stone, brick, and like work.
196,773.—E. Showell & Sons, Ltd., and C. P. Showell: Sliding bolts for doors.
196,823.—A. H. Attwater: Concrete building block.
196,826.—R. C. Durrell: Collapsible box or case.
196,847.—W. M. Dodd: Building blocks.
196,863.—A. Thee: Building blocks or slabs.
176,755.—J. Clement: Windows.
197,349.—W. E. Muntz: Means for securing windows, doors, and gates.
197,375.—C. P. Ellis: Device for retaining sliding doors in open, closed, or intermediate positions.
197,380.—J. Ver Mehr and J. S. Owens: Metallic sheet piling.
197,411.—A. Litster: Lift cages and doors.
197,413: F. Simmons: Stools.
197,422.—H. Baxter: Folding tables or trestles.
197,430.—A. Hiley and E. Le Bas: Construction of concrete piles or columns.
197,448.—M. Fiebig: Timber joint.
197,466.—C. Winn & Co., Ltd., and A. Mousley: Water taps.
197,467.—G. Burton: Trestles, saw-horses, and the like.
197,475.—G. G. Parnall and A. E. Murray: Fastenings for the doors of show cases, cabinets, or like furniture.
197,547.—A. Wallis: Machines constructed for distributing grit, gravel, and the like materials on roads and pathways.
197,551.—G. Atterbury: Cementitious nailing-blocks and grounds for builders' use.
197,584.—T. Bailey: Method of fastening slates and tiles to roofs.
197,601.—R. W. Anderson: Composition for use in covering floors, decks, walls, or bulkheads.
196,314.—H. Wade (Societa Anomima Brevetti Bagala): Bricks.
196,339.—H. Mercer: Show-cases for shop windows.
196,342.—M. Bacchiolelli and A. Meifred-Devals: Process of utilisation of igneous rocks for the manufacture of ceramic products.
196,345.—H. Aves, D. J. Edmonds, and B. S. Dunn: Locks.
196,348.—J. A. Law (American Abrasive Metals Co.): Manufacture of material highly resistant to penetration.
196,363.—Gloucestershire Aircraft Co., Ltd., H. P. Folland and H. E. Preston: Constructional metal work.
196,404.—P. J. White (E. Schoepke): Stamping-presses for moulding building-blocks and other articles from plastic material.
196,424.—A. B. Horne and A. J. Hubbard: Paving-blocks.
196,444.—R. Denham: Chair and other seats and backs.
196,466.—J. McLaughlan: Metallic roofing-sheets.
196,484.—W. G. Bailey: Machines for making concrete building-blocks or slabs.
196,487.—M. McGinness: Impact pulverizers.
196,496.—P. T. Clark: Ventilator.
187,579.—Buhler Geb: Manufacture of Portland cement.
192,037.—Wendel et Cie, Les Petits Fils: Liquid-air blasting-cartridge.
196,955.—P. N. Lancaster: Apparatus for use in the construction of concrete piles.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.



Inn at Stirchley, Birmingham. Mr. Arthur Edwards, Architect.

[This building shows the effect obtained by pointing brickwork with white cement, which can be compared with that part of the walling which was not pointed when the photograph was taken. The builder is Mr. W. Jackson, of Langley Green, near Birmingham. "Atlas White" cement was used, and 2¼ in. Black Country brindle bricks.]

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	12	6
Add if in clay	" "	1	3
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	36	0
Add if in underpinning in short lengths	" "	8	0
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	31	0	0
Add if in stocks	"	8	15	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty cambor or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	2
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	23	0
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3	
Do. joists	" "	5	9	
Do. roofs, floors and partitions	" "	6	3	
Do. trusses	" "	8	3	

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

Flat centering for concrete floor, including struts or hangers	per	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1¼ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.

		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	52	0
Do. Do. in flats	"	49	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	9
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	10d.	1/6	1/9	3/1	3/10	
Do. service	"	1/5	1/11	2/3	3/6		
Do. soil	"						6/2
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	" "	2	6
Do. Do. Keen's	" "	3	6
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	11
Do. plain face	" "	3	4
Mouldings in plaster	per 1 girth	0	2½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup	0	10
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	8
Enamel	" "	1	2
Wax polishing	per foot sup.	0	8
French polishing	"	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TRADE NEWS.

"Pudlo" brand cement waterproofer was used in the construction of Blackpool Open-Air Bath, which we recently described.

Richard Melhuish, Ltd., of Fetter-lane, are sending out their catalogue dealing with ironmongery, electrical and gas fittings free of cost.

The Waygood-Otis Athletic Club are holding their fourteenth annual sports and garden party on their ground at Whitefoot-lane, Bromley-road, Bellingham, on July 7, at 2.30 p.m.

The British Roofing Co., who specialise in the well-known "Alligator" brand of roofing felts, damp-courses, asbestos slates and sheets, have removed their new general offices to Maxwell House, 11, Arundel-street, Strand, W.C.2. The new telephone number is Central 4824.

Messrs. R. Jenkins & Co., Ltd., boilermakers, tankmakers, and coppersmiths, of Rotherham, have opened offices and showrooms at 15, Victoria-street, S.W. Their London representative is Mr. A. Seymour Smith, who is assisted by Mr. Cedric Jenkins.

A single-light stained glass window which has been placed in the north transept of St. John's Church, Roundhay, Leeds, in memory of Second-Lieutenant Tom Willey, the elder son of Mr. Arthur Willey, M.P., and Mrs. Willey, was from the studios of Mr. Chas. E. Steel, of Leeds.

The Columbian Fireproofing Company, Ltd., of Windsor House, Victoria-street, London, S.W.1, have issued a new catalogue illustrating their system of fireproof flooring, now in use at the Ritz Hotel, Harrods' Stores Depository, London City and Midland Bank (Birmingham), Metropolitan Markets Cold Storage (Smithfield), and other large buildings in different parts of the country.

A new building material, a wallboard, in the form of a combination of wood and metal, has been put on the market by Messrs. Venesta, Ltd., of No. 1, Great Tower-street, E.C. 3. The centre of the boarding (which is called "Plymax") is formed of a core of light-weight plywood, acting as a spacer or distance to light gauge steel sheet cemented to the faces. The spacing of the metal faces on each side of the plywood gives the material great stiffness, as the metal is in the position of the flanges on a rolled I-section beam, while the wood core takes the place of the thin central web. It is claimed that this material is the stiffest known form in which flat sheets can be produced for a given weight. The conductivity of heat and cold is practically that of wood, while the fact that the steel faces protect the wood core from air makes it extremely fire-resisting. The steel is coated with a film of lead or zinc to protect it from decay, and it is claimed that the material is not affected by changes of temperature up to 212 deg. Fahr. The material, which is produced in standard size sheets, should be especially suitable for use for partitions, shelves, fireproof doors, stair-treads, lockers, ice chests, panels in metal and wooden furniture, in vehicle construction, for bins, silos, drying and refrigerating machinery, lift cages and wells, air trunking, &c.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

*** Denotes *accepted*. † Denotes *provisionally accepted*.**
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

BATH.—Construction of new inlet for condensing water, for the T.C.:—
*F. J. Blackmore & Sons £120

BATH.—Extension of pavilion at Alexandra Park, for the T.C.:—
*Warfield & Co. £105 10

BILLINGHAM.—For relaying sewer at Haverton Hill, for the U.D.C.:—
*C. White & Co. £151 7

BLYTH.—The contract for the reconstruction of the West Pier at Blyth, for the Harbour Commissioners, has been let to Messrs. Brims & Co., Ltd., of Pandon Buildings, Newcastle.

BRADFORD.—For erection of 66 tenements for the Corporation:—
*E. Balmforth, Bradford.

BRAMPTON (Cumberland).—For new bank for the Bank of Liverpool & Martins, Ltd. Mr. H. Oldfield, architect, Workington:—
*J. H. Reed & Sons, Carlisle.... £4,540 6 7

BRIGG.—For erection of new Council offices, for the U.D.C.:—
*R. M. Phillips, Brigg..... £388 19 6

BURY ST. EDMUNDS.—For erection of 24 houses, for the T.C.:—
*A. Plummer, Bury St. Edmunds £9,768

CAMBRIDGE.—For the erection of houses on the Chesterton Hall Estate, for the T.C.:—

	Group II. 14 houses.	Group III. 11 houses.
Manning & Bullman	—	£5,425 0 0
Johnson & Bailey	£5,739 0 0	4,601 0 0
J. W. Bennett & Sons ..	5,740 0 0	4,660 0 0
J. Brignell	5,550 0 0	4,310 0 0
G. B. Mortlock	5,520 0 0	4,462 0 0
Hard & Dickerson	5,465 7 3	4,349 10 11
E. C. Northfield & Sons..	5,338 10 0	*4,206 10 0
Negus & Sons	*5,255 0 0	4,235 0 0

DURHAM.—For various works for the R.D.C.:—
Framwellgate Moor Housing Scheme (Roads and Sewer Works)—

T. Hilton & Sons, Ltd., Bishop Auckland	£1,625 18 10
D. & J. Crombie & Co., Sunderland	1,446 3 1
Wm. Lodge, Framwellgate Moor.....	1,435 13 8
Geo. E. Simpson & Co., Newcastle-on-Tyne	1,372 13 1
J. Crawford & Co., Southwick	1,380 4 2
E. R. Davison & Co., Blaydon-on-Tyne	1,338 10 10
F. M. Willers & Co., Bishop Auckland..	1,267 10 2
Dyson, Lindsley & Co., Chester-le-Street	1,220 18 8
J. W. White, Sunderland	1,196 12 0
Walton Bros., Crook	1,140 0 0
J. Pearson, Ltd., Stainton-in-Cleveland	1,116 14 5
A. E. Hobbs, Stockton-on-Tees	1,113 3 0
Ainsley Bros., Durham	1,023 5 0
*Fordyce Bros., Middlesbrough.....	969 4 9

Kimblesworth Private Street Works—

T. Coates, Durham	13,340 4 0
T. Hilton & Sons, Ltd., Bishop Auckland	11,678 1 0
Wm. Lodge, Framwellgate Moor	10,998 3 0
Sir Wm. Prescott & Sons, Ltd., London	9,806 13 6
D. & J. Crombie & Co., Sunderland..	9,066 11 8
Fordyce Bros., Middlesbrough	8,485 18 10
J. W. White, Sunderland	8,406 16 3
F. W. Willers & Co., Bishop Auckland	8,175 4 5
Jas. Pearson, Ltd., Stainton-in-Cleveland	7,698 4 3
Geo. E. Simpson & Co., Newcastle-on-Tyne	7,693 15 1
Dyson, Lindsley & Co., Ltd., Chester-le-Street	7,456 0 1
J. Crawford & Co., Southwick	7,172 18 3
*A. E. Hobbs, Stockton-on-Tees	6,681 4 9

Ushaw Moor Housing Scheme (average price for 40 houses)—

W. W. Franklin, Jun., Newcastle-on-Tyne	£514 5 9
Lough Bros., Consett.....	502 12 0
J. W. White, Sunderland	470 10 0
Walton Bros., Crook	460 10 0
James Byron, Ltd., Bury	450 0 0
Bolam, Simpson, & Bolam, Birtley.....	444 19 7
Thos. J. Lee & Co., Ltd., Chester-le-Street	440 0 0
F. W. Mole, Chester-le-Street	434 4 0
Armstrong & Hewitt, Esh Winning	421 0 0
H. F. Mole, Chester-le-Street	413 8 0
A. Elcoat, Bearpark	398 8 8
F. W. Goodyear, Durham.....	397 10 0
E. R. Davison & Sons, Blaydon-on-Tyne	387 12 4
E. Rutter & Sons, Esh Winning.....	387 10 0
J. W. Wilkinson, Gateshead-on-Tyne....	359 10 0
*T. Hilton & Sons, Ltd., Bishop Auckland	359 7 9

DAVENPORT.—For erection of residence. Mr. C. Hartley, architect, 130, Shaw Heath, Stockport:—
*Henry Derbyshire, Stockport.. £6,000 (estimated)

EALING.—For making up roads, &c., on the Village Park Estate, for the T.C.:—
*J Mowlem & Co..... £6,292 12 7

GLOUCESTER.—For the erection of 142 houses for the T.C.:—
Unit Construction Co.

HARROGATE.—For erection of residence and garage in Wetherby-lane, for Mr. E. Muff:—
*F. G. Burgess, Manningham, Bradford.

HARROGATE.—For erection of war memorial for Ashville College:—
*J. T. Wright & Sons, Leeds.

HAWORTH.—For erection of a war memorial, for the local committee:—
*Barber & Heseltine, Pontefract..... £500

HUNSLET.—For erection of a new school for boys at St. Joseph's R.C., Joseph-street, Hunslet. Messrs. J. Simpson & Sons, architects, Manningham, Bradford:
Mason and joiner—Wm. Gott & Son, Leeds.
**Concretor*—S. McFarlane, Ltd., Leeds.

HYDE.—For welfare scheme. Mr. W. A. Dew, architect, Market-chambers, Hyde:—
*Wm. Norgrove & Sons, Ltd., Hyde.

ILFORD.—For extension of workshops at Electricity Works, for the U.D.C.:—
*J Seymour, Wanstead..... £496 16

ILFORD.—For supplies of tar to the U.D.C.:—
*Bristowes' Tarvia, Ltd., 5,000 gallons of Tarvia at 1s. 1½d. per gallon.
*Burt, Boulton & Haywood, 10,000 gallons of refined coal tar at 10½d. per gallon.

LANCASTER.—For erection of 20 houses on Scotforth Housing Site, for the T.C. Borough Surveyor, Town Hall, Lancaster:—
*R. L. Dilworth, Lancaster..... £8,763 12 8

LEEDS.—For erection of new premises in Bishopsgate-street, for N. G. Morrisons, newsagents and advertising contractors:—
*Wm. Airey & Sons, Leeds.

LEEDS.—For erection of new Church for the First Church of Christ Scientists. Messrs. Schofield & Berry, architects, Park-row, Leeds:—
*Armitage & Hodgson, Leeds.

LEEDS.—For erection of sub-station in Barrack-street for the Corporation:—
**Mason and concreter*:—J. Hindle, Hunslet.
**Asphalter*—Tunstall's Rock Asphalte Co., Ltd., Leeds.

LEEDS.—For erection of new warehouse and stores in Gelderd-road, for Messrs. Jessops, provision merchants:—
*Wm. Mason & Sons, Leeds.

LEEDS.—For outside painting at the Central Home, Street-lane, Roundhay, for the B.G. Mr. James H. Ford, Clerk, Poor Law Offices, South-parade, Leeds:—
*W. Greenwood & Sons, Leeds..... £108 10

LEICESTER.—For building work in connection with the extensions at Central Generating Station, for the T.C.:—
*J. Chapman & Sons, Leicester £18,789

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LONDON.—For repaving of Gower-place and part of Camden-street, for the St. Pancras B.C. :—

*Constable, Hart & Co., 8s. 6d. per yd. sup., with condition as to maintenance.

LONDON.—For reconstruction of Pool Bridge, Lewisham, for the L.C.C. :—

Joseph Westwood & Co., Ltd.	£4,098 17 11
H. Farrow	2,951 7 0
H. Collingridge	2,797 17 8
Wm. Muirhead, Macdonald, Wilson & Co., Ltd.	2,772 5 0
H. Kent	2,718 15 10
*Thomas & Edge	2,581 5 4

LONDON.—For construction of foundations at Abbey Mills pumping station, for the L.C.C. :—

John Gill (Contractors), Ltd.	£21,034 3 4
G. Shellabear & Son, Ltd.	20,999 5 9
Henry Boot & Sons (London), Ltd.	19,622 1 6
George Greenwood & Sons, Ltd.	18,023 15 10
Kinnear, Moodie & Co.	16,532 0 0
Concrete Piling, Ltd.	16,061 14 5
D. G. Somerville & Co., Ltd.	15,632 18 9
Mitchell Bros., Sons & Co., Ltd.	15,500 0 0
Arthur Cole, Ltd.	13,815 2 8
*F. R. Hipperson, Trowse, Norwich	

The Chief Engineer's estimate comparable with the tenders was £16,600.

LONDON.—The following tenders have been accepted for the L.C.C. :—

Colloden-street (Poplar, S.), provision of new steam boiler—*John Thompson (Wolverhampton), Ltd., £415.

King's Canadian School, Bushy, interior cleaning—*Speechley & Smith, £109.

Broad-street (Limehouse), formation of new lobby, &c.—J. & C. Bowyer, Ltd., £142.

Brackenbury-road (Hammersmith, S.), provision of head-teachers' rooms, &c.—A. & F. Polden, £248.

Berger-road (Hackney, S.), formation of staff rooms—J. & C. Bowyer, Ltd., £497.

Berkshire-road (Hackney, S.), additional sanitary accommodation—J. & C. Bowyer, Ltd., £316.

Beresford-street (Southwark, C.)—Heating work in connection with minor improvements—W. G. Cannon & Sons, Ltd., £129.

Columbia-road (Bethnal Green, N.E.), formation of head teachers' rooms—J. & C. Bowyer, £311

Crampton-street (Southwark, C.), removal of stepping—J. L. Cotterall & Sons, Ltd., £100.

Cottenham-road (Islington, N.)—Provision of head teachers' rooms—J. C. Mather, £230.

Credon-road (Camberwell, N.), removal of stepping, &c.—Snelling & Rayment, £368.

Dalmain-road (Lewisham, W.), provision of new exits and entrances to cloakrooms, &c.—F. R. Hipperson, £187.

Deptford Park, The (Deptford), formation of head teachers' rooms, &c.—W. J. Dixon & Son, £774.

Dingle-lane (Poplar, S.), adaptation of house for schoolkeeper—W. Simms, £440.

Effra-parade (Norwood), provision of head teacher's room—A. Phelps & Wilton, Ltd., £225.

Eglinton-road (Woolwich, W.), removal of stepping—W. Bailey, £115 12s.

Ecclesbourne-road (Islington, E.), rearrangement of rooms and formation of lobby—The Pitcher Construction Co., Ltd., £252.

Grove-street (Greenwich), formation of head teachers' rooms—F. R. Hipperson, £217 17s.

Hackford-road (Kennington), formation of head teachers' rooms—J. Garrett & Son, £280.

Invicta-road (Greenwich), provision of head teachers' rooms—H. Groves & Son, £139.

Langford-road (Fulham, E.), formation of head teachers' rooms, &c.—A. Roberts & Co., £180.

Lomond-grove (Camberwell, N.W.), formation of head teachers' rooms, &c.—Triggs & Co., £108.

Marlborough, The (Chelsea), removal of stepping, &c.—R. A. Jewell, Ltd., £185.

Monson-road (Deptford), formation of head teachers' rooms—F. R. Hipperson, £189.

Napier-street (Shoreditch), formation of head teachers' rooms—G. B. Farrar & Co., £262 10s.

Old Woolwich-road (Greenwich), formation of head teachers' rooms—T. D. Leng, £264.

Leo-street (Peckham), formation of head teachers' rooms—W. J. Dixon & Son, £109.

Riley-street (Bermondsey W.), formation of head teachers' room, &c.—Snelling & Rayment, £215.

Surrey-lane (Battersea, N.), rearrangement of classrooms, &c.—Lole & Co., £514.

Salters-hill (Norwood), removal of stepping—Triggs & Co., £168.

Saunders-road (Hammersmith, N.), provision of head teachers' rooms, &c.—W. Brown & Sons (Builders), Ltd., £317.

L.C.C. School of Building (Brixton), extension of workshops—W. J. Dixon & Son, £398.

Woodland-road (Norwood), provision of teachers' rooms—J. & C. Bowyer, Ltd., £168.

LONDON.—Erection of four maisonettes in Ardley-street, for the Hackney B.C. :—

A. G. Winters	£1,995
F. J. Coxhead	1,962
Fairhead & Son	1,890
*F. & G. Foster	1,816

METROPOLITAN ASYLUMS BOARD.—The following tenders have been received for various works by the Metropolitan Asylums Board :—

Eastern Ambulance Station—Cleaning, painting and repairs.

Kazak, L., N.W.	£175 0 0
Thomas, H. A., & Son, East Dulwich	161 10 0
†Inns, Arthur H., Ltd., E.C.	155 0 0

Long Reach Hospital—Covering steam boilers and pipes with non-conducting composition.

Pick, H. J., Ltd., E.C.	1,260 11 10
Ross, John, Leeds	1,100 0 0
Reid, McFarlane & Co., Ltd., Plaistow	940 0 0
Keenan, Matthew & Co., Ltd., Bow	925 0 0
Goodman, C., & Co., Ltd., E.C.	894 0 0
Lonsdale Bros., Ltd., Blackburn	820 0 0
Newalls Insulation Co., Ltd., E.C.	758 18 2
Roscoe, Edgar & Co., Ltd., Doncaster	752 13 8
Barker, James, Pioneer Works, Oldham	693 14 1
Tranter, W. J., Ltd., Tipton	630 0 0
McGowing, W., & Co., Leyton	585 0 0
Anderson, Thomas, Ltd., Deptford, S.E.	585 0 0
†Sutcliffe Bros. & Bryce, Ltd., Stratford, E.	500 0 0

Western Hospital—Cleaning, painting and repairs.

Hocking, J., & Co., S.E.	2,300 0 0
Thomas, H. J., & Son, S.E.	1,927 0 0
Fenn, J. Scott, Woolwich	1,867 18 0
Inns, Arthur H., Ltd., E.C.	1,836 0 0
Kazak, L., N.W.	1,820 0 0
Hussey, William, S.W.	1,780 0 0
Boyd, C. H., & Son, Ltd., W.2	1,723 0 0
†Wright, S. T., S.E.	1,352 0 0

North-Eastern Hospital—Cleaning, painting and repairs.

Hensun & Co., Wood Green N.	1,400 0 0
Thurgood, G. L., & Son, Ltd., Herts.	1,290 0 0
Kazak, L., Hampstead	1,090 0 0
†Hocking, J., & Co., Charlton	1,040 0 0

Mead Works—Cleaning, painting and repairs.

Thomas, H. A., & Son, S.E.	455 0 0
Hussey, Wm., S.W.	310 0 0
†Boyd, C. H., & Son, Ltd., W.	283 0 0

Colindale Hospital—Painting and repairs.

Buckingham, J. W., & Sons, N.W.	1,841 0 0
Edwards, W. P., & Co., Harrow	1,634 0 0
Kazak, L., Hampstead	1,480 0 0
†Hocking, J., & Co., Charlton	1,450 0 0

Pinewood—Painting and repairs.

Norris & Co., Sunningdale	136 0 0
Elliott, S., & Sons (Reading), Ltd., Caversham	122 0 0
†Spear & King, Crowthorne	101 0 0

High Wood Hospital—Cleaning, painting and repairs.

Jarvis, F. K., Brentwood	2,500 0 0
Myall Bros., Ilford	1,450 0 0
†Hocking, J., & Co., Charlton	1,370 0 0

Southern Hospital—Cleaning and painting, drainage, alterations, sanitary improvements, &c.

Draper, W. J., & Son, Dartford	3,792 0 0
Hocking, J., & Co., Charlton	2,700 0 0
Kazak, L., Hampstead	2,490 0 0
Bowyer, D. C., Belvedere	2,294 10 0
Miller, P., & Son, Dartford	1,905 10 0
†Keevil, O. M., Dartford	1,390 0 0

Western Hospital—Isolation accommodation.

Inns, A. H., Ltd., E.C.	5,042 0 0
Heath, T. W., Ltd., Chelsea	5,023 0 0
Boyd, C. H., & Son, Ltd., W.	4,721 0 0
Hussey, W., S.W.	4,714 0 0
Douglass, Halse & Co., Ltd., Woolwich	4,662 0 0
†Roberts, A., & Co., Ltd., Kensington	4,300 0 0

Lambeth Canal Ward—Alterations and additions.

Pelling, A. W., Catford	2,647 0 0
Douglass, Halse & Co., Ltd., Woolwich	1,990 0 0
Darch, J., Ltd., E.C.	1,987 0 0
Boyd, C. H., & Son, Ltd., W.	1,923 0 0
†Heath, T. W., Ltd., Chelsea	1,630 0 0

Park Hospital—Repairs to tar-paving and road.

Woodham, H., & Sons, Ltd., Catford	300 0 0
Constable, Hart & Co., Ltd., E.C.	285 0 0
Adams, T., N.	259 0 0
Streeter, H., Croydon	190 14 0
Thomson, A., & Co. (London), Ltd., W.C.	144 9 0
Ragusa Asphalte Paving Co., Ltd., W.	136 0 0
†Hobman, A. C. W., & Co., Ltd., Bermondsey	120 0 0

Tooting Bec Mental Hospital—Provision and fixing of body holder fitting.

Troy, F., & Co., Ltd., N.W.	154 12 0
Nutting, J., & Sons, S.W.	135 0 0
Hibberd Bros., Ltd., Lambeth	133 0 0
Darch, J., Ltd., E.C.	118 12 0
†Sharpin, W. S., Bow	114 0 0

Tooting Bec Mental Hospital Extension—Laying asphalte to fire-escape bridges.

French Asphalte Co., Ltd., E.C.	£142 14 3
Claridge's Patent Asphalte Co., W.C.	204 4 6
International Asphalte Co., Hackney	289 15 0
Hobman, A. C. W., & Co., Ltd., Bermondsey	271 12 11
Permanite, Ltd., E.C.	262 0 0
Salter, W., Edwards, & Co., Ltd., Paddington	260 13 7
Bradshaw, J. H., Ltd., Manchester	258 10 2
Ragusa Asphalte Paving Co., Ltd., W.	256 0 0
Val de Travers Asphalte Paving Co., Ltd., E.C.	245 12 4
London Asphalte Co., Ltd., E.C.	242 12 9
Neuchatel Asphalte Co., Ltd., S.W.	235 0 0
Limmer & Trinidad Lake Asphalt Co., Ltd., S.W.	228 0 0
†Whitehall Asphalt & Engineering Co., Ltd., E.C.	199 10 0

Sheffield-street Hospital—Cleaning and painting.

King, H., & Son, Peckham	235 10 0
Thomas, H. A., & Son, S.E.	229 16 0
Whitbys, Ltd., W.C.	181 5 0
Darch, J., Ltd., E.C.	180 0 0
†Douglass, Halse & Co., Ltd., Woolwich	165 0 0

NELSON.—For painting at parks and bowling greens, for Nelson T.C. :—

Victoria Marsden and Walverden Parks—
*I. Wilkinson.

Carr-road and Thomas-street Bowling Greens—
*T. Ryecroft.

NEWBURY.—For heating apparatus at Corn Exchange, for the T.C. :—

*Keith & Blackman £468

NEWBURY.—For alterations and repairs at Corn Exchange, for the T.C. Borough Surveyor, Newbury :

Cooke Bros., Newbury	£1,800
*Hoskings Bros. Newbury	1,788

OGMORE AND GARW.—For erection of 12 houses at Llangeinor and making of road and sewers for same, for the Ogmore and Garw U.D.C. :—

*T. Sampson (present contractor—	
Houses, each	£389 10 0
Road and sewers	208 7 6
T. Jenkins, Tonyrefail—	
Houses, each	£546 17 3
Road and sewers	489 5 0
D. J. Davies, Blaengarw—	
Houses, each	£362 13 0
Road and sewers	427 10 0

OLDHAM.—For extensions to Strendales Hospital, for Oldham T.C. Messrs. Taylor & Smith, architect, 29, Queen-street, Oldham, estimated cost £10,000 :—

Builders' work—
*S. & J. Smethurst, Oldham.

PENDLETON.—For three shops in Gerald-road, for Messrs. Sutton & Co., Estate Agents, 60, Spring-gardens, Manchester :—

*Moston Brick & Building Co., Manchester.

PLYMOUTH.—For painting at Smeaton Tower, for the T.C. :—

*A. J. Osborne £122 12 6

RAWMARSH.—For the erection of 12 houses, with fencing, &c., on the Haugh-road site, for the U.D.C. :—

*A. J. Pugh £4,428

RIVER IRK AND ROCHDALE CANAL.—The amount of the successful tender submitted by Messrs. Lambourne & Co., Ltd., at Openshaw, for steelwork for bridge over Rochdale Canal at Aytown-street was £2,066 9s. 6d., and not £266 9s. 6d., as reported in last week's *Builder*.

SALFORD.—For erection of open-air school on Bolton-road playing field, for the T.C. :—

*A. Fenton, Manchester £4,350

SALFORD.—For painting of Royal Technical College, for the T.C. :—

*W. Walton, Pendleton £479

SALFORD.—For painting Halton Bank School, for the T.C. :—

*J. Evans £376

SALFORD.—For painting Girls' Secondary School, for the T.C. :—

*P. Cameron £190

SALFORD.—For slating shed at Open-air Council School, for the T.C. :—

*W. Royle & Co., Manchester £300

SALFORD.—For the provision of tramway shelters, for the T.C. :—

*James Allan, Sen., & Son, Ltd., Glasgow, Irwell-street £104
*James Allan, Sen., & Son, Ltd., Glasgow, Frederick-road Junction 150
*James Allan, Sen., & Son, Ltd., Glasgow, Home for Blind, Eccles Old-road 150
*John Bland & Son, Ltd., Salford, Cross-lane (corner of Broad-street) 150

SUNBURY.—For erection of new Primary School for the Education Committee of the County Council of Middlesex. Mr. H. G. Crothall, County Architect, Guildhall, Westminster :—

W. H. Gaze & Sons, Ltd., Kingston-on-Thames	£14,373
Geo. Challis, Brentford	13,575
H. Knight & Son, Tottenham	13,319
W. Lawrence & Son, Ltd., London	13,184
Ferris Bros., Acton	12,950
W. J. Dickens, Ealing	12,800
A. & B. Hanson, Ltd., Southall	12,640
A. Monk, Edmonton	12,395
W. Lacey, Hounslow	12,345
G. Godson & Sons, Ltd., Kilburn	12,300
‡C. J. Newby & Bros., Southgate	12,208

TOTTENHAM.—For erection of school in Vale-road, for the U.D.C. :—

W. W. Brand	£9,800
W. Mullett & Lumsden	9,740
Rowley Bros.	9,112
W. F. Barton & Co.	8,819
S. E. Moss	8,565
P. W. Heath, Ltd.	8,544
A. Fairhead & Son	8,384
Henry Knight & Son	8,253
R. Young	7,995
J. Gutteridge & Sons	7,398

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THURCROFT.—For erection of a new elementary school for the West Riding County Council :—

‡ — Molleken, Maltby, near Rotherham.

TOTTENHAM.—For the erection of a building in Philip-lane, for the Deaf School, for the U.D.C. :—

— Whitby	£9,916	0	0
W. W. Brand	9,588	0	0
R. Young	8,501	0	0
W. Heath, Ltd.	8,075	0	0
W. F. Barton & Co.	7,997	0	0
A. Fairhead & Son	7,887	0	0
S. E. Moss	7,722	1	2
Rowley Bros.	7,649	0	0
Marrable Bros.	7,381	0	0
H. Knight & Sons	7,179	0	0
J. Gutteridge & Sons	6,889	0	0

Under consideration.

TYNEMOUTH.—Provision and erection of steel work in connection with extensions of market sheds at Corporation Quay, for the T.C. :—

*Wright, Anderson & Co. £545

WIGAN.—Operating theatre at Wigan Infirmary, estimated to cost £15,000. Messrs. Thos. Worthington & Sons, architects, 178, Oxford-road, Manchester :—

*Wilson & Sons, Wigan.

WEST HAM.—For cleaning, painting and repairing various schools internally, for the County Borough of West Ham Education Committee. Mr. John H. Jacques, Architect to the Committee, 61, West Ham-lane, Stratford, E.15 :—

*H. C. Horswill, Forest Gate—Central Secondary School	£585	0	
*H. C. Horswill, Forest Gate—Custom House School	794	0	
*H. C. Horswill, Forest Gate—Frederick-road School	1,064	0	
*H. C. Horswill, Forest Gate—Russell-road Temporary School	142	0	
*H. C. Horswill, Forest Gate—Shipman-road School	780	0	
*R. Woollaston & Co., Limehouse—Upton-lane School	638	10	
*R. Woollaston & Co., Limehouse—Gainsborough-road School	871	0	
*W. J. Clemens, Stratford—Godwin-road School	595	10	
*W. J. Clemens, Stratford—West Ham Church School	149	10	
*W. J. Clemens, Stratford—West Ham Park School	736	0	
*J. T. Luton & Son, Stratford—Harold-road School	797	0	
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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXV.—No. 4197. JULY 13, 1923

THE COST OF BUILDING.

IT will probably be admitted even by the layman who has no special knowledge of or interest in building that at the present time few national problems are of greater importance than those connected with the building industry. The popular conception of this problem is confined to questions of housing, and when no special interest in housing exists there is yet a general feeling among all thinking persons that on grounds of social economics the question of housing makes imperative claims for solution. The basis of all real peace and prosperity rests upon happiness and contentment, and for the vast majority these attributes centre in the home circle and depend upon the material conditions of the home more than on anything else. In reality, however, the problems of the building industry cover a much wider field, involving institutional, commercial and other needs upon which the community depends, and if these demands affect social economy less directly than housing they are none the less bound up with national development and trade expansion; the latter urgently necessary to assist in producing the material resources required to produce capital for house building and wages wherewith to produce conditions for obtaining economic rentals.

There are districts in London where the rebuilding activities suggest that trade stimulus has already reached a high pitch, but those who are able to look at the situation from a wider viewpoint know that some, at least, of these activities result from the falling in of leases necessitating rebuilding, and are by no means a criterion of the industrial position generally.

The situation in which we find ourselves depends upon many factors of international character which we can only control very partially, if at all, the chief of which is the economic position of Germany. It is not our place to discuss questions of international policy, but, writing as we are at a moment when a few weeks may bring European changes affecting our national life for many decades, we cannot refrain from referring to the gravity of the situation and expressing the hope that our rulers will spare no efforts to effect a compromise which will avert a rupture with friendly nations and the collapse of central Europe, which would bring disaster to our trade far greater than is generally supposed, and would put back for an indefinite period the many reforms and building developments which are being so earnestly sought.

Let us turn, however, to matters more immediately associated with conditions at home. The position of labour is for the time being stabilised, though we do not agree that the conditions are ideal. With the award upon wages we will not concern ourselves; both sides wisely consented to submit their differences to arbitration, and the agreement was a very timely one; but that the limitation in the matter of hours is by no means wholly of benefit to labour we think some of our friends among the operatives will agree, for there are many who fail to endorse the maxim that spinning out work makes more to go round, which is based on the false premise that some fixed and definite quantity of work is the subject for division, whereas in reality work available expands in accordance with the incentive to putting it into operation on the laws of economics offered to the prospective building owner. Our views on this subject, which are that everyone should be free to work as long as he likes for as much as he is worth, are known to most of our readers. A question of cost of building, which is still open to modification, is the price of building materials. Prices of labour and materials killed the re-start of the building industry after the war, and this was largely due to the Government's well-intentioned, but disastrous, housing scheme, which, conceived with an innocence showing a strange lack of business perception, gave much encouragement to human acquisitiveness.

The Minister of Health in his anxiety to avoid any repetition of the previous disaster, has appointed a Committee to inquire into the price of building materials, which after two months' work has just presented an interim report, from which we quote on p. 68. We commend this early publication: inquiries of this kind, as we know from past experience, are apt to become so protracted that when completed their value is largely lost, because conditions which prompted the inquiry have materially altered. This Committee, under the Chairmanship of Sir Halford Mackinder, has made inquiries in fourteen centres and obtained information from builders and contractors on the one hand, and manufacturers and merchants on the other, the information having been furnished through the chief technical advisers to the local authorities.

In order to obtain uniformity, actual prices of 27 materials employed in the construction of a workman's house have been obtained at specific dates and in a subsequent report it is proposed to issue a statement of total cost of such materials (which represent 95 per cent. of the building) for a defined home. These prices are set out in a valuable schedule and show the prices of materials in April and in June of this year. The features of the table are the evidence it produces that local materials vary considerably in price, and that except for light castings (the subject of an explanatory note) there has been no general increase in prices since April. It is proposed to issue this table revised every month, and given a sufficient circulation this ought to do much to make any upward trend immediately apparent. Two groups of materials are singled out for comment—light castings, the cost of which increased with the cost of pig iron, and bricks, which are stated not to have risen in cost between April and June. From our own information there would appear to be a tendency here and there to hold supplies for better prices, and we think that the Committee's hardest task is yet to come. Our experience is that it is very difficult for a Committee definitely to refute the necessity for increased charges which can generally be substantiated on paper, and the refutation of which, if at all, would involve a long accountancy investigation. Very good work, however, can be done by focusing public attention upon prices, for public opinion is probably much more thought of than are Government reports. One thing at least we hope will not be lost sight of as proved by previous experience, which is, that prices will follow the laws of supply and demand and that appeals for the regulation of prices on any other grounds are a mere waste of time. It thus behoves those who build to see that demand does not outstrip supply if building prices are to remain at a reasonable figure. We are all anxious to see a genuine revival in the building trade, more especially the provision of those small houses which have been promised so long, but the burden on taxation for these houses is already large, and if attempts are made to take an undue advantage of the situation the sooner such building is stopped, and those waiting for such houses are referred to the causes for further delay, the better for everyone.

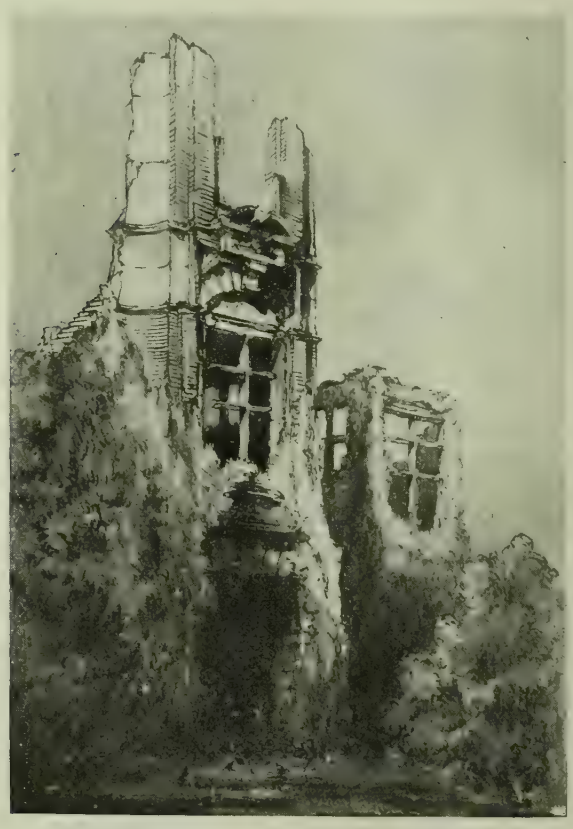
NOTES.

The Competition System.

The increasing frequency of competitions has drawn special attention again to the conditions under which they are held. Some architects of wide experience hold that the balance of advantage is against them, though occasionally they give architects a chance to exercise their skill in practice which they could hardly hope to obtain in any other way. The subject of a competition may be one which is best studied by an experienced and skilled architect in consultation with the clients, whilst in some cases it may be one in which with clearly-defined wants and conditions the forces of competitive artistry may have a fair chance. But often enough a competition discloses more definitely what the promoters do not want than what they do. The best judges in a competition ought perhaps to be those who have taken part in it, and it would be very interesting to see a competition adjudicated by the competitors. Here again, however, there are difficulties, for in a competition which has to be decided by intellect and artistic perception it could hardly be maintained that the majority would know best. We might, for instance, take the recent Bournemouth Pavilion competition, and ask whether we should choose to be judged by the majority of the designers where so small a minority indicate their capacity for judgment by the designs they have submitted. We can well believe that the article by Mr. Howard Robertson, which we publish this week, may voice the opinions of a great many, but some architects of experience do not support the view that three well-known and able assessors come to any wiser decision than a single one. The large view to take in a competition decision is to give the work to the one who appears likely to produce the best building in its twofold aspect of plan and elevation, providing, of course, that the main essentials of the promoters have been supplied.

The Manchester Case.

Have we gone past the time when an important body like the Manchester City Corporation are ready to forgo the advantages of competition? It appears that there can be no competition now for their proposed war memorial, as the Corporation decline to abide by the decision of the assessor nominated by the R.I.B.A. The interest now lies in the question as to how they will be guided in their choice of an architect. Manchester is singularly unfortunate in its past history of the City Art Gallery competition and its long indecision about the Piccadilly site. Why cannot they agree to an open competition with such terms as will secure the contributions of the best architects? Surely they might risk placing their confidence in the decision of such an assessor as Dr. Percy Worthington, or at least in the considered judgment of a jury of three able architects.



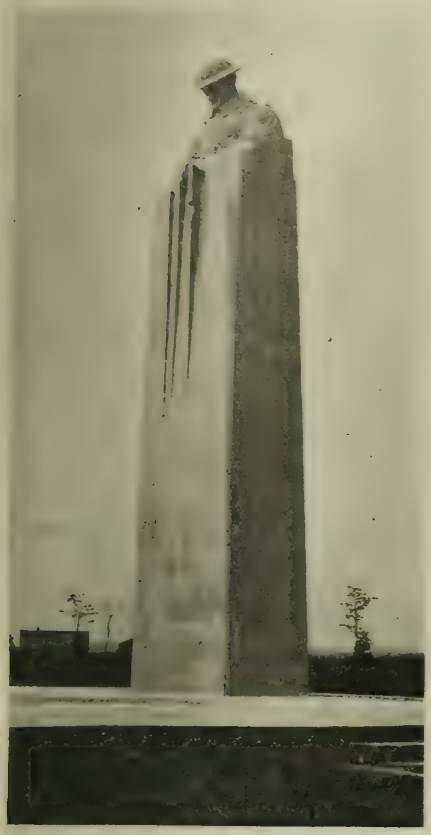
Houghton Towers, Bedfordshire.
From a Sketch by Mr. E. B. Musman, A.R.I.B.A. (*See p.* 49.)

Commemorations.

The variety of forms in which commemorations express themselves, and the immense impetus for all kinds of memorials at the present time, are not without perils. It is easier to erect statues than to remove them after erection, and there are not a few who are asking in the light of recent experience whether the times favour this particular form of commemoration. As an example of this satiety it is interesting to note that the Paris Municipal Council has decided for the present not to consider any applications for sites on which to place new statues, and this decision, so a contemporary informs us, is to stand "until some general policy in regard to the erection of statues in Paris has been determined." It is but recently that at a meeting of the St. Pancras Borough Council one of the Councillors, in reference to the portraits of the past mayors which adorn the walls, is reported to have said: "These pictures are becoming a nuisance, and I trust the time is not far distant when the mayor of the borough will be big enough and strong enough to put aside these childish commemorations." We should be sorry even to appear to deprecate suitable memorials, but recent instances leave us under some apprehension as to the feelings of posterity in the matter. It was said of some period that its great men were a proof of its barbarity, and when we see enormous heads poised on enormous columns, and other strange vagaries which have recently been established to the permanent disfigurement of the localities in which they are placed, we are inclined to ask whether some better appreciation and more restraint in the erection of such memorials is not urgently desirable.

Architect and Craftsman.

Many and various are the opinions put forth for the absence of first hand, vital craftsmanship in architecture, a neglect most noticeable in recent developments of industry wherein the new "salesman's" architecture is found to include no touch of it. Professor Lethaby, it appears to us, reaches the heart of the matter in saying that "there can be no decoration which is not vital workmanship." Somewhat misleading views are unfortunately prominent as to the cause of the absence of the same, for any one acquainted with the available resources of good craftsmanship knows that there is plenty of it, but that it is given little employment. Architectur



Canadian Battlefield Memorial at St. Julien, Ypres.

Mr. F. Chapman-Clemesha, Sculptor.

[This design was premiated in the recent competition assessed by Professor C. H. Reilly, F.R.I.B.A., the late Frank Darling, and Mr. Paul Cret, and was unveiled by H.R.H. the Duke of Connaught on July 8. The memorial, which was built by the Federal Government of Canada, is 35 ft. high, and is of grey granite from Brittany.]

to-day seldom reaches this more intimate and extended vision, and is poorer for the loss of it; nor is the human loss any less, in that the best powers of the nation are so far denied opportunity. When, however, the absence of good craftsmanship is denied it is not unusual to find advocates of this view falling back on another defence, *i.e.*, that if there is vital craftsmanship people won't pay for it, the inference being that vital craftsmanship is too expensive. The very opposite is more nearly the truth, for it is bad art which seen truly is so expensive to the nation. Nor is it the case that to-day the craftsman demands high payment; on the contrary, considering the demands that his work makes upon him, his prices are low, and estimated on any other employment would appear very inadequate. The public should not be misled into believing that there is a lack of good craftsmanship, or that the prices asked account for the lack of opportunity. On the architect in this relation rests a great responsibility to recognise and make every opportunity for vital workmanship, and he will add a new dignity to his own work in doing so.

Additions to the Tate Gallery. Accommodation for the housing of the gift of pictures by the late Sir Joseph Duveen is now being arranged for through an extension to the west of the Turner wing of the Tate Gallery. The architects' plans have been passed and the work can now be started. Some of the pictures are already being exhibited in one of the smaller galleries in addition to 36 pictures received under the Lane bequest and others acquired by gift or purchase. If we regard these extensions with the other collections already available to the public, London can lay claim to be considered almost the finest centre for the study of art.

Decoration of Public Buildings. The letter, by Mr. Thomas Derrick, to which we referred in our issue for June 15, avoids the mistakes of recent proposals for the employment of students on our important public buildings, which, he said, unless they were led by artists of attainment and long practice, showed a want of appreciation of the proper claims of such work. It was all the more to be deprecated from the fact that the proposals ignored the claims of practising artists dependent on their work and far more fit to exercise their abilities in such a way, and which this scheme discountenanced. It has not succeeded because it could not succeed, as the approach was theoretic and ignored the facts that govern such work. We do not think that our public buildings should be experimented on in such a way as was suggested, but in the more modest work of house decoration, approaching it in the ordinary way of the painter and decorator, there is a field which, if cultivated, should open the way to a new tradition of such painting—bringing a fresh impulse of treatment and design where it is much to be desired. Expense should not deter us, for, as Mr. Derrick points out, "it is not extravagant to use artists, any more than it is extravagant to use miners and engineers."

The Bournemouth Competition. Sir Edwin Cooper, the Assessor in this important competition, is to be congratulated on the expeditious manner in which he made his award, no light task when some 97 designs were submitted. It is trying to competitors who have spent much time on their designs to have to wait months before the result is made known, as is so often the case.



Houghton Towers, Bedfordshire.

From a Sketch by Mr. E. B. Musman, A.R.I.B.A.

GENERAL NEWS.

Professional Announcements.

Having been appointed Resident Architect for the Offington Park and Angmering-on-Sea Estates, Mr. G. H. Treacher, of Eagle Chambers, Kingston-on-Thames, desires catalogues in so far as relate to domestic work. Address: Offington Park Estate Office, Broadwater Green, near Worthing, Sussex.

Mr. Victor H. Wilson, L.S.A., architect and surveyor, has commenced an architectural practice at 91, London-road North, Lowestoft (telephone, Lowestoft 468), and will be glad to receive catalogues, &c.

The Globe Playhouse.

The Cambridge University Press have in course of preparation "On the Site of the Globe Playhouse of Shakespeare: Lying to the North of Maiden-lane, Bankside, Southwark," by Mr. George Hubbard, F.S.A., F.R.I.B.A. Mr. Hubbard's aim is to show that "The Globe" was on the north side of Maiden-lane, now known as Park-street, Southwark.

Church and Schools at Little Kimble.

The new Church and Schools at Little Kimble, Bucks., was opened on Monday, by Dame Margaret Lloyd George, and the dedicatory address given by Dr. Clifford. The new buildings, in the late Gothic period, are in red sand-faced bricks with stone dressings to windows and doors. The roofs are covered with sand-faced tiles, and the principal doorways are in oak. Mr. G. Reginald Farrow, F.R.I.B.A., and Mr. Sydney R. Turner, of Amberley House, Norfolk-street, Strand, are the architects, and Messrs. Crook & Judd, of Waddesdon, are the builders, who also are responsible for the oak seating. The movable screens were supplied by the Bennett Furnishing Co., and the woodblock floors by Messrs. Steven & Adams.

Houghton Towers.

In the House of Commons—

Mr. Wells asked the First Commissioner of Works if he would make an order under the Ancient Monuments Consolidation Amendment Act, 1913, for the preservation of the ruins of great literary and historical interest, known as Houghton Towers, Bedfordshire.

Sir J. Baird said that as the ruins in question had not been recommended by the Ancient Monuments Board to be scheduled under the Act as of national importance, he regretted that he did not see his way to issue a Preservation Order, which would have to be confirmed by a Bill in Parliament. He, however, greatly deplored the proposed destruction of such an interesting building.

York Archæological Society.

Yorkshire Archæological Society recently visited Whitby Abbey. They inspected the work carried out by H.M. Office of Works under the supervision of Mr. C. R. Peers, F.S.A., Chief Inspector of Ancient Monuments. Mr. Peers related some of the history of the Abbey and said they had evidence of ecclesiastical settlements of more than 1,300 years. Whitby was commenced at the latter part of the seventh century and differed from older monasteries inasmuch as it was founded as a missionary centre. It was hoped that evidence would be forthcoming to indicate some definite plan as to the lay-out of the old monastery. But so far only foundations of simple buildings and remains of huts constructed of clay and hazel rods had been discovered. The foundations of a previous church have been found.

Bartlett School of Architecture.

The prize list of the University of London Bartlett School of Architecture, for the Session 1922-23, is as follows:—Donaldson Silver Medal, O. M. Welsh; Herbert Batsford Prize (first year), H. Kendall; Andrew Taylor Prizes, (*a*) Second Year Building Construction, E. Forster, (*b*) Third Year Studio Work, G. L. L. Morgan; Ronald Jones Prizes: (*a*) Mediæval Architecture, Leonora F. M. Payne, (*b*) Renaissance Architecture, F. S. Bardell; Lever Prizes in Architecture: First Prize (£15), Barbara Pouschkine; Second Prize (£10), E. Burckhardt and M. A. Sisson; Lever Prizes in Town-Planning, First Prize (£15), H. S. Triscott; Second Prize (£10), L. M. Austen and J. R. M. Simpson. First-class Certificate in Architecture, Helen M. Benham.

Moor Park, Rickmansworth.

We are informed by a correspondent that Mr. Willard Reed Messenger, of New York, who has constructed apartment houses in New York, has had a conference with Lord Leverhulme in London in connection with the development of the 3,000 acres' estate at Moor Park, Rickmansworth. Moor Park is a mansion built by James, Duke of Monmouth, in 1670, and is one of the finest examples of Italian architecture in England. Sapriani painted the ceiling in the great dining-room, and Sir James Thornhill the classical decorations in the saloon and hall.

Gothenburg Exhibition and Conference.

The Cities and Town Planning Exhibition which will be held in connection with the 300th anniversary of the foundation of the City of Gothenburg, promises to be one of the largest and most important exhibitions of its kind held for many years. The whole of the 9,000 square metres of floor space originally appropriated for the purpose will be utilised, and additional buildings have also been acquired. Specimens of work from all parts of the world will be exhibited, and architects, engineers, town-planners and municipal and State representatives from practically all countries will attend the International Conference organised by the International Garden Cities and Town Planning Federation. A party will leave London on July 31st by the ss. *Patricia*, arriving at Gothenburg on August 2nd. Further details regarding this party can be obtained from the Organising Secretary, International Garden Cities and Town Planning Federation, 3, Gray's Inn-place, W.C.1.

COMPETITION NEWS.

Abbeydale.

In the competition for designs for a new golf club house, the assessor, Mr. W. Herbert Fowler, of London, has placed first the design submitted by Mr. J. Mansell Jenkinson, A.R.I.B.A., and the directors of the Abbeydale Club have instructed his firm, Messrs. Chapman & Jenkinson of Norfolk-row, Sheffield, to carry out the work.

Warrington.

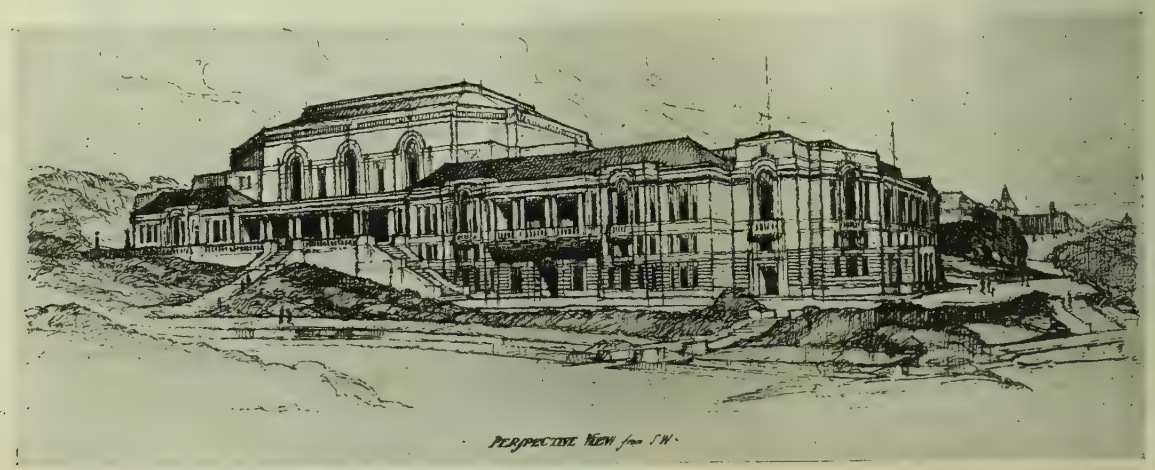
Design for a church and school for the Wesleyan Circuit. Cost between £5,000 and £6,000. Sending-in day, August 8. Further particulars from the Rev. H. Kirby, 2, Palmyra-square, Warrington. Block plan may be seen at *The Builder* offices.

Halifax.

The T.C. invites competitive plans for the lay-out of the Bull Green Site. Premium, £50.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Singapore College (Jan. 1, 1924; March 30). Greenwich Baths (Aug. 25; May 4). Hull Art Gallery (Nov. 5; May 4). Mint competition for plaques (Sept. 30; May 25). Birmingham Masonic Temple (Sept. 12; June 22). Hull Cenotaph (June 22). Colour scheme (Sept. 30; June 29). Glasgow Pavilion (June 22).



Bournemouth Pavilion Competition.

Second Premiated Design, by MR. H. V. ASHLEY and MR. WINTON NEWMAN, FF.R.I.B.A.

[The three premiated designs in this competition were given in our last issue.]

THE COMPETITION SYSTEM.

By HOWARD ROBERTSON.

The increase in the number and importance of public competitions, coupled with a marked revival of general interest in matters architectural, makes it desirable to examine once again with impartiality the system under which these competitions are assessed.

It is sometimes helpful, in the support of an argument, to cite concrete cases, and I may therefore refer to the case of the Manchester War Memorial Competition, mentioned in the last issue of this paper, and to the recent and important competition for the Bournemouth Pavilion, the designs for which you published last week. I select the Bournemouth case, not because the competition was less successful in its results than many others, but merely because the designs submitted for it are still fresh in our minds. The results of this competition, as evidenced by an examination of the premiated and other designs submitted, provide, in my opinion, a certain amount of justification of the arguments of those who have maintained, for some time past, that the system of judging important public competitions through the medium of a sole assessor requires modification. It should be clear that there is here no reflection on the person of the assessor, but rather a query as to the rightness of a system which throws on the shoulders of a single architect the onus of judging unaided the merits of nearly a hundred designs offering varied solutions to a complex problem.

This method of judgment appears to have definitely been considered as inadequate and undesirable in all architectural competitions other than those for buildings which are to be executed. The Rome Faculty in Architecture, for example, would probably not be content to see its great annual competition assessed by any one man, however eminent. A remarkable falling-off in the number of entrants would be the immediate result were such a course to be pursued. That the same thing does not happen in the case of public competitions is due to the fact that there is little choice for the many lesser-known members of a crowded profession between entering for these competitions or forgoing perhaps for ever the chance of executing any large work.

From the initial stages of the competition there is every advantage in an opportunity for an assessor to be able to consult with professional colleagues. No man is infallible, and even in the drawing up of the programme there may be points which the most conscientious assessor may overlook. The submission of the draft programme to a second and third opinion might assist in assuring a clarity which will save competitors a wasted effort, which, taken in the aggregate, often reaches an appalling total. In the Bournemouth competition, for instance, the conditions called for a hall suitable for "first-class operatic and dramatic performances," in addition to the building's primary function as a concert hall. This proviso naturally caused competitors to inquire whether a full stage with wings and the usual height over the proscenium arch for grids would be required. The "answers to questions" stated that this point was left to the competitors to decide, and the matter, therefore, became a question of guesswork as to whether or no such accommodation should be provided. None of the premiated designs showed anything much in the way of stage beyond that required for a concert performance, although it is generally admitted that first-class operatic or dramatic performance requires very substantial stage accommodation indeed. In fact, the tendency in modern theatre design is for the stage to develop in every way and assume very ample proportions.

With the non-provision of a proper stage disappeared the necessity for the usual minimum of dressing-room accommodation, and those competitors who very naturally considered that a hall, such as the programme described, required both, found their designs apparently ruled completely out of court. The result seems to show that the assessor seemed to be decided in his own mind. It is not, perhaps, unfair to ask why the competitors could not have been clearly instructed on this point at the outset. It is quite possible that, had a jury been employed, some one member of it might have pointed out the disadvantages of leaving competitors in the dark over such a vital part of the programme.

The opinions of architects are as varied as the character of the work which they individually produce. The strong tendencies in a given direction of any one man may influence his outlook and incline him towards a certain decision; another architect of equal eminence will hold diametrically opposite views; and his decision will be correspondingly varied. It is quite possible, for example, that three separate assessors of equal eminence may hold very different views as to the best shape for a concert hall, and vary their awards accordingly. But if these three assessors were to be together on the jury, and each submit his reasons to his colleague, there might be a chance of a fair examination of each type, and, at any rate, the argument would make each protagonist show that proof, not prejudice, lay at the back of his opinions. A proper balance of opinion in vexed questions may only be arrived at fairly by a vote which discloses a majority. To avoid placing undue responsibility, and to safeguard the competitors' interests, the assessor should not be allowed to follow his inclinations unaided and unchallenged.

There is another matter of which every follower of competitions is aware, and that is the tendency for competitors to make a study of the assessor's work, tendencies, and opinions, and serve up a design "to taste." Whether the chances of an award are increased thereby is a matter of opinion, but the temptation will always be present under the existing system, and the appointment of a jury would definitely eliminate it. No man can cater to the taste of three people at once, and the result would be that each competitor would do what *he* feels to be right. *The Builder's* comments on the Bournemouth competition in the last issue included an expression of wonder "why such a subject as this pleasure pavilion for Bournemouth does not evoke ideas of more lightness and gaiety in building expression, and why the designers do not forget town halls and temples and business premises." My belief is that the results of past competitions show that a certain heavy type of design, drawn in the "competition manner," is generally successful, and that the competitors were influenced by this fact as well as by the work of the assessor, so successful in precisely the type of work the imitation of which in a pavilion design gave rise to the complaint. This tendency to "cater" to an assessor is having an unwholesome effect on the standard of competition designs, and partially explains the fact that we see awards going to designs which one feels would have little chance of a premium in a judgment delivered by an American or French jury of architects. The chief reason for the retention of the system of the sole assessor seems to lie, not entirely in any whole-hearted objection to the jury system, but in the material difficulty of providing for the remuneration of the jury's members. It is argued that assessors are generally eminent architects, men whose time is extremely valuable, and whose services are deserving of high remuneration. It is often stated that an assessor's fee is sufficiently onerous for the organising body and yet is not really a "paying proposition" for the assessor. All this is true, but one feels tempted to remark that success and eminence carry with them corresponding duties and responsibilities. *Noblesse oblige.* The mere fact of their attainment should incline their fortunate possessor to offer his services for the good of the profession and accept, as do the French architects, a remuneration which is more nominal than lucrative, the payment of expenses, with perhaps a modest fee. Assessorships should be an honour less than a source of income—a perquisite received more or less in rotation by a comparatively restricted body of men.

If some men of eminence feel that such a sacrifice is beyond their means or powers, there are certainly others who would be willing to fill their places, and I feel assured that the formation of competent juries will not present an unsurmountable difficulty in a profession in which so many lesser-known men devote much of their time to purely gratuitous work for the advancement of architecture. A distinct advantage might also accrue through this call to a service more honorary than remunerative. I refer to the introduction of new blood, the contact of the older men with those having less experience but perhaps a fresher point of view. Many young men of ability are to-day entering the competition lists. It is seemly that the tendencies which they represent should be recognised by adequate representation amongst those who assess their work, for a system functioning well at the beginning may, if unduly prolonged, produce stagnation.

Architecture is the most difficult and complex of the arts. The leaders of the profession should spare no effort to make certain that judgment in matters architectural is administered in a fashion as irreproachable as human endeavour can make it. And no question of patronage, no obligation nor friendly courtesy, and, lastly, no pecuniary difficulties, should stand in the way of doing full justice to meritorious effort and providing the best possible means of ensuring its recognition. I believe that the moment has come for architects to ask themselves whether such effort is being made.

CORRESPONDENCE.

Rievaulx Abbey.

Sir,—In the process of excavation at Rievaulx Abbey a quantity of lead has been unearthed near the west end of the nave. It is probable that this came from the roof of the choir (built in 1250) and was melted down and made into ingots, weighing about seven cwts. each, with a view to removal at the time of the Dissolution in 1533.

It is known that the work of destruction went on very rapidly, and possibly the roof of the nave fell in and buried this lead before it could be got away.

By the generosity of Lord Feversham, acting through his guardians, a most interesting situation has now been created. This lead has been given to us at York Minster just as we are getting to work on the Five Sisters Window, and it will enable us to re-lead that priceless glass with lead of precisely the same date as the window itself.

W. Foxley Norris, *Dean of York.*

Small House Plans.

Sir,—While we have the misfortune to be unacquainted with the book on house planning quoted by Mr. W. J. H. Leverton, we think everyone will agree with the not very original axiom he quotes to the effect that the kitchen fire and sink should be convenient the one to the other.

The plans illustrated in your issue of June 29 were prepared with the idea of making them suitable for the large class of inhabitants who do all their cooking in a small working kitchen, with cooker, sink, larder, &c., close at hand, keeping the living-room for the use implied by its name. We know that there is another, but we think a smaller, class of occupant, especially in rural areas, preferring to use its main room as a kitchen, with a separate scullery, but the plans illustrated would be modified in detail if this class of tenant were under consideration. We suggest that this would present no difficulty, and we have certainly done it in some cases.

We are sorry Mr. Leverton thinks these plans are put forward as the last word on the subject. Our intention in preparing them was simply to ascertain what could be done within the new subsidy limits.

With regard to type "D," to which some exception is taken, this is merely a variation of a plan which must have been built in thousands. To us a larder 2 ft. 9 in. by 4 ft. 9 in. seems a necessity, and a back porch 3 ft. 9 in. by 6 ft. 9 in. a very desirable adjunct; but if Mr. Leverton, on consideration, still thinks this arrangement wasteful, we are sure that other readers beside ourselves will be extremely interested to see the plan taken a stage further.

Ewart G. Culpin and R. S. Bowers.

Slope for Corrugated Iron Roof.

Sir,—I should be grateful for practical information as regards the minimum slope or fall required for a corrugated iron roof (with side laps of one corrugation and horizontal laps of 6 in.) which will ensure a watertight result. Also the maximum spacing between purlins for 24 gauge corrugated sheeting without boarding or other support.

"A Reader."

[The minimum slope for the roof mentioned should be 22½ degrees, and the maximum spacing of purlins 5 ft. 6 in., allowing for the use of 6 ft. sheets with a 6 in. lap.—Ed.]

MANCHESTER WAR MEMORIAL.

Mr. Paul Waterhouse, P.P.R.I.B.A., has addressed the following letter to the Editor of the *Manchester Guardian*:—

"During my Presidency of the Royal Institute of British Architects, which terminated at the end of June, I became cognizant of the facts and opinions referred to in your issues of July 3 and 4. The allusions in your London letter of the latter date, while supporting, and, in fact, commending, the practice of our Institute in the matter of competitions, need a word of supplement. Our regulations are by no means merely (if at all) measures of protective 'trades-unionism.' They exist—as a moment's thought will show—in the general interests alike of promoters and of architects; alike of the public and of Art itself. They have won their way to acceptance along a sometimes uneasy road on which architects themselves were the chief sufferers. Their final and complete recognition is the secret of the interesting fact that to-day our British architectural competitions have the finest prestige in the world. Open competition, in this life of imperfections, is an imperfect way of choosing an architect; but it offers to the promoters of public schemes certain great advantages which will be lost if the present prestige is set back. I know a great deal more on the subject in general than discretion would permit me to say, and something more of this particular case than the courtesies of confidence would justify me in disclosing. I admit that to me it is a very great surprise that the reported deadlock should have arisen in Manchester, and I cannot believe that it represents the considered or permanent attitude of the City which has been so long the patroness of the arts, the friend of artists, and—may I add—the devotee of common sense."

Writing to the *Manchester Guardian* on the subject of the Manchester war memorial, Professor C. H. Reilly, F.R.I.B.A., says, in part:—

The difficulty which has arisen over the war memorial is a very real one. Like any other real difficulty, there is right on both sides. The Corporation will not bind itself to accept the assessor's award, and the architects will not compete unless it does.

At bottom the architect's difficulty amounts to a recognition of the fact that there is at present in England very little lay opinion on architecture which is reliable. The real prize in any architectural competition is the structure to be erected. The premiums are only consolation prizes. Every architect competes to win the chance of making the actual monument. Nothing else really matters. Where, therefore, laymen are to be the final judges of what is the real prize, in spite of the expert advice they have called in, the architect in the present state of affairs refuses to compete. He fears that the design he has brought forth will, even if placed first by the expert, be put aside to suit the unexplained fancy of the layman.

The laymen, in this case the Corporation, are providing the money, and feel that that gives them the right to call the tune. They are willing to be advised by an expert, but they want the determining word. However much they admire the expert and his own works, they feel he may be swayed by some idiosyncrasy which might in their view vitiate his choice. They can quite honestly feel like this, and feeling like it they do not want their hands tied.

What, then, is the remedy? The reported action of the Committee in seeking for a design by other means than a competition is no solution at all. Now that the public competition has been given up because the assessor's award was not to be final, any reputable architect directly approached to undertake the work would feel bound to refuse. The Committee therefore ought not to be able to find a good architect to do the work. They can then only fall back on a sculptor. But the design is an architect's job; the sculptor will, as a matter of fact, employ one as a ghost. In this case, however, the architect will have to remain a very thin ghost indeed, for there will be a double reason for his name not appearing. He is not likely, therefore, to be a very good architect, and there is not very much hope for a good monument, such as everyone wants, being brought about on the lines on which the Committee is at present working.

What, then, is the real remedy? I suggest it is to return to the competition idea, but to empanel a jury of three experts instead of a single assessor. I would couple this with a really handsome sum to be paid to the winner if his design is not carried out within twelve months. By paying such a fine the Corporation would be free of the competition, if need be, and could start again with a clean sheet. But I fancy that with a jury the need would not arise. A single assessor with the best will in the world cannot resolve his own personal equation. The particular assessor mentioned would have brought in as fine a field of competitors as any single assessor in the country. With a jury of three architects, however, more still would have come forward. I think England is the only country where the single assessor survives. In France and America the jury system is invariable. If we had it here three-quarters at least of the prejudice in the eyes of promoters against architectural competitions would be removed.



Rievaulx Abbey. (*See p.* 58.)

[North Face of South wall of Chancel after repair. The wall top is left irregular to harmonise with broken fragments in other parts of the ruin.]

HOUGHTON TOWERS, HOUGHTON CONQUEST, BEDFORDSHIRE.

PROFESSOR A. E. RICHARDSON'S letter published in last week's issue of *The Builder* provides yet another instance of the relentless sweep of the scythe of progress. With profound regret one learns of the threatened destruction of what remains of the historic mansion of Houghton Towers. It is inevitable that, with the march of time, the old order should make way for the new; but when, in passing, such names as John Thorpe, Inigo Jones, and Sir William Chambers are conjured up a tinge of sadness is felt at the apparent necessity of having to lose yet another valuable link with the past.

It would be satisfying to learn that steps have been taken to preserve these venerable ruins; or, at any rate, to ensure that as complete a record as possible be left of the place, by means of plans and photographs. Unfortunately, what now exists is in a ruined and dangerous condition; only the bare walls are standing; floors and roof have entirely disappeared, but enough is left to indicate the general disposition of the place, and so enable one to form some idea as to the richness of the detail and the manner of the decoration.

The present house is said to have been built between the years 1616–1621. Local tradition holds that Inigo Jones was responsible for the design—the squareness of the plan and the lack of internal areas certainly substantiates this view—but other authorities incline to the opinion that John Thorpe designed the main body of the house, Inigo Jones merely adding the loggias and south tower, and carrying out the decorations generally. Whoever the original author of the design was, however, there is abundant evidence to show that both Inigo Jones and Thorpe played a very considerable part in evolving the plan. The site is indeed a remarkable one. The house is situated on the brow of a hill, overlooking the Vale of Bedford, and commanding perhaps the finest view in the county.

It is not at all clear whether the principal entrance was on the north or south front. From the plan one would gather the entrance to have been on the north, especially as a broad avenue of oaks led up to the loggia on this side. The south elevation, on the other hand, possesses in the projecting porch a feature which also strongly suggests a principal entrance. If this were the case, however, the entry would be directly into the great hall, and would be quite cut off from the grand stairs.

The eastern wing, which has almost entirely disappeared, was, it may be assumed, given up to kitchen and servants' quarters. How far these were contained on the ground floor or in the basement it is difficult to say. The whole of the east wing possessed a basement, and in all probability the kitchen quarters were situated in it. The western front possesses a fine open loggia, the design of which is attributed to Inigo Jones. This loggia consists of superimposed orders of Doric, Ionic, and Corinthian, excellent in proportion and scholarly in detail.

The loggia to the north—also supposed to have been designed by Inigo Jones—is exceedingly interesting too, in that it affords one of the earliest examples of the use of rubbed brick in England. Generally the main walls are constructed in brick coursed with stone. Several internal walls are entirely of stone. As far as one can judge, the walls were plastered internally and jointed to resemble stone, with deep voussoirs over the openings, particularly in the staircase hall. There is no means of ascertaining what were the planning and arrangement of the upper floors.

In 1738 this fine old mansion was bought by the Duke of Bedford, and after the year 1755 was renovated by Sir William Chambers for the Marquis of Tavistock. Traces of his work are quite apparent in several places, chiefly in the western wing. In 1794 the house was completely dismantled, all the internal fittings and furniture being distributed throughout the neighbourhood. In the Swan Hotel, Bedford, is to be found one of the staircases, a fine example in the style of Sir Christopher Wren, and supposed to have been designed by Henry Holland; while a house in Church-street, Ampthill, boasts another beautiful little oak staircase. Many other of the internal fittings are to be found in various parts of the county.

Though there is nothing now left but the shell, there is nevertheless a romantic charm about this old ruin which can awaken forgotten memories and call up the spirits of the past. In this utilitarian age such sentiments find scant favour. Let us cling to them, however, while we yet may, and strive to preserve where possible and practicable these fine old relics of days gone by.

The sketches (pp. 44, 45) show what remains of the south tower and the north loggia. The plan indicates what portions are attributed (conjecturally only) to John Thorpe, Inigo Jones, and Sir William Chambers.

STRAND-ON-THE-GREEN.

THE Royal Institute of British Architects informs us that, through its Art Standing Committee, it made inquiries of the local authority as soon as it obtained knowledge of the intention to build a new wall and make other changes affecting the amenities of Strand-on-the-Green, Chiswick. The Institute wrote several times officially to the Chiswick Urban District Council offering its advice, with a view to the contemplated works being carried out in the way least calculated to spoil a very charming portion of the Thames side, but it was only after long delay that the Chiswick Council expressed its willingness for representatives of the Institute to meet its members and officials to discuss the question.

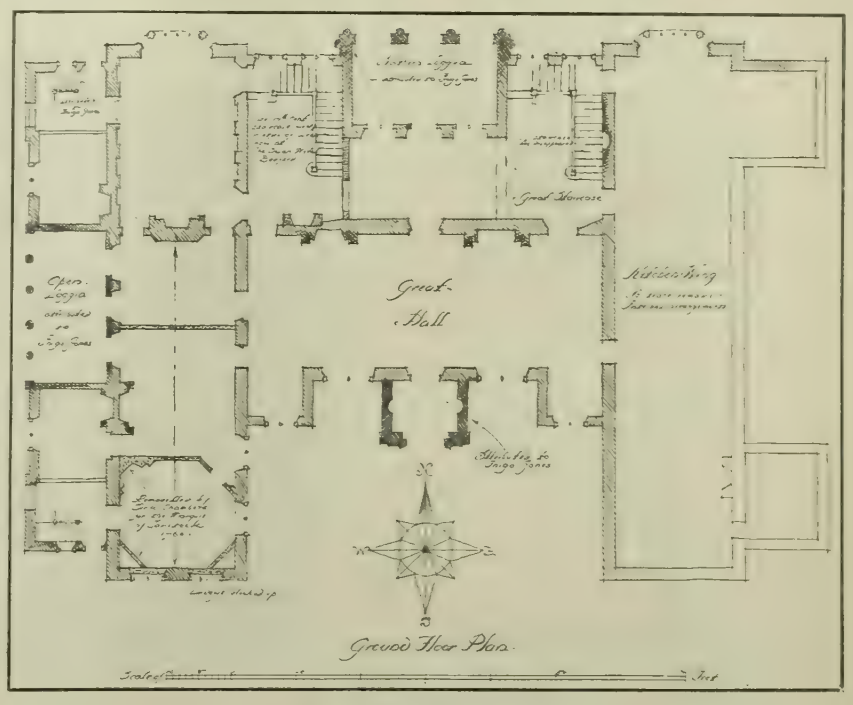
Members of the R.I.B.A. Art Standing Committee accordingly attended a meeting at the site, and discovered that the whole of the foundation of the new section of walling at present being dealt with was actually in position, and a fairly long stretch of concrete walling almost completed, faced with rubble walling of a most mechanically uninteresting kind entirely out of harmony with its surroundings. The Institute's representatives pressed that the exposed portion of the wall still to be completed should be faced with old bricks of the character shown in portions of the existing adjacent river walling and in the houses lining that part of the river, and finished with a thin plain stone coping, also of the character of the work in the vicinity. It was understood from the Surveyor to the Council that they had a quantity of suitable old bricks in store that could be used, and after discussion the Chairman of the Council and other members attending agreed that this change in treatment of the wall should be arranged.

About three weeks later a letter was sent by the Clerk of the Chiswick Council to the Secretary of the Institute stating that they felt a difficulty in making this adjustment of their contract, and that they were accordingly proceeding on the lines originally arranged. The Institute is unable to understand the difficulty to which the Clerk of the Council refers, as variations of this sort in a contract are usually easy of adjustment, and it would appear that in this case the change suggested and agreed upon might even have effected a saving in the cost of the work.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

The following note is from the minutes of the last meeting of the Council of the Royal Institute of British Architects:—

THE NATIONAL GAS EXHIBITION, 1923.—The Council accepted an invitation from the Executive Committee of the National Gas Exhibition, 1923, to allow the Royal Institute to appear as a patron of the Exhibition. They also authorised the inclusion of the name of the President of the Royal Institute in the list of Vice-Presidents of the Exhibition.



Plan of Houghton Towers.

By MR. E. B. MUSMAN, A.R.I.B.A.

DEVON AND EXETER ARCHITECTURAL SOCIETY.

PRESIDENT'S ADDRESS AT THE ANNUAL MEETING.

In the course of his Presidential address at the annual meeting of the Devon and Exeter Architectural Society (reported in our last issue), Mr. Percy Morris, F.R.I.B.A. (Exeter), said :—

There was undoubtedly in some quarters a quickening interest in architecture, as distinct from its archæological aspect or the mere romance of association. This was marked, among other signs, by greater discrimination in the Press and by better informed criticism ; but even more interesting to the observer was the accumulating evidence that it was not an economic proposition to consider a building solely from the utilitarian standpoint, which was the prevalent attitude. The Americans had discovered this, and an increasing number of buildings erected in this country showed that it was becoming recognised here.

There was no doubt that environment—and by environment he meant not only the setting of a building, but form, colour, repose, and fitness—exercised psychologically far more influence than was generally admitted. If this were true of the busy mart and factory, it should be possible to prove beneficial in such buildings as schools and hospitals, and, as a corollary, financial gain, which remained the only potent argument. The striking work of the Industrial Research Committee with regard to fatigue and kindred subjects added confirmation to his conjecture. Nothing was farther from his thoughts than the suggestion of lavish expenditure or ostentation ; all he meant was the humanising touch.

The most marked features of the times were the general flux of old ideas working in the grooves worn by controversy, and the impetus given by recent events to many branches of their work. Among these were the revolution in the system of training architects, due to the educational facilities offered by the Universities and the Architectural Schools ; the rapid development of town and regional planning ; the change of attitude towards the care of ancient buildings, of which the work at Westminster Hall and Tintern Abbey were fine examples of scientific deduction ; and the saving of the Whitgift Hospital, a testimony of public interest ; the reduction to formulæ of the principles of acoustics as applied to buildings, in which the Americans again led the way ; the theory of ventilation turned inside out ; and a change of ideas on the important aspect of sanitation.

The housing problem still awaited solution, but he could only speak of it as an onlooker ; being the blushing exception to the rule that every man now carried an infallible remedy in each pocket. They were apt to regard it as a question particularly affecting this country, losing sight of the fact that the need for houses was world-wide. Nor was the problem the product of our own age, although the recognition of it may not have affected the Civic conscience of past ages with that insistence which now demanded action.

One aspect was apt to be overlooked. He referred to those vast slum areas awaiting clearance and to the fact that many rural cottages were unfit for habitation. In the case of machinery it was recognised that its useful life was for a specified term of years, and foresight prompted the allocation of a sinking fund for renewal. Sooner or later we should have to realise that, regarded as an investment, there was a term beyond which no building could be expected to yield a profitable return. It was an anomaly which allowed the continued use of houses which were a menace to health and forbade the sale of diseased animals for food. But although from the ethical side the arguments could be made unanswerable, they were qualified not only by economic and industrial conditions which could not be adjusted rapidly but by the pressing need of accommodation, and there was the real danger that mistimed action might do disservice by fostering reaction.

He thought it was Lecky who observed that " opinion depends less on the force of its arguments than on the predisposition of society," and common sense told them that more progress would be made in the long run by timely palliatives than by ineffective remedies. Nevertheless, it was the time for a constructive policy, so that at the back of these palliatives there might be considered measures which by sustained effort spread over a term of years (and it must be lengthy) would focus upon the ultimate object in view, and that object was to ensure a stable foundation for the superstructure of posterity.

One could not close without reference to the gathering recently assembled in London to do honour to the memory of that illustrious architect and scholarly gentleman, Sir Christopher Wren. His reputation not only survived undimmed, but the passage of two centuries had added lustre to his fame. In serene dignity Wren stood out as one of those vivid contrasts in an age of corruption and flippancy. A man of many parts, he was singularly gifted by nature and equipped by education for that unique opportunity which came to him at the age of 34. As astronomer, mathematician, Latinist, scientist, logician, mechanician, he had already risen to eminence and would inevitably have stamped his mark on any age. But they must not think of him as coming fully equipped to the task—he brought the trained mental gifts, but as an architect his reputation rested on potentiality rather than achievement.

If they excepted the work of Inigo Jones and his colleague, John Webb, Wren had no great English tradition to draw upon. He never set foot in Rome, the Mecca of all architects of the Italian Renaissance from Brunelleschi to Wren's contemporary, Bernini, whom he met during his visit to Paris. His career, therefore, made a special appeal to architects, because they could trace in his work the evolution of the master mind solving each problem in a manner not only logical but entirely his own. It was that phase of his work which would stiffen resistance to any proposals which would weaken that wonderful chain of evidence from which already too many links had disappeared.

We need not enter into discussion as to whether this or that building was designed by Wren. His authenticated works were more than sufficient to impress them with the stupendous magnitude of his task and the consummate skill with which it was accomplished. St. Peter's was 100 years in the building and was the work of six architects. St. Paul's was completed in 35 years under one architect and one master mason.

At times like the present, when they in their humbler spheres followed the path paved with material considerations and hedged sometimes by inconsistencies, it was in the lives of men such as Wren that they might find inspiration and incentive to fresh effort. For, in the words of John Ruskin, " Of all the pulpits from which the human voice ever spoke, there was none that carried farther than from the grave."

LONDON IN THE PAST.*

This little book is written in the form of annotations on walks round the Cities of London and Westminster, with a digression to view the Tower of London. It gives a brief account of the main objects of interest, of the origins of names, and of their historical and literary associations, but sketch maps illustrating the journeys would have been welcome. The work is a little over-ambitious in claiming, on the cover, that it represents an endeavour " to include everything of importance from an historical, architectural, or antiquarian standpoint." It is not easy to exhaust the Temple Church in 22 lines, Westminster Hall in 17, or the Houses of Parliament in 26 lines, and one looks in vain for any reference to Shepherd's Market, the Savile Club, or the Jewel Tower in Palace Yard, but in 170 short pages it is manifestly impossible to touch more than the fringe of the subject. In stating on page 167 that Sir Christopher Wren died in a house in St. James's-street the author does not forestall criticism by giving us his grounds for disputing the usually accepted place of Wren's death—Hampton Court ; while Inigo Jones is not mentioned in connection with the York Water Gate.

* *London and Westminster in History and Literature.* By W. Marston Acres. (London : T. Fisher Unwin, Ltd.) Price 6s. net.



Rievaulx Abbey. (*See p.* 58.)

[Upper part of South Chancel wall with remaining fragment of Tower. The cement paving on top of the East wall of the South Transept is avoided by the present method of conservation.]

THE TRUTH ABOUT MURAL PAINTING.

By JAMES GUTHRIE.

The subject of mural painting remains for all who are interested in beautiful buildings a fascinating if puzzling one, and the recent ebullience of opinion in a contemporary must have left a good many with the impression that, whatever might be true about the state of this art, none of the writers could suggest a use for it. With the critics' views upon the deplorable plentifulness of talent we have frankly no patience; for when there is so little left in criticism as to set the most vital arts in obscurity and doubt we know that it suffers the same contagion which prevents the school instructor from seeing any hope for trained ability in mural painting except through patronage or State aid.

Although something has unquestionably been done by patronage in the past, it affords no secure or certain foothold for the arts to-day, and not only is that the case, but there have always been objections to it which have acted to the detriment of the naturally democratic spirit of art. We may not forget, even when contemplating the work of the great masters, how this nobility of vision and treatment makes its demand first upon the artist, and only afterwards upon the patron, whether prince or Pope. And our study when directed towards the resources of such a vocation, in the hope of finding a new independence and a plausible sort of employment, should not be diverted by illogical and unsound ideas, or whatever grounds are discovered will merely be those upon which no general healthy progress can be made.

A further contribution to the subject was that of one who had helped to organise the decoration of some walls as a means of providing relief work during the war. While the suggestion came nearer being practical because it stood more firmly upon an actual undertaking, there still clung about it the atmosphere of help and of official sanction which invariably acts oppressively, and cannot be regarded as anything but a somewhat desperate palliative. With all due allowance for the admirable work done by way of aiding those who were driven to seek help at that time, the employment of artists within their own province did not form the large part of that benevolent activity. On the contrary, we might draw the conclusion from unfavourable conditions at any time that the tendency is to look for every sort of cure except the one which permits an artist the exercise of his own particular expression.

This same problem exists now in a hardly less acute form than before. We had no remedy in 1913 which can be applied now, or the unusual interest created in mural painting by the demand for memorials would have carried it into active operation and rendered these complaints and suggestions unnecessary.

The claims of the mural painter are obviously good in theory, however unequal his practice may be. If he should be led to accept and fall in with schemes of employment which are of the nature of a charity, he merely postpones the practical organisation of his craft and launches himself upon a discouraging and fruitless uncertainty, leaving his fate in the hands of those who have a radically mistaken idea of how the art can be brought into common use and the artist given control of what is his own.

Either there is or is not a distinct and definite good got by the individual and the community from this ancient and beautiful art. No good can be got from it without some response, perhaps; but the response to any given thing is not induced by its privacy and unfamiliarity. Hidden away in the studios and schools and shows are many pleasant and exciting schemes which find no general application, mainly because the spirit of open adventure on the part of artists is wanting. They have not realised that they exist in a place apart, and that they have never created the necessary machinery by which their work might be pushed into direct contact with the people without being attached to the big shop, the industrial exhibition, or the rich unlikely patron, who all represent conceptions of art more or less antagonistic to progress on natural lines.

Something of what this antagonism is has been slowly borne in upon art workers of all kinds within the last few years. It has taken a clear shape, and has, by implication, shown what little remains if the arts are dependent upon the relationship of design to industrialism when they have no volition of their own for the proper adjustment of that relationship.

The action of the Society of Arts in putting forward industrial design should, but I think does not, coincide with action on the part of any purely artistic body. Its operation appears to be in conjunction with the schools, which, in the absence of any other authority, undertake more and more the direction of employment, an enterprise which has several serious objections for those who are grown beyond the jurisdiction of art masters and professors. But I say this less because of possible abuses than from a firm belief that the matter in question is too serious and far-reaching to be handled indirectly in such a way by these men.

These arrangements all suffer from the same defect. They are substitutes for something better, and perhaps would not exist were it not for the lack of a wholesome grasp of the whole subject by those who profess or are in a position to lead and guide. But by means of such substitution the natural claims of design in every department are disposed and put forth by those whose knowledge and experience are not primarily artistic, those who prefer the pliability of the student to any greater competence or resistance.

Mural painting might well be the subject of experiment on actual walls and for particular purposes. Art masters press the students of their systems upon public buildings, but are not noteworthy on the whole for enthusiasm where their own school walls are concerned, which is not a good sign. The larger schools have enormous bare areas of wall space, halls and staircases and ceilings that cry aloud to be used. The expansion possible for the student in his own home and the homes of his friends is almost entirely neglected. While he might be making his art familiar, bearing down opposition both for himself and for others, he is pursuing his study in a perfectly artificial way, waiting for the patron to come and lift him straightway into fame and fortune. That is to say, the average art student who learns how mural painting should be done is in the condition of a man who closes all the doors between himself and the ordinary and proper practice of his work, and supplicates unknown and probably non-existent men for a share in the great opportunities which he himself will be the first to admit were beyond his capacity.

Everywhere it is the same. The studio is full of interesting sketches for "proposed" decorations. The school studies give the illusion of unbounded talent. Drawing becomes like an acquired taste, something for learned curators to attest and rank with the great, to the confusion of any but the stoutest character and gifts. Art, like a mushroom, responds to the intensive heat of modern training; but it needs more manful trial than by these theoretic unpractical methods, or it will knock at the door and still be refused admission, and will not have gained any access to the people even by being installed in galleries and praised in newspapers. The painter, a workman, keenly aware that he has a gift of beauty to confer, ready at all times to demonstrate it with form and colour and a sense of fitness, has already passed through most of the barriers. His genius, should his talent be so great, will suffer no loss by rich expression. His material will spring up around him, more often in some hint picked up in a half-built house or under stress of the artistic poverty displayed in the arrangements of the walls of art exhibitions. A copy of *The Builder* will suggest more to a workmanlike mind than a shelf of art journals. There are asbestos sheets and patent boards which would have been welcomed by the great painters of the past. Smaller wall sections can be designed partly in the workshop and completed *in situ*. Improved colours, ready methods, lurk everywhere to attract beauty and draw it into daily service. It need not be any more true than we like that beauty is ushered in with an apology, nor do questions of expense set up so formidable a barrier as indefinitely to put off the invasion of colour into church and hall and home.

Builders and architects still remain more aloof from this matter than they might be. Perhaps they argue that there is nothing to go upon; but the fact remains that a great deal of decoration is done, and is done largely by those who have no special aptitude, in ready-made styles and poor colour. The adventurous house-painter here and there is sporting in his recognition of the modern touch; he is unfamiliar, however, with the artistic resources of his material, and, till he undergoes explicit training, can never be more, though as an ally he could scarcely be improved upon.

Another of the drawbacks under which the mural painter labours is his fancy for permanence. No doubt lasting work is desirable when it is worth keeping—but we have to recall the plain fact that most of what is put upon walls and canvases is not worth keeping, and that, if the test for our walls is to be their capacity to remain for a thousand years, then indeed we are going in beyond our depth—or rather refraining because of a mistaken standard of worth. Permanence of material no artist is likely to neglect: that is a different thing. The disaster which we have to consider is the complete stoppage of practice because he ranges himself alongside Michelangelo and Tintoretto, makes a fetish of Cennino Cennini, and, as a result, has no walls to paint. This is putting the cart before the horse: for if we reverse the order of things, and decide that it is worth while decorating dining-rooms, staircases, and halls, and altering and improving schemes planned to last for a few years, we arrive at something more advantageous in every respect. Permanence of colour is only one factor. It might conceivably be the least important, because faded colour can be made good where a bad design cannot. The problem of what shall be acceptable to live with is barely touched, and, in fact, cannot be decided at all in schools of art. Mural painting is essentially intimate and local; it is the father and mother of other sorts of painting. A room, however small, whatever its use, is awakened into life by colour and given a character which is otherwise lacking. Green and gold may give place to blue and rose next year, or in five or ten years' time. Nobody wishes to live, or even meet, in a place which jostles the eye with Cockney versions of old legends, or with things done to please academic taste. The picture may only be the rallying-point of a simple scheme, the one small space in which the artist has leave to enjoy himself. But it is this capacity to sustain a task which lies near his hand, to serve an ordinary purpose, that matters more than any misguided ambition. This will open the door, will decide the terms, and free the artist from a thousand useless go-betweens, which, as has been seen, come with no faith and no practical ideas.

Architects' Cricket Match.

The Architectural Association have challenged the R.I.B.A. to a cricket match, to be played at Elstree on July 18. In order that a representative team may be secured the Secretary R.I.B.A. will be glad if Members and Licentiates who are regular players will kindly send their names to him as soon as possible.

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ILLUSTRATIONS.

State Hospital and School of Medicine, Cairo

The authors of the design placed first in the Qasr-el-Aini Hospital and School of Medicine, Cairo, Competition are Messrs. C. Nicholas and J. E. Dixon-Spain, FF.R.I.B.A.

The ward blocks are sited on the west bound ary next to the river and linked up by a main covered way, which latter forms the general communication between all departments of the Institution. The main covered way is terminated at its north extremity by the sisters' and nurses' and probationers' homes, and at its southern by the laundry and power station. It picks up about the centre of its length the services from the central kitchens, central pharmacy, operation block, central clinic, administration offices, clinical instruction, medical school and the inflow from out-patients' division.

Immediately north of the administration block the hospital is effectively divided into male and female divisions by the range of buildings which form a natural sequence from the out-patients' entrances via the reception and baths blocks to the inlets into the main covered way. South of the administration block, and balancing the out-patients' building, is the medical school.

The central entrance, facing the Mahomed Ali Bridge, leads by an avenue-approach direct to the administration block, and flanking it are the entrances to the medical school on the south and the out patients' divisions on the north. The last is off the main road and diverts the large flow of patients from the thoroughfare. The outpatients' division, perhaps, presented the outstanding problem in planning owing to the required rigid separation of the sexes. Over the outpatients' block is the dental school and clinic and radiology department, and at the east end the anthelmintic shelters.

The infant welfare block and extern are arranged within the "Hareem" division and for access from outside. The mosque follows the earlier type of plan and consists of open colonnaded liwâns.

Another drawing of Messrs. Nicholas & Dixon-Spain's scheme, and other designs submitted in this competition, were given in our previous issues.

Addington Park, Surrey.

This house, which has just been finished, is situated in the park of Addington Palace, near Croydon, on a southern slope. It is built in brick, with cement-rendered external walls, and a roof of old slates with swept valleys and a tile ridge. All windows on the south front are sashes and cased frames, and have been made as large as possible to obtain a maximum of light.

The general contractors are Messrs. Prestige & Co., of Grosvenor-road, S.W., and the slating to the roofs was supplied and fixed by Messrs. Ames & Finnis, of 37, Strand, W.C.

Mr. E. Guy Dawber, F.R.I.B.A., is the architect, and the illustration is for the exhibit at this year's Royal Academy Exhibition.

Stowell Hill, Somerset.

This house, which is now nearing completion, occupies a commanding position overlooking the Blackmore Vale, and is executed in local stone from Cheriton, with a roof of old red handmade tiles. The windows are of wood, and the worked stone for the entrance doors is Doulting.

The general contractor is Mr. R. G. Spiller, of Sherborne; the heating and domestic hot, water work is being executed by Messrs. Dent & Hellyer, of London; the electric lighting and plant is by Messrs. Waring, Withers & Chadwick, of London; and the roof tiling was supplied and fixed by Messrs. Ames & Finnis, of London.

The architect is Mr. Guy Dawber, F.R.I.B.A., Our illustration is from the exhibit in this year's Royal Academy Exhibition.

Bournemouth Pavilion Competition.

We give this week the elevational and sectional drawings submitted in the Bournemouth Pavilion Competition by Mr. Wyville Home, A.R.I.B.A., and Mr. Shirley Knight, F.R.I.B.A., who were awarded the first premium, and the perspective submitted by Mr. H. V. Ashley, F.R.I.B.A., and Mr. Winton Newman, F.R.I.B.A. Other drawings in the first, second, and third premiated designs were illustrated in our last issue.

Swansea War Memorial.

This memorial (illustrated on p. 57) has been erected on the Promenade at Swansea between Mumbles road and the sea. The cenotaph is 30 ft. high, on a base of wide steps rising in centre of a Court of Memory, sunk 2 ft. below the general ground surface in form of irregular octagon 60 ft. by 40 ft., inside enclosed by walls 6 ft. high, on which bronze plates bearing names of the fallen are fixed. A seat is formed on all the walls in the court. The cenotaph is of Whitbed Portland stone with core of brickwork, 11 ft. 3 in. by 6 ft. at base, tapering to 9 ft. 9 in. by 4 ft. 6 in. at cap, with base of three Forest of Dean steps projecting 6 ft. on each side. The walls and pillars of the court are also of Portland stone with local Pennant stone externally, and steps and seat of Forest of Dean stone. The floor is paved with rustic local stone. Fixed to the walls of the Court of Memory are one small and 10 large bronze plates, containing the names of Swansea's fallen, and another plate records the inception of the Memorial Scheme. The foundation of the cenotaph is of reinforced concrete 23 ft. by 18 ft., and extends 5 ft. below the floor of the Court. The name plates have recorded 2,274 names.

The architect is Mr. Ernest E. Morgan, A.R.I.B.A., Borough Architect.

The builders were Messrs. Griffith Davies & Co., of Swansea. The Portland and Forest of Dean stone was supplied by the United Stone Firms, Ltd. (Bath and Portland). The bronze work was supplied by Messr. James Gibbons, Ltd., Wolverhampton. The memorial is to be unveiled by Admiral Sir C. Doveton Sturdee on July 21.

The National Bank Building, Liverpool.

We regret that in our last issue the cast-iron window frames, staircase balustrades, and balcony installed at the National Bank building, Liverpool, were attributed to the wrong firm. This work was carried out by Messrs. Walter Macfarlane & Co., the well-known architectural, sanitary and engineering art founders, of Saracen Foundry, Possilpark, Glasgow, who specialise in this class of work.

MANCHESTER COLLEGE OF TECHNOLOGY.

AN interesting event took place in the evening of July 5 at the vocational training school in Whitworth-street, Manchester, when the Coming of Age of the Institution was celebrated. Those of us who, in our younger days, read with great sympathy the works of John Ruskin and visualised his ideals of complete and sensitive preparation of the rising generations for their serious work in life, found the practical side of those ideas brought very nearly to perfection in the almost bewildering range of subjects dealt with by the College of Technology.

Lord Burnham, in his interesting speeches at the luncheon and in the evening, touched vital truth in his references to the value of technical education to the country apart from the golden opportunity it gave for individual talent to manifest itself.

In going through the various departments, each one of which seemed to us to be surprisingly complete, one was struck with the strong sense of the practical which imbues those who are responsible, while in that side of the school which affects more directly the readers of this Journal the æsthetic sense was in no case forgotten. In the room set aside for water supply and sewage disposal, for instance, there are actual installations of rams, air lifts, sectional models of meters, &c., which give the student a real working knowledge which many of us of an older generation could only collect by actual experience often painfully obtained. We met many students, and had most interesting conversations with them about their studies, and in every instance they showed an informed and intelligent grasp of their subject far beyond men of their age twenty years ago, which we venture to say is definite proof of the value of the work done; and probably it could easily be shown that the country gains rather than loses from the view of economy by the increased value to the country of its young and vigorous men, however much, within reason, it spends on their training. We found that those responsible were keenly alive to the value of research, and this in itself will add freshness to the work of the men when they go out into the world. We saw some most interesting examples of this in the room showing building materials; some tinted concrete blocks made under the directions of Mr. Morrey, A.R.I.B.A., for instance, and we were glad to see that colour in brickwork, apart from the interminable plastic brick and brilliant terra-cotta which has in the past been almost the only effort of colour in this part of the world, was fully appreciated. Interesting examples of rustic and other walls tastefully and suitably pointed were displayed.

Sanitary engineering, testing materials, &c., all were touched; while the wide range of knowledge required in this great cotton centre was fully covered. Properly to treat of the engineering departments, chemical laboratories, photographic and colour printing rooms and other subjects covered would take up a small volume. We think the Principal and all concerned deserve the greatest credit for their valuable and discerning work.

MEETINGS.

FRIDAY, *July* 13.

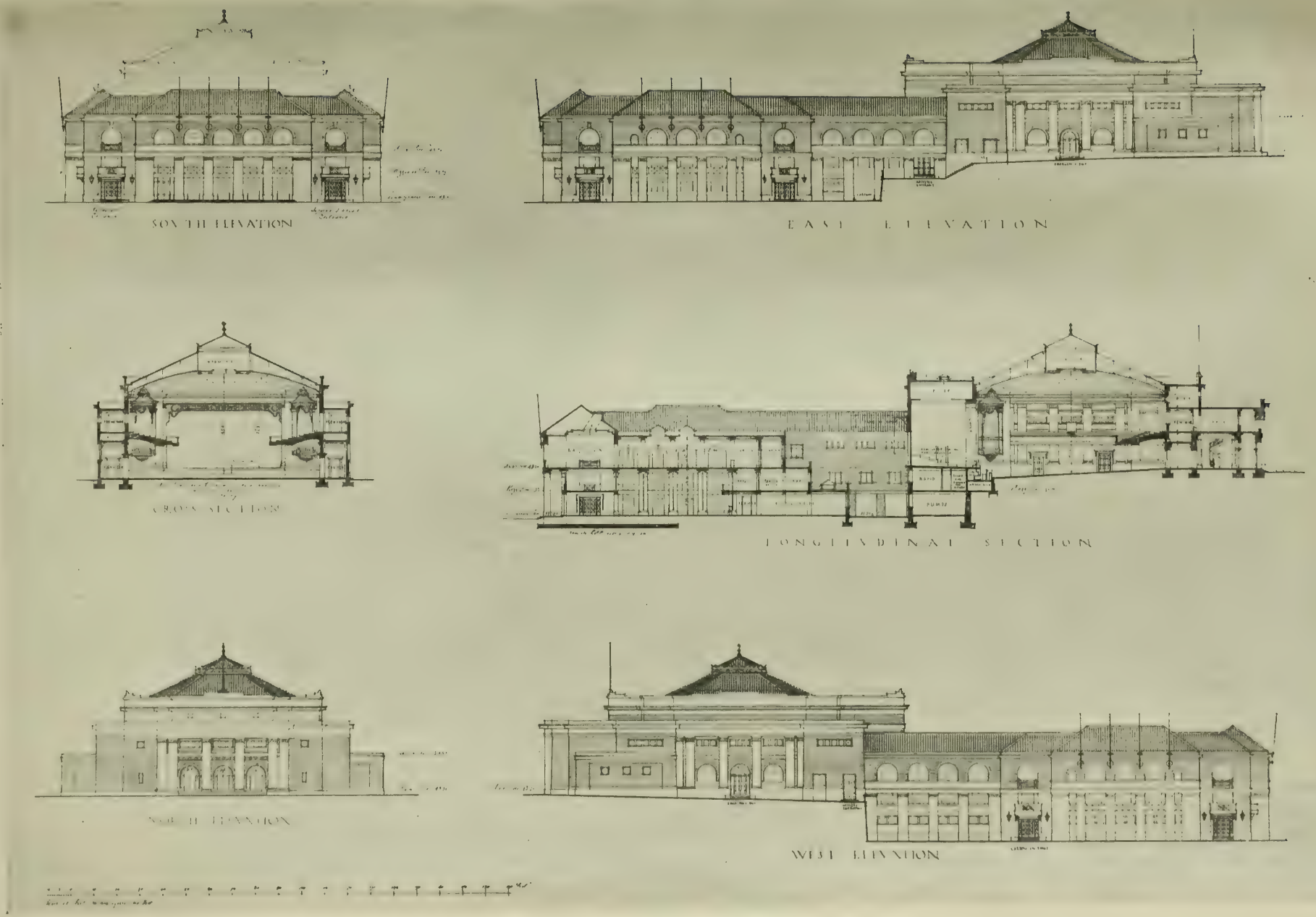
Institution of Municipal and County Engineers.—Metropolitan District meeting. At Horsham.

SATURDAY, *July* 14.

London Society.—Riverside Trip to Becontree L.C.C. Housing Estate.

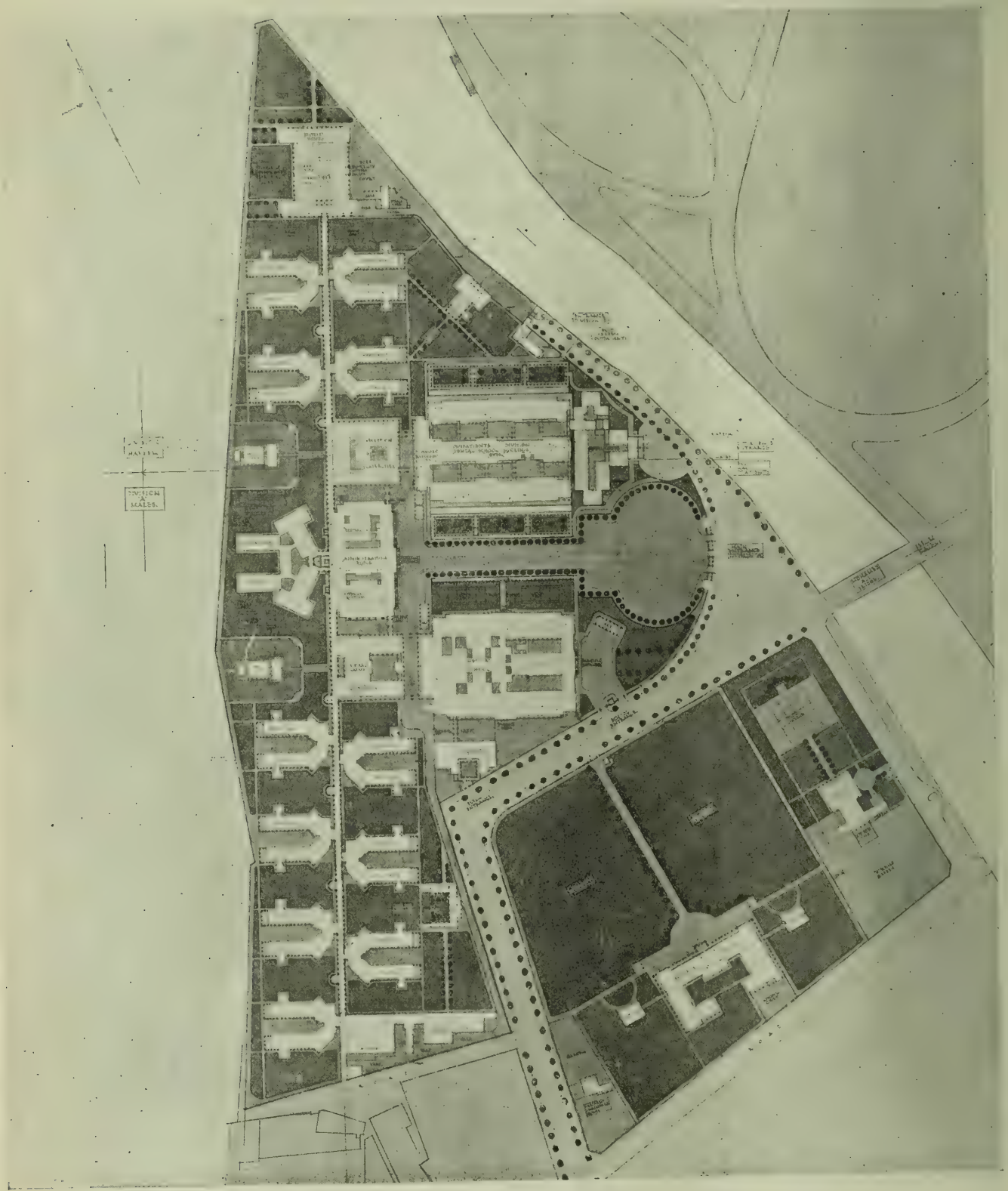
An Architect's Estate.

Sir Alpheus Cleophas Morton, of Gauden-road, Clapham, S.W., and of 124, Chancery-lane, E.C., architect and surveyor, Liberal M.P. for Peterborough, 1889–1895, and for Sutherlandshire, 1906–1918, son of Mr. Francis Morton, of Old Sodbury, Gloucester, left £25,890 (gross).



Bournemouth Pavilion Competition. First Premiated Design. By Mr. Wyville Home, A.R.I.B.A., and Mr. Shirley Knight, F.R.I.B.A.

[Other drawings of the first premiated design in this Competition, and also the second and third premiated designs, were illustrated in our last issue.]



Qasr-el-Aini Hospital and School Competition, Cairo.

Design placed First, by Messrs. C. Nicholas & J. E. Dixon-Spain, FF.R.I.B.A.



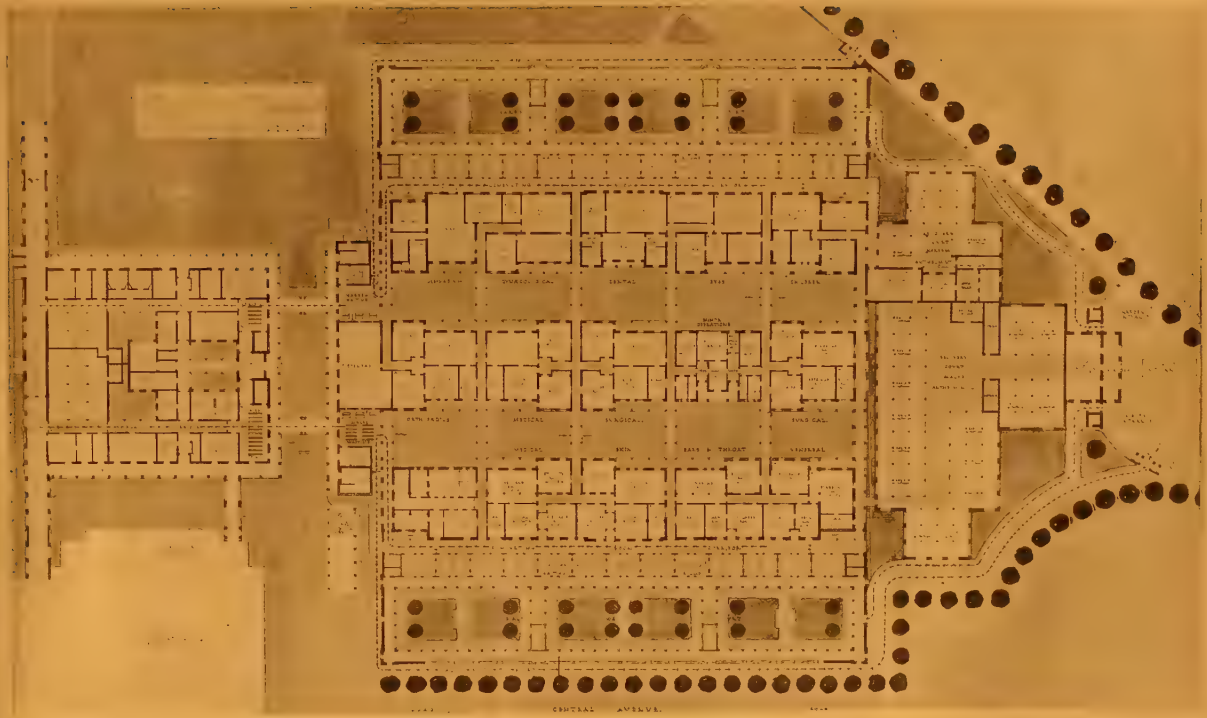
Royal Academy Exhibition

STOWELL HILL, SOMERSET.

Mr. E. Guy Dawber, F.R.I.B.A., Architect.



QASR-EL-AINI HOSPITAL AND SCHOOL COMPETITION, CAIRO. Design placed First, by Messrs. C. Nicholas & J. E. Dixon-Spain, FF.R.I.B.A



QASR-EL-AINI HOSPITAL AND SCHOOL COMPETITION, CAIRO.

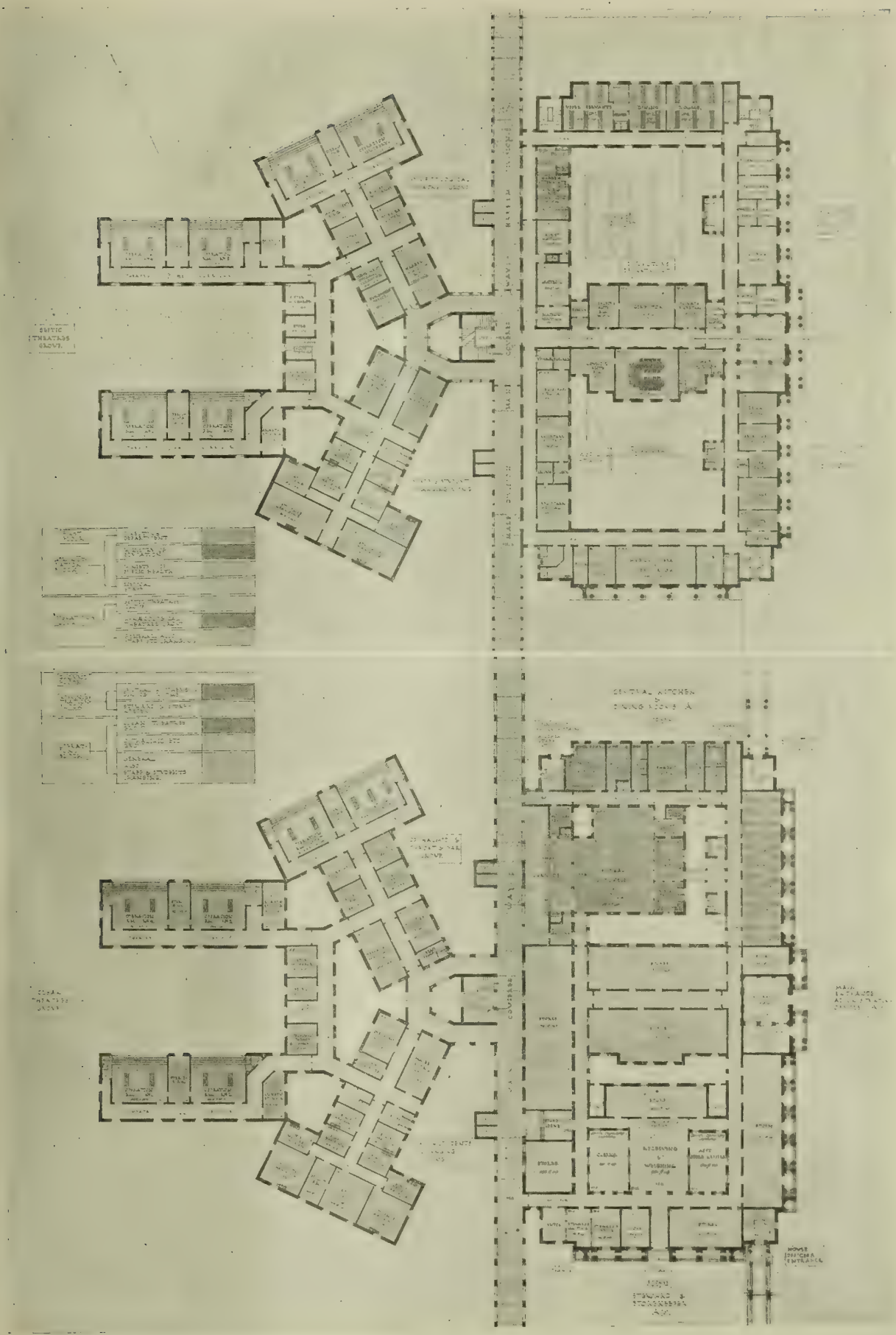
Design placed First, by Messrs. C. Nicholas & J. E. Dixon-Spain, FF.R.I.B.A.



Royal Academy Exhibition.

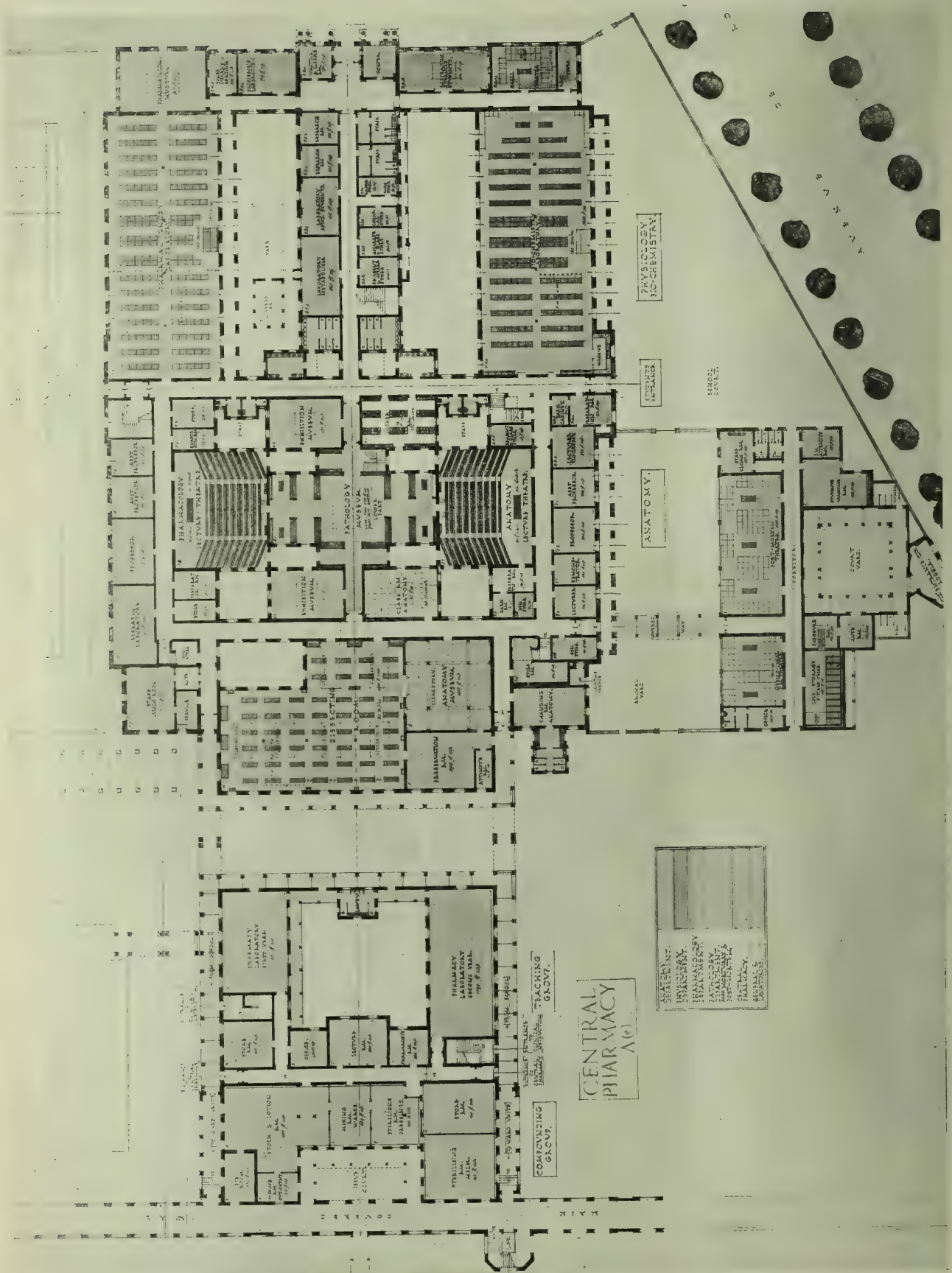
ADDINGTON PARK, SURREY.

Mr. E. Guy Dawber, F.R.I.B.A., Architect.



Qasr-el-Aini Hospital and School Competition, Cairo.

Design placed First, by Messrs. C. Nicholas & J. E. Dixon-Spain, FF.R.I.B.A.



MEDICAL SCHOOL AND PATHOLOGICAL DEPARTMENT: GROUND FLOOR.

General Aini Hospital and School Competition, Cairo: Design Placed First, by Messrs. C. Nicholas & J. E. Dixon-Spain, FF.R.I.B.A.



Swansea War Memorial. Mr. Ernest E. Morgan, A.R.I.B.A., Borough Architect. (*See p.* 52.)

RIEVAULX ABBEY RUINS.

SOME DETAILS OF MASONRY REPAIR.

By WILLIAM HARVEY.

PRIOR to the winter and early spring of 1918, when H.M. Office of Works surveyed the ruins of Rievaulx Abbey, then recently delivered to the care of the Historic Buildings Branch, certain repairs had been performed from time to time under the advice of private architects, but the problem of conservation had never been faced in its entirety.

New defects of a serious nature were developing in different parts of the ruins, which demonstrated the lack of success of patchings and piecings against the decay inaugurated by Henry VIII and continued since his time by gravitation, wind and weather, and the depredations of villagers who had formerly used the old buildings as a quarry.

The most obvious and alarming defect in the remaining mass of the Abbey Church was a fissure extending upwards from the capital of the south-west pier of the chancel (Fig. 1), and communicating with a series of cracks in the masonry affecting every part of its height to the summit of the wall, 62 ft. above ground. Some of the cracks were of long standing, while the clean appearance of others indicated their recent development. The continuance of movement was confirmed by the state of the stone work at the arches and cills of the clerestory windows and at the wall top, where Portland cement pointing, applied at some comparatively recent repair, no longer filled the joints it had been inserted to cover. The newly-opened spaces measured on the average rather more than an inch across between the pointing and the stone to which it had been applied.

The wall head, at this point, was shattered and its masonry so loosened and wrenched apart as to make it impossible for members of the repairing party to venture to walk or even to crawl across. Illustration No. 1 shows the lower part of this series of fissures from the capital of the pier to the string course at the level of the clerestory passage, and indicates how obviously the masonry stood in need of thorough and comprehensive treatment. Exactly what form the repairs would take was a problem that needed serious consideration. The state of the former repair at the wall top showed that pointing the cracks in Portland cement would be no remedy. Movements were going on which affected a considerable area of the masonry facing; it became necessary to enquire whether these movements could be checked by the mere process of securing the individual stones to their backing of rubble core or whether the visible defects were symptoms of others not yet ascertained in the wall as a whole. Immediate shoring was put in hand, but the permanent work of repair—which could not be undertaken while the war lasted—was deferred in any case until a systematic survey had revealed the connection of the local defect at this particular pier with the state of the remaining ruin considered as a single entity.

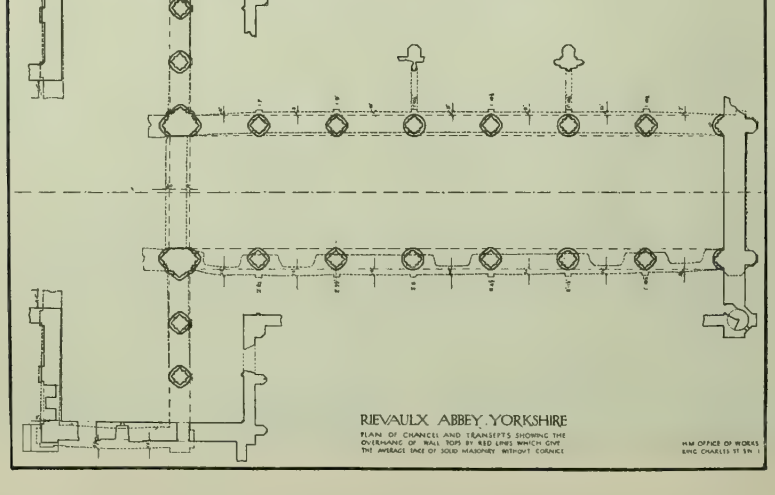
The surveying staff and the clerk of the works in charge of the shoring operations worked together to glean from the building itself the best method of consolidating the masonry so as to conform to the principle of the Historical Monuments Branch and conserve the old with the least possible intrusion of new work.

Fig. 2, reproduced from a photograph taken in October, 1922, and showing the state of the masonry at the completion of the works, indicates the extraordinary success which has, in fact, attended the application of this principle. On comparison with Fig. 1, it will be seen that, not only have the old stones been retained, but that even the evidences of the historic defects in the structure have been preserved, together with the harmonies belonging to the colour and texture of the building.

The efforts of the Historic Buildings Branch have been consciously directed towards obtaining this result, and it should be of interest to trace the several steps taken in transforming the alarming state of affairs depicted in Fig. 1 into the very satisfactory conclusion shown in Fig. 2.

The preliminary shoring and the survey were undertaken simultaneously, the temporary timber staging being devised on the spot and constructed hurriedly and under great difficulties, due to lack of men and material, out of timber salvaged from the explosion at Morecambe munitions factory, together with a few sound baulks for principal supports. Under the conditions of war emergency only a small gang of elderly men and a limited supply of tackle were available, and the raising of each heavy shore demanded an exhausting struggle. The drawing reproduced in No. 1 was the direct outcome of these conditions. Facilities for the survey were confined at first to the scaffold erected about the damaged masonry, and as all hands were required at this spot the drawing was made piecemeal from different stages of the scaffold in the intervals of selecting timber for the different parts of the shoring from the small stock available, and giving necessary assistance in hauling it into position.

The intention in drawing at all under these impossible conditions was to obtain a clear insight into the nature of the defects, and to concentrate attention upon their possible meaning. It was only when some time had been spent that the idea presented itself of finishing the diagram as a record of fact. The nearness of the view point was dictated by the limited space on the scaffold, which was far too small to allow of obedience to the usual rule to exclude from the picture everything that is not included in a cone whose apex angle is 60 deg. On the completion of the survey, the plan showing the position of wall-tops in conjunction with the bases (Fig. 4), gave a strong hint as to the cause of the continued movements and fractures in the masonry.



The wall top was found to have stretched to East and West longitudinally, and to have bowed out to the South to such a degree that it overhangs 30 inches beyond the extreme edge of the pier. In the light of the survey plan the failure of superficial pointing to cure the defects was no longer a mystery. The wall was clearly seen to be slowly wrenching itself free to fall under the impulse of its own weight eccentrically applied to the piers below. The repair of the damaged masonry resolved itself therefore into a portion of the much greater problem of retaining the wall itself in position. Work on the fractured masonry was necessarily postponed until the whole position could be reviewed; and after minute measurements had been taken and calculations made it was determined to bind the wall from end to end and anchor it to the masonry masses at the central tower and at the East end of the building with two reinforced concrete beams hidden respectively in the wall top and in the floor of the clerestory passage. Until these works were completed the fractured masonry was allowed to remain supported upon its shores with the arches of the triforium wedged up on timber centres.

Not only were the reinforcing bands put in, but the whole of the upper part of the wall was consolidated by the washing out of all defective joints and the grouting and tamping in of cement mortar to obtain the utmost strength compatible with the retention of the ancient character of the ruin. It is worthy of remark that where the old lime and sand joints were sound they were left intact. A report of the clerk of the works, dated May 26, 1921, contains the entry, "approx. 15 per cent. of the old mortar joints have been left untouched, these are in good condition." The report for June 23 mentions that at the level of the clerestory window arches "25 per cent. of the old joints in ashlar have been left." The new cement joints were pointed with a composition of washed sea gravel two-and-a-half parts to one part of Arden lime, the surface being sprayed with water while the lime was setting to cause the larger pebbles to project in harmony with the old weathered work adjoining. For exposed wall tops one part Portland cement mixed with P.A. waterproof compound was substituted for the lime, but the surface treatment was applied in both cases, and the horrible appearance of slick cement torching on the surface avoided. The discharge of rain water was provided for by large lead spouts of simple form projecting 2 ft. from the face of the wall and stiffened by being attached to 1¼ in. by ¼ in Delta metal bars.

By these measures it was hoped to avoid any considerable movement in the wall when the repair of the fractured masonry was put in hand. At the same time it was foreseen that however carefully this part of the work might be treated the operations would involve very considerable risk of a slip and danger to the masons, and if the adjoining parts of the wall remained still unsound these difficulties would render the proposal to repair without the addition of permanent external buttresses so hazardous as to be impracticable.

By August 18, 1921, the process of consolidation had progressed downward from the wall tops to the neighbourhood of the fractured masonry.

The report for the fortnight ending on this date contains several references to the proposed work, and one which indicates the bad state of

the masonry even in comparatively sound portions of the ruined building :—

"The roots (of young trees and shrubs) growing in the clerestory passage at the sixth and seventh openings have now been removed; the roots average ¾ in. in thickness, and were growing to a depth of 15 in. below passage, and spreading over opening" (in triforium arcade). These were by no means the largest roots dealt with. "The lime in these openings is in a rotten condition." "Raking out and pointing is also proceeding at the west end of south choir wall, immediately above fractured pier. care being taken to leave the fracture until the pier is secured."

"SHORING AT FRACTURE.—Shoring is now proceeding, two clusters of seven poles each being placed in position on the south elevation and a 12 in. by 9 in. built up with bolts forming a cross-head to carry screw jacks. This cross-head also is taking the weight of the sandwich beam. Preparations are now being made to box in the ornamental corbel on interior elevation with concrete to take the thrust of shoring from that side. All the mouldings and mason work is carefully protected with paper and old canvas."

The condition of the ruin having been found much worse on detailed examination than had appeared at first sight, it became necessary to strengthen the timber shoring, now three and a half years old. The composite standards mentioned in the report were threaded into the old structure, which was supporting timber centres under the adjoining triforium arches. The "sandwich beam" was part of the temporary shoring put up in 1918 and consisted of four horizontal beams, two on the north and two on the south side of the shattered spandril. Each pair of horizontals was connected with uprights, against which horizontal planks were laid to retain the bulging mass of loose masonry between the level of the triforium floor and the broken springer of the aisle vault. The apparatus was fastened on by four long bolts passing through the main horizontal timbers and joining those on the north to those on the south side of the wall. It was designed to maintain the loose stones in position until such time as they could receive attention and it was now proposed to strengthen it by additional uprights, "two clusters of seven poles," from the ground below, in order that it could take vertical pressures as well as horizontal. A shore was put against the inner face of the wall to prevent a possible local hinging action.

The wall top would certainly tend to rotate outwards to the south when the loose masonry was disturbed and it was considered probable that at a point about the level of the triforium floor the already shattered masonry might tend to burst inwards towards the north. Boxing the ornamental corbel and mouldings in concrete protected them during the operations and allowed of the pressure from the shore being applied with perfect uniformity to masonry that would have been weakened by the insertion of needles.

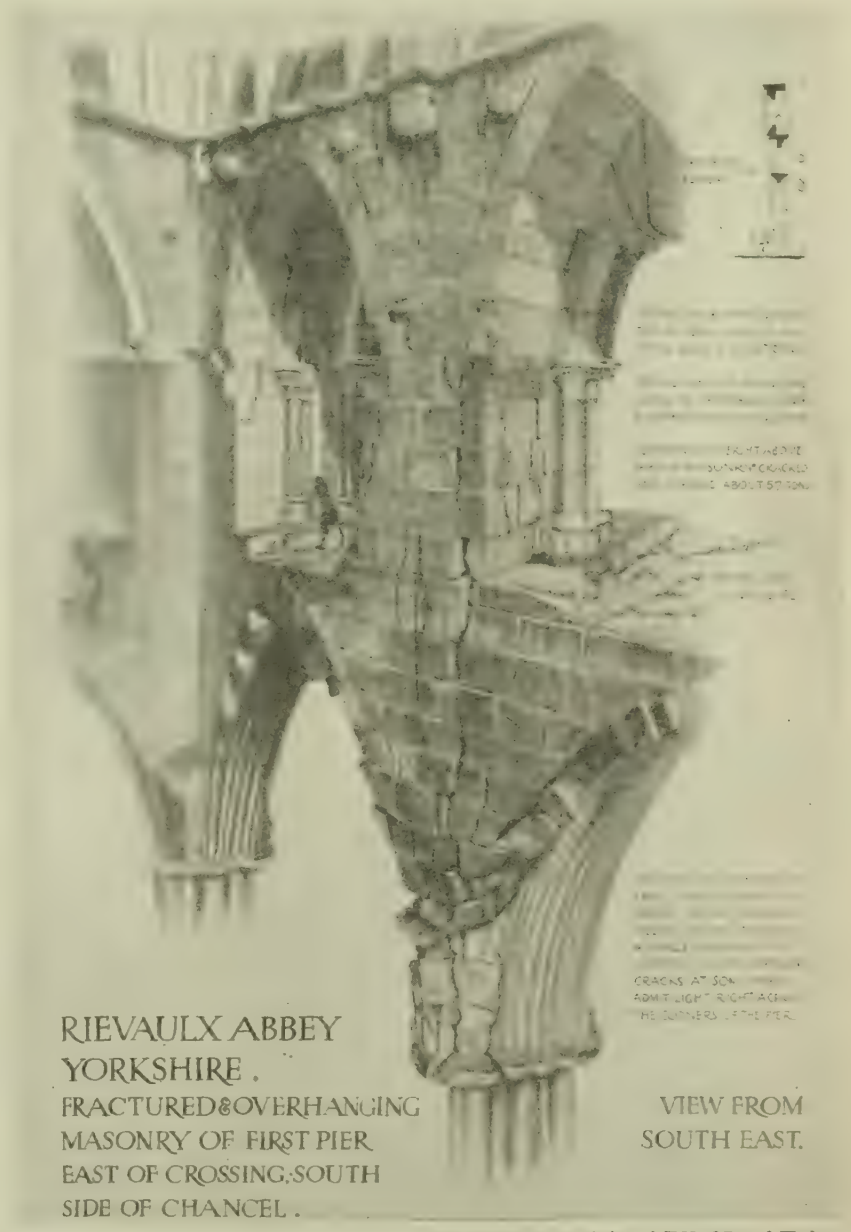
The report for September 29, 1921, states that the shoring is now complete and that the apparatus for underpinning including oak balks for the screw jacks to work upon and a pair of 2 in. diameter steel bars set at the ends had been prepared for the difficult work of removing the core of the old wall. The report for October 13 records the commencement of the actual cutting out :—"The ashlar on south elevation is being carefully removed and the shattered rubble core cleared out in sections. The back of ashlar stones forming interior or north elevation being exposed in every section"—*i.e.*, the whole interior of the wall was hollowed out piecemeal—"this is then thoroughly washed out and grouted, the core being replaced with 6 to 1 cement concrete reinforced with ⅝ in. rods. These rods when necessary have hooked ends to bond with next section, the concrete being also stepped or rebated for bonding as per attached sketch." (Fig. 3 is compiled from the series of these sketches.) "The tell-tales are kept under close observation while work proceeds. All ashlar replaced is securely bonded to the concrete by means of Delta metal cramps."

The excessively disintegrated state of the pier above the shattered spandril (Fig. 1) had added to the anxiety and difficulty of the work and at the sixth cut it became necessary to take down the fractured ashlar of its western jamb to avoid the danger of injury to the masons. An additional strut was inserted from the gantry to hold the arch above but the quantity of stone disturbed in cut 6 was larger than it had been intended to deal with at any one time. As each new section was cut into the tons of material above might find occasion to settle on the new bearings, and this unexpected extension of the field of operations meant in any case that longer time must elapse between the commencement and completion of the recoring work in cut 6.

The fractures had been bridged with "tell-tales" before any work was commenced and these were kept constantly under inspection. An even finer gauge of structural movement existed in the pointing already executed to adjoining portions of the wall.

The Historic Buildings Branch pointing is executed in so painstaking and conscientious a fashion that a hair crack arising in it after it has once become thoroughly set may be relied upon as a certain indication of movement in the masonry masses. The unusual and experimental nature of these works of repair makes it necessary to keep the state of the building under observation and the "pointing" is the best possible indicator. The nature of the operations made it obvious that some movement was inevitable, and the most that could be hoped was that the reinforcement already introduced in the wall top and the clerestory passage would prevent it assuming a dangerous character. At the best, movement might have been postponed until the slackening of the support afforded by the gantry should throw all the weight upon the repaired portion of the pier; at the worst, it would have shown itself with the removal of the first stones from cut No. 1.

As bad luck would have it, a gale of wind set in before cut 6 was completed and added vibration to the eccentric load upon the fractured pier. The old fissures at the clerestory cill started open again and continued as hair cracks across the wall top at both ends of the out-bowed south chancel wall. The assumption that the wall as a whole had been drifting towards a fall



[Reproduced by permission of H.M. Office of Works.

Fig. 1.—Rievaulx Abbey.

DRAWING MADE FROM TEMPORARY SCAFFOLD ERECTED IN 1918 BEFORE ANY WORKS OF REPAIR HAD BEEN UNDERTAKEN BY THE HISTORIC BUILDINGS BRANCH.

was verified by this new development and the critics who had objected to the use of reinforcement as unnecessary were proved to have taken too optimistic a view of the case.

Mr. David Black, who had executed the work of recoring the tower piers of Jedburgh Abbey for the Historic Buildings Branch, was brought down to Rievaulx to set things in train again and the remainder of the work of recoring proceeded without mishap. The gantry was removed without occasioning any further movement, and the pointing that had opened was cut out and tamped afresh with new material.

To obtain first-hand information as to the finished effect of the repairs of which I had seen the commencement, I visited the ruins recently and no further defects were perceivable although the whole wall top was examined foot by foot. The work showed no signs of failure either at the old points of fracture nor anywhere else, and though a glance at the plan (No. 4) will convince anyone experienced in the behaviour of reinforced work that hair cracks are to be anticipated at or about the points of greatest curvature at some time in the future, none had developed at the time of my visit, about a year after the conclusion of the repair. In view of the experimental nature of the work, the long standing of the defects, and the heavy eccentric load dealt with, which affects the whole wall (see plan 4) as well as the fractured pier, this result testifies to the reasonable nature of the repairs and to the thorough manner of their execution.

In this matter the Historic Buildings Branch is to be congratulated upon its excellent staff of trained masons, who work in connection with the architectural direction under conditions which tend to the best development of a fine tradition in an atmosphere of mutual confidence and respect. The work demands the interplay of practical and theoretical knowledge which can only be obtained by the establishment of conditions more nearly approaching those under which mediæval master builders are supposed to have worked than the usual routine of modern architectural office practice.

The training of the masons is considered by the Director of Works, Sir Frank Baines, M.V.O., C.B.E., as a vital part of the work, and the usual conception of the red-tape bound Government Department is utterly false when applied to the Historic Buildings Branch works upon the monuments in its charge. Access to documents, with permission to publish matter of public interest, was granted by H.M. Office of Works.

EXHIBITION NOTES.

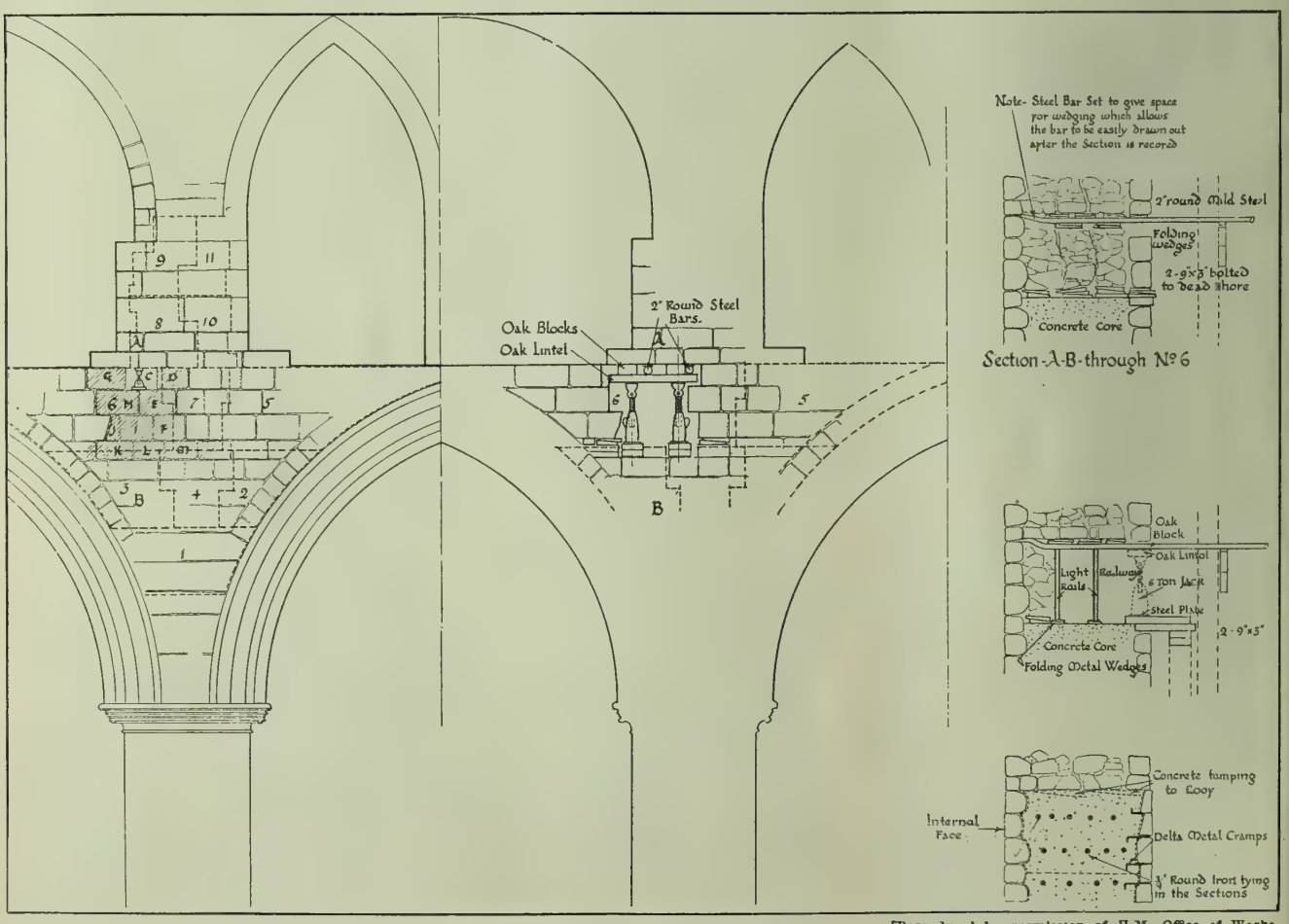
THE MANSARD GALLERY.

There is a peculiar attraction in table and ornamental glass of fine quality, and the collection of modern glass brought together by Heal & Son is selected and arranged with the taste which we associate with their work. The specimens shown are from the following countries: England, Scotland, Italy, France, Holland, Sweden, Czecho-Slovakia, Palestine and America, so that the field covered is very wide; and no doubt the examples represent the best of the work being done in them.

The covered blue glass pots and small dishes of rude but traditional character from Hebron, near Jerusalem, interest us from their nice shape and intrinsic glass quality. As the work of two old men with no successor to carry on after them, the inclusion of these examples is of particular interest. Messrs. Powell's glass is too well known to need description here, and their reproductions of ancient examples are of real merit. A table of French glass is of fine quality, as the natural glass surface is better preserved than in some of the more mechanically finished examples; we noticed as specially attractive a large glass bowl and some finger glasses. Both in glass quality and design these rank among the best. Some English "Sapphire" glass might be a little difficult to live with, though technically good. The Swedish glass of a grey tint is agreeable, and some Dutch examples of slightly iridescent quality are very charming.

Some glass vases by a French craftsman should be noticed, in spite of the lack of complete success owing to their likeness to marble. We should regard this work as in an experimental stage, but resources of colour are revealed which have great possibilities when the treatment is more identified with the material. The Murano glass is, perhaps, a little meretricious in quality, but a large Venetian vase near by is of a certain splendour. The vase filled with coloured fruit, the work of Sala, a Frenchman, shows appreciation of the material, though our preference is rather for the natural effect of the glass without interior lighting. Another example of a similar subject, also lighted from inside, is less successful.

The exhibition illustrates the possibilities of contemporary craftsmanship, though there is a tendency to replace the best traditional qualities with a too mechanical perfection in some of the work. The English work takes a very high place. The prices of the glass vary rather arbitrarily. Glass with its particular fragility demands a price not prohibitive when the nature of the material is considered. The best examples of the craft generally come from individual workers who execute in small quantities, and the price of such examples tends to be high, as the artist desires to recoup himself for the cost of his experiments, the losses in firing, and other expenses connected with such work; and, perhaps, he is too inclined to charge this on to the purchaser all at once, instead of spreading it over a larger number.



[Reproduced by permission of H.M. Office of Works.

Fig. 3.—Rievaulx Abbey.

Drawing Showing Position of the Cuts made into the Interior of Defective Pier and Method of Replacing Disintegrated Rubble Core with Reinforced Concrete.

We incline to the view that ordinary manufacture and work of this rarer quality cannot be reconciled in price without much closer co-operation between the manufacturer and the personal craftsman. The work of the latter falls into two divisions—one in which he personally produces pieces of a special distinction of character and richness of design, and the other in which he directs the ordinary standards of mass production into better channels. This latter is a matter of the education of public taste more than of money. A glass made properly for look and service should not claim a sort of privilege in price, nor should it cost much more to have a good tumbler or vase than to have ugly ones. The craftsman of distinction owes it to the public to aid the manufacturer, and the manufacturer needs more public spirit and anxiety to be so helped.

THE NEW SOCIETY OF ARTISTS.

One may readily pick out a number of pleasant pictures at the Suffolk-street Galleries from the exhibition of the New Society of Artists, such as Nos. 2, 4, 20, 27, 28, 40, 41, 54, 57, 76, 79, 82, 85, 120, 123, 188, 200 and 220, but the exhibition as a whole does not strike one as specially "new." It would be really new amongst our large output of pictures if there were a high average of good subjects and a better sense as to why it is worth painting pictures at all. We want artists to select and put before us those countless aspects of beautiful form and colour which the world supplies and which the public, in its neglect or ignorance, so woefully misses. The literary value of a picture may be great, even apart from sheer beauty, but we seldom expect, or find, that; what we have a right to expect is some of that vision of beauty in the world which the artist has power enough to convey in his picture. Out of nearly 400 pictures there should be more to arrest and please those who can respond to the appeal of the artist.

THE FRENCH GALLERY.

Characteristic examples of modern French and Dutch artists are now on view at the French Gallery. It is interesting to compare the work by Corot (No. 3, "Lac d'Italie") with his later work. This is a beautiful picture very carefully wrought and very solid in effect compared with his later work, such as the beautiful little pictures, Nos. 17 and 24; the latter is a wonderful expression of peacefulness. Several pictures in pastel by L'Hermitte are to be seen; one familiar to us is "Le Village" (No. 23), an almost perfect piece of colour and composition; how poor are the results of most present-day work compared with this. A masterly painting by Edouard Manet is "Pont du Bateau" (No. 19), and a fine Daubigny is one of the estimable things. If there is a lack of spontaneity and freedom in much of this work, it touches a high-water mark of achievement in some cases.

PASTEL LANDSCAPES.

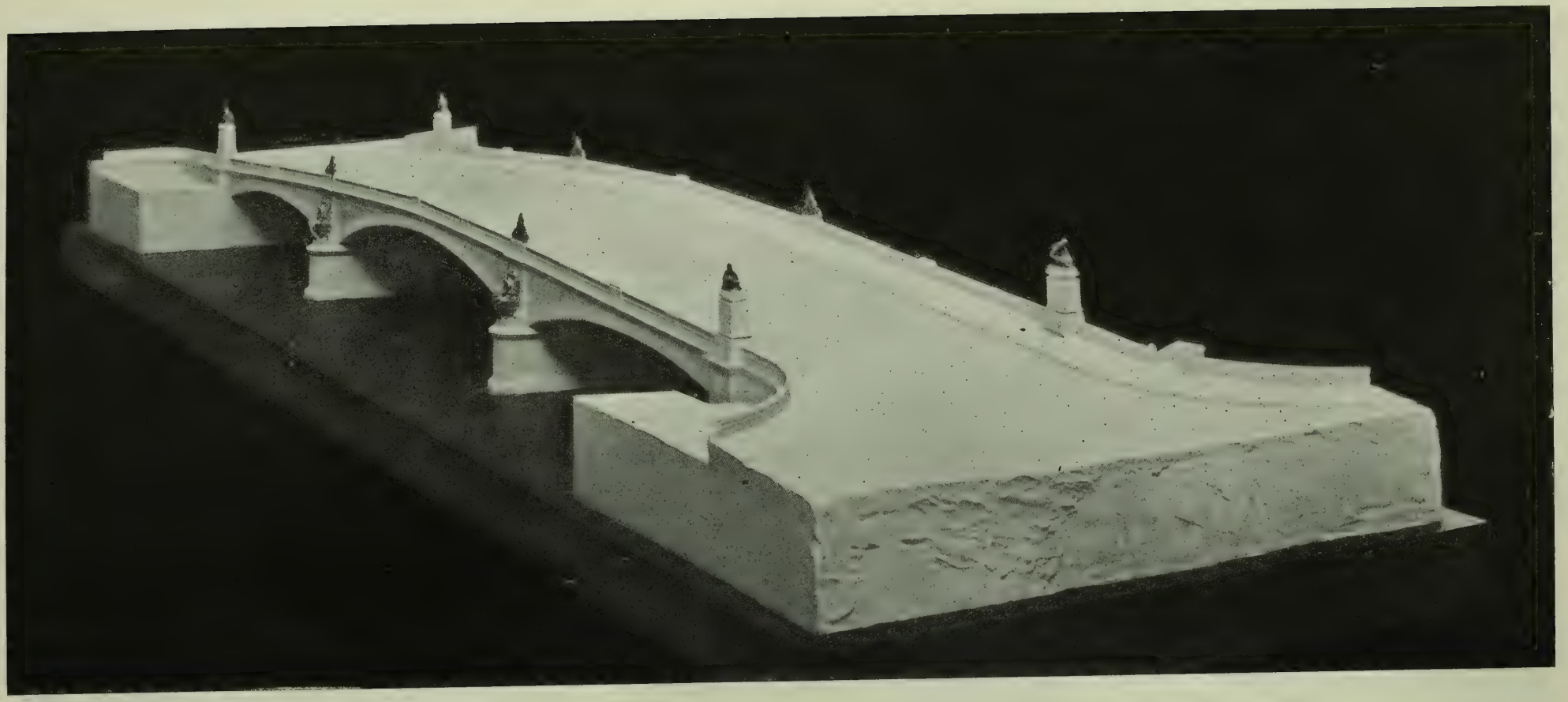
The value of pastel as a medium is great, but its highest value is not always attained, for there is too much tendency to make it simulate other methods. Mr. Frank H. Swinstead has a small exhibition in pastel at Bromhead Cutts & Co.'s, Cork-street, which shows some decided success, though in many of the drawings we find some woolliness and blackness of effect. In Nos. 22, 18, 14 and 16, we find happy results, and a particularly good drawing is No. 11, "Chalk Pit near Corfe." We believe if this artist would cultivate slighter and less laboured methods he would reach a much higher level.



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Fig. 2.—Rievaulx Abbey.

PHOTOGRAPH SHOWING MASONRY AFTER COMPLETION OF RECORING THE SHATTERED SPANDRIL AND PIER. NOTE OLD STONES RETAINED IN POSITION.



Oswald Street Bridge, Glasgow: Selected Design.

[The main dimensions of the design, which is by Messrs. Considère Constructions, Ltd., are as follows:—Side spans, 122 ft.; centre span, 165 ft.; rise of centre span from the springings to underside of arch, 14 ft.; width between parapets, 80 ft. In order to make provision for the expansion and contraction under variations of temperature it is proposed to carry the whole of the spans on steel roller bearings of a type similar to those often adopted in steel bridges. The river piers will be founded on three circular caissons, 20 ft. in diameter, made of reinforced concrete, and provided with a steel cutting edge. The shore abutments will be carried on three caissons, 16 ft. in diameter. At the request of the City Engineer, Messrs. Considère Constructions, Ltd., have allowed for the whole of the bridge being faced with granite, and the parapets will also be constructed of this material. When completed the bridge will be the most ambitious project yet carried out in this country in reinforced concrete..]

THE UNIVERSITY OF LIVERPOOL.

ANNUAL EXHIBITION OF ARCHITECTURAL DRAWINGS.

The Liverpool School of Architecture has enjoyed a peaceful and normal academic year. The moratorium caused by the war, and the rush created by the advent of the war students, are things of the past. The students number about 100. It seems probable that the numbers will hardly fluctuate for some years to come. Combined enthusiasm of the staff and students is, as usual, the feature of the school. We have been given figures which show that in an academic year the average architectural student at Cambridge spends 400 hours in the studio, and that at Liverpool the less strenuous put in 720 hours, and many towards 1,000. The output at Liverpool is certainly very large. In the class lists we find that the great majority of the fourth and fifth year students have matriculated, and, in consequence, become eligible for the B.Arch. degree. There may come the day when the public will discriminate between an architectural degree and an architectural diploma. Matriculation is a small thing in itself, but is, nevertheless, the hall-mark of a liberal education. It shows opportunities in tender years, or the grit in later years, to acquire what was missed in school days. The University rules require a three years' interval between matriculation and degree. Those taking the five years' architectural course can matriculate therefore up to the end of the second year.

Students at the School have now at the end of their third year to choose whether they will combine a little architecture with advanced construction, or advanced design with a little construction. Mr. C. H. Hutton, who shares with Mr. L. John the first-class in Honours in Architectural Construction, shows twenty sheets of working drawings of a repertory theatre to seat 900. The drawings are most thoroughly worked out and comprise key plans, ½ in. and 1 in. details. Another interesting set of drawings is by Mr. H.F. Billimoria for a maritime terminal and customs house with spans of 89 ft. 0 in. and 109 ft. 0 in. Four designs for the Prix de Rome are hung. In the case of Mr. J. Williams, who obtained the Jarvis Travelling Studentship, the original sketch, prepared in thirty-six hours, is exhibited, as well as the worked-out drawings, for which ten weeks were allowed.

The subject, "A Recreation Centre for a Seaside Town," was largely a problem of levels. The conditions specified lifts and staircases from the promenade to the high ground on which the chief buildings were placed. Mr. Williams succeeded in also supplying an inclined way. Quite a number of the double bridges, the problem set for the preliminary round of the Prix de Rome, are shown. The stand which will make the greatest appeal to the lay mind is that in which are shown a number of six hours esquisses. The versatility of the staff who set the problems is as marked as that of the competitors. Originality, imagination, vivid and telling colours, are combined in many drawings. Taste has been defined as the subconscious perception of the suitable. In a six-hours esquisse the subconscious is a very important element.

We particularly liked the "College Barge" and the gay colouring of the "Band Stand." In Maxwell Fry, the School possesses a specially brilliant student; his pair of posters with orange skies and blue perspective advertising the Exhibition is most striking. It will be interesting to watch the progress of the younger students. Messrs. Minoprio, Shaw, & Todd show the promise of better work to come.

Not much work of the School of Town Planning is shown. The method of colouring adopted is likely to prove a little bewildering and confusing to the average town councillor, whose duty it is to administer the Town-Planning Act. The subject for this year's Lever Prize is the opening out of the district between Piccadilly and Soho-square.

Lord Leverhulme's Speech.

In declaring the exhibition open, Lord Leverhulme said his greatest recreation, greater even than that of collecting works of art, had been to dabble in bricks and mortar. He had been building all his life since, as a boy of nine, he constructed his first building—a rabbit hutch. Then, in the first year of his married life, he built a greenhouse—partly of bacon boxes—in the yard of his small house. In his early days in Liverpool he found that the general feeling of the community was against a business man putting very much money into bricks and mortar. He contrasted that attitude with the confidence which the merchant princes of the city had shown in floating palaces which had cost from £750,000 to over £1,000,000 each to build. His lordship confessed that he would have loved to be an architect. Port Sunlight was the first town he built; he was now engaged on the tenth. Six of them were to be found in the primeval forests of the Congo; three were in Cheshire, and the tenth was in Harris. Of all occupations that he (Lord Leverhulme) had ever been connected with, his association with architects had been the happiest.

EXAMINATION RESULTS.

The annual examinations have been completed. Fourteen students passed the degree of B.Arch. at the end of their fifth year, and six gained the equivalent diploma in Architecture for non-matriculated students. These 20 students are *ipso facto* exempted from their final examination for A.R.I.B.A., except for the passing of a special paper in Professional Practice. As last year, a number of them have, however, already obtained their A.R.I.B.A.'s through the War final. Among the students who obtained their diplomas at the end of the fifth year is a lady, Miss Musker. She is the second woman student in England to qualify in this way, the first being an A.A. student, Miss Cooke, who qualified last year. The third year students who have obtained the Certificate in Architecture are exempted from the Intermediate Examination of the R.I.B.A.

The list is as follows:—

Degree of B.Arch. with Honours in Architectural Design.

Fifth Examination (exempting from Final Examination R.I.B.A.)

Class I.

D. Brooke. S. E. Mahon.
W. B. Edwards. G. L. Owen.
E. M. Fry. E. Williams.
C. R. Knight.

Class II.

E. H. H. Higham.

Honours in Architectural Construction.

Class I.

C. H. Hutton. L. John.

Class II.

H. F. Billimoria. R. W. H. Vallis.
M. Raafat.

Ordinary.

H. W. Pritchard.

Fourth Examination.

Honours in Architectural Design.

C. T. Bloodworth. L. C. Howitt.
D. L. Bridgwater. C. R. Knight.
E. M. Fry. J. H. L. Owen.

Honours in Architectural Construction.

R. W. Donaldson. R. H. Turner.
A. L. Gabr. R. W. H. Vallis.

Ordinary.

F. H. Ashburner. G. H. Miller.
W. V. Jenkins.

Third Examination (exempting from Intermediate Examination R.I.B.A.).

F. N. Astbury. H. G. Phillips.
H. L. Barton. C. C. Shaw.
C. A. Minoprio. T. T. Wills.
H. A. Peters.

Second Examination.

A. Aspland. Norah Dunphy.
Sarah J. Dewsnup. H. G. C. Spencely.

First Examination.

E. F. Davies. K. R. Mackenzie.
R. G. Heal. G. A. Ridge.
May Hutchinson. Olwen Vaughan.

Diploma in Architecture, with Distinction in Architectural Construction.

Fifth Examination (exempting from Final Examination R.I.B.A.).

R. H. Jones.

Ordinary.

H. Hirst. A. C. Townsend.
Doris Musker. E. G. Woolley.

Fourth Examination.

Distinction in Architectural Design.

F. X. Velarde.

Third Examination (exempting from Intermediate Examination R.I.B.A.).

A. D. R. Cowley. G. E. S. Hereward.
F. H. Crossley. Frances T. Silcock.
Doris E. Dixon. H. Thearle.
H. B. Evans. Maud A. M. Wall.
H. L. Fox. Sheelah A. Wilkinson.

Second Examination.

W. R. Alderson. J. H. Isherwood.
G. A. Butling. A. C. Todd.
J. Heald. L. G. Zwinger.

First Examination.

V. S. Chahriman. J. B. Maxwell.
A. C. Cotton. J. G. Metcalfe.
W. H. S. Dobie. Marjorie M. Mocatta.
D. Hall. H. B. Stout.
O. G. Lewis. B. A. Sumner.
I. D. MacGillivray.

Certificate in Architectural Design.

N. R. England. B. G. L. Mansergh.

Certificate in Architecture.

F. N. Astbury. H. A. Peters.
H. L. Barton. H. G. Phillips.
A. D. R. Cowley. C. C. Shaw.
F. H. Crossley. Frances T. Silcock.
Doris E. Dixon. H. Thearle.
H. B. Evans. Maud A. M. Wall.
H. L. Fox. Sheelah A. Wilkinson.
G. E. S. Hereward. T. T. Wills.
C. A. Minoprio.

Prizes and Scholarships.

Hon. University Scholarship. — Edwin Williams (winner of Rome Jarvis Scholarship).

Holt Travelling Scholarship, Third Year, £50.—Francis Nicholas Astbury, Herbert Thearle.

Special Award of £20.—Frances Thelma Silcock.

Honan Travelling Scholarship (given by Liverpool Architectural Society), Value £50.—Francis Xavier Velarde.

Henry Jarvis Travelling Scholarship.—Edwin Williams, Wilfred Bythell Edwards.

The Lever Prize in Architecture.—1, Francis Nicholas Astbury; 2, Frances Thelma Silcock.

The Lever Prize in Civic Design.—1, Arthur Cecil Townsend; 2, Cyril Roy Knight.

The John Rankin Prizes for Sketch Designs, £12 each.—5th year, B. L. Owen; 4th year, D. L. Bridgwater, F. X. Velarde.

The Holland & Hannen and Cubitt Prizes for Working Drawings.—1 (£15), C. H. Hutton; 2 (£10), L. D. John.

Rome Finalists, 1923.—E. M. Fry, E. H. H. Higham, C. R. Knight, G. L. Owen, E. Williams.

THE PLANNING OF THE MODERN CITY.*

Mr. Nelson P. Lewis, as a leading American civil engineer and former engineer to the Board of Estimate and Apportionment of New York City, strikes a note which will appeal to municipal engineers, not only of his own country, to whom his book is dedicated, but also to engineers throughout the British Empire. The subject is treated from a municipal engineer's point of view, and as such deals primarily with the city-planning movement, especially in its relation to transportation problems by water, rail, or road.

Each of these branches of the subject is dealt with in extensive detail, and the chapter on the railroad in relation to the street system is of particular interest to English engineers to-day. Essential as the railroad is to the prosperity of the city, the long lines of embankments and deep railway cuttings passing through the built-up area of a town always present great difficulties in the development of an adequate street system. The different railway lines entering a city cannot be allowed to divide it into sections which are perhaps almost or entirely isolated the one from the other. The rival claims of the road and railway are well balanced in this chapter, and it must be recognised that the railways leading to and from a city are an all-important part of the town plan, and should be considered as such, and not treated as a separate problem.

Parks, recreational facilities, and civic centres, the latter playing a much greater part in the life of an American city than in cities of this country, are treated in a manner which arouses interest, even if some of the suggestions are not applicable to our own older cities. Perhaps the most interesting chapter in the book is that entitled "The Economic Value of a City Plan." It is always difficult to capitalise the advantages of any improvement or "betterment" which is for the free use and benefit of the public. Statistics, if skilfully handled, can be made to prove or disprove anything, and, when it is a question of expenditure of public money by a Corporation, we are, most of us, only too well aware of the criticism which can be levied at the municipal engineer in his efforts at improvement by the misuse of figures. For "when an attempt is made to estimate the value to the city, or state, of a more robust and vigorous manhood and improved working conditions, and the consequent saving in the annual budget for charities and maintenance of order, we are always dealing with something we know to be of enormous advantage, but one which can scarcely be expressed in £ s. d."

Some novel methods of dealing with the cost of various projects for general city improvement adopted by American cities are given, and if the methods hardly lend themselves for use in this country, they at all events should instil encouragement to get on with our job, and perhaps also a certain amount of American hustle in doing so. Many useful statistics have been collected on the subject of street traffic. Zoning, without which no town-planning book could, we suppose, see publication, is given in perhaps a rather cumbersome way. Fortunately, many of the problems arising in an American city are not to be met with in our own. A committee on zoning has been appointed by the American Secretary of Commerce to draft a model zoning ordinance and to prepare a simple comprehensive statement of what zoning is.

"Zoning," we are told, is "the application of commonsense and fairness to the public regulations governing the use of real estate. . . . It is a painstaking, honest effort to provide each district or neighbourhood with just such protection and just such liberty as are sensible in that particular district"—but the reader must himself finish the chapter to decide whether the definition meets with these requirements.

Some good "garden city lay-outs," both plans and photographs, illustrate a chapter on the subject. Interesting facts are given in the chapter on "City-Planning Legislation," but the succeeding chapters, "Progress and Method," and particularly "Financing a City Plan," are to be commended to the reader who is a little wearied and inclined to say that there is nothing new to be read on the subject of town planning. The use to which America is putting aerial photography is a hint to the regional surveyors in this country. The final chapter is one which must send the wearied municipal engineer back to his task with fresh zeal and inspiration.

In conclusion, and whilst congratulating Mr. Nelson P. Lewis on his second and greatly improved volume, it might be suggested that a rearrangement of some of the chapters would add still further to the attractiveness of the book, and this we hope will come with the third edition.

W. R. Davidge.

* "The Planning of the Modern City." (Second Edition.) By Nelson P. Lewis. 25s. nett. London: Chapman & Hall, Ltd. New York: John Wiley & Sons.

BOOK REVIEWS.

The Elementary Principles of Lighting and Photometry. By John W. T. Walsh. (London: Methuen & Co., Ltd. Price, 10s. 6d. net.)

With the rapid advance and multiplication of methods of illumination, the appearance of a volume which aims at co-ordination is welcome. Correct illumination is one of those matters which is now rapidly becoming a specialised task. The beauty of a fitting, which was at one time the craftsman's and architect's chief concern, is often a secondary consideration, and the proper disposition of the right amount of light for the particular purpose for which an apartment is required takes precedence.

The eye is more easily injured by too much light than too little, and the ignorant are apt, in matters of illumination, to confuse quantity with quality. In a recent lecture before the Royal Photographic Society, electric light was blamed for eye trouble. One might as reasonably blame food for stomach trouble; yet we cannot abstain from eating. It is not from the thing itself, but from its particular usage that trouble arises. The aim of Mr. Walsh in treating the subject of illumination scientifically is to dispel ignorance by gathering together the latest ideas, discoveries, and inventions.

Chapters dealing with indoor lighting and industrial and school lighting will particularly interest architects. Each room in the house is considered individually, and the best method of lighting discussed. Most architects would specify illumination in front of a dressing table, yet few know the precisely correct spot for it. There is one, and Mr. Walsh indicates it. The section on museums and galleries is somewhat inadequate. No reference is made to Mr. Hurst Seager's invaluable researches; neither are the methods indicated in accordance with his principles. We should like to have heard more about theatre lighting.

Structural Design in Theory and Practice. By Henry Adams. (London: Constable & Co., Ltd. Price, 10s. 6d. net.)

Mr. Adams' text-book is one of the most lucid expositions of an immensely complicated subject that we have seen, and we cannot too strongly recommend it, not only to the student and the tyro, but also to the practising architect, who failing absolute omniscience, or at least a highly specialised acquaintance with this branch of his profession, is frequently in need of aid in the solution of some structural problem. The book is, however, primarily arranged, not as a work of reference, but as a skilfully graduated course of instruction in the subject comprehended by its title. Timber is the first material to be dealt with, followed by steel, cast-iron, and concrete, some of the matter on concrete appearing for the first time in this, the second, edition.

Nevertheless, concrete would seem to receive a disproportionately small amount of space. It has been dealt with elsewhere and is, of course, the subject of other volumes, among them being Mr. Adams' "Reinforced Concrete in Theory and Practice," but concrete surely plays a more important part in structural design than the small number of pages devoted to it would indicate. Building by means of pre-cast concrete members is not touched on by the author.



War Memorial Tablet in the Hall of the Watermen's Company.

Messrs. Hall-Jones & Dewhirst, Architects.

[This memorial is in carved English oak, with the lettering and crest inlaid solid in holly. The work was executed by Messrs. John Daymond & Son, Ltd., of 1–7, Edward-street, Vincent-square, S.W.1, who also carried out two memorial tablets at the Metropolitan and City Police War Memorial Hospital, illustrated in our last issue.]

THE BUILDING TRADE.

TECHNICAL EDUCATION AND THE BUILDING INDUSTRY.

A CONFERENCE took place in Manchester on June 28, when the members of the Manchester Branch of the Institute of Builders entertained a large number of teachers of building subjects and others interested in technical education in the north-west area. The host for the evening, Mr. S. Smethurst, J.P., of Oldham, was unfortunately unable to be present, but his place was filled by Mr. John M. Macfarlane, the President of the Branch.

In opening the conference, Mr. Macfarlane laid stress on the great importance of technical instruction to the building industry and deplored the fact that so little attention had been given to this question in the past by the industry as a whole. In the post-war years, he said, some progress had been made, and he looked upon that conference as another step in the right direction, since it was a direct invitation from the representatives of the industry to the teachers, who were naturally those most intimately concerned and acquainted with this important work. He also referred to the step which has been taken by the Institute of Builders in deciding to devote themselves to the work of education and research in the industry, interpreting those terms in the widest sense as representing the basis for all real improvements in the industry generally. In speaking of the work now being done in the technical schools, he said while he was anxious that they should not think that he was lacking in appreciation of all that those activities meant he would like to give expression to his own opinion, which he had held for some time, that, while the professional and more capable student was well provided for, the student apprentice, and particularly the less capable apprentice, did not receive the same attention, since for many of this group the courses now in existence were too long and too difficult. He hoped the conference would have definite results, and he would urge that this be one of the problems which should receive very careful attention.

Mr. J. Leask Manson, H.M.I., referred to the fact that 25 of the teachers present that evening were now attending a course of lectures in Manchester which had been organised by the Board of Education for teachers of building subjects in Lancashire and Cheshire. That was one of a number of such courses which had been held during the last few years, the object being to offer the best facilities possible under present conditions for the purpose of enabling teachers to keep in touch with the latest developments by attendance at lectures and at laboratory demonstrations and by participation in discussions concerning their work. That particular course had dealt with a series of subjects which were now receiving attention in the advanced courses which it had been found possible to introduce into some of the larger schools in the area. They had been peculiarly fortunate in obtaining the services of able and enthusiastic lecturers. Dr. R. E. Stradling had dealt with the experimental investigation of building materials; Mr. F. E. Drury, M.I. Struct.E., had dealt with the application of mechanics to structural work; Dr. G. S. Coleman had given a series of lectures dealing with the equipment of buildings; and Mr. L. A. Gerrard had introduced the subject of building practice. In dealing with the progress of technical instruction in building subjects in recent years, he referred to the serious effects of the war period upon this work. Since 1919, however, there had been, on the whole, a steady, and in some cases a remarkable, increase in the numbers of students attending for instruction. Even the present serious industrial depression had had no marked effect upon these increases, and, in view of the fact that they might reasonably expect still further progress in the industry in the near future, with a return to more flourishing times, he hoped that both the industry and the schools would be prepared to make such use of these favourable conditions as to raise the provision of technical instruction in the work of the building industry to a level which it had not yet reached. In referring to the criticisms made by Mr. Macfarlane, he asked that full consideration should be given to the conditions under which the work had still to be conducted. Nearly the whole of the instruction was given in part-time classes conducted in the evening. In spite of the disabilities which those conditions imposed both on teachers and students much successful work had been done, but it was the common experience that, in spite of many serious efforts to extend the field so as to include the less capable and less ambitious student, they had to depend in the main on the more capable and more ambitious student; that fact was naturally reflected in the character of the courses which had been set up. On the other hand, with increased backing from the industry and with such increases in the numbers as would justify the provision of special classes it would be possible to develop trade courses more suited to the capacity of the average apprentice. It was possible that the time had now arrived when that development might take place and he was sure that, provided the new work was conducted on right lines, it would enable them not only to retain students who now dropped away owing to lack of ability or lack of perseverance but also to raise still further the standard of work done in the more advanced courses. That was important in view of the fact that work done in building classes had to bear comparison with similar work in other sections of technical instruction, in some of which very marked progress had been made in recent years.

Mr. Harold Rostron, B.Sc., Chairman of the Council of the Union of Lancashire and Cheshire Institutes, spoke of the work of that Union in connection with technical education. The Union represented an association of education authorities and technical institutions for the purposes of promoting schemes of instruction and of co-ordinating and simplifying the work of examination. In recent years they had examined the work of between 30,000 and 40,000 students each year. Schemes of courses had been set up for all the important industries and the work of each group was watched by expert advisory committees upon which the teachers had strong representation. The members of the Building Advisory Committee had for some time issued a more or less informal invitation to some of the building employers' associations in the area to send representatives to assist in the work. It was now proposed to put that arrangement on a more permanent basis, and the Council of the Union had decided to invite employers and others interested in the work of technical education in this area to nominate suitable representatives to be placed upon consultative panels, so that the Council could seek their advice whenever developments in courses dealing with the work of a particular industry seemed to justify such a step. He would therefore ask the members of that Institute to keep that matter in mind, so that when the time arrived a strong and able panel might be set up in connection with the work of the building industry in Lancashire and Cheshire.

Mr. J. W. Riley spoke of the development of building courses under the Union, with which he had been associated for a considerable number of years. There had, he said, been a steady improvement in the standard of the work attempted, and he agreed that, with the promise of increased support form the industry, still further progress would be possible. The increase in numbers alone since the close of the war had been remarkable, and there were reasons for believing that, even if not in so marked a form, that increase might continue. In 1920 the number of separate papers worked by candidates from building classes was 1,115, in 1921 it rose to 1,931, in 1922 the figure stood at 2,594, and in 1923, in spite of the fact that considerable changes had taken place in the courses offered, they reached the figure of 3,564 papers, representing the work of well over 1,200 students.

Mr. Fearnley, for the Institute, emphasised the need for thorough instruction in practical geometry for all trade students, and showed how useful such knowledge could be in connection with the problems of the various trades.

Mr. Pearson spoke of the conditions under which the teacher of building subjects had to carry out his work. He made a strong plea for more personal interest in this work on the part of the individual, and said he was convinced that, quite apart from any official arrangements, visits to the schools from the employers would be welcomed and would prove mutually beneficial. He also referred to the institution of national certificates in the engineering and other industries, and hoped that the day was not far distant when they might expect to see similar schemes set up for the building industry.

Mr. F. E. Drury spoke of the work of some of the larger technical colleges in the district, not forming part of the work of the Union, in developing the more advanced forms of instruction. There was great need not merely for the display of general interest but of active participation in this work by the building industry. It was not because of lack of interes on the part of the teachers that greater extent sions in the provision of trade courses had not been possible. The complexity of the industry and the separation into a large number of trades was one serious factor which always retarded developments. He was glad to know that the builders' foremen in Manchester proposed to set up an organisation by which they could develop the lectures dealing with their work. Much more than that was of course necessary, particularly in the provision of instruction for the young men now entering the industry, from whom would be drawn the builders and higher technical staffs of the future.

Mr. H. H. Wareing, Principal of the Oldham Technical School, spoke of the great success which had attended the setting up of properly-organised day classes for apprentices in the plumbing and the painting and decorating trades at Oldham eleven years ago. From the first those classes had the hearty and active support of the local representatives of these trades, both employers and operatives, by whose assistance it had been possible to keep them running even during the difficult years of the war.

Mr. Henry Mathews, J.P., Vice-President of the Branch, said the problem of education for the building industry was full of difficulties and merited earnest consideration. While he was sure that many of his colleagues fully appreciated the importance of this work he would like to see that feeling become more widespread. He understood that the building teachers in Yorkshire had formed an association to deal with the questions and had invited representatives of the industry to join them. That was an excellent plan, and he was sure nothing but good could come of a genuine association together of the members of the industry and those interested in the work of instruction. He was glad that they had now received an invitation to visit the teachers at the schools.

The meeting closed with the expression of a wish that such a conference might be repeated in the near future.

THE NEW EXAMINATION SYLLABUS OF THE INSTITUTE OF BUILDERS.

The Syllabus of the Examinations which, after December, 1923, will be the qualifying test for membership of the Institute of Builders* is a most arresting document. Few have realised the gradual widening of the knowledge required by a modern master builder or have appreciated its far-reaching character. The direction of building in big cities is no longer the occupation of the intelligent craftsman between the strokes of his plane or the swings of his hammer. It is an occupation requiring a high measure of skill and ability, as well as a large amount of specialised knowledge. In every direction this need for knowledge is being realised and a great tribute must be paid to the Institute itself and to the progressive spirits who are at its head for their foresight and energy in placing this scheme before the industry. With a standard thus set building will rise to its rightful position in relation to other industries, and will show that its exponents are men of standing. The creation of a high standard will help to attract men of fine calibre and education, who in turn will raise the status not only of the industry but of every individual exponent.

This achievement is the inevitable corollary of the creation of the syllabus that now lies before us, and its existence alone is therefore an event of outstanding importance.

Attention must, however, be directed not merely to the fact that a standard now exists by which to test the knowledge and suitability of candidates for the hall-mark of membership of the Institute, but of the subjects required and the extent of the knowledge that must be displayed.

The list of subjects appears comprehensive and formidable until the existence of alternatives is realised, when it is seen that any man of reasonable skill and application should be able to obtain a pass. But in the course of time the standard will be raised and the number of subjects increased. The first stage qualifies the candidate for the degree of Licentiate, and comprises :—

"Where the Examining Board deem it advisable they may require the candidate to submit to an oral examination. The examination in the above subjects will be of an elementary character."

The minimum age of entry is 19, and after passing the examination the candidate must be duly proposed and seconded.

The subjects of examination aim at the creation of a sound ground upon which to build future knowledge and cover the salient requirements of the head of a business treated in an elementary manner.

The most important feature is the stress laid upon bookkeeping and accountancy and builders' quantities, which are now accepted as vital subjects to the builder, subjects which, in the past, have been neglected as much as possible in favour of various rule-of-thumb systems. Architects, surveyors and builders themselves will all welcome the development of knowledge in the directions indicated, which should in the course of time tend to secure more equality in tendering and the elimination of the man who secures work at ridiculous prices and then either retires, scamps the work, or goes bankrupt—all equally undesirable results.

The remaining subjects give a wide choice to the candidate so that he may, as far as possible, develop those parts of his training which are best suited to his personal attainments or to the particular business to which he is or hopes to be, attached.

The examination for the Associateship extends the knowledge required by the Licentiate and comprises the following :—

" Group 1, building construction ; Group 2, bookkeeping, finance and costing ; Group 3, quantities and estimating ; Group 4, forms of contract ; Group 5 (one section to be selected), (*a*) steel and reinforced concrete construction, (*b*) specifications, (*c*) temporary buildings, (*d*) shopfitting ; Group 6 (one section to be selected), (*a*) history of architecture and crafts, (*b*) the Building Acts and Public Health Laws ; Group 7 (one section to be selected), (*a*) surveying and levelling, (*b*) landlord and tenant, (*c*) vendor and purchaser, (*d*) valuation. Where the Examining Board deem it advisable they may require the candidate to submit to an oral examination."

The candidate must be at least 22 years of age and in addition to passing the examination must fulfil certain specified qualifications before being elected a member.

The stress again laid upon bookkeeping, finance and costing, quantities and estimating is noticeable, and it is also extremely interesting to note the inclusion of history of architecture, surveying and levelling, and some of the legal subjects connected with the occupation of land and buildings. Many builders manage their own or other estates, and so long as this work is delegated to them they should possess the knowledge required to deal satisfactorily with the work. The tendency will probably be to emphasise the difficulty of the subject and to result in the employment of surveyors.

The inclusion of " Forms of Contract " as a compulsory subject is most commendable, many builders being now far too ignorant of the liabilities and responsibilities which are necessarily thrust upon them as soon as they undertake building work by formal contract.

The Syllabus as issued includes a short summary of the scope of the proposed examination in each subject as a guide to prospective students and teachers, and until several sets of actual examination papers are available will be invaluable.

A summary of the scheme shows that—

1. There is an examination for Licentiates of the Institute of Builders, with an age limit of 19 years.

2. An examination for an Associate, with an age limit of 22 years.

3. That while few candidates of the minimum ages mentioned will have the knowledge required for the examination, the door is open for the brilliant and exceptional student.

4. That each grade of membership has certain qualifications which the candidate should read before entering for the examination. They are set out as follows :—

(*A*) Licentiate : Article 9.—A person shall be eligible for admission at the discretion of the Council as a Licentiate of the Institute if he shows to the satisfaction of the Council that he possesses at the date of his application the following qualifications—that is to say : (*a*) that he has attained the age of nineteen years ; (*b*) that he has passed the necessary examination ; and (*c*) that he has been duly proposed and seconded on the appropriate forms.

(*B*) Associate : Article 8 (*b*).—1. That he is a Licentiate and has attained the age of twenty-two years. 2. That he has been engaged in business as a master builder or as a master in some branch of the building industry, or has held what the Council deem to be a suitable position in a building firm for at least three years preceding his application. 3. That he is himself a member (or any firm or company in which he holds such suitable position is a member), of an association which, in the opinion of the Council, is a recognised association of building trade employers. 4. That he has passed the necessary examination of the Institute for Associate membership. 5. That he has been duly proposed and seconded by members, as above, on the appropriate forms.

5. That there are many alternative subjects which make it possible for every Master Builder to find a group suited to his own requirements. As is necessary at the commencement of any new scheme, arrangements have been made for the entry into the Institute of qualified members either :—

(*a*) In certain cases without examination, which, after December, 1923, will be rigidly limited in number.

(*b*) By the attainment of a certain age and the subsequent passing of a modified examination.

The syllabus has been issued this month so that technical schools all over the country may include the necessary subjects in the school curriculum for 1923–24. The whole of the subjects will be included in the principal London building schools north and south of the Thames, including the Brixton School of Building and the Northern Polytechnic, and it is hoped that the provincial and local schools will give the matter serious attention and make similar provision.

This syllabus undoubtedly marks a most important step in the development of building, and the industry owes more than it perhaps realises to those of its members who have conceived the scheme and launched it so successfully.

The first examinations will be held in May or June, 1924.

*Copies of the Syllabus can be obtained upon application to the Secretary, Institute of Builders, 48, Bedford-square, London, W.C. 1.

THE RENT BILL.

We have now received the Rent Bill as amended in Committee, and there are more amendments than those we have already mentioned. In clause 2 the landlord has to come into " actual " possession, and two provisos are added to subclause (1) of this clause as follows : " Provided that where part of a dwelling-house to which the principal Act applies is lawfully sublet, and the part so sublet is also a dwelling-house to which the principal Act applies, the principal Act shall not cease to apply to the part so sublet by reason of the tenant being in or coming into actual possession of that part, and if the landlord is in or comes into actual possession of any part not so sublet the principal Act shall cease to apply to that part, notwithstanding that a subtenant continues in or retains possession of any other part by virtue of the principal Act." It will be seen this is very involved.

Then there is a second proviso, " Provided also that where a landlord comes into possession under an order or judgment made or given after the passing of this Act on the ground of nonpayment of rent the principal Act shall, notwithstanding anything in the foregoing provisions of this subsection, continue to apply to the dwelling-house." This proviso appears very unreasonable.

Subsection (2), which relates to the granting of leases or agreements after the passing of this Act has been amended. As we have already indicated, the term must end some time after June 24, 1926, instead of 1925, and the term granted must be a term of not less than two years.

In clause 3, which relates to the grounds on which possession can be claimed, paragraph (*b*) of subclause (1) now reads : " The dwelling house is reasonably required by the landlord for occupation as a residence for himself or for any son or daughter of his over 18 years of age or for any person bona-fide residing with him or for some person engaged in his whole-time employment or in the whole-time employment of some tenant from him or with whom, conditional on housing accommodation being provided, a contract for such employment has been entered into, and (except as otherwise provided by this subsection) the Court is satisfied that alternative accommodation is available, consisting of a dwelling-house to which the principal Act applies and which is reasonably suitable to the needs of the tenant and his family as regards extent, character, and proximity to place of work, and is reasonably suitable to his means." It will be seen that the alternative accommodation has been much more particularised than in the Bill as drawn. Paragraph (*e*) has been amended in much the same way where housing accommodation is part of the contract. Paragraph (*f*) has been

considerably amplified, and now reads: "Where the dwelling-house is reasonably required by the landlord for occupation as a residence for himself or for any of his children, and where the landlord or the husband or wife of the landlord did not become the landlord before June 30, 1922, the Court is satisfied that greater hardship would be caused by refusing to grant an order or judgment for possession than by granting it." We may remind our readers that this paragraph relates under the principal Act to cases where the existence of alternative accommodation can be dispensed with, whereas paragraph (*b*) above relates to the grounds upon which an order for possession can be made.

A new subclause has been added to this clause, 3, and it alters section 5, subsection (6), of the Act, which provided that where a landlord has obtained possession of a dwelling-house on the ground that he requires it for his own occupation and it proves that he made some misrepresentation or concealed material facts, the Court can order him to pay the former tenant compensation. The new subclause reads: "Subsection (6) of section 5 of the principal Act shall be extended so as to apply in any case (*a*) where the landlord has, after the passing of this Act, obtained an order or judgment for possession or ejectment on any of the grounds specified in paragraph (*d*) of subsection (1) of the said section, and it is subsequently made to appear to the Court that the order or judgment was obtained by misrepresentation or concealment of material facts, and (*b*) so as to authorise the Court, in addition to making an order for payment of compensation by the landlord to the former tenant, to direct that the dwelling-house shall not be excluded from the principal Act by reason of the landlord having come into actual possession thereof under the said order or judgment, and if such a direction is given, the principal Act shall apply and be deemed to have applied to the dwelling-house as from the date mentioned in such direction."

There is a new subclause added to clause 4 which deals with certificates as to houses out of repair, which is a necessary corollary to the clause. It is: "When, after the issue of any such certificate, the landlord has executed to the satisfaction of the sanitary authority the repairs which require to be executed in order to put the dwelling-house into a reasonable state of repair, the authority may, on the application of the landlord and upon payment of a fee of 1s., issue a report to that effect." Clauses 7 and 8 of the original Bill have been deleted. The first related to rates compounded, and the second to mortgages. These represent the amendments introduced into the Bill in Committee, but it was promised by the Minister that the clauses' relation to preimums should be strengthened.

Before this article appears in print the Report stage will have been reached, and it is understood the creation of advisory committees will be subject to much opposition. We are in agreement with that opposition, as we consider they are most objectionable. It is understood that the Government anticipate that as a result of this Bill the County Courts may be overworked, and some relief is necessary. If that be the reason for the creation of these advisory committees it is a criticism on the measure itself, as it shows a great increase of litigation is to be anticipated from this further unnecessarily intricate legislation, and we quite believe this will be the case; but may we suggest there is a precedent for dealing with it in a better manner? Under the Workmen's Compensation Act when it was first introduced there was a great increase in work in the County Courts, and powers were given to the judges, with the approval of the Lord Chancellor, to appoint arbitrators with an appeal to the Judge. These arbitrators did the work admirably, and there were very few appeals, and such a tribunal of legal arbitrators is far superior to any mixed committees. We trust that this will be the course adopted in regard to the Rent Act.

THE WEEK IN PARLIAMENT.

WESTMINSTER, *Wednesday.*

Housing in Surrey.

Mr. N. Chamberlain informed Mr. Ede that, according to a return made in 1919 by local authorities in the administrative county of Surrey, the total number of houses required by them for the working-classes was 9,028; 3,538 houses had since been built by local authorities. Financial assistance had been given under the Housing, Town-Planning, &c., Act, 1919, to the provision, in the administrative county, of 214 houses by public utility societies, and under Section 1 of the Housing (Additional Powers) Act, 1919, to the provision of 2,249 houses. A return obtained in March last, which did not include rural districts outside the Metropolitan Police District, showed that in Surrey 732 new houses of less than £35 annual value had been completed between September 30 and March 31, and 881 houses of five rooms or less were under construction at the latter date.

Cost of Materials.

Captain W. Benn asked the Minister of Health what was the average cost of materials employed in the construction of a house within the limits of size and type laid down in the Housing (No. 2) Bill for the years 1920, 1921, 1922, and at present.

Mr. N. Chamberlain said the prices submitted by local authorities did not distinguish between the cost of labour, materials, overhead charges, &c., and general average costs were not, therefore available. It might, however, be estimated that if the costs of material in a cottage in September, 1920, be taken as 100, the costs at subsequent periods might be compared as follows:—

September, 1920	100.
June, 1921	84.3
March, 1922	64.2
February, 1923	59.1

White Lead Convention.

Mr. A. Greenwood asked the Minister of Labour whether he was aware that the International Materials Committee, representing the Master Painters' Federation of England and Scotland and the Association of Ireland, had declared in favour of the ratification of the White Lead Convention, and that the operatives in the painting trade had also declared themselves in favour of ratification, and whether, in view of the master painters and operatives' unaminity, the Government would notify its intention of ratifying the convention.

Sir M. Barlow said the answer to the first two parts of the question was in the affirmative. As regarded the last part, the question of ratifying the convention was being carefully considered in the light of all the circumstances, and the decision would be announced as soon as practicable.

Concrete Roads.

Mr. D. G. Somerville asked the Parliamentary Secretary to the Ministry of Transport if, in view of the progress now being made in America with concrete roads, he would say whether he had received any official reports showing that the system of construction was satisfactory and economical; and whether, in that case, he proposed to recommend it for general adoption in this country.

Colonel Ashley said he was aware of the wide use of concrete roads in America and of the results claimed. Grants were made from the Road Fund towards the construction in the United Kingdom of concrete roads where circumstances favoured that method, but it was not part of his policy to recommend systems of road construction for general adoption throughout the country.

Land Valuation.

During the Report stage of the Finance Bill the Government stood by the proposal, which had been carried in a "free" division in Committee, to obviate the necessity of sending to the Land Valuation Department particulars of transfers of property. After a prolonged debate, in which both Mr. Lloyd George and Mr. Austen Chamberlain opposed the Government, the proposal was adhered to by 260 votes to 187.—Government majority, 73.

Housing Banks.

Mr. Leach, the Labour Member for one of the Divisions of Bradford, has presented the Local Authorities (Savings and Housing Banks) Bill, which empowers county boroughs and local authorities representative of not less than 150,000 persons to establish and maintain local savings banks. It also provides that the Treasury shall be responsible for the regulations in regard to the conduct of these banks and it also contains powers for the setting up of housing departments to enable a municipality to make advances on mortgage to depositors in order to help them to acquire their own houses. The Bill has been read a first time.

The Rent Bill.

During the discussions of the report stage of the Rent and Mortgage Interest Restrictions Bill, which lasted for two days, chief opposition, from the Government side, at any rate, centred around the proposal to set up Reference Committees to assist the County Court judge in the determination of questions arising under Part II of the Act in relation to the rent, character or condition of a dwelling-house.

Sir Kingsley Wood moved an amendment to delete this proposal, which, he said, had not been asked for by anybody of opinion or any association concerned with the interests of either landlords or tenants, and, so far as he was aware, no County Court judge had expressed a desire for such assistance.

Mr. Pretyman thought it was almost impracticable for the House to be legislating on a state of affairs that could not be foreseen in two years' time.

Mr. N. Chamberlain, in defending the establishment of the reference committees, said he was not unconscious of the fact that the mere suggestion that committees of this kind should be set up might give rise to doubts and fears among the Government supporters lest he should be doing something which might eventually lead to the setting up of permanent Rent Courts. Those doubts and fears had probably been strengthened by observations made by Labour Members during previous discussions. But he would try and meet some of the objections which had been raised. The proposal was bound to be somewhat vague, in view of the changed committees which might exist in 1925. His object was to establish a principle rather than to formulate a detailed proposal. The functions of the Reference Committees were confined either to acting as an advisory committee to the County Court or to acting as arbitrators in cases referred to them by landlords and tenants. He had been impressed with the genuine desire shown on all hands that Parliament should have full control over the regulations, but he thought he already ensured that. Nevertheless, he would accept a proposal of Sir Ryland Adkins to ensure that the regulations made by the Committees should not become operative until both Houses had passed resolutions accepting them.

After this statement, Sir Kingsley Wood withdrew his amendment, and Sir Ryland Adkins' proposal was embodied in the Bill.

G.W.R.'s Housing Schemes.

At the Railwaymen's Conference at Crewe, Mr. C. T. Cramp, industrial secretary of the National Union, as Secretary of the Great Western Railway Council, outlined two schemes which that company is carrying through for the improvement of the housing conditions of their employees. By the first scheme the employees are encouraged to become the owners of their own houses, the companies loaning to them 90 per cent. of the purchase money at 5 per cent. interest, the principal repayable by instalments spread over a period of twenty years. Under the second scheme the company is expending £1,000,000 in the purchase and laying out of land for building and then leasing it to public utility societies for development, the houses to be occupied by Great Western employees.

THE PRICE OF BUILDING MATERIALS.

The Interim Departmental Committee appointed on April 27 last to survey the prices of building materials and "to receive and consider complaints in respect thereof and to report from time to time to the Minister of Health and the President of the Board of Trade as to the facts, and in particular as to the extent to which in any case the price appears to be unduly high by reason of the operation of any trade combination, trust or agreement," has issued its first interim report, dated June 27. The Committee consists of Sir H. J. Mackinder (Chairman), Mr. A. V. Alexander, Sir Theodore Chambers, Sir Charles T. Ruthen, Mr. R. Coppock, Mr. Stephen Easten, Mr. E. R. Eddison, Mr. George Hicks, Mr. J. Stanley Holmes, Mr. W. T. Lancashire, Mr. Cecil B. Levita, Mr. D. Ronald, and Mr. J. Walker Smith, with Mr. T. H. Sheepshanks, of the Ministry of Health, as secretary.

The report states that the Committee has formed its own organisation for the ascertainment of prevalent prices in various parts of the country. The places chosen for this purpose are Birmingham, Bristol, Leeds, Leicester, London, Manchester, Newcastle, Swansea, Dundee, Edinburgh, and Glasgow, and, as typical of rural conditions, the counties of Cambridgeshire, Hampshire and Herefordshire.

The Committee decided that those who can best supply reliable local information are those who buy and sell materials in the district concerned, *e.g.*, builders and contractors on the one hand and the manufacturers and merchants on the other. Local authorities are also large purchasers, under, perhaps, rather special conditions, and there are additional sources of information, such as wholesale co-operative societies, Government departments and public utility societies. The Committee secured the co-operation of the chief technical advisers of the local authorities of the particular areas chosen, who are to avail themselves of all sources of information, and to call to their assistance representative local builders and contractors and local manufacturers and merchants. They have been requested to record actual prices as applicable to various dates in two different forms, namely :—

(1) A record of the prices of the principal materials required in the construction of a workman's house, arranged under 27 heads.

(2) The total cost of these materials in the quantities required for the construction of such a house. (This total will represent fully 95 per cent. of the cost of all the materials required.)

The returns under the second of these heads are not yet ready, but the Committee submits a statement under the first head for the two months, April and June, 1923, in regard to all but one of the chosen localities, in a Schedule to the report. The Committee has selected descriptions of material that are known to be reasonably constant in the various localities and subject to comparable conditions. Except in a few cases, prices recorded are as delivered on rail at some local railway depot. They are not exceptional prices such as might be quoted to specially large buyers or to those who have special advantages and facilities; nor are they such as are paid by small retail or occasional purchasers. They are those available for the average buyer under ordinary commercial conditions and apply to quantities of convenient bulk for trade minimum orders, such as full truck loads or four-ton lots. They are current and ordinary prices and not such as may be influenced by long-period contracts. They are "net" to builders and do not include the profit usually added in compiling tenders and day-work accounts.

The month of April has been included in the first record of prices for the reason that the Minister of Health in that month introduced the new Government Housing Bill.

The Committee proposes in future to present similar tables at monthly intervals. Although the Committee realises that a retrospective record is also called for, it is not yet in a position to present one, and has thought that a statement of present-day prices and those ruling at the time of the introduction of the new housing measure should be reported at the earliest possible moment.

The outstanding features of the Schedule (which we give, in part, on the following page) are: In the first place, there is considerable variation in the prices of locally-produced material; and in the second place, the actual prices, except in the case of light castings, have not at present been subject to general rise since April; although there have been some sporadic rises, there have also been some reductions.

Light Castings.

Dealing with the question of light castings, the report states: "Almost concurrently with our appointment, the National Light Castings Association, which controls the prices of the bulk of the light castings produced in this country, announced an increase of 10 per cent. in the prices of certain goods used in house building. We at once took steps to investigate this matter, and, after preliminary inquiries, appointed a sub-committee to visit Scotland, which is the chief centre of the light castings industry in this country. A long interview with representatives of the Association took place in Glasgow, at which it was stated to us that after careful consideration extending over several months, and after negotiation with the Committee of the distributing merchants, a new and reduced scale of prices had been settled, which took effect on February 1 of this year. We reserve our judgment as to the basis of this February scale and express no opinion in regard to it, because we are still waiting for certain information which has been promised to us and more detailed investigation may be necessary. But there is one observation which we think we may usefully make at once. It so happened that almost simultaneously with the announcement of the February prices, the cost of pig-iron, the raw material of light castings, began to rise. In January, the price of No. 3 Cleveland was 92s. per ton, in February 105s., and in April, when the peak was reached, it was 127s. 6d. Then, on May 1, the Association made an increase of 10 per cent. on the February prices of certain lines of goods. It was, of course, noted at the time that these were the very goods used in building small houses, but we put on record the statement made to us by the Association that this had nothing to do with the announcement in March that the Government were about to give further subsidies for the erection of such houses. We think that it is also our duty to record the fact that the representatives of the Association agreed with us in Glasgow that when the effect of the Ruhr occupation on prices passed away the recent increase ought to be reconsidered. The output of pig-iron in this country has been greatly augmented in the last few weeks and the price of No. 3 Cleveland has already fallen to 115s. a ton. Except in the case of coke, which is not a comparatively large item in the production of light castings, we are not aware that any of the other costs either of manufacture or distribution have increased since February, wages have been stationary and railway rates and national and local taxation have tended downwards. It seems to us, therefore, that by their own showing a reconsideration by the Association of the May increase is almost due."

Bricks.

In reference to the price of bricks, the report says: "We have received certain specific complaints of increase in price, of which the most important refers to South London. These we are investigating. As we have already pointed out, the prices tabulated in the Schedule to this report indicate no general rise of price in the country as between April and June.

"There are, however, certain features of the brick position to which we think it well to call attention. There has been a rapidly increasing demand in London and the South-east during the last few months and there has also been a considerable increase in production. The monthly production of the manufacturers in the Fletton area was 22 million in January, 1922; 20½ million in May, 1922; 23 million in January, 1923; and 33½ million in May, 1923. So far as our information goes, it would not appear that costs of production and distribution have materially increased of late. Coal has increased in price, but on the other hand railway freights have been reduced and also taxation both national and, on the average, local. Moreover, fixed charges can now be spread over a larger turnover. It is probable that in some localities there has been a rise in the price of bricks owing to the withdrawal of the intermittent competition of large producers from a distance. In times when demand is poor, large manufacturers, *e.g.*, the Fletton manufacturers, must go farther afield to find adequate markets. With an increasing demand they naturally tend to restrict sales to their more immediate neighbourhood, although they are, no doubt, willing to make special prices for deliveries at greater distances."

SOUTH WALES MASTER BUILDERS.

At the half-yearly meeting of the South Wales Federation of Building Trades Employers, at the Castle Hotel, Neath, Mr. W. E. Goodridge, Neath (the president), was in the chair. A welcome was extended to the Federation by Mr. S. L. Collins, president of the Neath Master Builders' Association.

An address on the Government housing proposals and scheme of subsidisation was given by Mr. D. Anderson, technical adviser to the Federation, who detailed the advantages arising from the Small Dwellings Acquisition Act. Mr. Anderson was requested, when the final stages of the Government Bill had been completed, to draw up a memorandum of points of interest for circulation to the affiliated members.

A report on the stabilisation of wages until January, 1924, was received.

Later members were entertained at lunch by the Neath Master Builders' Association.

Mr. Collins presided, and the toast of the Federation was proposed by Councillor H. Waring, who expressed appreciation of the Federation's efforts to improve the industry. Mr. Goodridge responded, and appealed for support from all master builders, and Messrs. T. Wilkins (secretary) and D. Anderson also spoke. Mr. Jenkins, Newport, submitted the toast of the Neath Association, and complimented the members on the loyalty for which, he said, they were noted. Mr. Collins responded.

Mr. Jonah Arnold, the architect and agent to the Gnoll Estate, conducted the members round Gnoll House and grounds, which is to be acquired by the Neath Council as a war memorial.

Builders' Sports Meeting.

The second annual sports meeting of the Trocoll Sports Club (Messrs. Trollope & Colls, Ltd.) was held at Grange-lane, College-road, Dulwich, S.E., on Saturday, July 7. Flat and track races and field events went off splendidly, notwithstanding the great heat, and a feature was an "open" relay race in which teams from several well-known London building firms competed. The side-shows were also most successful, particularly an elaborate contrivance known as "The Aerial Flight."

The firm welcomed many of its business friends, and a very happy programme, watched by a crowd of some 1,200 to 1,500 spectators, was brought to a conclusion at about 7 p.m., when the prizes were presented by Mrs. Colls, and a short appropriate speech was delivered by Colonel George H. Trollope, V.D., D.L. In opening the presentation of prizes ceremony, Mrs. Colls was the greatly pleased recipient of a very fine basket of flowers. The band of the 20th Batt. County of London Regiment played throughout the afternoon and evening, and rendered a short impromptu dance programme until dusk.

Locality.	Date.	Ordinary Common Bricks per 1,000.	Facing Bricks per 1,000.	Portland Cement, per Ton (British).	Portland Cement per Ton (Foreign).	Carcassing Timber, per Standard.	Flooring Timber, per Square.	Slates per Mille (1,200).	Roofing Tiles per 1,000.	Sheet Lead per Ton (British).	Lead Pipes, per Ton.	R.W. Pipes, per Yd. Lin.	R.W. Gutters, per Yd. Lin.	Soil Pipe, per Yd. Lin.	Kitchen Range, Each.	5 ft. Baths, Greenstone Enamel, 2" Roll, Each.	Glass, per Ft. Super.	White Lead, per Cwt.	Linseed Oil (Boiled), per Gallon.	Turpentine, per Gallon.
		Local Commons at Yard.	*Sandfaced at Yard.*			*Swedish Red (4th Quality), at Yard.*	*Swedish White 1" Plain, at Yard per Standard.*	*18" × 10" Welsh.*				*3" diam. ⅛" metal.*	*4½" Half Round ⅛" metal.*	*3½" diam. ⅛" Metal.*	*The Stafford.*		*15 ozs. (Thirds).*			
BIRMINGHAM ...	April ...	55/-	110/-	66/9	—	£22/10/-	£23/5/-	£23/5/-	—	£35/-/-	£30/-/-	2/-⅛	1/4½	3/-	£7/15/-	£4/17/6	3½d.	62/9	5/6	10/6
	June ...	55/-	110/-	65/-	—	£27/ /-	£25/10/-	£22/0/-	—	£35/-/-	£30/-/-	2/-⅛	1/4	3/6	£7/15/-	£4/5/-	3½d.	58/	4/3	8/-
		Hollybrook at Yard.	*Selected Common at Yard.*			*Swedish Red (4th Quality) at Yard.*	*Swedish White 1" Plain at Yard.*	*20" × 10" Blue Bangor.*	*Double Roman.*			*3" diam. ⅛" Metal.*	*4½" Half Round ⅛" Metal.*	*3½" diam. ⅛" Metal.*	*36" Carron.*		*15 ozs. (Thirds).*			
BRISTOL	April ...	60/-	65/-	64/6	—	£33/-/-	27/6	£24/17/3	£17/14/6	£37/10/-	£35/-/-	1/10¼	1/3	3/0½	£4/10/3	£5/ /-	3½d.-4½d.	58/3	4/4½	8/8½
	June ...	60/-	65/-	63/-	—	£33/-/-	27/6	£24/17/3	£17/14/6	£36/10/-	£34/-/-	2/-⅛	1/4½	3/10½	£4/10/3	£5/-/-	3½d.-4½d.	57/-	4/4½	9/3
		Local at Yard.	*Local Common Selected at Yard.*			*Swedish Red (4th Quality).*	*Swedish White 1" Plain.*	*20" × 10" Welsh.*	*Local.*			*3" diam. ⅛" Metal.*	*4½" Half Round ⅛" Metal.*	*3½" diam. ⅛" Metal.*	*3' 6" Barraclough's No. 70.*		*15 ozs. (Thirds).*			
LEEDS	April ...	45/	55/	65/-	—	£25/-/-	22/-	£23/10/-	£4/6/-	£35/-/-	£32/-/-	1/11¼	1/3½	3/6	£6/8/10	£4/15/	3d.	56/-	4/3	8/6
	June ...	45/-	55/-	85/-	52/6	£25/-/-	22/-	£23/10/-	£4/6/-	£35/-/-	£32/-/-	2/1⅛	1/5	3/10½	£6/8/10	£5/-/-	3d.	56/-	4/3	8/6
		Fletton.	*Picked Stock.*			*Red (4th Quality). 17/6/- to*						*3" diam. ⅛" Metal.*			*36" Self-Setting.*					
LONDON	April ...	49/3	65/-	47/10	—	£18/5/-	—	—	—	£32/-/-	£32/-/-		—	—		—	—	—	—	—
	June ...	52/-	65/-	44/-	—	£17/15/-	—	—	—	£32/-/-	£32/-/-	1/6⅛	—	—	£3/15/-	£3/17/6	—	50/-	—	—
		Local Wire Cuts.	*Local Red Semi-Plastic.*			*Swedish Red (4th Quality)*	*Swedish White 1" Plain.*	*20" × 10" 2nds, Velvahells.*	*Bridgewater.*			*3" diam. ⅛" Metal.*	*5" Half Round ⅛" Metal.*	*3½" diam. ⅛" Metal.*			*21 ozs. (Thirds).*			
MANCHESTER ...	April ...	60/-	97/6	63/	52/-	£22/ /-	20/3	£24/ /-	£15/6/-	£36/ /-	£36/-/-	3/	4/2½	3/6	—	£4/14/	5½d.	57/4	4/6	8/-
	June ...	60/-	97/6	63/-	52/-	£22/-/-	20/3	£24/-/-	£16/6/-	£36/-/-	£36/-/-	3/3½	4/7½	3/10½	—	£4/14/-	5½d.	57/4	4/6	8/-
		Local at Yard.	*1st Quality Pressed at Yard.*			*Swedish Red (4th Quality).*	*Swedish White, 1" Plain.*	*20" × 10" Blue Bangor.*	*Best Broseley Machine Made.*			*3" diam. ⅛" Metal.*	*4½" Half Round ⅛" Metal.*	*3½ diam. ⅛" Metal.*	*36" Yorkshire.*		*15 ozs. (Thirds).*			
NEWCASTLE ...	April ...	52/6	104/	59/	48/-	£22/ /-	21/6	£27/18/-	£6/ /-	£36/-/-	£36/10/-	2/ ¾	1/6½	3/6	£7/2/6	£4/-/-	4½d.	61/6	3/9	10/-
	June ...	52/6	104/-	60/4	54/6	£24/10/-	23/-	£27/18/-	£6/-/-	£36/10/-	£34/-/-	2/3½	1/8½	3/10½	£7/2/6	£4/-/-	3½d.	62/6	4/2	9/3
		"Swansea," delivered Site.	*"Graig," delivered Site.*			*Swedish Red 4th Quality), delivered site.*	*Swedish White 1" Plain, delivered site.*	*20" × 10" Blue Portmadoc.*	*Best Broseley Machine Made.*	*Delivered Site.*	*Delivered Site.*	*2½" diam. ⅛" Metal.*	*4½" Half Round ⅛" Metal.*	*4" diam. ⅛" Metal.*	*36" Yorkshire, excluding H.P. Boiler.*		*15 ozs. (Thirds).*			
SWANSEA ...	April ...	52/	60/	65/-	—	£23/ /-	24/6	£24/17/6	£5/ /-	£36/-/-	£33/10/-	1/4	1/-	3/0½	£5/17/-	£3/17/6	3½d.	53/6	4/6	10/4
	June ...	52/	60/	62/6		£24/ /-	26/6	£24/17/6	£5/-/-	£35/-/-	£32/10/-	1/5⅛	1/1½	3/4½	£5/17/-	£4/5/-	3½d.	58/	4/3	8/10
		Red Bricks from Approved Kiln.	*Picked Stock.*			*Swedish Red (4th Quality).*	*Swedish White, 1" Plain, ver standard.*	*20" × 10" Blue Bangor.*	*Best Broseley Machine Made.*			*3" diam. ⅛" Metal.*	*4½" Half Round ⅛" Metal.*	*3½" diam. ⅛" Metal.*	*30" Portable Range, "Boston" or "New Leader" Pattern.*		*15 ozs. (Thirds).*			
HAMPSHIRE ...	June ...	80/-	100/-	66/-	62/-	£26/18/3	£28/10/-	£27/-/-	£6/-/-	£36/10/-	£34/-/-	2/-⅛	1/4½	3/8	£4/10/6	£4/10/-	5d.	59/9	4/9	8/1
		Composition.				*White Wood (2nd Quality), Cube Ft.*	*⅞" T. & G., Sq. Yd.*	*Ballachulish, Full sized.*				*2⅛" diam. ⅛" Metal.*	*4½" Half Round beaded ⅛" Metal.*	*3½" diam. ⅛" Metal.*	*36" Range with Boiler.*	*5 Greenstone Enamel, 2½" Roll.*	*15 ozs. (Thirds).*			
DUNDEE	April ...	65/-	160/- to 170/-	63/6	50/-	3/-	2/4	£12/2/-	—	£37/5/-	£32/10/-	1/5⅛	1/3	2/11⅞	£9/-/-	£5/-/-	3½d.-5½d.	60/	1/11	10/
	June ...	65/	160/ to 170/	63/6	50/-	3/	2/4	£12/2/-	—	£37/5/-	£32/10/-	1/7⅛	1/4½	3/3½	£9/-/-	£5/-/-	3½d.-5½d.	60/-	1/11	10/
		Composition.				*White Wood (2nd Quality), Cube Ft.*	*⅞" T. & G., Sq. Yd.*	*Ballachulish, Full sized.*				*2⅛" diam. ⅛" Metal.*	*4½" Half Round beaded ⅛" Metal*	*3½ diam. ⅛" Metal*	*36" Range with Boiler*	*5' Greenstone Enamel, 2½ Roll.*	*15 ozs. (Thirds)*			
EDINBURGH ...	April ...	65/6	167/6	68/-	50/-	4/-	2/9	£12/2/-	—	£35/-/-	£33/10/-	1/5⅛	1/3	2/11⅞	£9/-/-	£5/-/-	3½d.-5d.	56/-	5/-	10/
	June ...	65/6	167/6	65/-	50/-	4/-	2/9	£12/2/-	—	£35/-/-	£33/10/-	1/7⅛	1/4½	3/3½	£9/-/-	£5/-/-	3½d.-5d.	56/-	5/-	10/
		Composition.				*White Wood (2nd Quality), Cube Ft.*	*⅞" T. & G., Sq. Yd.*	*Ballachulish, Full sized.*				*2⅛" diam. ⅛" Metal.*	*4½" Half Round beaded ⅛" Metal*	*3½" diam. ⅛" Metal.*	*36" Range with Boiler.*	*5' Greenstone Enamel 2½" Roll.*	*15 ozs (Thirds)*			
GLASGOW ...	April	43/	148/	70/6	53/	2/9	2/6½	£11/15/	-	£33/10/	£30/ /-	1/5½	1/3	2/11½	£9/-/-	£5/-/-	3½d. 5½d	57/-	4/3	8/9
	June	43/	148/	67/6	53/	2/9	2/6½	£11/15/	-	£33/10/	£30/-/-	1/7⅛	1/4½	3/3½	£9/-/-	£5/-/-	3½d.-5½d.	57/-	4/3	8/9

Abridged from the Report of the Government Committee on the Price of Building Materials.

Prices of Building Materials in April, 1923, and June, 1923. (*See p.* 68.)

THE PLUMBING APPRENTICESHIP SCHEME.

We have received the following from a correspondent :—

The scheme for the training and improvement of the future craftsman in the plumbing trade was initiated by a broad-minded and far-seeing few, who have worked assiduously for some years now. The scheme has been evolved and got into a state which, theoretically, should run easily ; but, practically, it seems at a standstill, with little hope of immediate progress. The aims of the scheme were approved and assisted by employers' associations and employees, yet there seems little fruit for those united efforts, particularly in London, although in many industrial towns progress is being made. Why is this stagnation ?

In London the masters are often inexperienced in the training of apprentices ; for years it has been a "plumber and mate." In many good-class shops there seems to be an impression that the apprentice does not pay. This may be true with some types of boys, but with the right type the reverse will be proved. To meet this the writer would suggest that each boy be taken on three months' trial before he is indentured.

There are a few good firms prepared to take apprentices, but are unable to do so owing to the fact that they have the full complement of apprentices in ratio to the number of men regularly employed. The result of this is that, with four plumbers regularly engaged, one apprentice only and three mates are employed. From this method of working the probabilities are that ultimately we get, say, at the end of five to eight years, three plumbers—one apprentice, and two of the mates. In hundreds of shops there are no *bona-fide* apprentices, but plenty of mates. What becomes of these mates ? Are they content to remain as mates ? Certainly not ! Seventy-five per cent. eventually blossom out into craftsmen of a sort ; the type content to work at 1d. or 2d. below the rate, and who do the shoddy kind of work which is so frequently produced.

As a possible solution to this—or, at any rate, a means to a laudable end—is, take the limitation of number of apprentices to men on broader lines for a few years instead of endeavouring to limit the number of apprentices in certain shops. Apply the system to the embryo plumbers in the mate stage. The writer has no statistics to work upon ; but if, for instance, there are 2,000 plumbers, union and non-union members, engaged in a town, allow, say, one to five=400 indentured apprentices in that town, irrespective of the members employed at one shop. It seems the only way to make any immediate progress. When, say, at the end of seven years, if the number of apprentices for the whole town is near the correct proportions as fixed by the trade unions or other bodies, then, and then only, take steps to equalise the numbers in the respective firms. Every thinking man knows that there must be limitations as to numbers, but he also knows that in nature's law the need is met and regulated by demand to a great extent. At the present stage there seems no possible likelihood, in London anyway, of creating a supply of properly trained craftsmen over and above the demand. In fact, if the matter is not tackled on the broader basis as above suggested, there will be the continuous dearth of such, with its evil consequences on the trade.

It has been arranged that indentured apprentices shall attend a training school for two half-days per week for a term of two years. This seems to be a big stumbling-block. The masters state that they cannot afford to pay the boys during those periods in which they are attending classes. Again, it is a matter of taking the broader outlook. Time spent in training will be an investment for increased production in later years of the apprenticeship. Many towns and many trades have been working the system quite successfully for a number of years. The healthy state of such trades and the gradual growth of the classes is a proof that they are working on the right lines. Admittedly it is more difficult in the plumbing trade to allow the boys this time. To meet the case for firms whose work is chiefly repairs, alterations, &c., there are the technical schools where the boys are trained for the trade direct from the elementary school. These boys, having spent from two to three years in the technical school, will not be required to attend such day time classes, and their specialised practice in the technical school will put them on the way to become sound and conscientious craftsmen ; and now, having endeavoured to clear the way, why not give the scheme a trial ? There is no risk and no ultimate hardship on any who are craftsmen and have the well-being of their trade at heart.

PLASTERERS AND SLATING WORK.

A correspondent, writing in a recent issue of the *South Wales Daily News*, says :—

"Shall a trade unionist who has served his apprenticeship at his trade be allowed to follow that trade wheresoever he has a mind to do so ? The Cardiff Branch of the Plasterers' Society, backed up by the Cardiff Joint Industrial Council of Building Trade Employers and Employees, says, 'No ; not in Cardiff.'

"Some few months ago a Cardiff shipowner decided to build a residence at Radyr, and through his architects placed a contract for the main part of the building with a responsible firm of contractors. But as he required his roof to be slated in a special manner—a manner which is quite an innovation in the Cardiff district, and which is the work of specialists—he placed a separate contract for this work with a very old-established firm of slating contractors, whose workmen have the requisite experience and skill to carry out the work satisfactorily. This firm belongs to the National Federation of Building Trade Employers and holds membership in the South Wales Building Trades Employers' Federation, and has carried out slating contracts in South Wales for the past 40 years.

"The slaters employed by them are members of the Amalgamated Slaters' and Tilers' Society, which is one of the integral parts of the South Wales and Monmouthshire Building Trades Council, and they work under rules and regulations laid down by their society. But when these slaters commenced to carry out the slating at Radyr, the Plasterers' Society at once threatened to withdraw their men from this contract, and also from all other contracts being carried out by the same building contractor, unless the slaters were stopped working—at their own trade !—at Radyr. This threat materialised, but the plasterers ultimately returned to the other contracts on the instructions of the local joint council. The plasterers claim that they, and they only, shall do all slating and tiling work in the Cardiff area, and, despite the fact that there are insufficient plasterers in the district for the work in progress, they deny the slater the right to work there at his own trade. They base their claim on an old and carelessly-worded demarcation award, which was given in settling a dispute between themselves and the bricklayers. It is interesting to note that their fellow trade unionists—the slaters—were not represented, or considered, when this award was made.

"Surely the main object of trade unionism is to secure fair and equitable treatment for all trade unionists. But it is very evident that the Plasterers' Society wishes to overlook this principle, and to use its greater numerical strength to prevent the smaller Slaters' Society from carrying on in the manner to which it is logically entitled. And, again, their action is backed up by the 'chosen' of the local master builders. This sort of tyrannical treatment by the Plasterers' Society is sure to reap its own reward, and it is pleasing to note that several materials have been recently placed on the market which now enable us to build houses entirely and satisfactorily without the aid of a single plasterer."

LAW REPORTS.

Tiles for a Bungalow.

In Shoreditch County Court, Messrs. J. J. Etridge, junr., Ltd., of Hollybush-place, Bethnal Green, sued Messrs. Field & Son, of Old-road, Clacton, builders, to recover £19 11s. 7d. Mr. J. P. Eddy appeared for the plaintiffs, and Mr. Ball, barrister, for the defence.

Counsel said plaintiffs carried out work for the defendants, fixing tiles at a bungalow, and there was a surplus to the value of what was claimed, and the whole point at issue was whether the tiles belonged to the plaintiffs or the defendants. In the first place the defendants agreed to purchase a quantity of tiles for which the plaintiffs had quoted, but almost directly after defendants said their bricklayers were busy, and asked plaintiffs to quote for carrying out the work. They did quote an inclusive price for the tiles and the work, and on that agreement it was stated that all surplus goods were to be taken over by the defendants, or put on rail free. Counsel said his submission was that this second agreement entirely did away with the first, and plaintiffs were only to use the tiles which they had supplied and which were on the job and to charge up the surplus.

The defendants, on the other hand, claimed that they had already purchased the tiles, and the second price given them only added on the cost of putting down the tiles, plus the cost of the tiles, inclusive. The quotation was for £100 17s. 6d., which included material and labour.

Mr. Eddy said he was prepared to admit the price was inclusive, but they were to have the surplus material.

Mr. Henry Hubert Ford, a director of the plaintiff company, gave formal evidence as to the transaction.

Judge Cluer found for defendants with costs, and remarked that the case ought never to have been brought—it was too simple.

Acquisition of Strand Premises.

Mr. Howard Martin, Official Arbitrator, has issued his award in a claim against the London County Council, regarding the Council's compulsory acquisition of the house, shop and premises, 73, Strand. The claimants are named as Ronald Willie Gandar-Dower, Alan Vincent Gandar-Dower, and Emily Mary Gandar, trustees of the will of Thomas Fever Gandar (deceased), and Ronald Willie Gandar-Dower and Amelia Frances Gandar-Dower.

The award is as follows : "That the Acquiring Authority is to pay the claimants the sum of £21,000 as compensation as from December 13, 1921, the date of the notice to treat ; all questions of rent and interest to be adjusted by the parties as matters of account in the settlement ; and I order the claimants to pay the costs of the Acquiring Authority."

"THE BUILDER" COST OF BUILDING COMPETITION—No. 2.

A selection of nearly forty plans, elevations, and details, from about 300 designs submitted in Competition No. 1 (open to architects only), including the designs which won the £75 prize for class "A" (houses with three bedrooms and parlour), and class "B" (houses with four bedrooms and two sitting-rooms), have now been published in book form (London : *The Builder*, 4, Catherine-street, W.C.2, price 2s. 6d. net.)

Builder's Will.

The late Mr. Richard James Matthias, J.P., of the Garth, Merthyr-road, Pontypridd, builder and contractor, who died on May 11, left £48,093 (net personality of £46,444).

NEW BUILDINGS IN LONDON.

Bloomsbury. — Alterations.—The British Medical Association has purchased the Theosophical College in Tavistock-place, Bloomsbury, on building which it is understood more than £100,000 was spent up to the suspension of work early in the war. The building, which contains three large halls, has a floor area of 58,000 square feet.

Westminster Bridge.—Subway.—The L.C.C. is considering the construction of a subway under the Victoria Embankment at the corner of Westminster Bridge.

Ludgate Hill.—Extensions.—The building operations being carried out in London House-yard consist of an extension to the premises of Messrs. J. Spence & Co., Ltd., on the site of an old City public house named "The Rose and Crown." The builders are Messrs. John Greenwood, Ltd., of 12–14, Arthur-street, London Bridge, E.C.4.

New Oxford-street.—Alterations.—Premises at 28, New Oxford-street have been altered by Runham Brown Bros., 109, Downs-road, Clapton, for a branch of Messrs. Barclays Bank. The stucco work is by Messrs. Gilbert Seale & Son, Ltd., 22, Lomond-grove, S.E.5, and the steel sashes are by Crittall's, of Holborn. Mr. D. G. Marsh, of 38, Chancery-lane, W.C.2, is the architect.

Euston-road. — Reconstruction. — Premises at Nos. 231–233, Euston-road, N.W., are being reconstructed by Messrs. Hall, Beddall & Co., Ltd., under the direction of Mr. C. J. Mole, M.B.E., F.R.I.B.A., for Messrs. R. Simmonds & Son. Constructional steelwork is being executed by Messrs. Young & Co.

NEW BUILDINGS IN SCOTLAND.

Cambuslang.—Clubhouse.—Efforts are being made to raise £200 to erect a clubhouse in connection with Cambuslang Parish Church, at Greenlees-road.

Edinburgh. — Zoology Department. — The University Court has received a gift of £20,000 to start a fund for a new department of zoology. The giver expressed the hope that the department would be erected in the near future.

Brechin.—Masonic Hall.—Plans for a new hall for the St. Ninian's Lodge of Freemasons have been passed by the Dean of Guild Court.

Paisley.—Houses.—The Dean of Guild Court has passed plans submitted by Mr. Malcolm Macfarlane, joiner and timber merchant, Wallneuk Sawmills, for a self-contained house at Gartmore-road; for Wm. MacKean, Ltd., for a bungalow in Greenock-road; and for Mrs. Mary Amelia Miller, Miami, Fort Matilda-place, Greenock, for a bungalow in Kingsburgh-drive.

Markinch.—Painting Town Hall.—The Town Council has decided to clean and paint the inside of the Town Hall and the outside woodwork of the Municipal Buildings.

Greenock.—Fire Station.—The Town Council is considering the advisability of providing a new fire station, equipped with modern appliances, for the town.

Forres.—Co-operative Society Premises.—The Dean of Guild Court is considering plans for new buildings in Academy-lane for the Scottish Co-operative Wholesale Society.

Coatbridge.—Houses.—The T.C. propose to obtain tenders for 50 new houses at Cliftonville. Plans have been passed for three shops at the Old Smithy and vacant piece of ground in Bank-street, for Provost Kirk, estimated to cost £600.

Dundee.—Houses.—Sketch plans were submitted to the Corporation Housing Committee for 102 tenement houses, which it is proposed to erect on Dudhope Estate, to the west of Gardiner-street. The plans were remitted to a sub-committee. The following plans were submitted to the Corporation Works Committee for approval: Arbroath-road, cottage for the Trustees of Craigie Estate; Kerrington-crescent, Barnhill, villas for A. Thomson; Park-road, house for W. Clark; Raglan-street, workers' club, for Caird's (Dundee), Ltd.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur :—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Masons'	Bricklayers'	Plasterers Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Bedford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Birkenhead	1/9	1/9	1/9	1/9	1/9	1/10	1/9			1/4½
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Bournemouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3			0/11½
Brighton	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Cambridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Chatham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Chelmsford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Colchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Eastbourne	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Exeter	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½			0/11½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3			1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½			1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Great Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Guildford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3			1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Ipswich	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6			1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Liverpool	1/9	1/9	1/9	1/9	1/9	1/10	1/9			1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½			1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Luton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Maidstone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Norwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Oxford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Plymouth	1/5	1/5	1/5	1/5	1/5	1/5	1/4			1/0½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Reading	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Rochester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
St. Albans	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Scarborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7			0/11½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			1/2½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/0
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3			0/11½
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Torquay	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Tunbridge Wells	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			1/2½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/1½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/2½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7			0/11½
Windsor	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			1/2½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/1½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
York	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½

(For rates of wages in the Building Trade in Scotland, see page 72.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

JULY 14.—**Grimsby.**—CONSTITUTIONAL CLUB.—The Committee invite tenders for the erection of new premises in Victoria-street. Mr. William Wells, Licentiate R.I.B.A., architect, Prudential Chambers, Victoria-street, Grimsby.

JULY 14.—**Rhymney.**—PAINTING.—For painting and colouring of the Beulah Chapel, Rhymney, for the Trustees. Mr. W. J. Durham, 28, Moriah-street, Rhymney.

JULY 16.—**Aberayron.**—RENOVATION.—For renovating and painting of the Aberayron Cottage Hospital, for the Guardians of the Union. Mr. William H. Lewis, Clerk, Union Offices, Aberayron.

JULY 16.—**Abertillery.**—PAINTING.—For painting for the U.D.C. Education Committee of the following buildings: Gellicrug Mixed and Infants' Schools; Abertillery Central Boys', Girls' and Infants' Schools; Queen-street, Girls' and Infants' Schools; Blaentillery Mixed and Infants' Schools (with temporary premises); Llanhilleth Mixed and Infants' Schools (with temporary premises), and Church of England Mixed and Infants' Schools. Work to be done in Schools vacation. Mr. A. Gordon Jones, Surveyor, King-street, Abertillery.

JULY 16.—**Bexhill.**—SUB-STATION.—Erection of an electric sub-station, at Little Common, for the B.C. Mr. George Ball, Borough Surveyor, Bexhill. Deposit £1 1s.

JULY 16.—**Blofield.**—COTTAGES.—Erection of six cottages at Lingwood, for the R.D.C. Mr. L. F. Beckwith, The Institution, Lingwood.

JULY 16.—**Cardiff.**—SETTING.—For brickwork setting for two boilers, for the T.C. Electrical Engineer, Cardiff.

JULY 16.—**Carlisle.**—ALTERATIONS.—For alterations to 10, Castle-street, for the T.C. Mr. Henry C. Marks, City Engineer, 18, Fisher-street, Carlisle.

JULY 16.—**Chelmsford.**—PAINTING.—For painting, &c., of Public Library buildings, for the T.C. Borough Engineer, 16, London-road, Chelmsford.

JULY 16.—**Collingham Bridge.**—HOUSE.—Erection of a house at Linton, near Collingham Bridge. Messrs. Kirk, Sons & Ridgway, architects, Market-place, Dewsbury.

JULY 16.—**Denny.**—HOUSES.—Erection of 12 houses, for the T.C. Messrs. James Strang & Wilson, architects, Falkirk.

JULY 16.—**Dorchester.**—REPAIRS, &C.—Limewashing and repairing at the Dorchester Church of England Schools. Mr. H. O. Lock, 24, High West-street, Dorchester.

JULY 16.—**Groeslon.**—PAINTING.—For painting and repairs to Cesarea Chapel. Mr. W. E. Roberts, architect, 6, Constantine-terrace, Carnarvon.

JULY 16.—**Harrogate.**—METER HOUSE.—For the erection of a meter house, for Harrogate Gas Co. Mr. Frank H. Robinson, Assoc.M.Inst.C.E., Gas Office, James-street, Harrogate.

JULY 16.—**Hendon, N.W.4.**—FLATS.—Erection of 13 blocks of flats, Bittacy Hill and Sanders-lane, Mill Hill, for the Hendon Urban District Council. Mr. A. O. Knight, A.M.I.C.E., Engineer to the Council, Town Hall, Hendon, N.W.4. Deposit £3 3s.

JULY 16.—**Huddersfield.**—BUNGALOWS.—Erection of two bungalows, Royd-street, Longwood, Huddersfield. Messrs. Lunn & Kaye, architects, Milnsbridge, Huddersfield.

JULY 16.—**Huddersfield.**—HOUSES.—Erection of semi detached houses, Avenues Estate, Fartown. Messrs. James H. Hall & Son, architects, Exchange Buildings, Market-place, Huddersfield.

JULY 16.—**Kirkcaldy.**—VARIOUS WORKS.—Tenders are invited for works in connection with 32 houses to be erected on the Overton-road site. Town Clerk, Mr. Wm. L. Macindoe. Deposit £1 1s.

JULY 16.—**Mexborough.**—SECONDARY SCHOOL.—Tenders are invited for the repair and renovation to this school: (1) Interior decorating of certain parts; (2) interior decorating of temporary buildings; (3) repairs to temporary buildings; (4) re-pointing brickwork and building of ashes pits; (5) tar painting and repairs to asphalting. Mr. Isaac W. Chipp, Secretary, Montagu-square Chambers, Mexborough. Deposit 10s. 6d.

*JULY 16.—**Newquay, Cornwall.**—CHURCH HALL AND VICARAGE.—Erection of a new church hall and vicarage at Newquay, Cornwall, for the Newquay Parochial Church Council. Messrs. Cowell, Drewitt & Wheatley, A.R.I.B.A., Central Chambers, Newquay, Cornwall.

JULY 16.—**Paignton.**—ADDITIONS, &C.—For additions to fire station, central heating and electrical installation, for the U.D.C. Mr. C. O. Baines, Surveyor, Town Hall, Paignton. Deposit £1 1s

JULY 16.—**Ravensthorpe.**—HOUSES.—Erection of steward's house for the Ravensthorpe and Northorpe Conservative Club, Ravensthorpe. Secretary at the Club.

JULY 16.—**Reading.**—COVERED CATTLE SALE RING.—Construction of a covered cattle sale ring at the Corporation of Reading Cattle Market in Great Knollys-street. Borough Surveyor, Town Hall, Reading. Deposit £1 1s.

JULY 16.—**Rowley Regis.**—PAINTING.—Painting and renovating works, at Council Schools. Sec., Education Committee, Council House, Old Hill, Staffordshire.

JULY 16.—**Spenborough.**—PAINTING.—For painting and cleaning of various schools for the U.D.C. Mr. A. Rothera, Surveyor, Town Hall, Cleckheaton.

JULY 16.—**Tilbury, Essex.**—HOUSES.—Erection of a further 118 houses in Tilbury, for the Tilbury U.D.C. Mr. A. W. Buckner, Clerk to the Council, Council Offices, Tilbury.

JULY 16.—**Trowbridge.**—REPAIRS.—For repairs to various schools. Mr. T. Walker, County Architect, Trowbridge.

JULY 16.—**Warrington.**—ALTERATIONS.—For alterations to premises, 34, Sankey-street, for the T.C. Mr. Andrew M. Ker, Borough Engineer, Warrington.

JULY 16.—**Whitehaven.**—HOUSES.—Erection and completion of 58 houses near Arrowthwaite, for the Borough of Whitehaven. Borough Surveyor, Town Hall, Whitehaven. Deposit £2 2s.

JULY 16.—**Wombwell.**—RENOVATIONS.—For renovations at the Wombwell John-street and Wombwell Park-street Council Schools. Mr. John R. Yeardley, Education Offices, Swinton, near Rotherham.

JULY 16.—**Worthing.**—DISCHARGE BLOCK.—For erection of discharge block at Swandean Isolation Hospital, for the T.C. Mr. P. E. Harvey, Borough Surveyor, Worthing.

JULY 17.—**Andover.**—SCHOOL.—Erection of a new secondary school at Andover for 168 girls. Mr. A. L. Roberts, County Architect, The Castle, Winchester. Deposit £5 5s.

JULY 17.—**Barwick.**—SCHOOL OFFICES, &C.—Erection of new offices and the construction of new playgrounds, at Barwick Council School, for the Somerset C.C. Mr. A. J. Pictor, F.R.I.B.A., Bruton.

JULY 17.—**Crumlin.**—WALL.—For rebuilding the enclosing wall at the National School, Crumlin. Mr. W. D. Scott, Assistant Secretary, Ministry of Finance, 15, Donegall-square W., Belfast.

JULY 17.—**Dalkeith.**—HOUSES.—Erection of tenement of 24 houses at Elmfield Park, for the T.C. Mr. A. Murray Hardie, architect, 20, George-street, Edinburgh.

JULY 17.—**Epsom.**—MORTUARY.—Erection of mortuary and post-mortem room at the Guardians' Institution. Mr. A. C. Williams, architect, of Ashley-road, Epsom.

JULY 17.—**Gillingham.**—EXTENSION.—For extension to Working Men's Club, Pier-road. Mr. E. J. Hammond, architect, 21, Balmoral-road, Gillingham, Kent. Deposit £2 2s.

JULY 17.—**Hemsworth.**—LAUNDRY.—Tenders are invited for the erection of a laundry. Mr. W. T. Lynam, A.M.I.C.E., Engineer and Surveyor, Hemsworth Rural District Council. Deposit £2 2s.

JULY 17.—**Leeds.**—FOUNDATIONS, &C.—(*a*) Excavations, and concrete and brick foundations; (*b*) wrought-iron unclimbable fencing in connection with new Roundhay school, for the T.C. Education Offices (Architect's Section), Calverley-street, Leeds.

JULY 17.—**Liverpool.**—ALTERATIONS.—For alterations to the Custom House, Liverpool. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

JULY 17.—**Liverpool.**—CONVENIENCES.—Erection of two new conveniences in Smithy-lane Recreation Ground, Walton, for the T.C. Land Steward and Surveyor, Municipal Buildings, Liverpool.

JULY 17.—**Liverpool.**—PAINTING.—For painting railings, shelters, lodges, conveniences, &c., Stanley Park, for the T.C. Office of the Land Steward and Surveyor, Municipal Buildings, Liverpool.

JULY 17.—**Lochmaben.**—PAINTER WORK.—The Dumfries and Galloway Joint Sanatorium Board invite offers for painter work in connection with the Sanatorium or Hospital buildings being erected at Lochmaben. Mr. John Robson, Clerk of the Board, County Buildings, Dumfries. Deposit £1 1s.

*JULY 17.—**London, W.**—FLATS, COTTAGES.—Erection of 38 flats and five cottages on land at the rear of the premises in Barley-road, North Kensington, for the Royal Borough of Kensington St. Quintin Housing Scheme, 3rd section, in accordance with drawings and specifications prepared by their Architect, Mr. A. S. Soutar, 8, King William-street, Strand, W.C.2. Office of the Architect, or at the Borough Engineer's Department at the Town Hall, Kensington, W. 8. Deposit £2 2s.

JULY 17.—**Mountain Ash.**—SCHOOLS.—For undertaking for the Mountain Ash (Glam.) Education Committee: (1) Rebuilding of west wing of Abercynon Boys' and Girls' School, and (2) forming corridor and other alterations at Trerobart Infants' School, Ynysybwl. Mr. W. H. Williams, M.S.A., Town Hall, Mountain Ash.

JULY 17.—**North Brierley.**—PAINTING.—For interior painting, &c., at the Poor Law Institution, Clayton, and the Cottage Homes, for the B.G. Mr. Wm. G. Cooper, Clerk, 4, Town Hall-street, Bradford.

JULY 17.—**Rampton.**—EXTENSION.—For superstructure of the new male block, additions to laundry, erection of cottages and drainage work at the Rampton State Institution, for H.M. Commissioners of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

JULY 17.—**Salford.**—REBUILDING.—For rebuilding portion of buildings at Central Car Depot, for the T.C. Borough Engineer, Salford. Deposit £2 2s.

JULY 17.—**Watford.**—COTTAGE.—Erection of cottage on the Radlett Outfall Site, Oakridge-lane, for the R.D.C. Surveyor, 9, Market-street, Watford. Deposit £2.

JULY 18.—**Chester.**—HOUSES.—Construction of 49 houses on the Heath-lane site, for the T.C. Mr. Charles Greenwood, City Engineer, Town Hall, Chester. Deposit £3 3s.

JULY 18.—**Coventry.**—COTTAGE.—Erection of a caretaker's cottage in the grounds of Stoke Park Secondary School, for the T.C. Education Department, Council House, Coventry. Deposit 10s.

JULY 18.—**Dartford and Sutton.**—CLEANING, ALTERATIONS, &C.—For (1) cleaning and painting at the Darenth Training Colony, near Dartford, Kent; (2) structural and sanitary alterations at the Downs Hospital for Children, Banstead-road, Sutton, Surrey, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1 each.

JULY 18.—**Doncaster.**—PAINTING.—For decoration of Mansion House. Mr. R. E. Ford, estate surveyor, 3, Priory-place, Doncaster.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Plasterers' Labourers.
Aberdeen	1/7	1/7	1/7	1/6	1/7	1/7½	1/4	1/- to 1/2	
Airdrie	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/5	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/7	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Fort William	1/7	1/6	1/6	1/6	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1 2½	
Greenock	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Hawick	1/7	1/6	1/6	1/6	1/7	1/6	1/6½	1/1½	
Helensburgh	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Inverness	1/7	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 71.

JULY 18.—**Edinburgh.**—LODGE.—Erection of lodg at Pinkhill, Corstorphine-road, for the T.C. Mr James A. Williamson, City Architect, City Chambers Edinburgh.

JULY 18.—**Glamorgan.**—VARIOUS WORKS.—For carrying out for the Glamorgan Agricultural Committee the following works: Erection of pigsties and pantry with adaptations and repairs to farmhouses and outbuildings at Clemeston, near Llandow Halt and Southerndown-road Station. Cowbridge Police Station or County Land Agent, 30, Park-place, Cardiff.

JULY 18.—**Glasgow.**—SCHOOL.—For the several works to be executed in Pollokshields and Rutland-crescent Public Schools, for the E.C. Education Offices (Property Dept.), 129, Bath-street, Glasgow. Deposit £1 1s.

JULY 18.—**Guildford.**—ALTERATIONS.—For alterations at the Corporation Depot, Bedford-road, for the T.C. Borough Surveyor, Tuns-gate, Guildford.

JULY 18.—**Guildford.**—IMPROVEMENTS.—For carrying out certain improvements and alterations to the Cattle Market, for the T.C. Borough Surveyor, Tuns-gate, Guildford.

JULY 18.—**Haverfordwest.**—HOUSES.—For erecting, for the Trustees of Sir John Perrott's Charity, three dwelling houses at Cardigan-road, Prendegast, Haverfordwest. 12, High-street, Haverfordwest. Deposit £2 2s.

JULY 18.—**London, S.W.17, and Dartford.**—TEMPORARY BUILDINGS AND ALTERATIONS, &C.—(1) Adaptation of laundry and temporary buildings as staff accommodation at the Grove Fever Hospital, Tootingrove, S.W.17; (2) drainage alterations, sanitary improvements and cleaning and painting at the Southern Hospital, Dartford, Kent, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1 each.

JULY 18.—**Lossiemouth.**—VARIOUS WORKS.—The T.C. invite offers for works in connection with four four-apartment houses in Commerce-street and four three-apartment houses in Church-street. Whole or part. Town Clerk, Mr. J. H. Glennie.

JULY 18.—**Penrhiwceiber (Glam).**—EXTENSIONS TO CHAPEL.—For carrying out, for the Trustees of Bethel Welsh Wesleyan Church, Penrhiwceiber, extensions of buildings and renovations. Mr. G. A. Treharne, architect, Belmont, Aberaman '(Glam), or Wesley House, Penrhiwceiber.

JULY 18.—**Portinscale.**—HOUSE.—Erection of a detached house at Portinscale. Mr. P. M. Hope, M.S.A., architect, 21, Station-road, Keswick.

JULY 18.—**Rhondda.**—PAINTING.—For carrying out, during the summer vacation, for the Rhondda U.D.C., the painting and colouring of Penyrenglyn, Treorky Infants' (and iron class-room and cookery centre), Gelli (and iron classroom), and Tonypandy Secondary, Schools. Mr. Jacob Rees, Hillside Cottage, Pentre (Rhondda).

JULY 18.—**Rhondda.**—SANITARY.—Erection of additional water closets at the Tonypandy and Porth Secondary Schools, for the U.D.C. Mr. Jacob Rees, architect, Hillside Cottage, Pentre. Deposit £2 2s.

JULY 18.—**Sheffield.**—HOUSES.—Erection of 12 houses on the Park-lane site at Handsworth and 10 houses on the Stubbin-lane site at Woodhouse, for the T.C. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield. Deposit £1.

✱JULY 18.—**Surrey.**—ALTERATIONS.—Alterations to Hawthorn and Hazel Cottages at the Shirley Schools, Wickham-road, Shirley, near Croydon, for the Guardians of the Parish of Bermondsey. Mr. Henry H. Reeve, Guardians' Offices, 283, Tooley-street, S.E. 1, at his office only between 10 a.m. and 12 noon, on July 14th, 16th, 17th and 18th, 1923. Deposit £5 Bank of England Note (cheques or cash will not be received).

✱JULY 18.—**Surrey.**—REDECORATION.—Internal redecoration of 18 cottages at the Shirley Schools, Wickham-road, Shirley, near Croydon, for the Guardians of the Parish of Bermondsey. Mr. Henry H. Reeve, Guardians' Offices, 283, Tooley-street, S.E. 1, at his office only between 10 a.m. and 12 noon, on July 14th, 16th, 17th and 18th, 1923. Deposit £5 Bank of England Note (cheques or cash will not be received).

JULY 18.—**Sutton.**—HOUSES.—Erection of 12 houses, for the U.D.C. Surveyor, Sutton.

JULY 18.—**Upton Park.**—WORKS.—Erection of new works at Upton Park, for the New London Electron Works, Ltd. Secretary, Regent's Dock, Limehouse, E.

JULY 18.—**Various Places.**—CLEANING, PAINTING AND REPAIRS.—Separate tenders for cleaning, painting and repairs at (1) Northern Convalescent Fever Hospital, Winchmore Hill. N.21; (2) South-Western Fever Hospital, London-road, Stockwell, S.W.9; (3) Southwark Casual Ward, Great Guildford-street, S.E.1; (4) Holborn Casual Ward, Little Gray's Inn-lane, W.C.; (5) Lambeth Casual Ward, Wincott-street, Kennington-road, S.E.; (6) South Wharf, Trinity-street, Rotherhithe, S.E.16; (7) North Wharf, Managers-street, Blackwall, E.; (8) Princess Mary's Hospital for Children, Cliftonville, Margate, Kent, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1 in respect of each work.

JULY 18.—**Walthamstow.**—BUILDINGS.—Erection of auxiliary buildings at Electricity Works, for the U.D.C. Mr. G. W. Holmes, Surveyor, Town Hall, Walthamstow.

JULY 19.—**Bridgend.**—ERECTION OF FIRE STATION.—For erecting a steel-framed fire station complete with hose tower within the area of and for the Bridgend U.D.C. Surveyor, U.D.C. Offices, Bridgend, Glam.

JULY 19.—**Guildford.**—CONVENIENCE.—Construction of a public convenience in the Market, Woodbridge-road, for the T.C. Borough Surveyor, Tuns-gate, Guildford

JULY 20.—**Birdwell.**—PAINTING, &C.—The Trustees of Birdwell United Methodist Church, Birdwell, invite tenders for painting and decorating the Church.

JULY 20.—**Manchester.**—WASHHOUSE.—Conversion of the ladies' swimming bath at Mayfield Baths into a public washhouse, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

JULY 20.—**Mexborough.**—REPAIRS.—Tenders are invited for repairs and renovations:—(1) Interior decorating of certain parts, (2) interior decorating of temporary buildings, (3) repairs to temporary buildings, (4) re-pointing brickwork and building of ashes pit, (5) tar painting and repairs to asphalt. Mr. Isaac W. Chipp, Montagu-square Chambers, Mexborough.

JULY 20.—**Newcastle-on-Tyne.**—JETTY.—Extension of timber jetty, Howdon-yard, for the Tyne Improvement Commissioners. Mr. Richard Aughton, General Manager, Bewick-street, Newcastle-upon-Tyne. Deposit £2 2s.

JULY 21.—**Camrose (Pemb.).**—ERECTION OF MANSE.—For erecting a new manse at Camrose (Pemb.), for the Trustees of Camrose Baptist Chapel. The Secretary, Elm Cottage, Camrose.

✱JULY 21.—**Colchester.**—HOSPITAL BLOCK.—Erection of a new out-patients' block at the Essex County Hospital, Colchester. Mr. W. T. Cressall, A.R.I.B.A., and Mr. Duncan W. Clark, A.R.I.B.A., joint architects, Colchester. Deposit £2 2s.

JULY 21.—**Elgin.**—HOUSES.—Erection of block of four houses in Maisondieu-road, for the T.C. Mr. Charles C. Doig, architect, Elgin.

JULY 21.—**Greenwich.**—HOUSES.—Erection of 50 houses on the Charlton Housing Estate, for the B.C. Town Clerk, Town Hall, Greenwich. Deposit £2 2s.

JULY 21.—**Hunslet.**—MEMORIAL HALL.—Erection of Temperance Memorial Hall on the Stoney-yard Estate, Church-street, Hunslet. Mr. S. Wagstaffe, secretary, 8, Arthington-street, Hunslet, Leeds.

JULY 21.—**Kirkburton.**—SCHOOL.—Erection of a new school at Kirkburton. Messrs. J. Berry & Sons, architects, 3, Market-place, Huddersfield.

JULY 21.—**Neath.**—PAINTING.—For painting during the summer holidays of the following schools, for the Neath Borough Education Committee: Gnoll Schools, North Ward, Melyn Schools, South Ward, Neath-road Schools, Briton Ferry Ward. Mr. H. Alec. Clarke, Borough Engineer, Gwyn Hall, Neath.

JULY 21.—**West Riding of Yorkshire.**—RENOVATIONS.—For painting and distempering in connection with the following schools: Bolton-on-Dearne Council School; Boys', Girls' and Infants' Departments. Bolton-on-Dearne: Highgate Council School: Boys', Girls' and Infants' Departments; Mexborough Adwick-road Special Subjects Centre. Also for minor repairs at Mexborough Adwick-road, Doncaster-road, Dolcliffe-road, and Garden-street Council Schools, Conisborough Balby-street Council School, Thurnscoe Council School, Bolton-on-Dearne, Goldthorpe, and Highgate Schools. Mr. W. H. Jones, Divisional Clerk, Education Offices, Mexborough.

JULY 21.—**Worsboro' Bridge.**—PAINTING.—For painting at Barrow Working Men's Club and Institute, Thomas-street, Worsboro'-bridge, near Barnsley. Mr. S. Blackburn, Secretary.

JULY 23.—**Aldermaston.**—BRIDGE REPAIR.—For repair of Oatsford County Bridge, near Aldermaston, for the Southampton C.C. Mr. W. J. Taylor, County Surveyor, The Castle, Winchester. Deposit £1 1s.

✱JULY 23.—**Bangor, North Wales.**—COLLEGE BUILDING.—The North Wales Heroes Memorial Council is prepared to consider applications to tender in competition for new buildings for the departments of Agriculture and Forestry, Chemistry, Physics, Botany and Zoology for the University College of North Wales, Bangor. Mr. Alan Munby, Esq., F.R.I.B.A., 9, Old-square, Lincoln's Inn, London.

JULY 23.—**Birkenhead.**—ALTERATIONS.—Alterations and additions to laundry buildings at the Union Institution, Tranmere, for the Board of Guardians. Messrs. Edmund Kirby & Sons, architects, 5, Cook-street, Liverpool.

JULY 23.—**Blyth.**—STAITHS.—Construction of the timber work required for the completion of the new North Side Staiths at Blyth, for the London & North-Eastern Railway Co. Mr. C. F. Bengough, Chief Engineer for the North-Eastern area, Forth-banks, Newcastle-on-Tyne.

JULY 23.—**Doncaster.**—ADDITION.—Erection of a small annexe to a clinic at the Doncaster Royal Infirmary. West Riding Architect, County Hall, Wakefield.

✱JULY 23.—**Ely.**—HOUSES.—Erection of a limited number of houses at Ely for Cardiff C.C. Office of the City Architect, City Hall, Cardiff. Deposit £2 2s to City Treasurer.

JULY 23.—**Rochford.**—REPAIRS.—Repairs to two cottages at "Hawkwell," for the R.D.C. Mr. A. C. Madge, Sanitary Inspector, Eastbene, Rochford.

JULY 23.—**Sowerby Bridge.**—HOUSES.—Erection of four houses on the Albert-road site, for the U.D.C. Mr. J. Eastwood, Surveyor, Council Offices, Sowerby Bridge.

JULY 24.—**Liverpool.**—ADDITIONS.—For new operating department, &c., at Mill-road Infirmary, for the West Derby B.G. Mr. Ernest B. Bailey, F.S.I., 9, Cook-street, Liverpool. Deposit £2 2s.

JULY 24.—**Liverpool.**—PAINTING.—For painting railings, shelters, bandstand, conveniences, &c., at Sefton Park, for the T.C. Land Steward and Surveyor. Municipal Buildings, Liverpool.

JULY 24.—**London, E.14.**—HOUSES.—Erection of 55 houses (in block) and a block of six flats on sites at Cubitt Town, Poplar, for the Poplar B.C. Borough Surveyor, Council Offices, Poplar, E.14. Deposit £3 3s.

JULY 24.—**Sheffield.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Sharrow, Sheffield, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s. Cheques payable to the Secretary.

JULY 24.—**Tottenham.**—FLATS.—Erection of three-story flats on the White-Hart-lane Estate, Tottenham, and construction of streets and sewers in connection, for the L.C.C. Architect to the Council, the County Hall, Westminster Bridge, S.E.1. Deposit £3.

JULY 25.—**Bournemouth.**—CONSTRUCTION OF PROMENADE.—Construction of proposed promenade and sea wall, for the County Borough of Bournemouth. Mr. F. P. Dolamore, Borough Engineer, Town Hall, Bournemouth. Deposit £2 2s.

JULY 25.—**Cardiff.**—HOUSES.—Erection of two semi-detached infants' homes at Headquarters Homes, Ely, for the B.G. Messrs. Willmott & Smith, architects, 4, Park-place, Cardiff. Deposit £3 3s.

JULY 25.—**Cardiff.**—LAVATORIES, &C.—Conversion of lavatories into store, and erection of additional lavatories at City Lodge, for the Board of Guardians. Messrs. Willmott & Smith, architects, 4, Park-place, Cardiff. Deposit £3 3s.

JULY 25.—**Cotford.**—COTTAGES.—Erection of four cottages at Cotford, for the Somerset and Bath Mental Hospital Visiting Committee. Mr. A. W. Caley, Clerk, Cotford, near Taunton.

JULY 25.—**Pontypool.**—PAINTING.—For painting and decorating, inside and outside, of the Primitive Methodist Church and Schoolroom, Park-terrace, Pontypool. Mr. J. Lewis, Conway-road, Pontypool.

JULY 25.—**Whitehaven.**—HOUSES.—Erection of 58 houses near Arrowthwaite, for the T.C. Borough Surveyor, Town Hall, Whitehaven. Deposit £2 2s.

JULY 26.—**Burntisland.**—HOUSES.—Erection of five blocks of houses (10 houses in all) on Haugh site, for the T.C. Mr. J. A. Waddell. Burgh Surveyor, Burntisland.

JULY 26.—**Douglas.**—DEMOLITION AND ERECTION OF HOUSES.—Demolition of the existing buildings and the erection of twenty houses on the Hills House site in Circular-road, for the Housing Committee of the Douglas Town Council. Borough Surveyor, Town Hall, Douglas. Deposit £1.

JULY 26.—**Leyburn.**—WALLS, &C.—Erection of boundary walls, entrance gateway, and iron railing in connection with new cemetery at Preston. Mr. W. Bushby, Preston, Leyburn.

JULY 26.—**Liverpool.**—TENEMENTS.—For the demolition of the existing buildings and the erection of 60 tenement dwellings on Prince Edwin-street Site, for the T.C. Director of Housing, Municipal-buildings, Dale-street, Liverpool. Deposit £2 2s.

JULY 27.—**Colwyn Bay.**—CHURCH.—Erection of a new church (in local limestone) for the Building Committee of the English Congregational Church, Old Colwyn. Mr. S. Colwyn Foulkes, architect, Central Chambers, Colwyn Bay. Deposit £1 1s.

JULY 28.—**Glasgow.**—VARIOUS.—The Corporation Statute Labour Department invite offers for the (1) mason, brick, joiner, &c., works and (2) sanitary fittings in connection with the construction of an underground convenience at Kirkpatrick-street, off London-road. Town Clerk.

✱JULY 31.—**Chatteris, Cambs.**—ADAPTATION.—Adaptation of premises in Park-street, Chatteris, Cambs., for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

JULY 31.—**Hoyland Nether.**—WELFARE INSTITUTE.—For erection of miners' welfare institute and assembly hall. Secretary, Mr. T. Tomlinson, King-street, Hoyland Nether, near Barnsley.

JULY 31.—**Langholm.**—VARIOUS WORKS.—The T.C. invite tenders for works in connection with four blocks of two houses each and consisting of four three-apartment and four four-apartment houses, including drainage and footpath works. Town Clerk, Mr. G. Irving Bell. Deposit £1 1s.

✱JULY 31.—**Pontypool.**—PAVILION.—For erecting, for the Executive Committee of the Royal National Eisteddfod of Wales, a timber pavilion, approximately 275 ft. by 180 ft., at Pontypool Park. Mr. T. P. Francis, Surveyor, Town Hall, Pontypool.

✱AUGUST 1.—**Loughborough.**—NURSES' HOME.—Erection of a nurses' home, for the Governors of the Loughborough Hospital. Messrs. G. H. & A. M. Barrowcliff, Architects, Town Hall Chambers, Loughborough.

✱AUGUST 2.—**Essex.**—WOOD-FRAMED BUILDING.—Erection and completion of a wood-framed building at the Municipal School of Arts and Crafts, Dowsett-avenue, Southend-on-Sea, for the Corporation. Mr. Robt. H. Dyer, Borough Engineer, Municipal-buildings, Southend-on-Sea. Deposit £2 2s.

✱AUGUST 13.—**Dartford, Kent.**—BUILDING CONSTRUCTION.—Construction of an engine-house, cottage, road and bridge, drainage, and other contingent works at Eynesford, in the Rural District of Dartford, Kent, for the Metropolitan Water Board. Forms of Tender, Conditions of Contract, Specification, Bills of Quantities, and Schedules of Prices, together with a spare copy of the Bills of Quantities and Schedules of Prices, may be obtained on and after July 23, 1923, from Mr. Henry E. Stilgoe, M.Inst.C.E., the Chief Engineer, on production of an official receipt for the sum of £5, which sum must be deposited with the Accountant to the Board.

AUGUST 21.—**Cape Town.**—RESIDENCES, &C.—For erecting residences for men and women, Principal's house, and other contingent works at the site of the new University buildings, Groote Schuur, for the University Council. High Commissioner for South Africa, Trafalgar-square, London, W.C., and Messrs. Hawke & McKinlay, and C. P. Walgate, The Rhodes Buildings, St. George's-street, Cape Town. Deposit £10.

AUGUST 28.—**Cape Town, South Africa.**—MEDICAL SCHOOL.—Erection of a new Medical School and other contingent works at Groote Schuur, near Cape Town, for the Council of the University of Cape Town. High Commissioner for the Union of South Africa. Trafalgar-square, London, W.C. Deposit £2.

NO DATE.—**Carlisle.**—PAINTING.—For the internal painting work at Grammar School. Mr. H. E. Ayris, Architect to the Governors, Carlisle.

NO DATE.—**Doncaster.**—REBUILDING.—For rebuilding of "The Ingram Arms," Hatfield. Messrs. Allen & Hickson, architects, 52, Hall-gate, Doncaster.

NO DATE.—**Heckmondwike.**—HOUSES.—For erection of 24 houses, for the U.D.C. (whole works or separate trades). Mr. F. W. Littlewood, Architect, Council Offices, Heckmondwike. Deposit £2 2s.

NO DATE.—**Llantrisant.**—ALTERATIONS.—For altering and renovating the premises of Llantrisant Vicarage. Messrs. Teather & Wilson, FF.R.I.B.A., Cardiff.

★NO DATE.—**London, S.E.**—ROOF.—Suggestions and estimates for repairing or reconstructing roof over central hall at the London Hop Exchange. Surveyor, c.o., Yates & Yates, Hop Exchange, Southwark-street, S.E.

NO DATE.—**Nether Walton.**—DUTCH BARN.—For a Dutch barn at Nether Walton, near Dalston, for the Cumberland C.C. Mr. D. A. Gibson, County Land Agent, The Courts, Carlisle.

NO DATE.—**Wortley.**—HOUSES.—Erection of 40 houses, for the U.D.C., at Mortomley. Mr. F. Thurlby, surveyor, Greno Buildings, Grenoside. Deposit £2.

FURNITURE, MATERIALS, etc.

JULY 20.—**Birmingham.**—MATERIALS.—Supply of stores to various departments. Schedules of General Manager of Tramways Dept., General Manager of Gas Dept., City Engineer, and Superintendent of Baths Dept., respectively.

JULY 23.—**Islington.**—MATERIALS.—Supply of (1) wheels, tyres, and other work; (2) timber, &c.; (3) iron, steel, and tools. Mr. C. G. E. Fletcher, Town Clerk, Municipal Offices, Upper-street, N. 1.

JULY 31.—**New Zealand.**—STEEL WINDOW SASHES, &c.—Supply of galvanised steel window sashes and doors, for the Mangahoo Electric Power Scheme. Department of Overseas Trade (Room 48), 35, Old Queen-street, S.W.1.

AUGUST 8.—**Durban.**—MATERIALS.—Supply of stoneware pipes, bends and junctions to the T.C. Department of Overseas Trade, 38, Old Queen-street, S.W.

ENGINEERING, IRON AND STEEL.

JULY 16.—**Chiswick, W. 4.**—BOILERS AND HEATING APPARATUS, &c.—Boiler settings, heating apparatus, and sanitary appliances, in connection with baths and wash-houses in course of erection at Chiswick, for the Chiswick U.D.C. Mr. Edward Willis, Engineer and Surveyor, Town Hall, Chiswick, W. 4.

JULY 16.—**Ilford.**—ELECTRIC LIGHTING.—For installation of electric light at Christchurch-road Cookery Centre, for Newbury Park Handicraft Centre, for the U.D.C. Mr. A. H. Shaw, Electricity Supply Offices, Ilford. Deposit £2 2s.

JULY 16.—**Manchester.**—HEATING PLANT.—Heating plant and hot-water services apparatus for offices, Dickinson-street, for the T.C. Mr. F. E. Hughes, Secretary, Electricity Department, Town Hall, Manchester. Deposit £1 1s.

JULY 16.—**Dublin.**—STEELWORK.—Supply of steelwork for bridge, for the Midland Great Western of Ireland Co. Chief Engineer, Broadstone-terraces, Dublin. Charge 4s.

JULY 16.—**Rochdale.**—STEEL RAILS.—Supply of 160 tons of Sandberg steel tramway rails, B.S. Section No. 7, and 10 tons of B.S. Section No. 7c; also 50 pairs of steel fishplates, for the T.C. Mr. S. H. Morgan, Borough Engineer, Town Hall, Rochdale.

JULY 17.—**Doncaster.**—PUMPING STATION.—Construction of a new pumping station, superstructure and accessories, at "The Holmes," for the T.C. Mr. F. Oscar Kirby, Borough Engineer, 2, Priory-place, Doncaster. Deposit £5 5s.

JULY 17.—**Hoyland.**—ELECTRIC LIGHTING.—Installation of electric light at Hoyland Common Working Men's Club. Mr. H. Dickinson, Secretary.

JULY 17. — **Manchester.**— ELECTRIC LIGHTING. Electric lighting installations at the Orford-street, Clarendon-road, Manley Park, Beaver-road, Crimsworth, Whalley Range, and Swinton House Municipal Schools, for the T.C. Education Offices, Deansgate, Manchester. Deposit £1 1s.

JULY 18.—**Dartford.**—ELECTRIC LIGHTING.—For electric lighting installation at Fever Hospital, for the Metropolitan Asylums Board. Offices, Embankment, E.C. Deposit £1.

JULY 18.—**Southend-on-Sea.**—PIPES.—Supply of 148 tons of cast-iron pipes and specials. Mr. R. H. Dyer, Borough Engineer, Southend. Deposit £2.

JULY 21.—**Frome.**—BRIDGE.—Construction of a small ferro-concrete bridge over the Rodden Lake Stream, for the U.D.C. Mr. L. Slaughter, Surveyor, Public Offices, Frome. Deposit £1 1s.

JULY 21.—**Honiton.**—BRIDGE, ETC.—(*a*) Reinforced concrete bridge on the Kahn Bar System of the Trussed Concrete Steel Co., Ltd.; (*b*) reinforced concrete culvert on the Kahn Bar System, &c., for the T.C. Mr. J. W. Jones, Borough Engineer, Honiton.

JULY 23.—**Bradford.**—WEIGHBRIDGE.—Supply and erection at the Valley-road Gas Works, of one 30-ton weighbridge, with platform 16 ft. long, for railway wagon traffic. Mr. N. L. Fleming, Town Clerk, Town Hall, Bradford.

JULY 23.—**Driffield.**—PUMP.—Providing and fixing one borehole hand pump &c., at Butterwick, for the R.D.C. Mr. B. Barker, Clerk, Driffield.

JULY 23.—**Glasgow.**—ELECTRIC LIGHTING.—Offers are invited for work in connection with electric lighting installation of the Coplawhill Housing Scheme (second Section). Town Clerk, Glasgow.

JULY 23.—**York.**—BRIDGE.—Construction of a bridge near Hart Station, carrying the new East Coast-road from Easington to West Hartlepool over the Ferryhill and East Hartlepool Branch, for the London & North Eastern Railway. Mr. C. F. Bengough, Chief Engineer, York.

JULY 24.—**Liverpool.**—HEATING.—Removal of the existing heating boiler at Offices of the B.G., alteration to pipes, and installation of new cast-iron boiler. West Derby Union Offices, Brougham-terrace, West Derby-road, Liverpool.

JULY 24.—**Liverpool.**—VALVES.—Valves for Oswestry new filter beds and stock. Water Engineer, Alexandra-buildings, 55, Dale-street, Liverpool. Deposit £2 2s.

JULY 24.—**Manchester.**—PIPES, &c.—Supply of galvanised pipes, bends, &c. (water strength). Mr. A. Chadwick, General Superintendent, Markers Department, Town Hall, Manchester.

JULY 24.—**Uxbridge.**—WEIGHING MACHINE.—Supplying and installing at the Union Institution, Hillingdon, near Uxbridge, a weighbridge of weighing capacity of 10 to 15 tons. Master of the Union Institution, Hillingdon.

JULY 31.—**Aberdeen.**—PIPES.—Supply of about 3 miles of 40 in. diameter pipes and specials of the following alternative types, viz.: (*a*) cast-iron; (*b*) mild steel (lapwelded); (*c*) reinforced concrete (spun and ordinary), for the T.C. Mr. George Mitchell, Water Engineer, 41½, Union-street, Aberdeen. Deposit £5.

JULY 31.—**Lochboisdale.** — PIERS. — (1) Repairing Lochboisdale pier and shed, and (2) stiffening up of Castlebay pier. Messrs. Carter & Wilson, engineers, 51, Queen-street, Edinburgh.

JULY 31.—**Southport.**—PIPES.—Supply of 350 tons of 9 in. diameter cast-iron pipes and irregulars to the Southport, Birkdale and West Lancashire Water Board. Mr. C. Burton Ede, Engineer, 14, Portland-street, Southport.

NO DATE.—**Grays.**—ELECTRIC LIGHT.—For electric light installation in scattered homes of the Whitechapel Board of Guardians. Mr. F. J. Tootell, Clerk, 74, Vallence-road, E.

NO DATE.—**Musselburgh.**—FOOTBRIDGE.—Erection of a new steel girder footbridge across the River Esk, for the T.C. Mr. John Barclay, Burgh Surveyor, Musselburgh.

NO DATE.—**Northwich.**—TANK.—Construction of ferro-concrete water tank for the U.D.C. Mr. G. Smith, Water Engineer, Northwich.

ROAD, SANITARY, AND WATER WORKS.

JULY 16.—**Axminster.**—WATER WORKS.—Construction of settling tank and covered service reservoir, for the U.D.C. Messrs. J. Mansergh & Sons, 5, Victoria-street, S.W. Deposit £5.

JULY 16.—**Chiswick.**—PAVING.—For the wood-paving of (*a*) Turnham Green-terrace; and (*b*) Acton-lane, for the U.D.C. Mr. Edward Willis, Surveyor. Town Hall, Chiswick, W. 4.

JULY 16.—**Guildford.**—ROADS.—For making up Agraria-road (part of), for the T.C. Borough Surveyor's Office, Tuns-gate, Guildford.

JULY 17.—**Atherstone.**—ROADS.—Re-surfacing and steam-rolling about 7,500 sq. yds. of road in the parish of Hartshill, for the R.D.C. Mr. H. J. Coleby, Engineer, Council Offices, 102, Long-street, Atherstone.

JULY 17.—**Christchurch.**—SEWER.—Construction of 1,000 yds. 9 in. c.-i. sewer, sinking ejector chamber, laying rising main, and other incidental works, for the T.C. Mr. Henry J. Farmer, Borough Engineer, Town Hall, Christchurch. Deposit £2 2s.

JULY 17.—**Ealing.**—ROADS.—For making-up Hart-grove, Hillcrest-road and Boileau-road, for the T.C. Mr. W. R. Hicks, Borough Engineer, Ealing. Deposit 10s. 6d. each contract.

JULY 17.—**Hertford.**—SEWER.—Laying a 9-inch stoneware pipe sewer and a 3-inch C.I. water main, for the T.C. Borough Surveyor, The Castle, Hertford. Deposit £2 2s.

JULY 18.—**Leyland.**—ROADS.—Completion of the roads, footpaths, and sewers on the Northgate Housing site, for the U.D.C. Mr. William G. Finch, Clerk, Leyland.

JULY 18.—**London, N.W.3.**—REPAIRS TO ROADS.—Repairs to roads at the North-Western Fever Hospital, Lawn-road, Hampstead, N.W.3, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

JULY 18.—**Tavistock.**—SEWAGE DISPOSAL.—For works of sewerage and sewage disposal, at Whitchurch, for the R.D.C. Mr. T. H. Harris, Town Hall Chambers, Tavistock.

JULY 19.—**Barnet.**—ROADS.—Resurfacing carriageway of St. Albans-road with an asphaltic wearing course, 2 ins., for the U.D.C. Mr. W. B. Chancellor, Surveyor, Municipal Offices, Barnet.

JULY 19.—**Gateshead.**—ROADS.—Paving (tar macadam) back Bartram-gardens East, for the T.C. Mr. N. P. Pattinson, Borough Engineer, Town Hall, Gateshead.

JULY 19.—**St. Pancras.**—WATER MAIN.—For laying 190 yards of 36 in. cast-iron main, for the B.C. Clerk, Offices, 57, Pratt-street, Camden Town, N.W. Deposit £1 1s.

JULY 19.—**Southport.**—PAVING, &c.—Relaying of tramways and street pavings, Mornington-road, Derby-road, and Sussex-road, for the T.C. Mr. A. E. Jackson, Borough Engineer, Town Hall, Southport. Deposit £3 3s.

JULY 19.—**Whickham.**—ROADS.—Making up Axwell-terrace, back Axwell-terrace West and Crowley-road, for the U.D.C. Mr. Thos. Fenbow, Council Offices, Whickham.

JULY 20.—**Hemsworth.**—WATER MAINS.—Tenders are invited for laying and jointing of 2,880 yards or thereabouts of 8 in. cast-iron water mains from Ringstone Hill to Brierley. Mr. W. T. Lynam, A.M.I.C.E., Union Offices, Hemsworth.

JULY 20.—**Sowerby Bridge.**—WATER MAINS.—Laying about 1,700 yds. of 6 in., 4 in., and 3 in. cast-iron water mains, for the U.D.C. Mr. J. Smith, Surveyor, Town House, Sowerby, Sowerby Bridge.

JULY 21.—**Chester.**—ROADS.—Reconstruction of Hough Green, Chester-street, and Wrexham-road, for the T.C. Mr. C. Greenwood, City Engineer, Chester.

JULY 21.—**Glasgow.**—GAS MAIN.—Formation of foundations for a 30 in. gas main; and (2) the supply and erection of a 30 in. steel and cast-iron gas main, at Provan Gas Works, for the T.C. General Manager, Gas Department, John-street, Glasgow.

JULY 21.—**Wakefield.**—ROADS.—For private street works, for the T.C. City Surveyor, Town Hall, Wakefield.

JULY 23.—**Bromsgrove.**—SEWAGE WORKS.—Extension of Alvechurch Sewage Disposal Works, for the R.D.C. Office of the Council's Engineers, Messrs. Fiddian, Barratt & Deeley, 13, Church-street, Stourbridge. Deposit £3 3s.

JULY 23.—**London.**—SCAVENGING.—For scavenging the Docks, &c., for the Port of London Authority. General Manager, Port of London Authority, E.C. 3.

JULY 23.—**Manchester.**—ROADS.—Making up roads and back passages, for the T.C. Paving, &c., Department (District Surveyor's Office), Town Hall, Manchester. Deposit £1 1s.

JULY 24.—**Denton.**—ROADWAYS.—Construction of rock asphalte roadways in Oldham-street, Heaton-street, and Seymour-street South, for the U.D.C. Mr. J. B. Cooke, Surveyor, Town Hall, Denton. Deposit £2 2s.

JULY 24.—**Leyton.**—ROADS.—For making up Epsom and other roads for the U.D.C. Mr. E. H. Essex, Surveyor, Town Hall, Leyton.

JULY 24.—**Sedbergh.**—WATER SUPPLY.—Supply of about 76 tons of 5 in., 4 in., and 3 in. cast-iron spigot and socket pipes, laying same, construction of a concrete service tank (95,000 gallons), &c., for the R.D.C. Messrs. Taylor & Wallin, Commercial Union Buildings, 47, Pilgrim-street, Newcastle-on-Tyne. Deposit £5.

JULY 25.—**Ilkley.**—VARIOUS.—The Ilkley U.D.C. invite tenders for construction of detritus pits, ejector chamber, extending existing engine room, installing ejector plant, and laying sludge rising main, providing new coping to existing settling tanks and contingent works. Clerk to the Council, Town Hall, Ilkley.

JULY 26.—**Bebington.**—SEWAGE WORKS.—For construction of sewers in connection with the Bromborough sewerage works, for the U.D.C. Messrs. J. Mansergh & Sons, 5, Victoria-street, S.W. Deposit £5.

JULY 28.—**Wakefield.**—SEWAGE WORKS.—For construction of sewage disposal works, for the T.C. City Surveyor, Wakefield. Deposit £5.

JULY 31.—**Aberdeen.**—WATER MAINS.—Laying and jointing of about 3 miles of 40 in. piping and ancillary works between Banchory and Crathes, for the T.C. Mr. George Mitchell, Water Engineer, 41½, Union-street, Aberdeen. Deposit £5.

JULY 31.—**London.**—DRAINAGE.—For redrainage work at the Money Order Office, Holloway, N., for H.M. Commissioners of Works. Contracts' Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

JULY 31.—**Southport.**—WATER MAINS.—Laying 4,150 lineal yards of 9 in. diameter cast-iron water main, for the Southport, Birkdale and West Lancashire Water Board. Mr. C. Burton Ede, Engineer, 14, Portland-street, Southport. Deposit £2.

NO DATE.—**Crompton.**—ROADS.—Reconstruction of a portion of Oak-street, for the U.D.C. Surveyor, Town Hall, Shaw, near Oldham.

Competitions.

(*See Competition News, page* 46)

Auction Sales, Tenders, etc.

JULY 17.—**255. Clapham-road, S.W.**—Messrs. Veryard & Yates will sell at 1.30 p.m., without reserve, timber, fitting and building materials, &c. Auctioneers, 365, Norwood-road, S.E.27.

JULY 19.—**Greenford, Middlesex.**—Messrs. J. T. Skelding & Co., F.A.I., will sell on site, Oldfield-lane, Greenford, without reserve, on completion of Messrs. J. Lyons & Co.'s new factory at Greenford, surplus builders' and contractors' plant and machinery. Auctioneers, 48, Gresham-street, Guildhall, London, E.C. 2.

JULY 19.—**London, E.C.**—Messrs. Marten & Carnaby will sell, at the London Auction Mart, 155, Queen Victoria-street, E.C. (in one lot), Messrs. Lockhart's late premises, 8, 8A, 16 and 18, Paul-street, Finsbury-square, E.C.2, floor area super 45,000 ft The lease will be offered for sale by auction as above, with vacant possession. 15, New Bridge-street, Ludgate-circus, London, E.C.4.

JULY 19.—**High Road, Kilburn.**—Messrs. Veryard & Yates will sell at 1.30 p.m., without reserve, building plant and materials, timber, &c. Auctioneers, 365, Norwood-road, S.E.27.

JULY 24 AND 25.—**Marshmoor Mill.**—Messrs. Joseph Hibbard & Sons will sell by public auction, without reserve, by order of Messrs. Timber Operators & Contractors, Ltd., having sold the mill, to clear the site. Stock of well-seasoned English timber. Auctioneers, 15, Newington-green, Islington, London, N.16.

★JULY 25.—**Hayes, Kent.**—Messrs. Veryard & Yates, F.A.I., will sell, without reserve, timber and building material, &c., arising from demolition of residence. Auctioneers, 365, Norwood-road, S.E. 27.

JULY 25 AND 26.—**Cambs.**—Messrs. Joseph Hibbard, in conjunction with Messrs. T. A. Neale & Alldridge, will sell without reserve, by order of the owners, who are relinquishing business, at the Merton Saw Mill, Galmingay, near Sandy, saw mill machinery, plant and stock of timber, including 125 B.H.P. National gas engine with Ruston suction plant, four rack-saw benches, buildings, rolling-stock, timber, &c. Auctioneers, 15, Newington-green, Islington, London, N.16.

JULY 25.—**Upper Holloway, N.19.**—Messrs. J. T. Skelding & Co. (F.A.I.) will, *re* John Abrahams, Ltd., in voluntary liquidation, by order of the Liquidator, Mr. John William Daffarn, F.S.A.A., at the depots, Cottenham-road and Hatchard-road, Upper Holloway, N. 19, have important unreserved sale of the valuable cartage and road contractors' plant and stock, including 10-ton steam roller, two 6-ton "Sentinel" steam wagons, &c. Auctioneers, 48, Gresham-street, Guildhall, London, E.C. 2.

Public Appointment.

★July 21.—**Southend-on-Sea.**—Assistant Master for Mathematics and Allied Crafts required by the C.B. Mr. H. Farrands, M.A., Director of Education, Education Offices, 20, Warrior-square, Southend-on-Sea.

PROPOSED NEW BUILDINGS & OTHER WORKS.

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ALTON.—Plans passed by the U.D.C.: Additions to the sub-post office, Butts-road, for Mr. R. C. Godfrey; bungalow at Beech, for Mr. S. C. Phillips; bungalow in Medstead-road, for Mr. T. Barnes; alterations and additions in High-street, for Lloyds Bank; and additions in Market-street, for Messrs. E. Loe & Co.

AMMANFORD.—The district M.O.H. has recommended the Council to proceed with provision of cottage hospital for the area, and advises the purchase of a new ambulance car.

BATLEY.—Plans have been prepared for new offices at Blakeridge Mills for Messrs. J. T. & J. Taylor, Ltd. Tenders for this work will shortly be invited by the architect, Mr. W. Hanstock, Batley. The T.C. propose to erect 20 houses on the Bradford-road site at an estimated cost of £12,141 and are seeking sanction to borrow the money.—Plans passed: House, Churchroad, for Mr. Albert Wild; house, Thorncliffe-road, for Mr. Harry Spivey; conversion of reading-room in Cross Bank-road into two dwelling-houses, for Batley Co-operative Society.

BEDWAS.—An enquiry has been conducted by the Ministry of Health representative into application of Bedwas and Machen U.D.C. to borrow £19,000 for subsidiary drainage works. Plans were submitted and no opposition offered. A favourable result is anticipated.

BELFAST.—Mr. Samuel Herald, of Glengyle, Windsor-avenue, Belfast, has, on his wife's death, bequeathed £20,000 upon trust to erect a wing or extension to the Royal Victoria Hospital, Belfast, in memory of his son, Thomas Gordon Herald.

BLACKPOOL.—Plans passed by T.C.: Two semi-detached houses, Warbreck Hill-road and Hill Top-road, J. Crisp; two houses, Proposed New road, Warbreck-hill Estate, R. Fielding & Son; two houses, off Warbreck Hill-road, R. Fielding & Son; detached bungalow, Fleetwood-road, Miss H. Parry; house and shop, St. Annes-road, J. Harrison; additions to house, Warbreck Hill-road, Wm. Tomlinson; shop front, 1, Mere-road, John Macnamara; shop front, Caunce-street, E. Coppock; stable, rear of Layton-lane, J. Thompson; new streets, Greenwood-avenue (off), Dent & Waterhouse; new streets, off Preston Old-road, Atherton & Kerfoot; new streets, off Blackpool-road, Cleveleys, Hogarth & Pollard; three houses Hornby-road and Leicester-road, James Heyes; two houses, Pedders-lane, J. W. Powney; house Warbreck Hill-road, Dr. A. O. Bentham; two bungalows, Holly-road, H. C. Hilton; two bungalows, Squires Gate-lane, W. Nelson; four houses, Nelson-road, Bispham, B. Johnson; two houses, Victoria-road, Bispham, W. H. Smith; two houses and shops and garages, and two houses, Lytham-road and Bournemouth-road, Hargreaves & Emery; four house Laurel-avenue and Pine-street, —. Cartmell; two bungalows, Burgate, Kay & Fisher; two houses and one bungalow, Alexandra-road, Bispham, Pilling, France & Co., Ltd.; two bungalows, Warley-road, Mrs. F. A. Whiteside; two houses, Leamington-road, Percy Round; eight houses, Sherborne, Chesterfield and Woburn-roads, W. Livesey & Sons; cottage, Airedale-avenue, J. Parkinson & Sons, Ltd.; bungalow, Hornby-road and Raikes-parade, Herbert Hall; four houses, Rangeway-avenue, H. H. Johnson; house Gosforth-road, J. E. Middleton; six houses, Cornwall-avenue, G. Hodgson; six houses, Cornwall-avenue, T. & C. Hilton; bungalow, Gloucester-avenue, Miss F. M. Fairn; three houses, Broadway, J. Midgley; two houses, Saville-road, F. Ilett; two bungalows, Keswick-road, D. A. Allen; two houses, off Lytham-road, J. A. Shepherd and others; bungalow, St. Anne's-road, H. C. Waterhouse; four houses, Bispham-road, George Slater; ten houses, Main-road, Pye Bros.; two houses, Hemingway, R. Williamson; two bungalows, St. George's-avenue, Mrs. A. Barker; two houses, Bournemouth-road, F. Boden; two houses, Boscombe-road, J. Foster; two bungalows, Berwick-road, Hargreaves & Emery; two houses, off Lytham-road, J. A. Shepherd and others; four houses, Blackpool-road, Hogarth & Pollard; four houses, Anchorsholme-lane, Hogarth & Pollard; two houses, Blackpool-road, Hogarth & Pollard; house, Leicester-road, H. Eastwood; house, Blackpool-road, Cleveleys, John Holland; six houses and one garage, Cumberland-avenue and Salisbury-road, Gardner & Smith; bungalow, Hawes Side-lane, Wm. Cardwell; two houses, Hawes Side-lane, H. Bamber; six houses, Bamton-avenue, W. B. Denner; new streets, Lytham-road and Watson's-lane, T. Fenton; six wash-houses, St. Walburga's-road, J. Garside; addition, "Engleberg," Hornby-road, T. E. Rushton; additions, 8 and 10, St. Chad's-road, exors. of late Frank Saville; additions, Portland-road, W. Gomersall; house and shop and alterations, 37 and 39, Bolton-street, I. F. Beaumont; alterations, 39, Butler-street, —. Drinkwater; alterations and additions, 3 and 5, Clifton-street, Holdsworths, Ltd.; shop front, Newton-drive, R. D. Hadall; alterations, 193, 195, and 203, Central-drive, Robert Parker; alterations, 205, Layton-lane, John Malley; alterations, 50, Lytham-road, H. A. Marland; alterations, 19, Abingdon-street, Messrs. Sterlings; shop front, Caunce-street, M. Tracey; additions, St. Annes-road, Harrison & Pilkington; shop front, Red Bank-road, A. Bowling; alteration, 35, Rosebery-avenue, W. Cochrane; garage, washhouse, &c., St. Annes-road, Hirst & Singleton; garage, Back Enfield-road, J. W. Almond; garage and greenhouse, Cumberland-avenue, W. J. Rushworth; two garages and one store-room, Back Central-road, Ben Riley; garage, Fenber-avenue Threlfall, Whiteside & Midgley; garage, Broadway, J. Midgley; stable, Back Henthorne-road, Williams & Co.; two garages, off Lincoln-road, A. Forrester; six houses, Dent-avenue, Dent & Waterhouse; two houses, Dent-avenue, Dent & Waterhouse; two bungalows, Hall and Chislehurst-avenues, J. & W. Ormerod; sewer, Osborne-avenue, Cleveleys, Suthers, Wilson & Randall; two bungalows, Angler's Hill-road, Mrs. Whitelaw; three houses, Leicester-road, Staunton Bros.; six houses, Anglers Hill-road, Cardwell & Bros.; two houses, Silverwood-avenue, Harrison & Pilkington; two bungalows, Bispham-road, S. Wilde; two bungalows, Bispham-road, W. J. Jackson; additions, rear of St. Stephen's-avenue, T. H. Smith; two houses, Gosforth-road, C. H. Jenkinson; house, Sandown-place, Hargreaves & Emery; bakehouse, Red Bank-road, Wm. Sheldon; new streets, Ord-avenue and Anglers Hill-road, Robert Hill; new streets, Bloomfield-road and Central-drive, Mrs. A. E. Robinson.

BOURNEMOUTH.—The Borough Engineer (Mr. F. P. Dolamore) has been instructed by the T.C. to prepare and submit plans for a shelter in the centre of the Square at a cost not to exceed £3,000.

BRIDGEND.—An estimate has been submitted to U.D.C. indicating that expenditure of £23,000 will be involved by carrying out proposed electricity supply extension scheme. The U.D.C. is to erect a footbridge at Newbridge Fields.

BURNLEY.—Plans passed by T.C.: Shop front, 92, St. Matthew's-street, for Messrs. Hitchon & Pickup; alterations, 122 and 124, Hebrew-road, for Messrs. Walker & Co.; store room, Lord Roberts' Memorial Workshop, Rosegrove, for the Committee; garage, Mitre-street, for Messrs. Mullen & Durkin.

CARLISLE.—Plans passed: From Mr. H. Foxall, on behalf of Messrs. Robinson Bros., for sports pavilion at Botcherby; from Mr. W. M. Telford, for house and shop at Longsowerby; from Mr. W. P. Gibbings, for house at Brampton-road.

CHELTENHAM.—Plans passed by T.C.: Charity Organisation Society, Jessie Mary Chambers Almshouses, Tennyson and Brooklyn-roads; Cheltenham Original Brewery Co., alterations to New Inn, Hewlett street; Colonel H. Thoyts, conversion of stable premises in Selkirk-street into cottage; Miss Adamson, additions to Cleeve View, Harp-hill; H. Webb, alterations to cottage at rear of 187, High-street; J. Lethbridge, additions to 27, Grosvenor-street; G. Berryman, two semi-detached houses, Old Bath-road; Marks & Spencer, additions to 110, High-street; W. G. Tibbles, additions to Sunningend Garage, College-road; W. Pearce, additions to shed, Nag's Head Yard, High-street; J. Holman, additions to 13, Great Norwood-street; A. Chadwick, bungalow, Alma-road.

CLEAVER.—West Derby Guardians resolved to proceed with the larger scheme for the extension of the Cleaver Institution (Heswall Sanatorium), and also to sanction the erection of a nurses' home at the Alder Hey Hospital. The estimated cost of the former building is £32,000; and of the latter, £18,000. The schemes have been hastened to reduce the amount of unemployment during the winter.

CLECKHEATON.—Plans passed by the Spenborough U.D.C.:—Bungalow at Child-lane, Rothertown, for Mr. Jackson; additions to lodge at Peasland-road, for Mr. Stevenson; bungalow at Whitechapel-road, for Mr. H. Hirst; extensions to Gomersal Mill and shed, for Messrs. T. Burnley & Sons, Ltd.; store and extensions at Spen Valley Carpet Mill, for Messrs. Cooke, Sons & Co., Ltd.; warehouse and shed at Syke Fold, for Mr. J. Eastwood; electricity sub-station at Whitechapel-road, for Messrs. H. Ellison, Ltd.; additions to "Turnsteads," for Mr. H. Hirst; 10 houses at Exchange-street, for C. Hirst & Sons, Ltd.; and a bungalow at Halifax-road, Hightown, Liversedge, for Mr. L. Sinkinson.

DURHAM.—Plans passed by T.C.: Mr. S. Whalley, garage, 18, Nevilledale; St. Margaret's Church Estate, Mission Room, South-street; Mr. M. Heckles, additions, 2, Gladstone-villas; *Durham Chronicle*, alterations to office, Sadler-street.

GREETLAND.—Plans passed by the U.D.C.:—Two houses at Little Bradley for Messrs. Greenwood & Wilkinson.

HALIFAX.—Plans passed by T.C.:—Smith, Bulmer & Co., lavatories, &c., Beechwood-avenue; Ernest Frankland, bungalow, Browfoot Gate; National Electrical Theatres, Ltd., alterations, Commercial-street; Edgar Thomas, two houses, Mostyn Mount; H. & S. Clay, Ltd., additions, 10, Raglan-street; Wm. Dyson Utley, additions, 27, Exeter-street; Mrs. M. J. Butterworth, garage, Davy's-court; Smith, Bulmer & Co., four houses, Heathy-road; R.A.O.B., Institute, Club extensions, New-road; Bernard Sutcliffe, story over scullery, 25, Savile-crescent; Clarence Smith, garage, 97, Northgate; Arthur Wadsworth, alterations, Rocks-lane, Ogden; Rushworth Bros., rebuilding front, areas, &c., 8 and 10, Cheapside; Exors. of late J. West, estate development, Bell Hall; William Fowler, bungalow, Skircoat Green-road; William Irwin, six garages, Mount-street and Duke-street; O. & C. Holdsworth, store room, Bedford-street North; Baldwin & Walker, Ltd., new offices and alterations, West Croft Mills; J. Crossley & Sons, Ltd., external wooden covered hoist, "C" Mill, Dean Clough; Mrs. Amelia E. Lumb, bungalow, Browfoot Gate; Chas. W. Greenwood, garage, off Pellon-lane; Baldwin & Walker, altering boiler-house to engine-house, West Croft Mills, King Cross; Clement C. Lloyd, converting building to foundry, Woodfield, Old-lane.

HAVERFORDWEST.—The Surveyor has been instructed by R.D.C. to submit for grant schemes for improvement of Tierscross-Johnston road, Milford-Dale road and Haverfordwest-Broadhaven road.

ILKESTON.—Plans passed by T.C.:—Five houses, Canal Side, for Mr. F. Todd; house, Charlotte-street, for Mr. W. H. Barlow; alteration to house, South-street, for Mr. W. S. Merry.

ISLE OF WIGHT.—Plans passed by R.D.C.:—Homesteads, Ltd., house, Solent-road, Cranmore, Shalfleet; Mr. William Meyer, additions to house and shop, Moaplace, Freshwater; Mr. David Chant, bungalow, The Avenue, Totland; Mr. George C. Gauffe, house, Colwell Common-road, Totland; Col. Murray, bungalow, Woodlands, High-street, Bembridge; Mr. S. F. Lunniss, house and bulb shed, Red Hill-lane, Godshill; Messrs. Awebridge & Co., pair of cottages, Northgrounds, Chale; Messrs. W. H. Brading & Co., house, Nodes-road, Northwood; Mr. A. Gale, house, Gunville-road, Carisbrooke.

LANGWITH.—The Blackwell R.D.C., Derbyshire, have asked W. H. Radford & Son, of Nottingham, to prepare a sewerage and sewage disposal scheme for the villages of Upper and Nether Langwith, to include the new housing schemes now in progress. Langwith is in a colliery district and is rapidly increasing in population.

LEEDS.—The City Council have decided to spend £8,000 on a golf house and cottages at Templenewsam, and have approved the purchase of premises at 40, Park-lane, formerly belonging to Messrs. Stewart & Macdonald, for £25,000. These premises will provide further accommodation for municipal departments. The necessary alterations are to be put in hand immediately. The City Engineer has recently stated that arrangements have been made for the erection of 1,000 houses by one builder, 112 by two others, and 164 by a syndicate to close a private estate.

LONDON (GREENWICH).—Drainage plans passed by B.C.:—G. E. Davis, at 14, Stockwell-street; J. Hocking & Co., at 45 and 46, King William-street; J. J. Forrest, at 46, Delafield-road; T. S. Scholefield, at the West Greenwich Relief Office, Peyton-place; W. E. Champion, at Messrs. Ive & Co.'s premises, Woolwich-road; Walter Sarel, at 7, Vanbrugh Park-road West; Wm. Mills & Sons, Ltd., at the Thames Soap Works, East Greenwich; Pilditch, Chadwick & Co., house, Kidbrooke-gardens; J. Wells, at 22 and 26, Old Dover-road.

LONDON (HAMMERSMITH).—Drainage plans passed by B.C.:—Cadby Hall, Hammersmith-road, for J. Lyons & Co., Ltd.; 33, Cardross-street, for C. H. Cook; 173, Blythe-road, for C. H. Isaacs; 48, Glenthorne-road, for Hammersmith Borough Council; Sunday school, Wesleyan Church, Rayleigh-road, for P. Archer; Shepherd's Bush Station, Metropolitan Railway, for Metropolitan Railway Company; 17, Shepherd's Bush Green, for B. Chalk; 92, Goldhawk-road, for M. Woollatt-Home; "The Telegraph" P.H., Shepherd's Bush Green, for A. & F. Polden; dressing rooms, &c., on Wormwood Scrubbs, Scrubbs-lane, for R. Merton Hughes; electricity works, 85, Fulham Palace-road, for G. G. Bell.

LYTHAM.—The T.C. has received official sanction to erect 72 houses, 30 in Lytham, 12 in Ansdell, and 30 in St. Annes, at a total cost of £36,000.

MAESTEG.—The U.D.C., with the Port Talbot and Glyncorrwg U.D.C.'s has a scheme for adaptation of Port Talbot Isolation Hospital as a smallpox hospital, and this will entail a new site being found for the isolation hospital. The Ministry of Health has assented to scheme.

MERTHYR TYDFIL.—The Ministry of Health has assented to the T.C. erecting 50 houses by direct labour at cost of £21,010, 28 being non-parlour type and twenty-two parlour type, and a committee has been appointed to make purchases of necessary materials.

NARBETH.—Plans passed by R.D.C.: Bungalow, for Mr. E. Hare, Saundersfoot; bungalow, for Mr. J. Griffiths, Pontshane; two cottages for Lord Merthyr; bungalow, for Mr. Gibbs, Saundersfoot.—The Ministry of Transport has agreed to the erection by Council of new bridge, 20 ft. wide, at Felinfach, at estimated cost of £700.

NEATH.—The Town Council, with the co-operation of the R.D.C., will proceed with scheme, estimated cost £4,370, for erection of Small Pox Hospital at Cimla, the site having been offered free, subject to work being proceeded with.

NEWPORT (MON.).—The Health Committee is negotiating for about four acres adjoining Allt-yr-yn Hospital, for extension of that institution.—The equipment of the Cefn Hospital is to be revised immediately by the Borough Council.

OKEHAMPTON.—The Okehampton school managers are recommending a scheme for the extension of the premises.

OSSETT.—Plans passed by T.C.: Two houses, Sowood-view, for A. Lockwood & Sons; workshop, Wesley-street, for Rhodes & Halmshaw.

PEMBROKE.—The Education Committee is to spend £500 on repairs to schools in two wards.

PEMBROKESHIRE.—The County Main Roads Committee has decided to ask Pembroke R.D.C. to improve the Neyland-Milford road over a length of 1¼ miles.

PENARTH.—The Surveyor has now submitted estimates of new underground cloakrooms to be erected. The figure is £2,500.

PERTH.—The restoration of ancient St. John's Church is to be commenced at once. The plans prepared by Sir Robert Lorimer have been approved. The estimated cost of the complete restoration is £30,000, but for the present only work involving an expenditure of £10,500 will be undertaken.

PONTARDAWE.—A meeting between representatives of the Glamorgan and Carmarthenshire County Councils and the Swansea, Llandilo, and Pontardawe Councils has been held at which was approved the joint scheme for construction of a new road Pontardulais-Pantyffynon at estimated cost of £80,000; the length will be six miles. Plans were submitted and approved and grant has been asked from the Ministry of Transport.

PONTEFRACT.—The Infirmary is to be extended at an estimated cost of £10,000.

* See also our List of Contracts, Competitions, etc.

Pontypridd.—The U.D.C. has been requested by the Welsh Board of Health and Caerphilly U.D.C. to proceed with extension of buildings at Wynwydd Mayo for smallpox hospital. A joint scheme will be undertaken. The Council has applied for grant to carry out construction of new road from Lantwit-road, Treforest, to Park Estate and diversion and improvement of Pontypridd-Ynysybwl road at Craig-yr-hesg.

Prestatyn.—Plans passed by U.D.C.: House, Calthorpe-drive, for Mr. W. W. Weyer; house, Bryneithion-avenue, for Mr. G. H. Fennah; alterations and additions to Woodsorrel, for Mr. T. H. Cole; tennis pavilion in the Bryntirion Estate, for Mr. Frank Mortimer; house, Glyn-avenue, for Mr. Rupert Roberts.

Rochdale.—Plans approved by T.C.:—London Joint City and Midland Bank, alterations, 2, Yorkshire-street; Oldham Brewery Co., additions, "Citizen Inn," Drake-street; Elijah Taylor, four dwelling-houses, Shawclough-road; J. W. Lees & Co., extensions of "Spring Inn," Broad-lane; L. Fletcher, two dwelling-houses, Churchill-street; Whipp & Bourne, Ltd., extension of Switch Gear Works, Booth-street; T. R. Sale, external conveniences, Rochdale Parish Church; C. E. Smith, addition to 9, Dewhirst-road; F. Ogden, new shop fronts, 278 and 278A, Spotland-road; J. Marcroft, additions, 72, Redcross-street; Saml. Wilson, additions, 68, Redcross-street.

Salford.—Alterations and additions to the "Bird in Hand," Bury-street, for Messrs. Wilson's Brewery Co., Ltd., Newton Heath. Architects, Messrs. W. Johnson & Sons, 27, Oldham-road, Miles Platting, Manchester.——Alterations to the Bridge Hotel, for Messrs. Groves & Whitnall, Regent-road. Plans prepared by their own staff.

Sedgefield.—Plans passed by R.D.C.: Eleven houses at Broom, Ferryhill, and 17 houses and shops at Chilton-lane, Ferryhill, Mr. G. W. Lazenby; house and shop, Church-lane, Ferryhill, Mr. Oxley; shop, Dean-bank, Mr. Patterson; house, Sedgefield, Dr. C. Basan; first aid station, Chilton Buildings, Windlestone Welfare Committee.

Skellow.—The West Riding C.C. give notice of their intention to erect a new elementary school at Skellow, near Doncaster, for the accommodation of 1,000. This has been caused by the development of the Pullcroft Colliery.

South Shields.—Plans passed by T.C.:—Mr. J. H. Morton, for Messrs. J. M. Moore & Armstrongs, amendment of Harton Hall Estate plan; Messrs. T. A. Page & Son, for Messrs. Geo. Thornton & Co., lay-out of houses at Cauldwell on east side of Sunderland-road; Mr. F. W. Newby, for the Trustees of the P.M. church, Harton (per Rev. G. T. Fawcett), P.M. school and hall on west side of Sunderland-road, Harton, opposite to Grosvenor Gardens; Messrs. T. A. Page & Son, for Messrs. Calder & Sons, extension of bakery in Oliver's-court, Park-street; Mr. J. H. Morton, for Mr. T. B. Carr, new billiard hall in Havelock-street; Mr. Jas. W. Corking, for Messrs. Hunters, Ltd., van shed, Ferry-street; Mr. Howard Hill, for Mrs. S. Miller, new shop fronts, 198, Stanhope-road, corner of Gresford-street; Mr. Howard Hill, for Mr. J. E. Malaugh, extension, 20, Meldon-terrace; Mr. W. Thompson, for Mr. J. G. Thompson, garage, Grosvenor-road; Messrs. Denton & Co., motor garage, Pan Bank, Commercial-road.

Tredegar.—The surveyor has been instructed by the U.D.C. to prepare plans for improvement of Dukestown Crossing.

Wakefield.—The City Council are to promote a Bill for powers for gathering water in the Ryburn Valley, and for constructing the necessary works.

Wallasey.—Plans passed by T.C.:—Shed at 106, Grove-road, for Miss I. McCulloch; shed, 3, West View, Rowson-street, for Mr. W. S. Black; shed, 15, Juliet-street, for Mr. J. Parry; garage, 9, Bromley-road, for Mr. J. L. Solley; two houses, Walker's Croft, Claremount-road, for Mr. J. W. Bradshaw; alterations 29, Montpellier-crescent, for Mr. P. Jacobson; alterations to shops, 160 and 162, Brighton-street, for Mrs. M. Graham; addition, 42, Ripon-road, for Mr. A. Mitchell; four houses, St. George's Park, for Messrs. Tate, Pumford & Doughty; alterations and garage, 93 and 95, King-street, for the Royal Insurance Co., Ltd.; eight houses, Lymington-road, for Mr. J. H. Holland; 105, Wheatland-lane, into shop and house, for Mr. A. Levy; alterations at Sandrock Hotel, Molyneux-drive, for Mr. R. Myles; two houses, St. George's Park, for Mr. W. P. Horsburgh; lock-up shop and office, Rake-lane, for Mrs. E. Sharpe; tennis pavilion, Broadway-avenue, for Mr. J. Sharpe; two sheds and garage, 11, 13 and 15, Bromley-road, for Messrs. Webb, Wardle & Blythe; two houses, Claremount-road, for Mr. J. W. Bradshaw; two houses, Gerard-road, for Mr. G. A. Lindley; two houses, Palmerston-road, for Messrs. J. McKee & Son; 10 houses, Shrewsbury-road, for Mr. A. Macdonald.

West Ham.—Plans passed by B.C.:—Rebuilding the "Lord Chelmsford" off-license, 148 and 150, Grange-road, Mr. J. R. Masters; loading bank and filling shop at Pacific Wharf, Crows-road, the Gas Lighting Improvement Co.; caretaker's rooms, Dirleton-place, Newman & Jacques; biscuit factory, 9, Sebert-road, A. W. Jaggers & Sons; cottage, Chargeable-lane, J. & R. Rooff; alterations at St. Philip's Church and mission rooms, Whitwell-road, Nicholas and Dixon Spain; addition, Stratford Day Nursery, Union-road, C. Watkins; institute, Dockland Settlement, Pitt-street, Holman & Goodrham; alterations at the "Army and Navy" public-house, New Barn-street. W. Bradford & Sons; economiser and engine house extension, boiler-house extension, and warehouse at Plaistow Wharf, Tate & Lyle, Ltd.; bank premises on Corporation property, High-street, Stratford, L. M. Wilson.

Worthing.—Plans passed by T.C.: Twenty-nine shops, arcade, &c., The Parade, South-street, and Montague-street, P. D. Stonham, for The Worthing Development Syndicate, Ltd.; two houses and garage, Ham-road. H. M. Potter, for R. J. World; garage, St. Lawrence-avenue, Jordan & Cook, for H. Toye; house, Wallace-avenue, F. G. Abell, for M. D. Renoir; house, St. Thomas's-road, S. E. Merredew, for J. Hounsell; house, Wallace-avenue, Cornford & Son, for L. Hussey; six houses, Church-walk, and house, Windsor-road, for B. Cheal; house, Rugby-road, J. H. Worton, for F. M. Hart; house, Lansdowne-road, J. E. Lund, for A. C. Fuller; alterations, 29, Chapel-road, G. Vernon, for Thoroughgood & Co.; house, St. Lawrence-avenue, H. M. Potter, for Mrs. Colman; house, Lansdowne-road, F. G. Abell, for Mrs. Curtis; additions to "The Spinney," St. Lawrence-avenue, A. M. Butler, for W. H. Gordon; alterations to St. James's Hall, Montague-street, T. R. Hyde, for J. W. Mansfield; house, Brooklyn-avenue, E. J. Love, for T. H. Lloyd; two houses, Ladydell-road, for E. H. Barton; two houses, Evelyn-road, A. Clare, for H. P. Brazier; house and garage, Forest-road, E. Elwig, for J. Robinson; additions to "Kingsway," Bath-road, H. M. Potter, for G. Standing & Sons; house, Brooklyn-avenue, H. M. Potter, for A. D. Sayer; ten houses, Lyndhurst-road, for E. H. Barton; house, Meadow-road, H. M. Potter, for Taylor & Co.; house, Pavilion-road, S. G. Grevatt, for W. W. Attenborrow; workshop, King's Row-passage, B. Cheal, for W. Gardiner; addition to "Hawkhurst," Warwick-gardens, B. J. Blaker, for W. R. Scoble; six houses, Navarino-road, for E. H. Barton; house, St. Lawrence-avenue, A. M. Butler, for Miss Hill; garage, "Lyndale," Marine-parade, for E. E. Bivand; house, St. Wilfred's-road, Smith, Bartlett & Co., for E. J. Jones.

FIRES.

Exeter.—An extensive fire has destroyed the City Roller Mills, belonging to Mr. C. H. Knapman, and the City Mills adjoining, owned by Mr. R. Upright.

Galashiels.—A large portion of Buckholmside Skin Works, Galashiels, has been burnt down, the damage being estimated at £68,000.

MODERN SCAFFOLDING.

The well-thought-out organisation and the use of modern appliances and labour-saving devices which make possible the rapidity with which buildings are erected nowadays are well exemplified in the description and illustrations given in our last issue of the new warehouse recently completed in Stamford-street, S.E., to the designs of Messrs. Bromley & Watkins, FF.R.I.B.A. The building is of the type now commonly adopted for commercial purposes, namely, steel-frame construction, and speed and economy were both effected by the use of machines for mixing the concrete, chuting plant, and steel forms. Another feature in connection with this contract was the entire absence of external scaffolding of any description—the steel forms being set up in position and all other necessary work to the exterior of the building being done by men operating from travelling cradles which were suspended by ropes from a rail projecting from the roof steelwork. The track was hung in duplicate, so that it was possible to place the concrete into the forms from one cradle whilst another cradle was occupied by the men engaged on finishing the face of the concrete with cement wash. A special feature of this travelling cradle system, which is patented and owned by Messrs Stephens & Carter, Ltd., of Paddington Green, W.2, is that one cradle can operate along any length of frontage, and by using suitable lengths of track the cradles can negotiate curved or irregular frontages as easily as straight wall surfaces.

Among the many recent contracts carried out with these cradles (the "Spencer" travelling cradle) may be mentioned the redecoration of the Charing Cross Hotel, illustrated on this page. On this building the entire frontage, with a length of 160 ft., was reached with two cradles only.



Redecoration of Charing Cross Hotel.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	2 15 3	Do. Bullnose	10 1 6
Do. Bullnose	3 8 3	Blue Wire Cuts	7 11 6

Best Stourbridge Fire brick :—

2½ in.	11 3 0	3 in.	13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
Quoins. Bullnose and 4½ in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. „	2 5	4 in. „	3 7

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand	15 6	„ „
¾ in. Shingle for Ferro-Concrete	14 0	„ „
½ in. „ „	15 0	„ „
¾ in. Broken Brick	10 6	„ „
Pan Breeze	5 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to 51/- alongside at Vauxhall in 80-ton lots.	£3 3 6
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 13 0
Keene's Cement, White	5 8 0
„ „ Pink	5 3 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 6
„ Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 10
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	3 0½
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4½
Do. do. delivered on road wagons at above stations, per ft. cube	4 5½
White basebed, 3d. per ft. cube extra.	
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
HOPTON-WOOD STONE. Delivered at any Goods Station, London.	
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides „	27/-
Sawn three or four sides „	32/-
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.). Per Ft. Super	5 3
6 in. rubbed two sides, ditto. „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 5½
1½ in. to 2 in. ditto, ditto „	1 5
HARD YORK— Delivered at any Goods Station London.	
Scappled random blocks. Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.). Per Ft. Super	5 4½
6 in. rubbed two sides ditto „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto. ditto „	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

	s. d.
Delivered in London Area in full van loads.	
Plain per ft. cube	6 6
Moulded „ „	7 9
Cills „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	28 0	2 × 11	34 0
4 × 7	26 0	3 × 9	32 0
3 × 8	26 0	2½ × 9	32 0
3 × 7	25 0	3 × 4½	24 0
2½ × 7	24 10	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	20/-	1¼	33/6
⅞	23/-	1½	38/6
1	25/6		

TONGUED AND GROOVED FLOORING.		MATCHINGS (BEST).	
Inches.	per sq.	Inches	per sq.
1	25/6	½	17/6
1¼	33/6	¾	22/-
1½	38/6	1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2	0 to	0	2 6
¾ in. do. do.	0	1	6 to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1	9 to	0	2 6
Cuba Mahogany	0	3	6 to	0	4 0
Teak (Rangoon, Moulmein or Java), per load	45	0	0 to	50	0 0
American Whitewood planks, per ft. cube	0	14	0 to	0	16 0
Best Scotch Glue, per cwt.	4	10	0 to	—	
Liquid Glue, per cwt.	4	7	0 to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto handmade ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) { Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
„ „ Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	16 10 0	⅝ in. to ¾ in.	13 10 0
⅜ in.	14 10 0	⅞ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¼	1/0¾	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5½	3 3½
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3½	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

	Per ton in London. £ s. d.		£ s. d.
IRON—			
Common Bars	14 0 0	to	15 0 0
affordshire Crown Bars— good merchant quality	14 10 0	..	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	13 10 0	..	14 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 10 0	..	14 10 0
Hoop iron, basis price	16 10 0	..	17 10 0
„ Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	15 10 0	..	16 10 0
„ „ „ 24 g.	16 10 0	..	17 10 0
„ „ „ 26 g.	18 10 0	..	19 10 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24 10 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	21 10 0	..	23 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.		
LEAD—Sheet, English, 4 lb. and up	33 10 0	..	—
Pipe in coils	34 0 0	..	—
Soil Pipe	36 10 0	..	—
Compo pipe	37 10 0	..	—

NOTE—Country delivery, 30s. per ton extra: lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	21 0 0	..	—
Do., ex country, carriage forward per ton	22 0 0	..	—

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	43/6	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
38/-	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES. S.F.

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
32/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

1½ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	120/- „

COPPER—	£ s. d.		
Strong Sheet per lb.	0 2 3	..	—
Thin „ „	0 2 4	..	—
Copper nails „	0 2 3	..	—
Copper wire „	0 2 4	..	—
TIN—English Ingots „	0 2 0	..	—
SOLDER—Plumbers' „	0 1 0	..	—
Tinmen's „	0 1 2	..	—
Blowpipe „	0 1 4	..	—

PAINTS, &c.

	£ s. d
Raw Linseed Oil, in pipes per gallon	0 3 8
„ „ „ in barrels „	0 3 10
„ „ „ in drums „	0 4 1
Boiled „ „ in barrels „	0 4 2
„ „ „ in drums „	0 4 4
Turpentine in barrels „	0 7 2
„ in drums (10 gall.) „	0 7 5
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	55 10 0
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	77 0 0
Red Lead, Dry (packages extra) per ton	42 0 0
Best Linseed Oil Putty per cwt.	0 16 0
Filocoi per cwt.	0 15 6
Size, XD Quality fkn.	0 3 6

[Concluded on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths	3⅜d.	32 oz. fourths.....	8⅜d.
15 „ thirds	4½d.	32 „ thirds.....	10½d.
21 „ fourths	5d.	Obscured Sheet, 15oz.	4d.
21 „ thirds	6½d.	21 „	5⅜d.
26 „ fourths	6d.	Fluted 15oz.	6⅜d. 21oz. 9⅜d.
26 „ thirds.....	7⅜d.	En'lled 15 „	5½d., 21 „ 7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft
⅛ Rolled plate	4½d.
3/16 Rough rolled	5½d.
¼ Rough rolled	5⅝d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white.....	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7⅜d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

	Per gallon.	£	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Copal Carriage	ditto	1	4	0
Best ditto.....	ditto	1	12	0
Floor Varnish.....	Inside	0	18	0
Fine Pale Paper	ditto	0	18	0
Fine Copal Cabinet	ditto	1	2	6
Fine Copal flatting	ditto	1	0	6
Hard drying Oak	ditto	0	18	0
Fine Hard drying Oak	ditto	0	19	0
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	2	0
Best ditto	ditto	1	12	0
Best Japan Gold Size.....		0	12	0
Best Black Japan.....		0	12	0
Oak and Mahogany Stain (water).....		0	12	0
Brunswick Black.....		0	9	0
Berlin Black.....		0	14	0
Knotting (patent)		1	5	0
French and Brush Polish.....		0	17	6
Liquid Dryers in Terebine.....		0	9	0
Cuirass Black Enamel.....		0	7	0

TRADE NEWS.

Midgley U.D.C. (surveyor, Mr. Robert Laycock) has placed the reconstruction and resurfacing of Luddenden-lane in the hands of Messrs. William Shepherd & Sons, Ltd., Milkstone, Rochdale.

Messrs. Wood, Russell & Co., of 34, Oxford-street, London, W.1, have designed and produced a small coke crusher for domestic use.



It is claimed that the appliance will reduce 36 lbs. of ordinary broken coke to fuel of the proper size for domestic boilers in a quarter-of-an-hour. The illustration shows the crusher working.

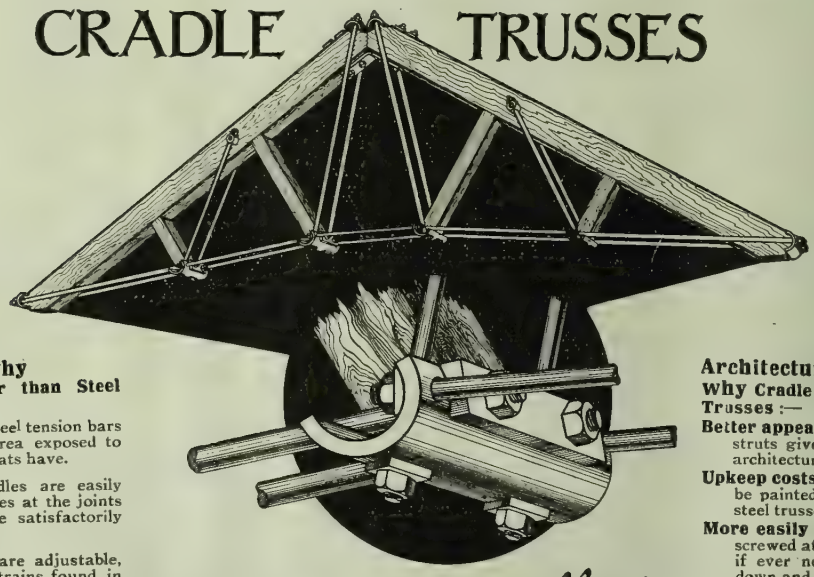
Drummond Brothers, Ltd., of Guildford, have issued a leaflet illustrating and describing their new Diaphragm Pumping Outfit. The power unit is one of their "Willing Worker" 3 B.H.P. paraffin engines, and the pump is claimed to combine the largest output with the smallest upkeep.

Mr. W. H. Cooper, builder and contractor, of 182, Hammersmith-road, informs us that for purposes of concentration, enlargement of offices, and his son's entry into the business, the style and address of his firm is changed to W. H. Cooper & Son, Latymer Works, 201, Hammersmith-road, W. 6. (Telephone: Hammersmith, 1323.)

With reference to Messrs. Boots' warehouse, Stamford-street, S.E., described and illustrated in last week's *Builder*, the steel sashes were supplied by Haywards, Ltd., of Union-street, Southwark, S.E., in accordance with the special requirements of Messrs. Bromley & Watkins, the architects. There are several points of special interest about the steel windows. Some of the openings are fitted with sets of louvres, whilst others have three vents interconnected to allow of fixing open to varying degrees for ventilation on staircases, &c., and were in this case fixed to the amount of opening shown, and with some overlap. Other windows are fitted with horizontally pivoted vents connected together in pairs, easily controlled to various positions by the girl-workers, with a very simple form of fool-proof gearing. A certain number of the windows on each floor are fitted with side-hung opening portions for use in case of fire, in accordance with L.C.C. regulations.

Berties, of 34, Hanway-street, Oxford-street, W., have just completed extensive alterations at the Victory Cafe, previously known as the Cafe d'Europe, Leicester-square. The N.S.P.C.C. have purchased the property and leased a portion of the ground floor and basement, which has been fitted up as a restaurant and soda fountain bar.

CRADLE TRUSSES



Structural reasons why Cradle Trusses are better than Steel Trusses:—

Double the life. The round steel tension bars have less than half the area exposed to corrosion that angles and flats have.

Much safer. The open cradles are easily painted. The narrow spaces at the joints on steel trusses cannot be satisfactorily painted.

No initial strains. All joints are adjustable, thus avoiding the initial strains found in riveted joints.

Greater lateral rigidity. The tension bars are all in pairs, set wide apart, thus giving more lateral rigidity than single flats, tees, etc.

Stronger. Timber is more efficient for compression members than steel, and steel is more efficient for tension than timber. The steel cradle, in overcoming the difficulty of joining these materials, has made the cradle truss the most efficient principal ever manufactured, being 30% stronger than steel trusses of equal weight,

Cradle Trusses can be supplied for all classes of work from 15 ft. to 80 ft. span, either complete or steelwork only.

A few agencies still open in the larger towns in the E. and S.W. Counties to firms with connections.

Solve corrosion problems

The unpaintable joints on steel trusses have for years been a problem to those who know how soon light steel scantlings become dangerously corroded if not periodically painted. As a structural engineer the inventor set himself to study this difficulty. We are pleased to be able to say, with confidence, that he has solved this problem and others besides, in designing the cradle truss. We explain clearly in adjoining column why the materials used are chosen. Timber was deliberately chosen in preference to steel for the compression members, although steel was equally available—the patent covering an all steel cradle truss. Large numbers of cradle trusses have been used during the past three years by well-known Architects for important public buildings, works, etc.

Architectural and other reasons why Cradle Trusses are better than Steel Trusses:—

Better appearance. The timber rafters and struts give a more substantial and solid architectural effect.

Upkeep costs less. The area of steelwork to be painted is only about one-third that of steel trusses.

More easily dismantled. The steel bars are screwed at the joints—no rivets—therefore, if ever necessary, could be readily taken down and re-erected elsewhere.

Covering easier to fix. The purlins, etc., can be more easily fixed in any position along rafter.

Better for transport. All members can be taken apart and packed in small bundles. Shipments abroad have all arrived undamaged.

Safer in fire. Heavy section timbers fare better and are only charred by fires that distort and often bring down steel trusses. To prevent their being a possible source of fire it is a simple matter to treat with fire-proof paint.

Although Cradle Trusses are the best trusses made, you can obtain them, thanks to mass production, at competitive prices. Write now for quotation and full details to suit your job.

JAMES WILD & CO., Engineers,
C. Dept., 49, Deansgate, MANCHESTER
Telephones: Central 234: Oldham 1532 (works).

LONDON: Kern House, 36-38, Kingsway, W.C.2,
GLASGOW: MacDougall & Duncan, 196, St Vincent Street.
BELFAST: Nelson Gray & Co., 7, Queen's Square.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6	
York stone sills fixed	" "	21	6	
Bath stone and all labour fixed	" "	10	6	
Portland stone fixed	" "	19	6	

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9	
Do. 20 in. × 10 in. Do. Do.	"	80	9	
Do. 24 in. × 12 in. Do. Do.	"	90	0	

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3	
Do. joists	" "	5	9	
Do. roofs, floors and partitions	" "	6	3	
Do. trusses	" "	8	3	

	¾"	1"	1¼"	2"
Deal rough close boarding per sq.	38/-	44/-	50/-	80/-

	s.	d.
Flat centering for concrete floor, including struts or hangers per	50	0
Do. to beams per ft. sup.	1	0
Centres for arches "	1	6
Gutter boards and bearers "	1	0

FLOORING.

	¾"	1"	1¼"	1½"
Deal-edges shot per sq.		49/-	58/-	67/-
Do. tongued and grooved "		54/-	65/-	72/-
Do. matchings "	45/-	55/-		
Moulded skirting, including backings and grounds per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.

	1½"	1¾"	2"
Two-panel square framed per ft. sup.	2/1	2/4	2/6
Four-panel Do. "	2/5	2/8	2/11
Two-panel moulded both sides "	2/8	2/11	3/2
Four-panel Do. Do. "	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/1
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	51	0
Do. Do. in flats	"	49	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

	½"	¾"	1"	1½"	2"	4"
Drawn lead waste per ft. run	10d.	1/6	1/9	3/1	3/10	
Do. service "	1/5	1/11	2/3	3/6		
Do. soil "						6/2
Bends in lead pipe each					3/3	8/2
Soldered stop ends "	1/2	1/8	2/1	2/10	3/6	
Red lead joints "	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints "	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws "				14/7	19/6	
Bib cocks and joints "	6/4	9/7	15/4	41/-		
Stop cocks and joints "	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	" "	2	6
Do. Do. Keen's	" "	3	6
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 8d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

HOUSING CONFERENCE AT STOKE.

A conference was held at Stoke recently between representatives of the Stoke-on-Trent Corporation and builders regarding the erection of houses by private enterprise in the Potteries, under the provisions of the new Housing Bill.

Alderman W. T. Leason, chairman of the Housing Committee, who presided, said the Corporation were most anxious that the builders should undertake the erection of houses in the Potteries, and, with that object in view, they had decided to increase the maximum Government subsidy of £78 per house to a maximum of £100 for approved houses. The subsidy would be paid in a lump sum as soon as each house was completed.

The Borough Surveyor explained that the Government desired that houses should vary from twelve to twenty to the acre.

The Chairman said he personally had seen quite suitable houses erected near Doncaster at a cost of £315 each.

Mr. Paul Pemberton, President of the North Staffordshire Master Builders' Federation, said a good serviceable house of the type demanded by the Bill could not be built at a cost of £300. A house of the twelve to the acre type, with a bath-room, would cost at least £500.

The Mayor said he hoped that the £100 subsidy would not pass into the hands of unscrupulous builders, who would build houses which would "just pass muster," and put the £100 in their pockets after having made a substantial profit in addition. That was not the intention of the Government. He hoped the Corporation officials would take care that the houses were built to a good specification.

Mr. Pemberton took exception to some of the Mayor's remarks, and said the builders of North Staffordshire did not require a subsidy. The subsidy, in fact, was being granted not to the builders, but to the building of houses, which was a very different thing. The £100 was not to subsidise the builders, but to subsidise the people who were going to buy the houses.

Alderman W. E. Robinson outlined an interesting scheme placed before a public meeting at Burslem. It was suggested that houses should be built by private enterprise at a cost of £450 each. Each prospective purchaser would be asked to deposit £50 in cash, and having received the £100 subsidy, it was suggested that the balance of £300 should be borrowed from a building society. This loan could be repaid in 18½ years, at the rate of about 10s. a week, at the end of which time the borrower would be the owner of his own house. He had made inquiries of the building societies, who were prepared to advance money on these terms. That was quite a feasible scheme, and when put before a public meeting at Burslem, about 40 persons immediately signified their willingness to deposit the £50.

Mr. Pemberton replied that the builders were not so much concerned about who paid the subsidy, so long as they received a fair return on their capital. He believed Alderman Robinson's scheme could be put into practice.

It was decided that the matter should be considered by the Builders' Federation, and that a deputation should meet the Housing Committee and report progress.

Town-Planning in the Midlands.

As the result of a conference in Birmingham of representatives of the city, the boroughs of Coventry, Dudley, Smethwick, Walsall, West Bromwich, Wolverhampton, Worcester, Bewdley, Droitwich, Kidderminster, Lichfield, Nuneaton, Leamington, Stourbridge, Stratford-on-Avon, Sutton Coldfield, Warwick and Wednesbury, and of the various urban and rural district councils within a radius of about 25 miles of Birmingham, it was decided to form a Midlands Joint Town-Planning Advisory Committee. Mr. F. H. C. Wiltshire (Town Clerk of Birmingham) consented to act as hon. secretary *pro tem.*

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

*** Denotes *accepted*. † Denotes *provisionally accepted*.**
‡ Denotes *recommended for acceptance*.
(Denotes *accepted subject to modifications*.

ACCRINGTON.—For 17 houses at Laneside, for the T.C. :—

*Co-operative Wholesale Soc., per house, £402

ANNAN.—For paving of Scott's-street with Whinstone setts, for the T.C. Mr. M. Little, Town Clerk, Annan :—

Wm. Wilson & Co., Glasgow	£7,171 2 3
Alex. Stark & Sons, Ltd., Glasgow	7,109 8 0
G. Percy Trentham, Ltd., Edinburgh	6,597 15 1
T. J. Carrick & Son, Dumfries	6,355 19 10
Stark & Dobbie, Glasgow	6,217 1 8
Wm. Thomson, Annan	6,113 10 9
*Henry McDermott, Carlisle	5,716 4 6

BIRKENHEAD.—For alterations to retort-house and extension of plant at Gas Works, for the T.C. :—

*W. C. Holmes & Co., Ltd., Huddersfield—wet purification plant and connections	£20,035
*Woessoe Foundry & Engineering Co., Ltd., Darlington—four boxes of coal gas purifiers, with calves and connections	10,075
*Joseph Davies, Birkenhead, alteration of, and additions to, the old retort-house	1,203

BIRMINGHAM.—For erection of house, Four Oaks, for Mr. H. W. Bateman. Messrs. Ingall, Bridgwater & Porter, architects, 147, Corporation-street, Birmingham :—

P. W. Cox, Handsworth	£1,517
E. M. Squire, Saltley	1,311
*W. H. James & Son, Sutton Coldfield	1,058

BRADFORD.—Construction of two new smoke ducts at the Conditioning House, Canal-road, for the Corporation :—

*W. Farnish & Sons, Bradford.

BRADFORD.—Erection of two residences at Toller-lane, for Mr. Richardson :—

*F. G. Burgess, Manningham.

BRADFORD.—New warehouse and shed at Cashmere Works, for Messrs. Joseph Dawsons, Ltd. :—

Mason and joiner—T. Obank & Sons, Thackley.
Flooring—The Kleine Patent Fire Resisting Flooring Syndicate, London.
Asphalter—Messrs. Tunstall's Rock Asphalte Co., Ltd., Leeds.

BRADFORD.—Extensions to Children's Hospital, Bertram-road :—

Mason—F. G. Burgess, Manningham.
Joiner—W. C. Bogg & Sons, Manningham.

BRADFORD.—Lloyds Bank, Hustlergate :—

Main contract—Chas. Booth, Lidgett Green.
Asphalt—Messrs. Hornby Partners, Ltd., Bradford £459

BRADFORD.—For erection of 100 houses, for the T.C. :—

*T. Roper & Sons, Sheffield £38,588

BRADFORD.—Erection of partitions at Technical College, for the T.C. :—

*R. J. Patchett, Ltd £234

BRADFORD.—For hot-water heating installation at Bolton-road sub-station, for the T.C. :—

*Rosser & Russell, Leeds £835

BRADFORD.—For painting work at Grassington Sanatorium, for the T.C. :—

A. A. McDermott £1,060 11 9

BRADFORD.—For extension of School of Art and Crafts :—

Joiner's Work—
*R. J. Patchett, Ltd £386 0 0
Plumber's Work—
*R. Hainsworth 95 18 1
Plasterer's Work—
*J. Wheater 29 10 0
Electric lighting—
*A. R. Farrer & Co. 104 0 0
Heating—
*D. Wiggins 116 5 0
Boiler—
*R. Townend 120 10 0

BROMLEY.—For erection of lavatories at offices of B.G. The Clerk, Board of Guardians' Offices, Bromley, Kent :—

*Pearce Bros., Bromley—
Estimate "A" £275
Estimate "B" 75
£350

CHADDERTON.—For eight houses in blocks of four off Ramsdale-street, for the Chadderton U.D.C. :—

*Messrs. Werswick, Hollinwood.

CHEAM.—For erection of new schools, Cheam Baptist Church, for the Building Committee. Mr. C. S. Kimpton, A.R.I.B.A., architect, 10, John-street, Adelphi, W.C. 2, and Sunningdale, Berks. Quantities by Messrs. W. E. Davis & Son, F. & P.A.S.I., 13, John-street, Adelphi, W.C. 2 :—

Shopland & Co., Ltd., Sutton	£5,150
Bull & Esdaile, Ltd.	4,378
Holliday & Greenwood, Ltd.	4,198
Ross, Banstead	4,196
Cropley Bros., Epsom	4,155
Rider & Son	4,050
Battley, Jon, & Holness	3,996
*F. & H. F. Higgs, Ltd.	3,927

COSSINGTON.—For erection of isolation hospital, for Somerset C.C. Mr. A. J. Toomer, M.S.A., County Architect, Lloyd's Bank Chambers, Weston-super-Mare :—

Wm. Burston, Clevedon	£1,632 10 2
T. Stockham, Bridgwater	1,577 19 6
G. V. Shepherd, Highbridge	1,542 8 1
H. F. Tottle, Bridgwater	1,506 2 5
G. Pollard & Co., Ltd., Taunton	1,399 0 0
A. Geen & Son, Bridgwater	1,292 11 0
*Dunthorn, Ltd., Glastonbury	1,238 12 1

DEWSBURY.—For installation of internal telephone system at the Guardians' Institution :—

*Messrs. F. Whitton & Sons, Leeds £313

DONCASTER.—Erection of 12 houses near Woodfield-lane, for the Corporation :—

*Flowitt & Gilbert, Doncaster £4,420

DUDLEY.—For erection of 32 type "C" houses, for the T.C. :—

*Unit Construction Co. £12,685

EASTBOURNE.—For erection of 100 houses, for the T.C. :—

*G. Slade & Co., London £55,059

FREEBRIDGE.—For laying water mains in Wootton-road, Gaywood, for the R.D.C. :—

*E. J. Case, King's Lynn £646

GLASGOW.—Erection of football pavilions at Parkhead Recreation Ground, for the T.C. :—

Excavator, concrete and brick works—
*Brown, Fraser & Co. £2,637 0 0
Carpenter, joiner and glazier works—
*W. J. Crawford 2,167 3 11
Plumber work—
*M'Culloch & Giffen 1,113 2 7
Plaster work—
*J. M'Kinlay & Co. 323 0 11
Painter work—
*T. Hastie 166 7 7
Tiling and terrazzo work—
*Brown, Fraser & Co. 254 9 3
Slater work—
*Brown, Fraser & Co. 365 0 0

GLASGOW.—For painter work at City Hall Buildings, South Albion-street, for the T.C. :—

*W. D. Horne & Sons £210 10 6

GLASGOW.—For iron railings and gates at Sandyhills Housing Scheme, for the T.C. :—

*P. & R. Fleming £1,532 9

GLASGOW.—For iron fence at Hamiltonhill, for the T.C. :—

*J. Robertson & Co. £154 7 11

GREENFORD.—For construction of sewer to level at Greenford Green, for the U.D.C. :—

*Roads & Public Works, Ltd. £2,681 12

GUILDFORD.—For 45 pairs of non-parlour houses and 10 pairs of parlour houses on the Guildford Park Estate, for the T.C. :—

‡Perry Bros., Ealing—	Per pair
Non-parlour houses	770
‡Unit Construction Co., Ltd.—	
Parlour houses	818

HALIFAX.—Erection of 54 stone-faced houses on Sandbeds site, for the T.C. :—

*Smith Bros., Burnley £24,850

HALIFAX.—Erection of six parlour houses at Wakefield-road, for the T.C. :—

*Smith Bros., Burnley £3,090

HALIFAX.—For street works on Sandbeds site, for the T.C. :—

*C. Wade, Halifax £953 17 2

HALIFAX.—For structural alterations, foundations, &c., at Charlestown, for the T.C. :—

*Charles Wade, Halifax—excavating, concreting, drain laying, masonry	£2,592 10 11
*J. H. Naylor & Son, Halifax—carpentry and joinery	258 10 0
*Pickles Bros., 73, New Briggate, Leeds—slating	325 0 0
*H. Lumb, Halifax—plumbing and glazing	162 11 2
*T. Carr, Halifax—painting	72 19 0
*Astley, Brook & Co., Ltd., Huddersfield—steelwork	415 9 2
*Peter Fulcher, Halifax, reinforced concrete	642 0 0

HALIFAX.—For erection of sub-station in Kensington-road, for the T.C. :—

Smith Bros., Burnley £355

HALIFAX.—Erection of sub-station at King Cross, for the T.C. :—

*C. Wade, Halifax £484 14 3

HALIFAX.—For salvage plant for the T.C. (amended tenders):—

*W. H. Blake & Co., Ltd., Sheffield—roof over dams £525
*S. Denison & Son, Ltd., Leeds, 30-ton weighbridge 420

HALIFAX.—For wood-block paving in Southgate and Commercial-street, for the T.C.:—

*Improved Wood Pavement Co., London £1,528 8 4

HALIFAX.—Supply of plant and materials at the Electricity Works for the Corporation:—

Circulating pump, pipes and valve work—
*Worthington, Simpson, Ltd., Kingsway, W.C.2 ..... £1,031 0 0
Ejector air plant—
*Pick, Hargreaves & Co., Birmingham 540 0 0
60 h.p. and 8 h.p. motors, including bed-plate—
*J. H. Holmes & Co., Newcastle-on-Tyne 729 5 6
One 3-phase transformer, 250 K.V.A.—
*Hackbridge Electrical Construction Co., Surrey..... 285 0 0

HALIFAX.—(1) Erection of 54 stone-faced houses, for the Corporation, on the Sandbeds site; and (2) erection of six parlour houses on the Wakefield-road site:—

*Smith Bros. (Burnley), Ltd., Fitzwilliam, near Wakefield (1) £24,850; (2) £3,090

HALIFAX.—Wood block paving on concrete foundation in Southgate and Commercial-street, for the Corporation:—

*The Improved Wood Pavement Co., Ltd., London £1,528 8 4

HALIFAX.—Structural alterations at the Charlestown Salvage Depot, for the Corporation:—

Mason and concretor—
*C. Wade, Halifax £2,592 10 11
Joiner and Carpenter—
*J. M. Naylor & Sons, Halifax.. 258 10 0
Slater—
*Pickles Bros., Leeds..... 325 0 0
Plumber and Glazier—
*H. Lumb, Halifax..... 162 11 2
Painter—
*T. Carr, Halifax..... 72 19 0
Steelwork—
*Astley Brook & Co., Huddersfield 415 9 2
Reinforced Concrete flooring—
*Peter Fulcher, Halifax 642 0 0

HAMPSTEAD.—For erection of house at Hampstead Garden Suburb. Mr. E. Meredith, architect, Chadwell Heath:—

Bleach & Dorey £3,430
Disson & Son 2,600
*H. J. Gower, Ltd. 2,295

HEMEL HEMPSTEAD.—For erection of 12 cottages at King's Langley, for the R.D.C. Mr. T. H. Lighbody, architect, Hemel Hempstead:—

J. W. Kent, Colwyn Bay £11,760 0 0
Clifford & Gough, Watford .. 7,957 0 0
A. J. Eldridge, Watford 7,800 0 0
Bliss & Son, Bushey 7,670 0 0
A. Timberlake, King's Langley 7,560 0 0
E. J. Swinford, Leavesden Green 6,976 16 0
Cumberland, North Marston .. 6,944 0 6
G. Jackson, Harrow 6,498 0 0
Nautilus Fire Co., Luton 6,344 8 6
Major, Wilkinson & Kelly, Westminster 6,300 0 0
J. Ray, Letchworth 6,265 0 0
Wood & Sons, Luton 6,000 0 0
Kempster & Williams, Watford 5,988 0 0
Honour & Sons, Tring 5,970 0 0
Lacey & Sons, Luton 5,940 0 0
Thurgood & Son, Much Hadham 5,900 0 0
Payne Bros., Leavesden 5,543 0 0
W. Fisher, Northampton 5,460 0 0
Gilbert Bros., Berkhamstead 5,046 0 0
R. L. Tonge, Garston 5,000 0 0
*Luton Building Co., Luton .. 4,980 0 0

HULL.—For installation of low-pressure hot-water apparatus at Clifford-street and T. B. Holmes Girls' Schools, for the T.C.:—

*King & Co..... £175 and £152

HULL.—For external painting at Selby-street School, for the T.C.:—

*Codner & Son £105

HULL.—For the erection of bowlhouse and lavatory, West Park, and a shelter and sanitary accommodation for women at the Northern Cemetery, for the T.C.:—

	Women's Shelter, Northern Cemetery.			Convenience, Northern Cemetery.			Bowlhouse and Lavatory, West Park.		
	£	s.	d.	£	s.	d.	£	s.	d.
G. Hulton & Son	245	5	10	162	3	8	255	13	8
J. Houlton & Son, Ltd.	285	3	6	173	17	6	273	16	0
Lawrence Bros.	262	16	3	187	4	10	289	14	0
*Quibell & Son	226	11	5	156	1	1	237	16	10
F. Southern	263	1	9	168	16	0	280	17	3
R. G. Tarran	248	5	0	175	5	0	275	5	0
City Engineer's Estimate	300	0	0	223	0	0	337	0	0

HUNSLET.—New Boys' School at St. Joseph's R.C.):—

Mason.—L. Harpham, Leeds
Joiner.—Lazenby Bros., Leeds
Steelwork—Leonard Cooper, Ltd., Leeds
Concretor.—S. McFarlane, Ltd., Leeds
(Amended acceptances.)

KENDAL.—For construction of oil tank pit at Electricity Station, for the T.C.:—

*J. Steel & Co. £113 15

KENDAL.—Supply of stone-dryer to the Streets and Sewerage Committee of the T.C.:—

T. Coleman & Sons £1,025

KIPPAX.—For erection of parsonage at Great Preston. Mr. F. Scatchard, architect and surveyor, Midland Bank Chambers, Castleford:—

*H. Roper, Kippax £1,440

LEEDS.—Tenders accepted for painting of schools:—

W. Greenwood & Son..... £305 10 0
W. Knaggs 289 0 0
W. Knaggs 268 0 0
J. Chappel & Sons, Ltd..... 252 10 0
C. Fenton & Sons..... 243 0 0
A. W. Richardson 223 0 0
Roylance & Horsman..... 214 0 0
L. E. Wilkinson 210 0 0
H. Whittaker 195 0 0
J. Clayton 169 0 0
H. Whittaker 159 10 6
L. E. Wilkinson 138 0 0
A. Whittaker 127 10 6
W. Grayson 127 10 0
(All of Leeds.)

LIVERPOOL.—For paving footways, &c., at the shopping centre of Larkhill Estate, for the T.C.:—

*L. Marr & Son £386

LIVERPOOL.—For carrying out structural alterations for conversion of 224, Scotland-road, into public reading rooms, for the T.C.:—

*W. Mooney & Son, Liverpool..... £1,189

LIVERPOOL.—For painting at 224-228, Scotland-road, for the T.C.:—

*Pierce Williams & Co..... £269

LIVERPOOL.—For painting Norton Water Tower, for the T.C.:—

*A. Billington, Runcorn..... £220

LIVERPOOL.—For re-arrangement of, and addition to, lavatory accommodation at St. George's Hall:—

*W. Tomkinson & Sons, Liverpool.... £4,357

LIVERPOOL.—For painting at Smithdown-lane Day Nursery, for the T.C.:—

*Platt & Holloway £115

LIVERPOOL.—Supply of 1,500 tons of cement to the T.C.:—

*J. Crosfield & Sons, Warrington—£2 12s. 6d. per ton.

LONDON.—Widening of Herne Hill in front of Casino Housing Estate, for the Lambeth B.C.:—

Howard Farrow £2,871 2 11
Roads & Public Works, Ltd. .. 2,838 12 10
J. Mowlem & Co., Ltd..... 2,621 5 5
Borough Engineer's Estimate .. 2,478 0 0
*Henry Woodham & Sons, Ltd. 2,477 3 0

LONDON.—For repairs and decoration at Crawford-place Dwellings, for St. Marylebone B.C.:—

*W. Densham & Sons £194

LONDON.—For foundations for turbo-alternator set at Generating Station for the St. Marylebone B.C.:—

J. W. Falkner & Sons £4,280
John Mowlem & Co., Ltd. 3,738
Patman & Fotheringham, Ltd. 3,692
F. G. Minter 3,630
*Ashby & Horner, Ltd..... 3,559

LONDON.—For erection of workshop and additions at Aberdeen-place frontage of generating station, for the St. Marylebone B.C.:—

		Extra for Glazed Bricks.
J. Mowlem & Co.	£17,597	£415
J. Simpson & Sons	17,448	453
Patman & Fotheringham, Ltd...	17,337	434
F. G. Minter	17,278	387
G. Godson & Sons, Ltd.	17,150	456
Ahsby & Horner, Ltd.	16,889	459
Geo. Barker	16,574	398
*A. E. Symes	16,407	400

LONDON.—For providing and laying creosoted deal wood paving blocks on 7 ins. reinforced concrete foundations, kerbing, york-paved footways, in Barry-road, for the Camberwell B.C.:—

John Gill, Contractors, Ltd., S.W.1 .. £36,392 6 8
Hy. Woodham & Son, S.E.6 ..... 26,350 1 6
The Acme Flooring & Paving Co. (1904) Ltd., E.9 ..... 24,507 9 1
Wm. Griffiths & Co., Ltd., E.C.2 .... 24,362 3 7
The Improved Wood Pavement Co., Ltd., New Bridge-street 23,787 2 11
G. J. Anderson, Poplar, E.14 ..... 23,128 8 2
Howard Farrow, Golders Green-road .. 23,020 15 0
John Mowlem & Co., Ltd., Ebury Bridge-road 22,810 1 10
*W. Manders & Co., E.C.4 ..... 22,255 14 6

LONDON.—For completion of 31 houses on Pound Park Estate, for the Hammersmith B.C.:—

*E. Jackson £510

LONDON.—For renewing wood paving in portions of Harrow-road and Hans-road, for the Kensington B.C.:—

	Creosoted Deal Blocks on Thames Ballast and Portland Cement foundation. Per yard super.		Creosoted Deal Blocks on Broken Concrete and Thames Ballast and Portland Cement foundation. Per yard super.	
	s.	d.	s.	d.
Harrow-road—				
Howard Farrow	28	0	27	0
John Mowlem & Co., Ltd.	28	9	28	0
The Acme Flooring and Paving Co., Ltd.	28	2	27	10
Wm. Griffiths & Co., Ltd.	28	7	28	1
*The Improved Wood Pavement Co., Ltd.	27	2	27	2
Hans-road—				
Howard Farrow	26	0	25	0
John Mowlem & Co., Ltd.	26	6	25	9
The Acme Flooring and Paving Co., Ltd.	25	6	25	3
Wm. Griffiths & Co., Ltd.	26	0	25	6
*The Improved Wood Pavement Co., Ltd.	24	6	24	6

LYTHAM ST. ANNES.—For erection of Clubhouse in Lytham Park, for the Fairhaven Golf Club. Mr. W. Thornley, architect, 46, Wallgate, Wigan:—

Frank Homes, St. Annes-on-Sea £8,962
J. J. Blackburn, Manchester 8,895
The Lancashire Building Co., Ltd., St. Annes-on-Sea 8,857
J. Brindle & Sons, Chorley 8,800
Tinker & Young, Ltd., Manchester .. 8,735
T. Campion & Son, Manchester 8,596
H. & C. Triffitt, Chorley 8,567
E. J. Coupe & Sons, Manchester 8,475
Jno. Heap & Sons, St. Annes-on-Sea .. 8,381
Arthur Fenton, Manchester..... 8,350
Hardman & Poole, St. Annes-on-Sea .. 8,236
Keenan, Parker & Yates, Ltd., St. Annes-on-Sea 8,140
Darbyshire & Jackson, Wigan 8,067
J. W. Lee & Co., Chorley 7,932
*Leyland Construction Co., Ltd., Leyland 7,697

MAIDSTONE.—For new wing, &c., at Rosemount, Bearsted, near Maidstone. Mr. Wm. H. Poole, M.S.A., Lic.R.I.B.A., architect, Earl-street, Maidstone:—

Barden & Head, Maidstone..... £840 0
Hughes & Son, Maidstone..... 829 0
Elmore & Son, Maidstone..... 785 15
Norman Smith & Son, Maidstone.. 768 0
Architect's preliminary estimate.... 775 0

MANCHESTER.—For extensions to "Grafton Arms" Hotel, Manchester, for Groves & Whitnall, Ltd., brewers, Salford:—

*Robert Carlyle & Co., Ltd., Manchester.

MANCHESTER. — For extensions to Messrs. Courtauld's, Ltd., Trafford Park:—

Steelwork—Skipworth, Jones & Lomax, Ltd., Manchester.

MIDDLETON.—Six tenders were submitted to the Middleton Corporation for the erection of 10 houses on the Boarshaw Estate, and the lowest was provisionally accepted:—

*J. H. Bardsley, Ltd., Manchester, per house £375

MORLEY.—Erection of a pavilion, for the B.C. at the Tennis Courts, and erection of ladies' conveniences in Wellington-street:—

*Naylor & Ward, Morley..... £208 0 10
*J. W. Binks & Sons, Morley.... 145 0 0

PAIGNTON.—For new shops and flat at Manor-road, for Mr. W. Harvey. Messrs. W. G. Couldrey & Son, architects, Paignton. Quantities by Messrs. Harris & Hills, Paignton and Torquay:—

H. T. Drew £2,767 0
W. Smaridge 2,354 16
*W. H. Webber 2,330 0

PLYMOUTH.—For erection of 52 houses, for the T.C. Mr. T. P. Frank, Borough Surveyor, Plymouth:—

‡James Crockerell, Devonport..... £20,388

READING.—For construction of surface water sewers and approach to new bridge, for the T.C. —

*Collier & Catley, Reading..... £8,830 6

READING.—Erection of 64 houses on Shenfield-road site, for the T.C.:—

*Wheeler Bros., Reading..... £22,940

ROTHERHAM.—Erection of two cottages at the Highway Depot, for the B.C.:—

*P. H. Armston, Rotherham..... £890

SALFORD.— Laying new floor at St. James' girls' school, for the T.C.:—

*J. Daniels & Sons..... £114 15

SALFORD.—For asphalting at Halton Bank School, for the T.C.:—

*W. Turner, Ardwick £207 16 3

SALFORD. —For rebuilding brickwork for boiler at Generating Station, for the T.C.:—

*Bradley & Lonsdale £518

SHEFFIELD.—New banking premises, for Lloyds, in Church-street:—

Contractors.—D. O. Neill & Son, Sheffield
Asphalter. — The Ingham Asphalte Co., Ltd., Sheffield

SKIPTON.—For erection of an extension for the Skipton Working Men's Club :—
‡T. T. Chapman, Skipton.

STANNINGLEY.—For erection of extension at Leigh Mill, for Messrs. Leigh Mill Co., Ltd. W Shackleton, architect, Pudsey :—
Mason and joiner—Kendall & Co, Pudsey.

STAINLAND.—Installation of the Patmos Water Scheme, for the U.D.C. :—
*W. Waring & Sons, Huddersfield £1,152 4 8

STOKE NEWINGTON.—For alterations, &c., for Miss Savin, Leith House, Stoke Newington, N. :—
*Sydney G. Goulding, Hornsey, N.8.

STRETFORD.—For granited rock asphalt paving Moss-road and Gorse Hill housing estates, for the U.D.C. :—
*Whitehall Asphalt & Engineering Co., Ltd., Manchester.

SWANSEA.—For excavation work in connection with alterations to boiler house, for the Electricity Department of the T.C. :—
*Mackenna, Ltd. £2,190

SWINDON.—For erection of 30 houses on the Hurst Building Estate :—

*Saunders & Sons, Cirencester—	Per Block
Type B4 & 5—Living room, scullery, 3 bedrooms and bathroom (1 block of 4)	£1,490
Type B6 & 7—Do. do. do. (3 blocks of 4)	1,490
Type B8—Do. do. do. (3 blocks of 2)	690
Type C3—Parlour, living room, scullery, 3 bedrooms and bathroom. (4 blocks of 2)	835

TADCASTER.—Laundry for the B.G. :—
*Wm. Birch & Sons, York..... £1,934

THAKEHAM.—For provision of borehole at Storrington, for the R.D.C. :—
*C. P. Martin & Co., Harpenden .. £1,305 12

TILBURY.—For erection of 90 houses, for the U.D.C. :—
*G. Slade & Co. £35,400

WALLASEY.—For painting at gasworks offices, for the T.C. :—
*H. Dodd..... £114

WALLASEY.—For painting of schools, for the T.C. :—
*Irving & Hall—Somerville School, £220 10s.; St. George's-road School, £292 18s. 9d.; Technical School, £176 3s.

WALLASEY.—For internal painting of High School for Girls, for the T.C. :—
*B. C. Shaw..... £326

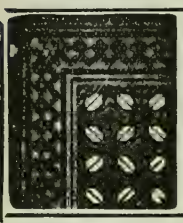
WALLASEY.—For making up streets, for the T.C. :—
*C. L. Warren—St. Nicholas-road, £842 6s.; Melling-road, £247 10s.; Bernard-avenue, £140 12s.

WALTON-LE-DALE.—For construction of reservoir at Gough-lane for the U.D.C. :—
*Leyland Construction Co., Ltd., Preston, £3,557

WATH-ON-DEARNE.—Erection of 62 houses, for the U.D.C. :—
Firth & Whittington, Doncaster £20,952 10 6

WESTBURY.—For the erection of houses, Station-road, Westbury. Mr. Chas. H. Goater, architect, Trowbridge :—

Culverhouse Bros.	£2,460
F. R. Parsons	1,756
Brewer & Son	1,680
J. T. Parsons	1,660
*Holdoway & Son	1,648



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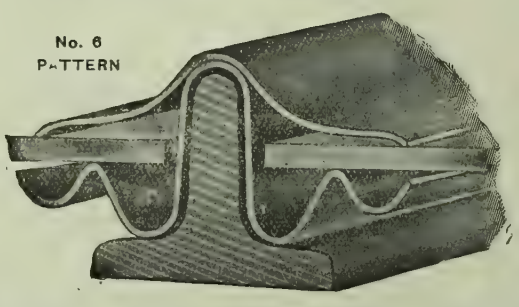
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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXV.—No. 4198. JULY 20, 1923

ABOUT MANY THINGS.

IN our leading article for June 8 we observed that "we cannot assume that the architect shares with the workman the fatalistic platitude that buildings must be built, or, in the parlance of economics, that articles must be consumed regardless of cost." A correspondent, whose letter we published, considered this comment to be rhetorical, believing that the fallacy does not exist. We wish that his view was correct, and that we were wrong; but we can assure him that our view was at least no idle comment, but a sincere expression of opinion.

The sentence in question opens up a wide discussion upon certain economic truths and fallacies, but the difficulty is the old one, of proving the connection to the satisfaction of unbelievers. However, we owe it to our correspondent to say that a few months ago the whole problem was discussed in these columns in connection with the question of the proposed reduction of wages in the building industry. It appeared to us—as it must have appeared to everyone—that the lowering of wages to stimulate the amount or volume of building work was not accepted as an economic theory by the workmen or their leaders. There are certain industries in the country which have been paying wages on a scale much higher than pre-war, and the workers have been working half-time. Needless to say, there was much unemployment and bad trade, and it needs no knowledge of economics to realise the absurdity of any theory which both increases the cost of the commodity and gives no security of employment to the worker. Our comments were based upon considerations such as these, and it is still difficult for us to believe that we have all abandoned the theory that it is possible to command both the price and the consumer. We did not wish to suggest that architects should take a prominent part in the settlement of technical matters between the builder and his workmen; we indicated that the cost of a building was a dominating factor and that consequently the architect, on behalf of his client, should be in a position to state the difficulties curtailing or hindering his building schemes. Advice of this nature from a responsible source would be invaluable to masters and workmen in their deliberations, and we believe would be welcomed.

It is evident, judging from the correspondence we receive, that what might be termed the frontiers of architecture are presenting many embarrassing problems at the moment. They involve questions of cost, legal difficulties with land restrictions, by-laws, housing, increases in municipal rating, taxation and assessments, and the high costs of street and roads for heavy motor traffic.

It is now becoming fairly clear that in making laws for the housing of the workers we have apparently failed to make provision for the middle classes, who ask for the same facilities and conditions. We have never been convinced that the lessons of the Government housing schemes were safeguarded for the individual; the idea of communal housing schemes has become an obsession and the privilege of paying for a house seems to be the only reward. Private enterprise, as opposed to State housing, has a different meaning when applied to the individual who desires to build his own house. We grant that the busy designer might say that he has sufficient work attending to architectural matters, and that in any case he has no taste for purely business affairs. As an individual he is perfectly justified in maintaining this attitude, but taking the architectural profession as a whole, we doubt if it could be seriously argued that these matters can be neglected. If architecture suffers (as is frequently contended) from the corroding influences of everyday life, it would seem that the younger architects have nothing to gain if their profession were brought into touch with the immediate problems of the day. If this exclusive view is held the architect should not grumble if his scope is limited, and we feel he should expect a reply in the spirit of Talleyrand's answer to the man who said he had to live: "I do not see the necessity."

It is possible to be as completely isolated as a Trappist monk and be able to execute certain forms of creative work; it may even be necessary for an architect to be free for a time from interruptions or dependence on other people's arrangements, but few will deny that it is necessary for him to maintain contact with human life, its ideals and its follies. The complete detachment of the philosopher is a necessary attitude in any architectural training, but the approaches to present-day architecture seem to the student to lead through a maze of human foibles, and the directions are uncharted. The translation of the architect's ideas into building necessitates a large amount of process work and intimate dealings with a huge and highly specialised industry. Either directly or indirectly through his partner or surveyor, the architect is ultimately compelled to realise what is commonly termed the "practical side" of his work. That there are ideal partnerships amongst architects is certain, and, speaking generally, architects contrive in various ways to satisfy their clients that their work is being conducted on sound business lines.

We are convinced that the architectural profession should take the lead in many matters relating to the problems incidental to all building work, and it has been suggested that this work should be done by a permanent board acting in a judicial capacity for and in the interests of the whole profession. Administrative work is distasteful to many architects and, it is argued, they would be glad to have the backing of a "sleeping partner." There are many things to be done and they cannot be relegated to the spare time of busy men who, as it is, sacrifice much of their valuable time on behalf of their profession. We are aware that the conception of an architect which many people hold may be merely the limitations of popular thought, but it is none the less a danger. The work which is lost to architects is, we believe, so much loss to the community. No sacrifice of principle is involved by broadening the conception and scope of architecture, and we bear in mind all the perfections which John Shute considered were essential for the "Perfecte Architecte."

If our point of view seems to be one-sided, we would ask anyone to take a tour through the country and see the new houses and bungalows which are being built. We should be surprised if he did not, despite the many excellent designs which have been provided, consider the standard of design to be uncommonly low on the whole, notwithstanding the time and attention which has been devoted recently to the design of small houses and bungalows. Many of these new erections are situated in delightful parts of the country, and to say the least they are not happy. With larger gardens than we have been accustomed to see in the past, they provoke the reflection of a correspondent that "until powers are obtained to protect us, we would almost prefer to have the houses huddled together again to leave us so much more of the countryside undesecrated." It is certain that the great majority of them are not the work of architects, and it would be idle to pretend that this omission is one of the results of the high cost of building. His economic value to the speculative builder in pre-war days was never seriously entertained, and the unfortunate fact remains that any architectural student could vastly improve the plans and probably reduce the cost considerably. Protests and grumbling will not help matters, and the creation of informed public opinion is too slow a process. The only remedy seems to be to press for protective clauses, and the impetus must come from the architectural profession.

We have roughly outlined some weaknesses and the penalties which the architectural profession and the public are paying. The registration of architects would solve some of the difficulties, but even then, in fairness to the public, it must be safeguarded by an administrative body which would understand every aspect of our practical needs. Meantime, the problems are with us, and if there is a feeling that architects must continue as in the past there is nothing more to be said.

NOTES.

War Memorial Design.

That the design of our war memorials is the choice of the typical Englishman we very much doubt, and in this respect we venture to think may be found a flaw in the argument of Mr. Paul Waterhouse, in the *Observer*, where he rather takes for granted that our war memorial designs represent the typical English taste and character. The way in which war memorials are obtained and designed leaves this much in doubt. No doubt the picture is preferred to the convention and picturesqueness is more appreciated than decorativeness by the average person; but the influences which are brought to bear in the choice of a war memorial design surely do not represent the choice of the average man. Between the naturalistic figure of Nurse Cavell and the purely decorative form of the Cenotaph, there is a world of difference, but whilst we may share the doubts of Mr. Waterhouse as to the mixture of the natural and the conventional in the Nurse Cavell memorial, we must admit the chance it provides to catch the public appreciation in two ways. Sir George Frampton has done some fine work in that memorial, though we think it suffers from over-statement, and in that respect by comparison with the fine reserve in the Cenotaph. Do any of our war memorials really reflect the special temperament of the average Englishman? It will probably be a long time before we improve on the Crimean War Memorial in Waterloo-place. The question arises whether we get the art we deserve or even the art we desire. Obviously, we get the laws we deserve if our electoral arrangements have any value.



The R.A.F. Memorial, Victoria Embankment.

Sir Reginald Blomfield, R.A., Architect; Mr. Reid Dick, Sculptor.

[Situated on the Victoria Embankment, midway between Westminster and Charing Cross Bridges, the Royal Air Force Memorial was unveiled on Monday by the Prince of Wales. Sir Reginald Blomfield, R.A., F.R.I.B.A., was the architect, and Mr. Reid Dick the sculptor. The lofty pylon of Portland stone is surmounted by a great bronze eagle weighing just over four tons. The eagle was cast by Mr. E. J. Parlanti, The Art Bronze Foundry, West Kensington.]

The Piccadilly Fountain

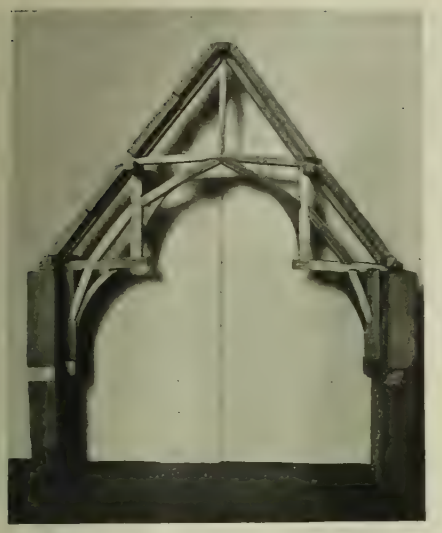
Whether Alfred Gilbert's fine fountain at Piccadilly Circus is the most suitable design for such a site or not, it is surely desirable to make the best of it, and this will not be done by cutting down the island space on which it stands, as is now proposed. If it were elevated some five feet more above its surroundings and had a good setting of terrace and steps the effect would be greatly enhanced; for it has a definite quality of dignity underlying its elaborate detail. Had there been found an adequate site where the sculptor's original idea could have been fully realised this fountain would have been a beautiful sight, with its water display crowned by a central jet of water holding aloft a ball of crystal glass. During the recent weather a good fountain display blown freely over the surrounding pavement might have been welcomed, and even the flower girls might have cheerfully sat in the wet.

The Birmingham Civic Society.

Our municipalities are so continually increasing their responsibilities and duties that we cannot wonder there should be a call for outside effort to deal with the amenities of town life. One of the most successful of these is the Birmingham Civic Society, the report of which, for the last year ending in June, being now before us. We have had the pleasure of commenting on the work of the Society for five years past, and now have to note the completion of the first year's existence of the Birmingham Advisory Art Committee. It is a happy augury for the future that this Committee and the Society appear to have the full sympathy of the City Corporation, whose generous spirit of co-operation is fittingly acknowledged in this report. The gold medal for 1923 was awarded to Mr. W. H. Bidlake, M.A., F.R.I.B.A., as a mark of high appreciation of his services to art. For nearly thirty years Mr. Bidlake has exercised a growing influence upon the architecture of the city, not only by the buildings that have been erected to his design, but even more by the inspiration of his teaching, and by the generous encouragement and guidance which he has given without stint to the younger generation of architects.

A Civic Garden Dell.

Amongst the latest activities of the Society is the Dell in the Muntz Park, which was opened on June 27, and we give illustrations on pages 88 and 89. The Dell has been transformed, whilst preserving its natural charm, into a delightful open-air amphitheatre. In the centre is a paved dancing area surrounding a large flower-bed. Above the grass-



Model of Westminster Hall. (*See page* 87).
Fig. 1. All main timbers represented by loose blocks.

covered lower slopes are a footpath and two rows of seats extending more than half round the circle; beyond these seats is a broad gravel path, and behind this the steep banks of the Dell planted with shrubs. All round the Dell are fine, wide-spreading trees. Facing the middle of the amphitheatre is a raised paved platform, and in front of this there is provision made for erecting a maypole. The platform has a superb setting of trees, and in the background there is another dais, with six steps leading to it, which can be utilised as a bandstand. Altogether, the Muntz Park Dell, when it is completed, will have a most charming sylvan setting, and its natural beauty will be enhanced a hundredfold by the changes which have been so cleverly wrought.

Westminster Hall.

The repairs which have been carried out to Westminster Hall roof afforded opportunities for the minute study of the old structure. Every detail of interest has been recorded in the measured drawings and sketches preserved by H.M. Office of Works. A beautiful wall arcade which formed part of the original Norman Hall was traced in the east and west side walls of the building as described in an article by Mr. William Harvey, illustrated by drawings lent by H.M. Office of Works, which appeared in our issue of January 5 last. Other articles dealing with the great size of the timbers and the problem of searching for and selecting them, and the possible genesis of the design of the "new" roof of Richard II's time by adaptation from the pattern of the Norman roof which had preceded it, appeared in our issue of September 23, 1921. Mr. Harvey's analysis of the compressive and balancing functions of the roof-timbers by means of a collapsible model composed of loose oak blocks was first published in our issue of October 7, 1921. This original design illustrated the practices of mediæval structural mechanics so clearly that we give photographs of the model on this and other pages. The Hall was reopened by the King, who was accompanied by the Queen, on Tuesday.

Sir Joshua Reynolds.

There is something very agreeable in commemorating our great progenitors in the fine arts, and the present bicentenary tribute to Sir Joshua Reynolds serves to remind us of the great contribution which our own countrymen have made to the arts; and the triumphs of the English School should encourage a greater esteem for our own traditions. For it is not only as a painter but as a man that we acknowledge the gifts of both Reynolds and Gainsborough, and though it is a fashion with some critics to place their art in unfavourable comparison with such artists as Franz Hals or Velasquez, we regard such criticism as mistaken—for the former of these two artists, bold and swashbuckling as is his art, is far less comprehensive in his scope and resources in that his technique assails us with an over-assertive emphasis. Acrobatic rather than poetic in its attributes, his treatment is less concealed by art. It is no Little Englandism which admonishes us at this time to build on our own native tradition, the example of which is so salutary and sufficient, developing our own characteristics rather than shaping our art by Continental examples. We have a pure fount of painting undefiled in the art of the eighteenth century from which to draw example, one which, as we study it, reveals to us the high dignity and self-esteem of the men of that time, and the "steady self-centred course" with which they pursued their vocation.

The Artist's Security.

Mr. Charles Ricketts, himself an admirable painter, points out in a contemporary, in writing of Sir Joshua, how "the jealous guarding of the privacy of his working hours has caused irritation among sundry critics"—and in doing so touches on a matter which is of importance to our own time. It is very much to be doubted, for architect or painter, whether the dividing up of their time by all sorts of distractions, under the guise of committees, meetings and artistic propaganda, is at all good for their art—and that the constant calls of too many public occasions act very detrimentally on their activity. As the writer says, in speaking of Reynolds, "To his friends—the elite of his generation—he was the great Sir Joshua, to some lesser contemporaries he seemed too impassive—too aloof." This is a charge often brought against the few whose modesty governs the close adherence to their working hours. And the danger of this over diffusion of activity in the craftsman is very apparent now, when he is called from the proper conduct of his work in so many ways. If the demands which his art makes upon him leave him suspect of exclusiveness by his lesser contemporaries, as too much aloof, he may take heart from the example of such men as Sir Joshua. It is most desirable that an artist should detach himself from so much machinery, and he will do so when he believes more in art. For it cannot be of advantage if, as the result of so much organisation for art, art itself should suffer, yet such is the case. We write this in no way to underestimate those public claims on his citizenship that an artist must acknowledge no less than others, nor do we, in deprecating entangling claims on his activity; but he cannot be in Paris and Rome at the same time, and should therefore respect the need of that privacy, that withdrawness, which is the only soil in which his great vocation can grow. We hear much in these days from those who are not directly artists about "sustaining high standards," but if they are to be sustained in art it is the artist who must sustain them, and they are best sustained by undivided devotion to his work.



The R.A.F. Memorial.

GENERAL NEWS.

Professional Announcements.

Mr. Martin Briggs, F.R.I.B.A., having been appointed one of H.M. Inspectors of Technical Schools, has resigned his lectureship at University College, London, and is retiring from private practice. From July 20 his address will be 9, Winterstoke-gardens, Mill Hill, N.W.7.

Mr. Harold A. Rolls, architect and surveyor, has commenced practice at 31, High-street, Leighton Buzzard, and will be pleased to receive catalogues, &c.

Mr. J. T. R. Wildman, F.S.I., quantity surveyor, has removed to offices at Triumph House, 189, Regent-street, W.1.

Since his demobilisation in 1919, Mr. Lewis John, of Llantrithyd, near Cowbridge, who has been studying architecture at Liverpool, has obtained the diploma A.R.I.B.A., and this year the degree of Bachelor of Architecture, with first-class honours. Also a prize for the best set of constructional drawings.

The Price of Bricks.

It is reported that an offer from a Belgian firm to supply bricks for about 50s. a 1,000 was made to the Parks Committee of Folkestone Town Council. The committee recommended that if the sample of the Belgian bricks should prove satisfactory these bricks should be purchased, subject to the approval of the Ministry of Health.

"Concrete Roads" to be Broadcasted.

On July 21, at 10 p.m., during the "Men's Hour," Mr. David Weston, Managing Director of the Walker-Weston Company, Ltd., will speak on "Concrete Roads" at the London Station of the British Broadcasting Company. The remarks will be delivered simultaneously from all provincial stations of the British Broadcasting Company.

Tilemaker's Estate.

Alderman John Wilcox Edge, J.P., of Woburn Sands, Bucks., formerly of Albert-terrace, Wolstanton, Staffs., Alderman of the Staffordshire County Council and twice Mayor of Burslem, formerly partner of Messrs. Cork, Edge & Malkin, tile makers, who died aged 80, left gross estate of the value of £10,715, with net personalty £10,254. He gave £500 to the Staffordshire County Council for a fund for acquiring portraits of members.

Royal Tour in Scotland.

During their visit to Scotland the King and Queen have visited Melrose Abbey (illustrated in *The Builder* of June 15 last) and other historic places. Their Majesties were attended during the inspection of the Abbey by Mr. Hew Dalrymple, who was in charge of the whole day's tour, by Mr. C. R. Peers, the inspector-general of ancient monuments, and by Mr. J. Wilson Paterson, the architect in charge.

Public Works, Roads and Transport Exhibition.

The Public Works, Roads and Transport Congress and Exhibition, to be held at the Royal Agricultural Hall, Islington, N., from November 22 to 29, will be attended by a large number of official representatives from all parts of the country. The number of exhibitors already exceeds that of previous Roads and Transport Exhibitions. Firms still desirous of participating should at once write the Managers at 13, Victoria-street, S.W.1.

Swansea's Housing Schemes.

The Borough Treasurer's announcement of the saving of £21,900 by the Corporation on their first two housing schemes, viz., 150 houses in the first and 110 in the second, gave great satisfaction to Swansea Housing Committee. The only tender received for the erection of 21 houses at Fforestfach, amounting to £9,941, was accepted. The chairman (Ald. Molyneux) remarked on the apathy shown by the builders, which, he considered, would hamper their endeavours to catch up the housing shortage.

Paris Exhibition in 1925.

It is stated that the plans for the great international exhibition to take place in Paris in 1925—l'Exposition des Arts Décoratifs—are now rapidly being completed. The exhibition will occupy a large area on both sides of the Seine, including the Esplanade and Place des Invalides, the Champ de Mars, the Petit Palais, and part of the Champs Elysées. The areas on either side of the river will be connected by the Alexander III, the Concorde, and Iena bridges, which the Paris Municipal Council have decided to close entirely to ordinary traffic from a date in the near future until the close of the exhibition and the restoration of the site.

Prices in Germany.

The maximum price in Germany for cement as from July 1 has been fixed at 8,300,000 marks per 10,000 kg., excluding freight and packing.

The average price for pig-iron manufactured with German and English fuel is 3,964,000 marks. The price difference between hematite, foundry pig-iron I and III, and foundry pig-iron Luxemburg quality, remains the same.

COMPETITION NEWS.

Hull.

For the Corporation.—Designs for the erection of a cenotaph in Paragon-square. Sending-in date July 31. Conditions from the Town Clerk on receipt of a cheque for one guinea. The estimated cost of the work is £4,000, and premiums of £150, £75, and £50 are offered for the designs placed first, second and third respectively. The assessor is Mr. Stanley Hamp, F.R.I.B.A., whose decision will be final.

Mint Competition for Artists.

The Royal Mint proposes to strike and to place on sale at the British Empire Exhibition, 1924, a series of plaquettes in bronze illustrative of London as the capital city of the Empire, or of one or more of her main architectural features. It is proposed to hold an open competition for suitable designs, which should be submitted in the form of models in plaster, and which will be adjudicated upon by the Mint Advisory Committee on Coins, Medals, and Seals.

The following prizes are offered for the successful models:—One prize of 100 guineas, two prizes of 50 guineas, three prizes of 25 guineas.

The plaquettes, when finished, may be of any shape or size, not exceeding 3 in. square, that the artist may choose, and must show designs on one side only. The plaster models should be twice as large as the intended plaquette. Sending-in day, September 30. Further particulars from the Deputy Master of the Royal Mint.

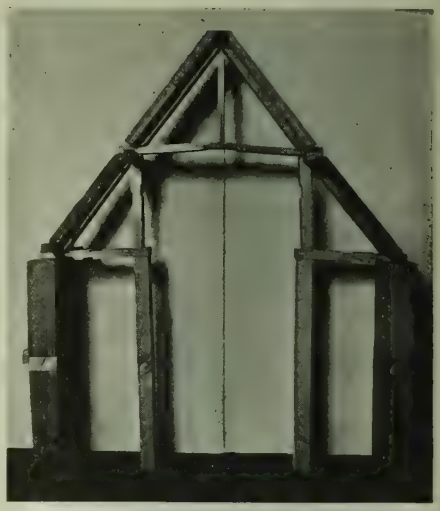


Fig. 5.—Model of Westminster Hall: Conjectural Norman Roof.

Halifax.

For the Corporation.—Plans and reports for lay-out of Bull Green site and part of centre of the town adjoining. Premium, £50. Sending-in day, October 1. (See advertisement this week.)

Westcliff-on-Sea Crowstone Congregational Church.

In the competition for a church, to cost about £20,000, twelve designs were submitted, and the award of the assessor, Mr. Arthur Keen, F.R.I.B.A., was as follows: First (premium, £100), George Baines & Son, F.R.I.B.A., F.S.Arc., London; second (premium, £52 10s.), J. H. Sellers, Manchester.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Singapore College (Jan. 1, 1924; March 30). Greenwich Baths (Aug. 25; May 4). Hull Art Gallery (Nov. 5; May 4). Mint competition for plaques (Sept. 30; May 25). Birmingham Masonic Temple (Sept. 12; June 22). Hull Cenotaph (June 22). Colour scheme (Sept. 30; June 29). Glasgow Pavilion (June 22): Warrington Church (Aug. 8).

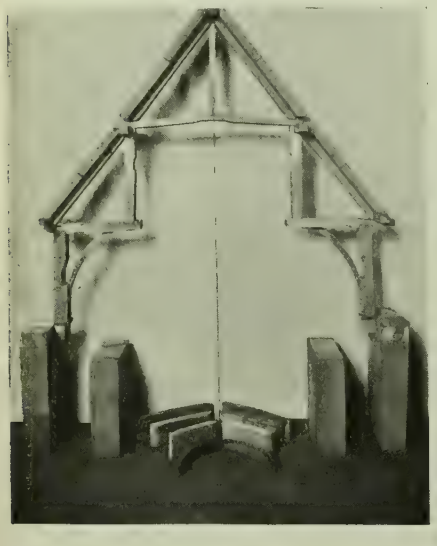


Fig. 3.—Model of Westminster Hall: Showing structural value of curved struts.

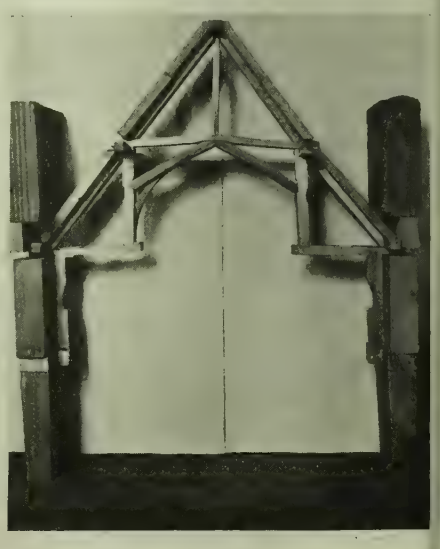


Fig. 4.—Model of Westminster Hall: Without arch rib and struts.

WESTMINSTER HALL ROOF.

By WILLIAM HARVEY.

The completion of the admirable works of repair by which the roof of Westminster Hall has been preserved, after it had been brought to the verge of collapse by the attacks of the death watch beetle, gives occasion for the recapitulation of the results of an inquiry into its structural principles, undertaken at a time when the works in progress in the hall laid open many details of its construction that had been previously unknown or unconsidered.

The views here expressed have, of course, no official authority, and H.M. Office of Works is not in any way pledged to acknowledge them. The investigation was, however, greatly facilitated by the opportunities for research granted to me by the Historical Buildings Branch.

The analysis of stresses in a structure so deficient in tensile connection as the roof principal of Westminster Hall is liable to lead to inconclusive and contradictory results, when studied in the ordinary way by means of statical diagrams and figures.

Definite results can be arrived at in this way, but, as pointed out by the Blue Book containing the famous report on the condition of the hall in 1913, the results of calculation do not agree in some important respects with the actual behaviour of the timbers themselves. The idea presented itself of applying to the examination of an English mediæval structure the laws of mediæval building science I had learned in Bethlehem and Hebron, where the masons in 1909 were still erecting vaults and domes with a conscious employment of expedients long since fallen into disuse in England. The exact statement of stresses was not aimed at, but it was hoped to arrive at some comprehension of the main lines of the design and the functions of the timbers as they may have presented themselves to the mind of their designer.

In such a case it seemed better to be content to be somewhat indefinite as to the number of tons per foot, and to maintain an agreement between the explanation and the facts explained, rather than to be demonstrably right in the details of a calculation which, somehow, failed to apply to the actual condition of the roof. The problem resolved itself into the question : "What did the master carpenter mean by his magnificent design ?" and its investigation was carried out by means of a series of models composed of loose wooden blocks.

The thought of balancing three-ton baulks of oak high up in air above the floor of the hall is so foreign to our modern methods of structure that it is interesting to see that such a balancing feat is practicable in miniature, and is, therefore, conceivably possible on a large scale. The photographs here reproduced were taken from one of the last models made, in which the dimensions of the blocks were proportioned fairly in relation to the design of the great timbers, and should prove of use in illustration of the structural significance of the main timbers of the roof in accordance with the practices of the Gothic science of construction with arch and buttress, corbel and pinnacle.

The model acknowledges, however, the carpenter's tradition also, which shows itself in the use of internal ashlar timbers instead of external pinnacles for the modification of outward thrust. The ornamental tracery which exists in the actual roof is not shown in the model, since it can hardly have been intended to play the important part assigned to it by the decay and distortion in other parts of the roof. Prior to the newly completed repairs the tracery bars were probably called upon to support and to connect timbers whose proper joints and bearings had been eaten away by the larvæ of xestobium tessellatum, or left in a precarious condition by slovenly attempts at patching up with fragmentary wedges and billets.

The tracery was no idle ornament and must have been looked upon by the designer as an additional safeguard in giving some slight additional strength to his mighty pile of balanced baulks.

Fig. 1 shows the model with all its blocks representing roof timbers in position. The junctions of the blocks are arranged to rest loosely in notches from which they are free to fall on the balance of the structure being disturbed but into which they push and lock themselves, while the model is complete, by their own weight and the pressure received from the upper timbers. The model was built up with the assistance of temporary supports, which were removed before the photograph was taken.

The state of balance is such that the outward thrust on the blocks representing the walls can be distinctly felt in handling the model. All the timbers contribute to the stability of the whole but are not all stressed to the same degree. The upper curved struts are the most readily dislodged and in this respect agree with what seems to have been the designer's forethought, for their counterparts in Westminster Hall have their upper extremities pegged into position with five or six treenails, whereas great timbers like the hammer post and collar beam are only provided with one. This liberality in the matter of treenails might be read as an indication of tensile function on the part of the upper curved strut were it not for the fact that only two treenails connect its lower extremity with the hammer post. The behaviour of the model makes it clear that they were pegged in securely because it was feared that they would not receive enough of the load to keep them always fast fixed by mere compression.

Fig. 2 shows the same arrangement of roof timbers, but the upper wall blocks have been removed. The balance of the whole is distinctly more precarious than before since the upper part of the walls acted as pinnacles to the thrust applied to the corbels by the heels of the wall posts. The precision with which the line of pressure is applied to the wall at its safe inner edge should be observed in this photograph. The corbels are represented by separate loose blocks, but are held in position by the oblique pressures from the wall posts. The behaviour in this respect agrees with that of the actual work where a stone corbel, broken off at the wall face by the partial collapse of the roof, was held pinned against the wall by the oblique pressure. Fig. 3 shows the model from which the timbers representing the great arch rib have been removed. The compressive bracket function of the lower curved strut is faithfully indicated in this state of the model. The great pressure and weight due to the large scale of the actual roof would have made it impracticable to omit the great arch at Westminster Hall, though roofs of smaller span were afterwards built very much in the pattern of Fig. 3. The balance of the model is, however, precarious and additional struts would be required to stiffen the structure.

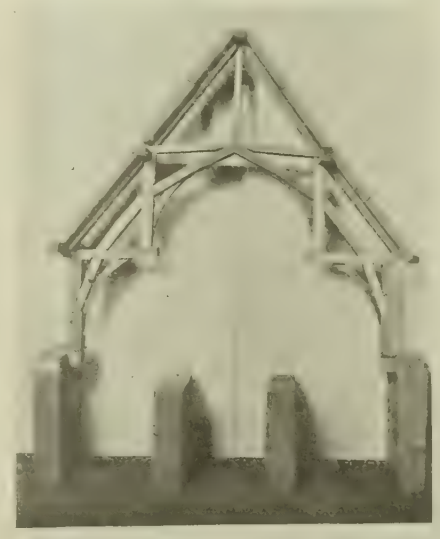


Fig. 2.—Model of Westminster Hall, showing delicate balance of timbers.

Fig. 4 shows the model denuded of both the lower curved strut and the lower part of the great arch rib. The roof pressures are now applied at a far more dangerous point, at the wall head. Not only have the blocks representing the upper part of the walls been reinstated, but a great deal of extra top weight has been required to make the model stand. Even so, the structure is firmer than it would be without the hammer posts, for when built up without them external buttresses had to be added to assist the top weight shown in Fig. 4 to withstand the outward pressure.

The compressive and balancing functions of the timbers are confessed in the actual roof by the drooping state of the hammer beams and by a curious detail of which traces exist in the wall ends of the hammer beams. These appear to have been loaded formerly by a great pole plate and cornice, which carried the lower ends of the common rafters and their ashlar timbers. The mortises for the pole-plate and cornice remain in the hammer beam, but the cornice itself must have become defective and been removed at a comparatively early date. The pole plate was converted into a wall plate by Sir Charles Barry, who severed its connection with the decaying ends of the hammer beams in order to place in position cast-iron shoes which formed part of a scheme for introducing tie bars into the roof when he removed the old buttresses from the east wall of the hall. The remainder of each length of plate he packed up and supported from the wall top, where it could no longer exercise its functions of balance weight to the hammer beam.

Following upon this subtraction of useful weight and application of futile tension, the inherent tendency of the hammer beams to droop developed to an extraordinary extent, and their wall ends were lifted clear off their bearings upon the wall top and upon the head of the wall post. The great arch rib and the lower curved strut received all the weight and became very obviously distorted in consequence.

Fig. 5 is a photograph of the same model adapted to illustrate the probable design of the Norman roof of the hall, removed to make room for the present roof of Richard II. The pattern is similar to that of a Norman roof at Leicester Castle Hall, and by comparing Figs. 1 & 5 it is easy to see how a designer of the Perpendicular period could read into the old roof (Fig. 5) the opportunity to replace its mighty posts with a great arch rib.

This proceeding would, of course, revolutionise the whole design from a structural point of view, and convert it from a very simple post and beam construction into a wonderful and highly complex composite arch calculated to direct its own line of thrust in a manner scarcely less economical than if designed upon true catenary principles. The tradition resulting from three hundred years' experiment in arch building permitted the designer to recognise in the upper parts of the main Norman posts the prototypes of the great hammer posts which he has perched high above the floor of the hall in such a manner as to correct, by means of their weight and the load applied to them by the purlin and collar, the kick of the principal rafters and of his newly-introduced arch-rib.

Then, to demonstrate his complete mastery of his problem, with a flash of wit that would be apparent to all who knew the pattern of the ancient roof, he carved the ends of the hammer beams below the posts into the forms of flying angels seemingly unconscious of the gigantic burdens upon their backs.

Auctioneers' and Estate Agents' Institute.

The annual provincial meeting of the Institute will be held at Bristol, from July 25 to 28, the headquarters being the Royal Hotel, College Green. An interesting programme has been arranged.

CORRESPONDENCE.

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

The Jury System in Architectural Competitions.

Sir,—We have read with interest the article by Mr. Robertson in your last issue, in which he advocates the appointment of a jury in preference to a single assessor. We should like to point out that this is the general practice on the Continent and in America, and that its adoption has long been recommended by the Competitions Committee of the R.I.B.A.

As members of the Beaux Arts Jury we have had considerable experience in the adjudication of competitions, and we have usually found that individual opinions as to the relative merits of designs have been materially modified after discussion between the members of the jury. No one is exempt from personal preferences and prejudices, and, in fairness to competitors, it is essential that every possible measure should be taken to eliminate these.

The general employment of a jury facilitates the introduction of new blood into the ranks of the assessors, as younger men who have distinguished themselves can be included without risking failure through inexperience, and in time the art of judging designs, which is still rather inchoate in this country, could be brought to the point that it has reached abroad, where the importance of a clear and logical appreciation of artistic values is better understood.

Arthur J. Davis.
H. V. Lanchester.

Sir,—The best way to secure a good building, which requires that the best architect should be employed in building it, is not at all easy of solution. I doubt whether public competitions as at present undertaken secure the best for us, though one looks in vain for any more certain way, and the present discussion of the subject reveals the inevitable uncertainty where the arts no longer move united by tradition. Tradition having been broken, its directing force no longer unconsciously guiding us, we suffer from the over emphasis of personality, or an eclecticism too diffused to determine anything. In such circumstances we do the best we can, but the best is not perhaps possible under such conditions.

More than one of our best modern buildings has been the privately directed choice of the donor who paid for it; in other cases a competition has achieved an equally good result. But results are uncertain and the assessor is a poor substitute for a healthier national endowment. It is when we are sick that we require so much nursing. Where one assessor only is appointed to judge perhaps a hundred designs—some better and some worse—he places upon himself a responsibility which, unaided, he were wiser to decline, and the jury system seems a better method.

Mr. Howard Robertson suggests that, in any case, such services are better given than paid for, and architects who, by reason of their reputation, are called upon for such work might well forgo their fees in the case of a public service which they may be expected to afford to give. In appointing a jury it is desirable that it should not be composed only of architects, in order to secure detachment and freshness of view, and to give breadth to professional prepossessions. The assessors or juries need to include more of the younger men, who are doing some of the best architectural work at the present time, and perhaps have other aims in life than personal ambition and the publicity it includes.

Isis.

Sir,—Mr. Howard Robertson's letter on the present system of judging competitions will, I feel sure, evoke sympathy from all ranks of the profession. In the interests of architecture it is essential that the old order should change in favour of conditions more suited to the enlarged and, I submit, most enlightened views now current. The competition system, which I have reason to believe had its inception in the late eighteenth century, when Thomas Cooley was awarded the prize for the City Hall, Dublin, has since recorded a century and a half of tears and wailings. There was trouble over the building of Blackfriars Bridge, more trouble when London Bridge was projected; delay and vexation over the rebuilding of the Royal Exchange in the forties, tribulation over Street's Law Courts, and recrimination over the awards of nearly all single assessed competitions from the late seventies until the present moment. There have, of course, been exceptions. Such successful buildings as St. George's Hall, Liverpool, Leeds Town Hall, and the new Cathedral at Liverpool can each be cited as instances of the value of autocratic judging. But the reverse of the medal also has its lessons. When one thinks of the time and energy required to prepare a well thought-out design, it is a tribute to the perseverance of young architects that they are content to engage upon such gambles, for under present conditions this strong term aptly states the nature of the average competition.

The jury system, I am glad to say, has of recent years been slowly but surely creeping into favour; so far it has been limited to questions of housing and town development. The selection of an assessor for competitions of a public nature has, hitherto, been guided by the rarest discrimination and tact, but the responsibility is too great for one man, however well qualified he may be as an architect, to master every particular essential to the exact realisation of a complicated set of conditions. Under the guidance of single assessorship there is, *à fortiori*, a tendency for competitors to make a study, not of the work before them, but of the whims and idiosyncrasies of the assessor. Hence the strong family likeness that exists between the work selected for first place and the peculiar detail, mannerisms and oddities of the acting assessor, who influences in a subconscious way the work of the competitors in the initial stages. The jury system does not mean more than a slight readjustment of the excellent machinery at the disposal of the Royal Institute. Three assessors at least should be nominated by the President for all works of the first magnitude, and these gentlemen should have power to co-opt others, such as an engineer or a sculptor, should need arise. The fees now in operation for assessors would need revision, but the scale could be proportioned to suit the promoters. It is clear that three assessors would have less work to do than is the case when a single individual undertakes the responsibility. The arrangement of a competition entails more than drawing up the conditions or judging sets of drawings. In the first place it demands an envisioning of the building as a completed entity, not from one, but from many points of view. It calls for an exact knowledge of the subject, some acquaintance with current events and social conditions, and an inside knowledge of the type of men likely to enter the lists. As Mr. Robertson states, competition under the jury system would give more attention to preparing a good design than to studying the personality of the eminent assessor before whom, under present conditions, their drawings would be reviewed. How and when the revised system can be introduced must be left to the President and Council of the Royal Institute. That the change must be brought about in the near future is a pressing need which admits of little argument to the contrary.

A. E. Richardson.

University College, London.

[*** Other letters on the subject are held over until next week. For other correspondence see p. 98.—Ed.]



Muntz Park Recreation Centre, Birmingham. (*See p.* 84.)

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

The following are notes from the Minutes of the R.I.B.A. Council meeting on June 25 :—

The British Institute of Industrial Art.—It was decided to support the Exhibition which is being arranged by the British Institute of Industrial Art at the Victoria and Albert Museum in September and October next. The Exhibition is to consist of Churchyard Monuments and other Architectural Exhibits. Architects who wish to exhibit appropriate examples of work within the scope of this Exhibition are recommended to communicate with Major A. A. Longden, D.S.O., Director of the British Institute of Industrial Art, 16, Grosvenor-gardens, S.W.1, from whom particulars may be obtained.

Singapore Society of Architects.—The Council approved the application of the Singapore Society of Architects for admission to alliance with the R.I.B.A.

Reading Corporation By-Laws.—It was decided, at the request of the Berks, Bucks and Oxon Architectural Association, to support the Corporation of Reading in their efforts to obtain the sanction of the Ministry of Health for a provision relating to footings in their new by-laws similar to that in the London Building Act.

Retired Fellowship.—Mr. Albert E. Murray (F) was transferred to the list of Retired Fellows.

Reinstatement.—Mr. J. Coughey Walker was reinstated as a Licentiate.

Visit to Ocean Liner.

Through the courtesy of the Cunard Steamship Company and of the U.S. Shipping Board, a party of leading members of the Royal Institute of British Architects paid a visit on July 6 to the *Aquitania* and the *Leviathan*, now lying at Southampton. Mr. Arthur Davis, F.R.I.B.A., the architect, who was responsible for the internal planning and decoration of the *Aquitania*, conducted the party and explained the methods employed in dealing with these colossal vessels.

London Building Acts.

The Committee appointed by the Council of the R.I.B.A. in July, 1922, to consider the reform of the London Building Acts have submitted to the Council an Interim Report covering the work done by the Committee up to the end of the Session. This Report, which deals with a great variety of points of the utmost importance to architects and building owners in London, will be considered by the Council at their meeting on July 23. Mr. C. A. Daubney, the Hon. Secretary of the Committee, has been invited to attend the meeting for the purpose of assisting the Council.

Board of Architectural Education.

Attention is drawn to the fact that designs prepared at recognised Schools submitted for approval by candidates for admission to the R.I.B.A. final examination in lieu of the same number of R.I.B.A. problems in design must in all cases contain the name of the School, and be countersigned by the master of the School.

Mr. Paul Waterhouse.

Members of the Councils over which Mr. Paul Waterhouse presided and of the Board of Architectural Education during his Chairmanship of that body, and Presidents of Allied Societies during the years 1921–1923 have united to present him with a signed address in recognition of his services as President. The address will be presented to him by the President (Mr. J. Alfred Gotch), on Monday next, at 3.30 p.m., in the Common Room. Members who desire to be present are cordially invited to attend.

Help to British Art.

The Museums Association, at their conference at Hull, adopted a scheme for circulating art exhibitions, which it was declared would be a real help to British art. It was announced that with the assistance of eminent artists a selection of a hundred paintings had been made for the first exhibition.

THE SOCIETY OF ARCHITECTS.

The Study of Modern Architecture in America.

Last autumn the Society of Architects, with the assistance of a generous donation from one of its members, established a scholarship for the study of modern architecture abroad. It is of the value of £300 and was offered this year for the study of modern architecture and methods in the United States of America. The announcement drew from the recent convention of architects in Washington a resolution congratulating the society upon its action. It may therefore be assumed that the holder of the scholarship will be able to pursue his studies in the States under the most favourable conditions with the co-operation of leading American architects. The report of the Jury of Assessors charged with the duty of recommending a suitable candidate for the scholarship has just been confirmed by the Council of the Society, which has awarded the first scholarship to Mr. R. A. Cordingley, of "Glenorchy," Irlam-road, Sale, Cheshire, who was articled to Mr. R. J. McBeath, M.S.A., of Sale, and after four years Army service entered the Manchester University School of Architecture, where he won the R.I.B.A. Henry Jarvis Ex-Service Travelling Studentship in 1920 and 1921, and also the Manchester Institute of Builders' Travelling Scholarship in 1922. He was elected an Associate of the R.I.B.A. the same year, and was successful in winning the Rome Scholarship in Architecture for 1923. The scope and conditions of the Society's scholarship render it not merely of educational value to the holder, but a means of securing, through him, for the profession a serious contribution to the information and original thought available in respect to modern architecture and its development abroad.

High Buildings.

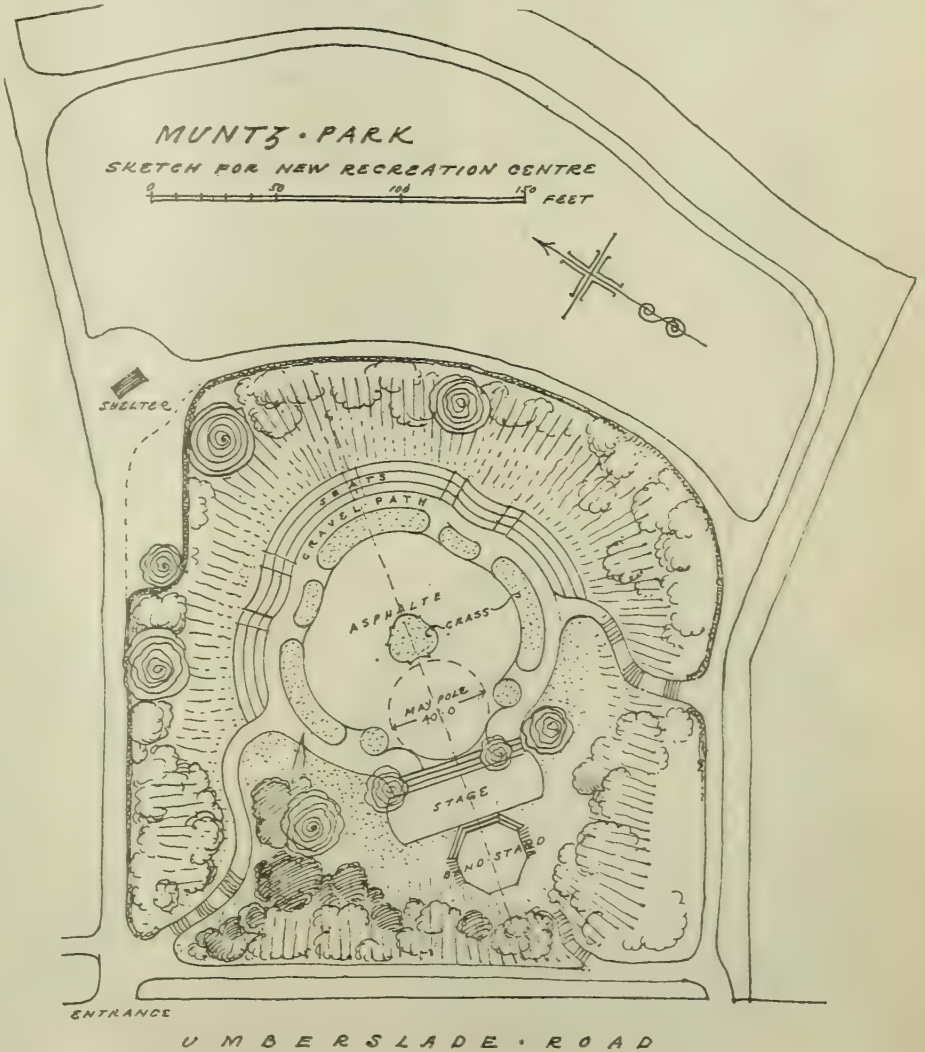
The Trehearne-Norman premium of £15, offered by the Society every three years for an essay on some subject of professional interest, has been awarded this year to Mr. F. R. Jelley, of "Fairview," Cedar-road, Sutton, Surrey, for an essay on "The Influence of High Buildings on Civic Development." The essay will be found to be a useful and suggestive contribution to a subject which is being very widely discussed in professional circles.

Membership Examination.

The following candidates satisfied the examiners in the recent examination to qualify for candidature for membership in the Society of Architects :—

James Ernest Firth, 83, Burton-road, Lincoln; Charles Beresford Marshall, 54, Grey-street, Newcastle-upon-Tyne; Frederick Uriah Jenkins, 18, Cyprus-avenue, Church End, Finchley, N.3; Duncan St. Clair Macphail, 130, Marchmont-road, Edinburgh; Frederick Charles Button, 5, St. Hilda-road, Folkestone.

The majority of the candidates who took the examination were relegated in various subjects, and most of them failed to reach the standard set by the Society in architectural composition and design. It is with a view of supplying a deficiency in the facilities for architectural education in this subject, with which, we are informed, candidates in the smaller towns are faced, that the Society's correspondence course in architectural composition and design is meeting with such support as to call for an extension of its scope and facilities.



Muntz Park Recreation Centre, Birmingham. (*See page* 84.)



Medal by Gerda Qvist.

THE ART OF THE PLAQUETTE:

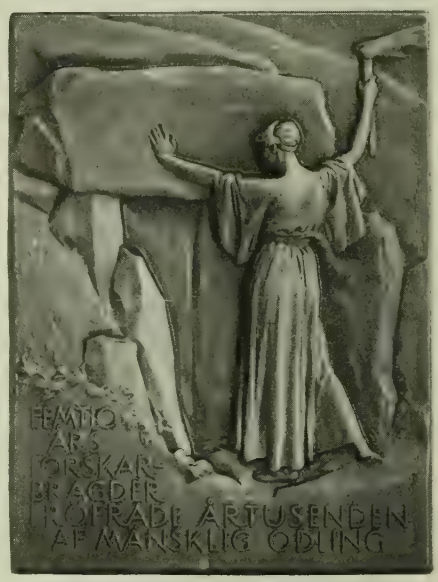
ROYAL MINT COMPETITION.

BY KINETON PARKES.

It has been decided by the Royal Mint to institute, in connection with the British Empire Exhibition next year, a competition in architectural and sculptural design. This is one of the most important steps ever taken in this country in the direction of encouraging practical decorative art. Prizes of 100 guineas, two of 50, and three of 25 form an adequate inducement for artists to enter a competition for works not more than 3 in. square when reproduced, or not more than double that size in the models. Further than this, although the successful models will become the property of the Mint, a moderate royalty will be paid the artists on all plaquettes sold.

The subject of the competition, London, as the capital city of the Empire, is big enough to offer scope to every designer, and to stir his imagination by its richness of suggestion. The material of the models is to be plaster, and the reproduced plaquettes will be in bronze. All particulars may be had on application to the Deputy Master of the Royal Mint, London, E.1, and the models must be sent to the Mint not later than September 30.

The plaquette is not a form of artistic production that has received encouragement in this country, for England, less than most countries, is disinclined to encourage the adoption of permanent popular souvenirs of historic occasions, or medallic memorials of its great men and women. Memorials, medals and plaquettes, on the contrary, are widely popular on the Continent and even in America, where public and ceremonial events receive some measure of universal attention. The art of modelling small things in wax, clay or plasticine is one yet to be developed here, but our designers are ready now that the demand has begun. Architectural decorative designers should be particularly interested in this movement, as the subjects of London, London events, and London buildings, appeal particularly to them; indeed, it might have been originated purely in their interests and favour.



Plaquette, by Eric Lindberg.

To any draughtsman, modelling, whether incised or in relief, is easy; and the technique of the medal and plaquette is soon acquired from the study of the magnificent collections of Renaissance and other works in the museums, and the illustrations of the work of sculptors in little at work at the present time. The main thing is to produce a complete picture in a severely restricted design. In this, a feature for which British craftsmen are well prepared owing to the extensive efforts that have been made in our art schools, that of lettering, is a valuable adjunct to the pictorial effect, and in the past has added very greatly to the charm of some of the most important examples of the medal and plaquette.

In Sweden and Finland, in Spain, Italy and



OBVERSE.



REVERSE.

University of Prague Memorial, by Otokar Spaniel.



Memorial Medal, University of Abo Finland, by Emil Wikstrom.

in Czecho-Slovakia the finest sculptors have produced plaquettes and medals, and have shown that pictorial plastic sculpture can in its way equal the exquisiteness of glyptic gem-work, and rival the art of the ciseleur. Erik Lindberg, of Stockholm, is an example of the true medailleur and plaquette maker. He is the author of the Nobel Prize, the André, North Pole, the Carnegie Foundation medals, as well as many personal ones. Another maker of medals and plaquettes, devoting all her energies to the craft, is Gerda Qvist, whose portrait memorials include several artists and poets of her own and other countries; the Finnish sculptor, John Munsterhjelm, has done the same (including one of Sibelius, the musician), and Emil Wikstrom, the monumental artist of the same nationality, has made, among others, a very fine medal for the University of Abo.

That really great sculptor Bohumil Kafka, of Prague, professor of sculpture there, is the author of a number, one of which, Mr Hanus Karlik, is a very fine portrait medallion. Otakar Spaniel is another Prague sculptor who devotes much of his talent to the craft and has produced, among others, the two fine commemorative medals of the Prague University and National Theatre, which may well serve as examples for any artist essaying the plaquette form for the first time, so fitted are the designs for the purpose. Another form is adopted by Romano Romanelli of Florence, in his modern memorial work. He reduces his things to as simple a statement as possible, although he follows part of the road indicated by the Italian Renaissance designers. An example is his memorial of the Dreadnought "Andrea Doria" (1914). The Catalan metal workers produce good things in the form of repousse plaquettes, but Antoné Parera, one of them, prefers modelling, and his plaquettes have a clean classical character of



Plaquette, by Antoné Parera.

their own, well seen in a memorial to a newly-born child and in an admirable series of Sports plaquettes. In America there is a strong medallic school, including several of the foremost sculptors. At the present moment in New York the National Sculpture Society is holding a representative American Exhibition, and plaques, plaquettes, medals and other reliefs in little form an important section. Many of them are portraits, but many others are pictorial memorials such as Victor Brenner's "Peace." John Flanagan's "City of Verdun" is very suitable for a model for the Mint competition, as is also the work of Emil Fuchs, Edward McCartan, and Otto Schweizer.

The art of the plaquette is being pursued in most countries with vigour, and there is every reason to hope that the fine technique of the British modeller, and the fine sense of design of the British architect, so well fitted for plaquette and medallic work, will find sufficient incentive in this important competition to manifest itself at its highest and prove that it is by no means behind that of other nations.

OBITUARY.

The Late Mr. R. F. Atkinson.

Mr. Cyril A. Farey, A.R.I.B.A., writes in the R.I.B.A. *Journal*:—

On June 15, at Leeds, after an operation for appendicitis, Mr. R. Frank Atkinson, F.R.I.B.A., died at the age of 52. Mr. Atkinson's early training was in Liverpool, and he came under the influence of Norman Shaw. He started practice in London, and his work first became known generally by the new premises which he designed in Oxford-street for Messrs. Waring & Gillow. This was followed by the first portion of Selfridge's Store. From 1908 to 1912 he was engaged upon his principal work, the Adelphi Hotel, Liverpool, of which only two-thirds has yet been completed. To appreciate the scheme fully, the third portion at the rear must be considered. The excellence and delicacy of detail in the Adelphi Hotel obtained for Mr. Atkinson the commission for the interior decoration for the Cunard liner *Transylvania* and Pullman cars for the London Brighton and South Coast Railway. Mr. Atkinson's last important executed work is Magnet House, the premises for the General Electric Company in Kingsway, completed in 1921. . . . . Three days before his death he sent in a design for the Bournemouth Pavilion competition in collaboration with Mr. Charles D. Carus Wilson and Mr. W. Boyd Scott, his former assistants, who will carry on his practice. He leaves a widow and young child and five children by a former marriage.



Gustavus Adolphus Medal, by J. Munsterhjelm.



Gustavus Adolphus Medal, by J. Munsterhjelm.

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ILLUSTRATIONS.

New Offices for the Great Northern Telegraph Co., Ltd.

This building, of which reproductions of the architect's working drawings and a description were published in our issue of February 10th, 1922, is being erected in St. Helen's-place, Bishopsgate, and is nearing completion. Mr. Farey's perspective view is on exhibition at the Royal Academy. The architect is Mr. Henry A. Saul, F.R.I.B.A., and the general contractors are Messrs. John Greenwood, Ltd. Subcontracts are being carried out by the following firms: Constructional steelwork, Messrs. Redpath Brown & Co.; fireproof floors and partitions, Messrs. H. W. Cullum & Co.; asphalte, Messrs. T. Faldo & Co., Ltd.; Portland stone work, The United Stone Firms; carving, Messrs. A. J. & A. T. Bradford; sanitary work, Messrs. Davis, Bennett & Co.; steel casements, The Crittall Manufacturing Co., Ltd.; lifts, The Express Lift Co., Ltd.; heating and ventilating, Messrs. R. Crittall & Co., Ltd.; lift enclosures and iron railings, Crittall Freeman Bronze, Ltd.; electric lighting and power works, Messrs. Girdlestone & Co.; marble work, Messrs. Fenning & Co., Ltd.; wall tiling and terrazzo floors, Messrs. Carter & Co.; jointless flooring, Messrs. H. Burke & Co.; oak block flooring, The Westminster Patent Flooring Co.; rubber carpeting, The North British Rubber Co; linoleum, Messrs. Treloar & Sons; copperlifte glazing, Messrs. Haywards, Ltd.; posting tubes, Messrs. F. Sage & Co.; iron stairs, Messrs. Wilmer & Sons.

University of London School of Architecture.

The designs illustrated are representative of the work now being carried on at this School. The character of the work is of a high standard. The examples given are from the recent exhibition of students' work and are in most cases modern in character. The school is to be congratulated on the works now being produced.

B.A. Examination for Honours, 1923: A University Athletic Centre.

A design was required for a building which would form an important part of the athletic centre of a University, the building to include a large vestibule, a gymnasium, and a swimming-bath. The vestibule would serve not only as a general means of communication, but as a memorial to the donor of the building. By its size and treatment it would form the dominating feature of the athletic centre. The vestibule was to be entered from the playing-fields and from the main approach, and would provide the chief means of access to the swimming-bath and the gymnasium. The gymnasium hall would have a superficial floor area (excluding seating accommodation) of approximately 20,000 sq. ft. Raised seats for spectators to be provided, arranged in such a way that every spectator had a clear view of the floor. The superficial area of the swimming-bath would be approximately the same as that of the gymnasium floor. The water area would be about 5,000–7,000 ft. super. Raised seats to be provided for spectators, who must have, in all cases, a clear view of the swimming pool.

The Lever Prize in Architecture.

For this competition designs were invited for the treatment of the façade of the buildings in the new lay-out for the approach to King's Cross Station, as shown in the winning design in the Lever competition held by the Town-Planning Department. The designs show the façades facing the Euston-road, and a cross section taken on the central axilia line, showing the fore part of the new station (*i.e.*, the concourse) and the new building on the East *or* West side.

Bartlett School of Architecture: Diploma in Architecture, 1923—A Concert Hall.

The concert hall was to be built at a south coast summer resort. The site is level, and is situated at the south side of some public gardens. A wide road runs between the gardens and the sea. The hall is to seat 600; the seating to be without galleries or boxes.

Six Hours' Sketch Design (Fourth Year)—An Island Cafe and Boating Pavilion.

The design is based on the requirements stated:—About 150 ft. from a river bank stands an island of a roughly elliptical shape, measuring approximately 300 by 100 ft. The height of the river bank and summit of the island above high-water mark is 20 ft. The ground on the shore side at this point will be laid out as public gardens, and it is intended to connect the gardens to the island by a bridge. On the island will be built a cafe and two lounges, the former of approximately 8,000 ft. and the latter of 2,500 ft. super each. Necessary service and public lavatory accommodation must be provided. Landing stages for pleasure boats will be built on both the shore side and the island.

Roman Study (Second Year)—Imperial Baths.

The design is based on the following requirements:—A Roman emperor of the first century A.D. has commanded the construction of baths in the gardens of his country palace for the use of himself and friends. The baths will contain one or two entrances, vestibules and dressing-rooms, a cold-water swimming tank (frigidarium) open to the sky, and a large chamber for warm baths (tepidarium), and also a chamber for hot baths (caldarium). Colonnades giving shelter from the sun will form part of the scheme and exedra for rest and conversation may be added if desired. The building will be decorated in a richly imperial manner with marbles, mosaics, paintings, bronzes &c.

A Naval Memorial (Fourth Year).

On a rock just within the entrance to an important harbour, and midway between the shores on either side, will be built a memorial to the men who lost their lives in the Battle of Jutland. The superficial area of the rock is about 4,000 ft. super, at mean tide level. Its form is proportional as 2 to 3, the long axis pointing seaward. Height of top of rock from water at mean tide level is 40 ft. The width of the harbour entrance is about three-quarters of a mile.



University of London School of Architecture.

Lever Prize Competition in Town Planning.

Lay-out, King's Cross: First Prize design, by Mr. H. S. Triscott.

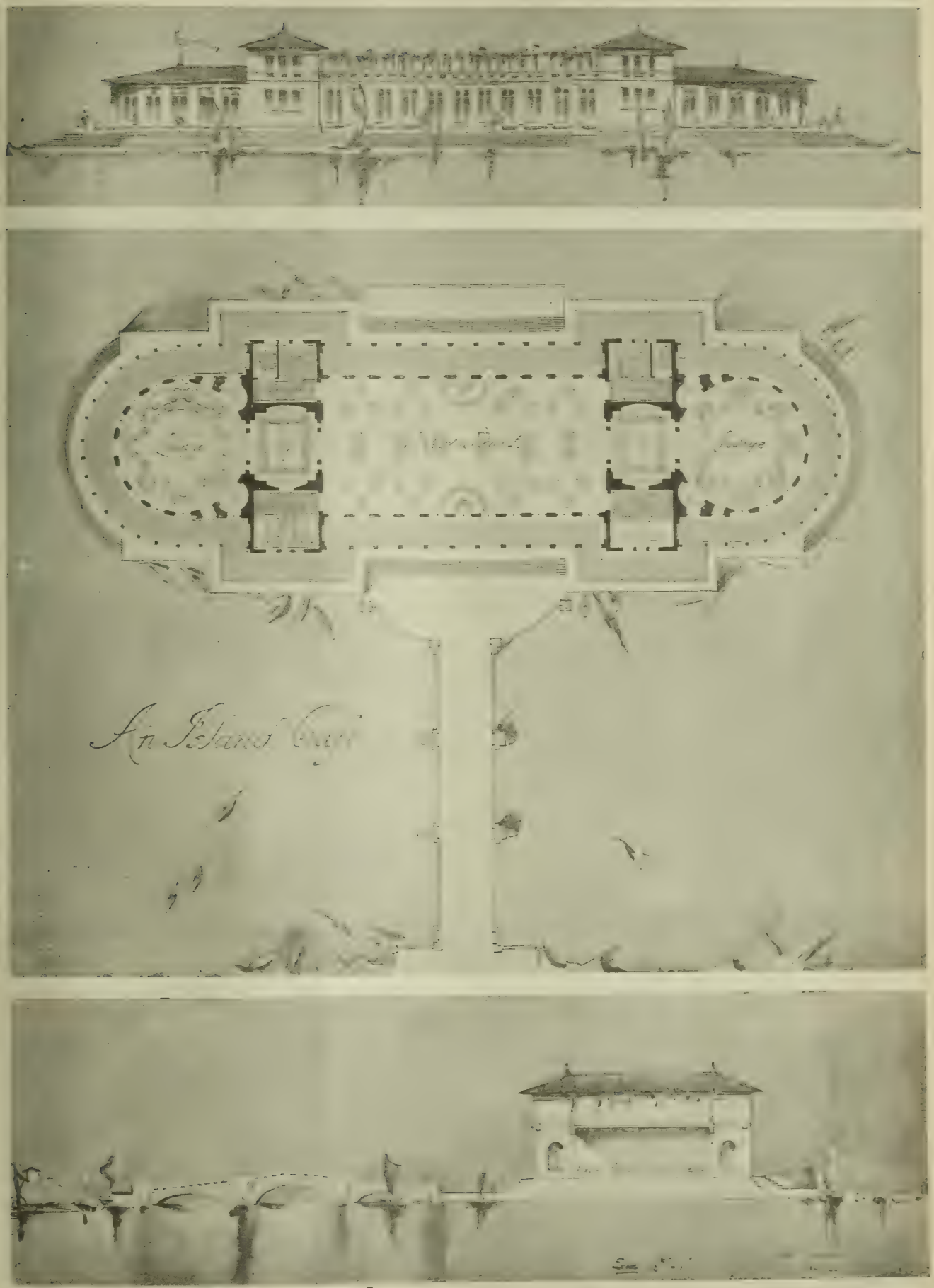
MEETINGS.

Monday, *July* 23.

Royal Institute of British Architects.—Presentation of Addresses to Mr. Paul Waterhouse. At 9, Conduit-street, W. 1. 3.30 p.m.

Wednesday, *July* 25.

The Architecture Club.—Inspection of the new Bush House, Strand, W.C.2. 4 p.m. Mr. H. W. Corbett, F.A.I.A., will meet members at the Aldwych entrance.



University of London School of Architecture.

An Island Café: A 12 Hours' Sketch.—Design by Miss A. Muriel Hargroves (Fourth Year).



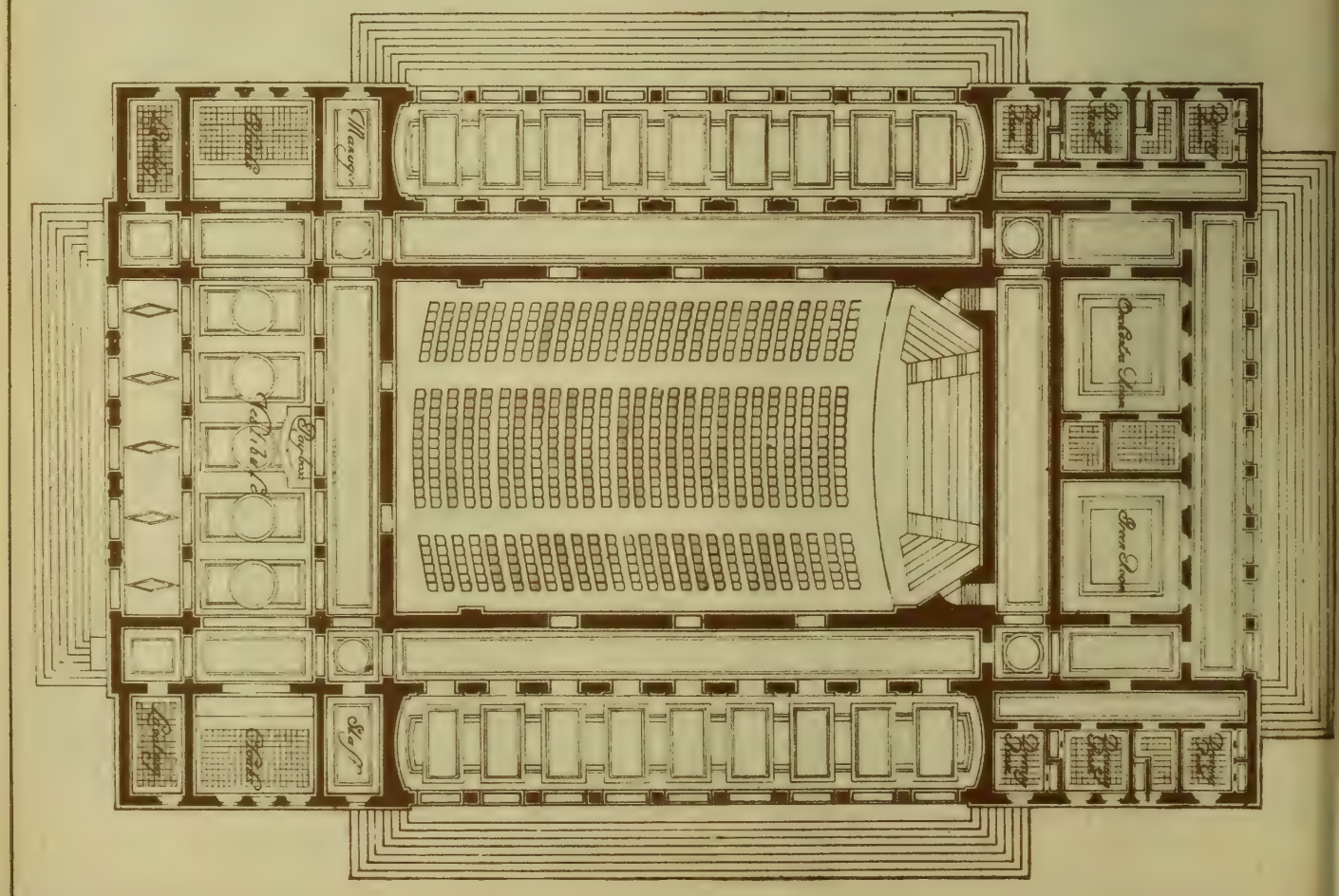
University of London School of Architecture.

Design for a Jutland Memorial. By Mr. P. M. Patker (Fourth Year).





SIDE ELEVATION.



UNIVERSITY COLLEGE SCHOOL OF ARCHITECTURE.

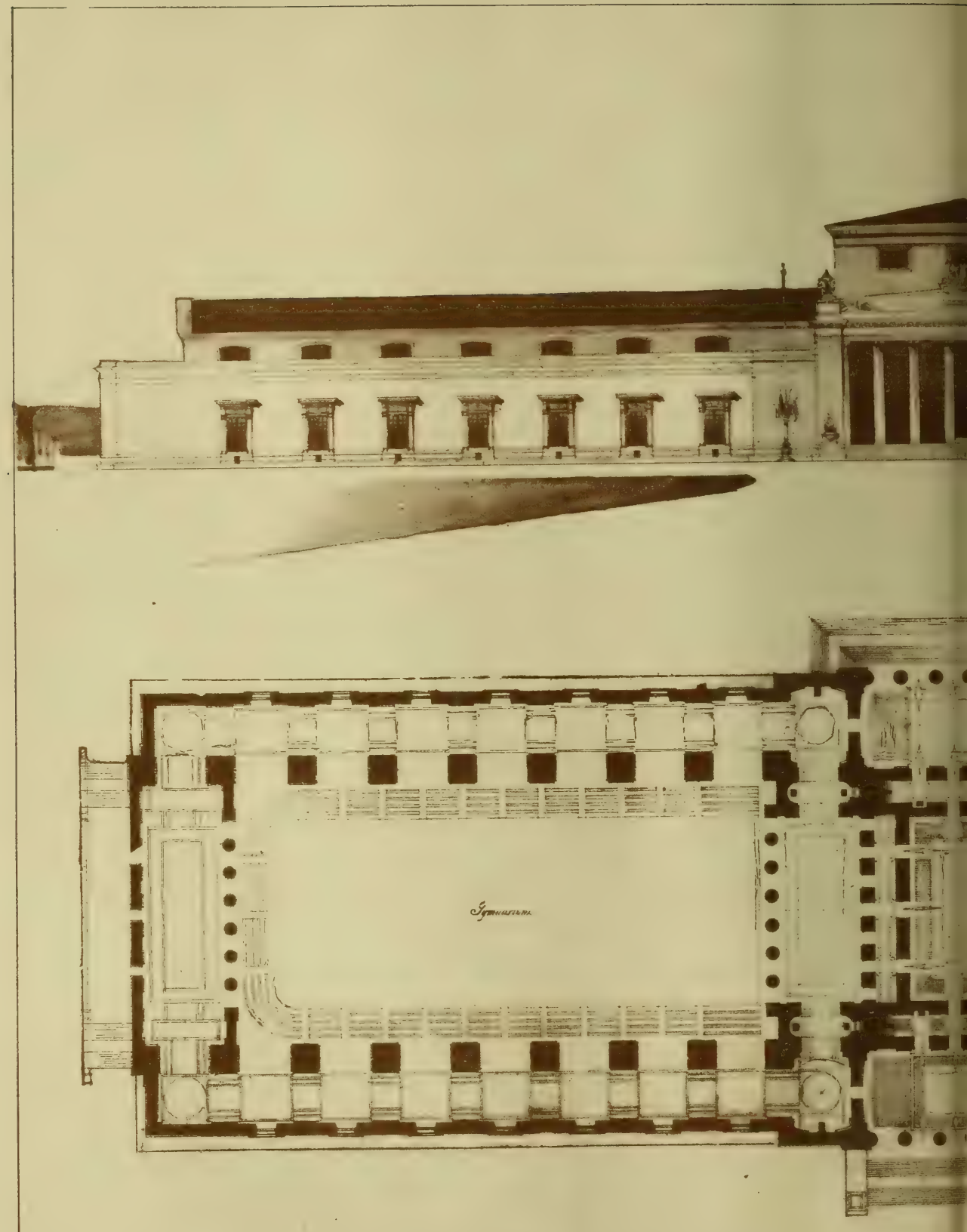
DESIGN FOR A CONCERT HALL (DIPLOMA IN ARCHITECTURE 1923), BY MISS A. MURIEL HARGROVES (4TH YEAR).



Royal Academy Exhibition

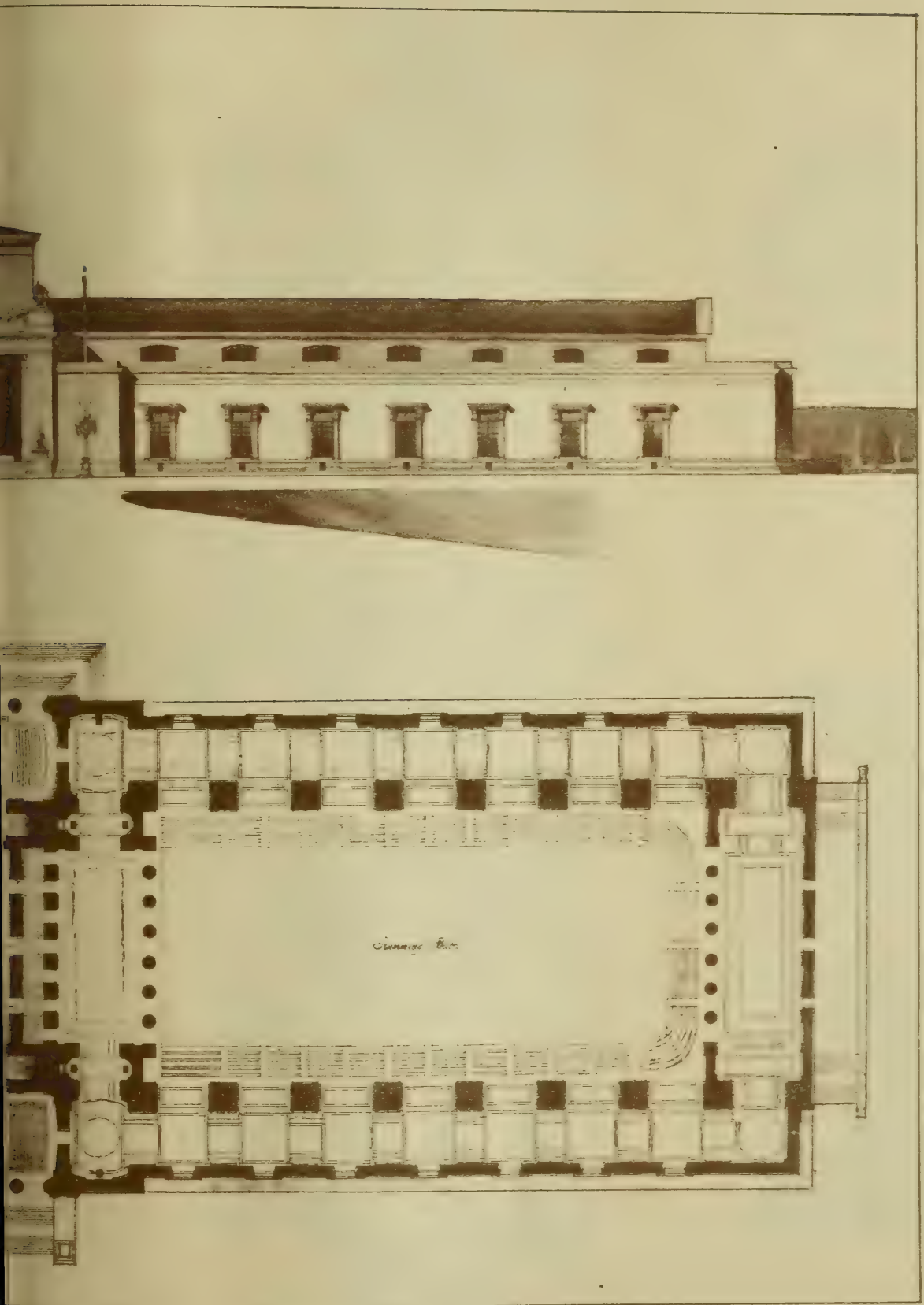
NEW PREMISES OF THE GREAT NORTHERN TELEGRAPH CO., ST. HELEN'S PLACE, E.C.

MR. HENRY A. SAUL, F.R.I.B.A., Architect



UNIVERSITY COLLEGE SCHOOL OF ARCHITECTURE.

DESIGN FOR A UNIVERSITY ATHLETIC CENTRE (



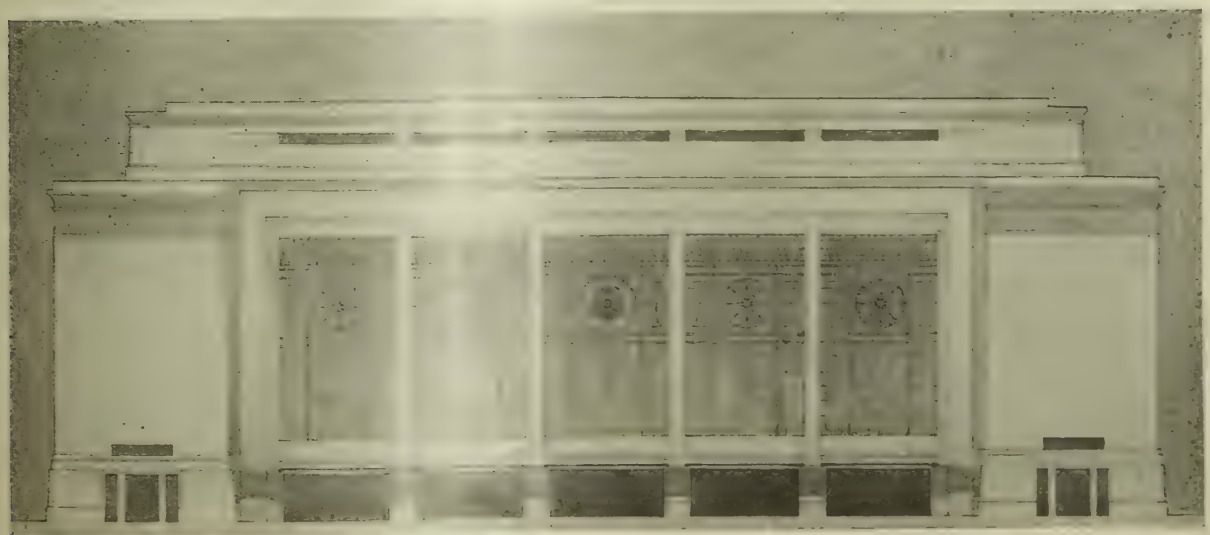
REE IN ARCHITECTURE), BY MR. R. C. THEOBALD (3RD YEAR).



University of London School of Architecture.

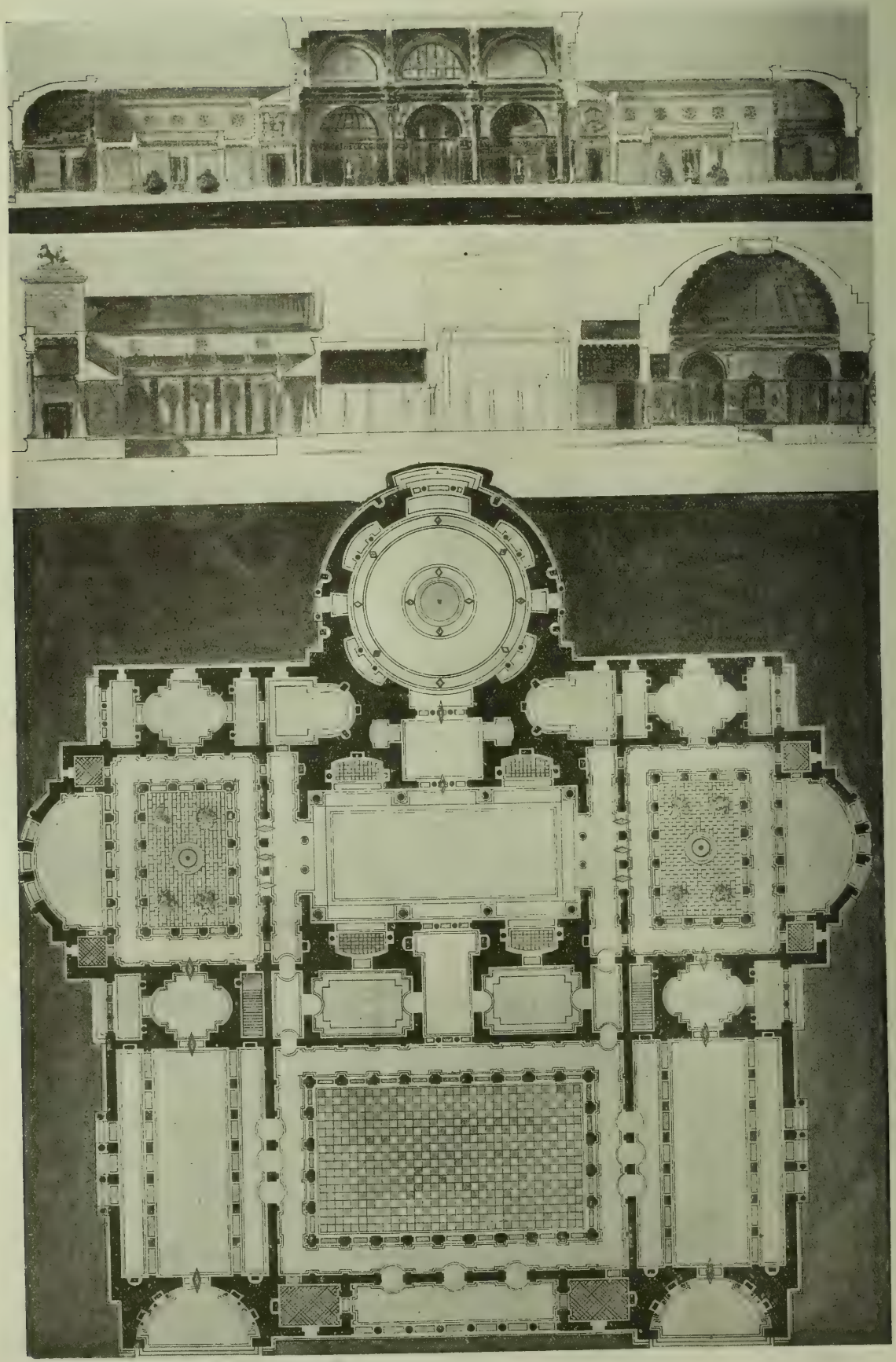
A Seaside House. (See also p. 98.) Design by Mr. C. G. Sykes (Evening School).





University of London School of Architecture.

The Lever Competition: Façade for buildings shown in plan. (*See p.* 92.) By Mr, H. S. Triscott.
Second Prize design, by Mr. E. Burckhardt.



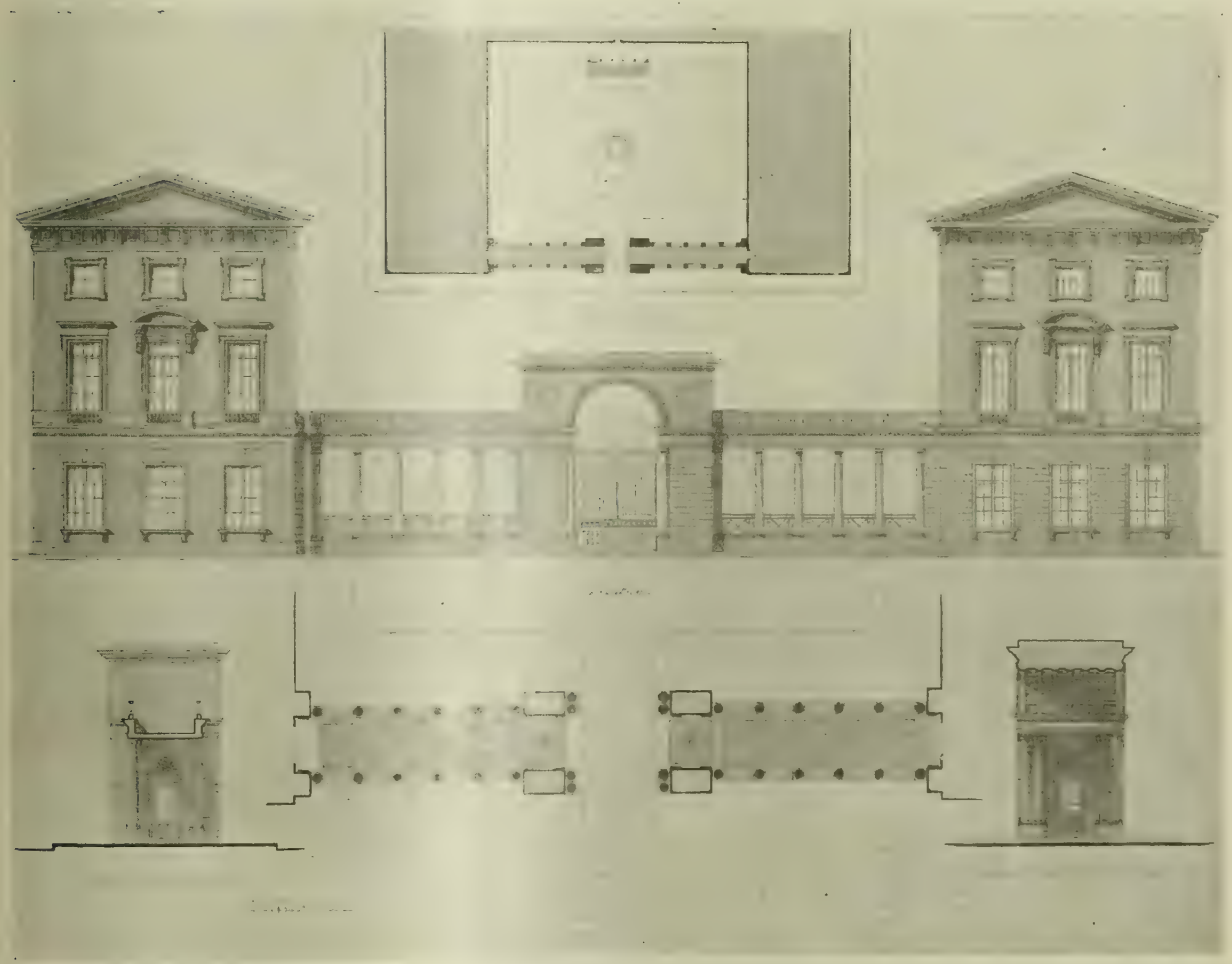
University of London School of Architecture.

Roman Study (Second Year): Roman Baths design, by Mr. L. P. Ellicott.



University of London School of Architecture.

Diploma Design. Subject: A Concert Hall. By Miss A. Muriel Hargroves.



University of London School of Architecture.

Study of Historical Design: Two Wings of a Building and Connecting Screen.

By Mr. E. Blacklocks (Evening School).

CORRESPONDENCE.

(*Continued from p.* 88)

Small House Plans.

SIR,—I wish to thank Messrs. Culpin & Bowers for their reply to my letter, and am glad they agree with the axiom that the scullery sink should be as near the kitchen fire as possible; but are they reasonable in suggesting I put it forward as something original when it was a quotation from a work published so far back (some 50 years) that it is apparently forgotten?

In the cases they mention, in which the cooking is done in the scullery, or small kitchen, and the living-room is used as a dining-room, would not direct communication between the two be desirable? It would facilitate service, and for that reason is frequently provided in houses of a larger type than those shown. The plans were described as "the result of considerable experience and endeavour to give the best possible accommodation"; that rather challenged criticism and led me, mistakenly, to imagine they were rather put forward as a last word.

With regard to the back porch in plan "D," left hand, it has a cube of some 220 ft.; as the type has been repeated by the thousand let us take three thousand, that will give a total cube of 660,000 feet, which at, say 1s. (often exceeded at peak prices) amounts to £33,000. Many a burdened tax-payer would consider this too much to pay for a feature which is not absolutely necessary; and, in carrying the plan a stage further, might be omitted.

London, S.W.12. W. J. H. LEVERTON.

Gray's Monument, Stoke Poges.

SIR,—I read from our local paper a letter from Mr. Walter de Gray Birch, which had been reprinted from your columns, and beg to inform you as follows:—

Land belonging to the estate surrounding the church, having a frontage to the roads of about a mile and a half, has recently been sold for building purposes. The above monument stands on ground forming part of the church fields, adjoining the churchyard, comprising some thirteen acres of the land above referred to. Three acres of these, on which the monument stands, have recently been given to the National Trust for the Preservation of Ancient Monuments. The remainder has already been planned out for building plots, hence our anxiety to preserve the same, and which is understood to be "the lea" of the poem. On two portions of the land already sold near the church, numerous houses have recently been built, and others are contracted for.

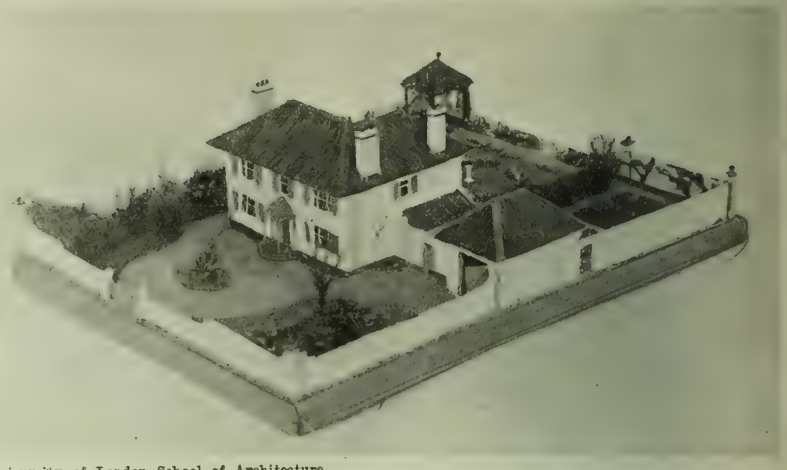
Here, we think, no mistake has been made by the National Trust in preserving for all time this monument designed by Wyatt, and with this remark will allow Mr. de Gray Birch's letter to rest on its merits. F. W. HIPKISS,

Stoke Poges. *Hon. Sec. Appeal Committee.*

Moisture in Walls.

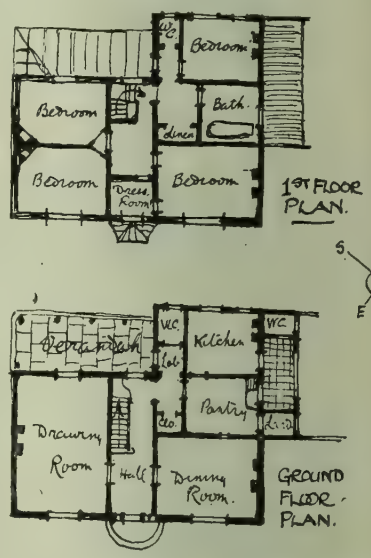
We have received the following inquiry from a correspondent:—

"Recently I executed some alterations to business premises, the walls of which are covered with embossed paper, painted and varnished. Whilst the usual precaution has been taken to prevent moisture rising in the walls, white woolly fungus has made its appearance; this, in parts, is interspersed with brown patches discolouring the embossed paper; the walls were plastered with a reliable patent plaster. I am of the impression that the effect is brought about by the fact that the brickwork was executed in very wet weather, and that the moisture has not had a chance of evaporating. This would seem correct, as, where the stoothed partitions adjoining have been similarly treated as the brickwork, no cause for complaint has been found. Would you please inform me if a petrifying liquid, and which particular make, would cure this; or would you suggest any other remedy?"—F. A. C.



University of London School of Architecture.

A Seaside House. MODEL BY MR. C. G. SYKES. (Evening School.) (*See also p.* 95.)



Plan of Model: A Seaside House.



R.A. EXHIBITION, 1922.

Model of the R.A.F. Memorial. (*See p.* 84.)

SIR REGINALD BLOMFIELD, R.A., Architect.

[Illustrations of this design were given in our issue for May 12, 1922.]

Co-operation with Germany.

SIR,—I understand a certain number of architects have received a request from a well-known British architect asking them to contribute plans, drawings or photographs of recent work to a proposed publication by a German architect. Such a suggestion in the circumstances seems rather inopportune to many of those who have received the request, who consider that the time has not yet arrived for such co-operation.

H. P. CART DE LAFONTAINE.

Cardiff School of Art Club.

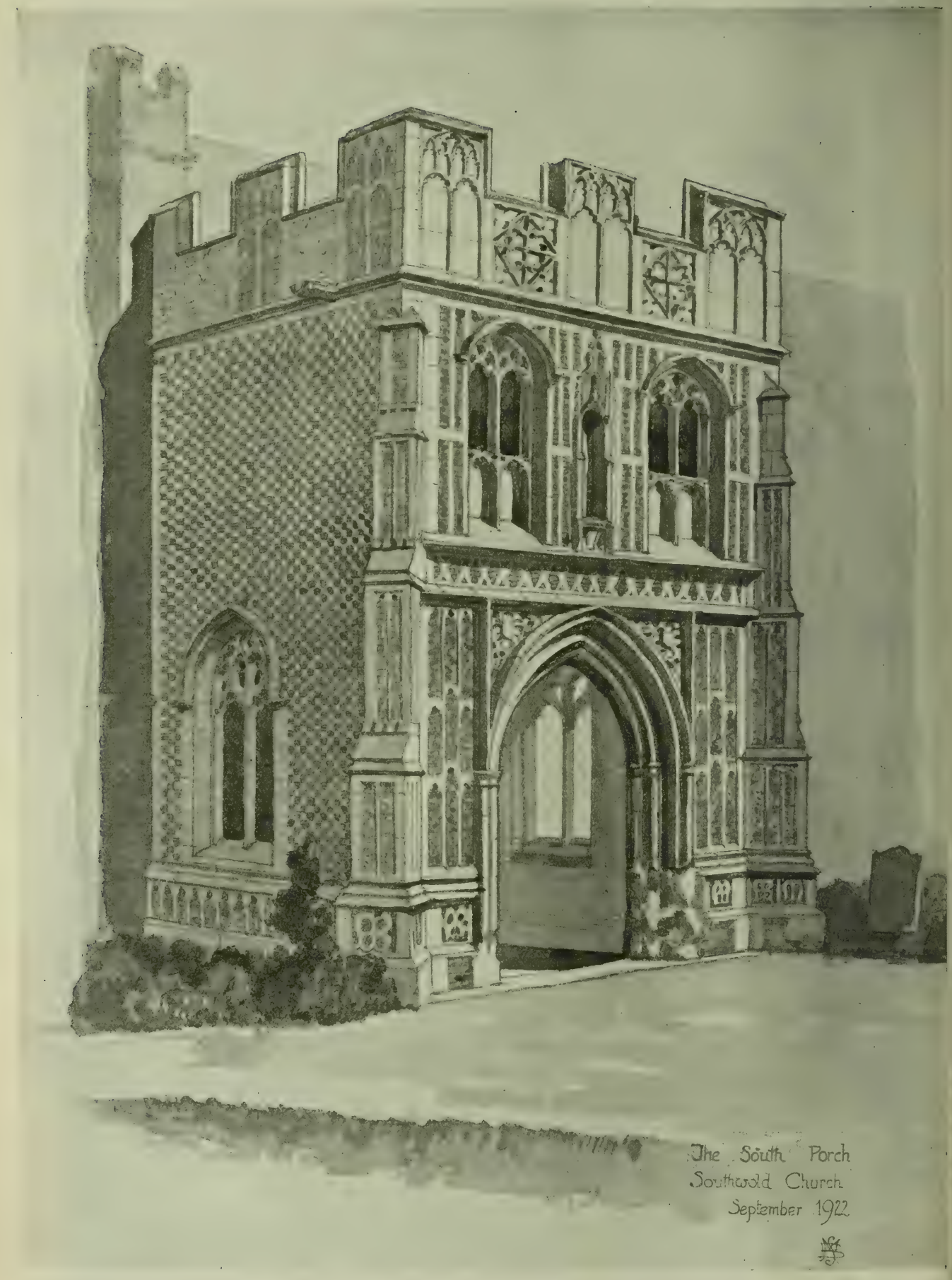
The summer excursion of the Department of Architecture and Civic Design was held recently when a number of the members, including the Vice-President, Mr. R. H. Winder, M.A. A.R.I.B.A., and Mrs. Winder, visited the beautiful Valley of the Wye. The main points of interest included the Abbey of Tintern, now being restored by H.M.O.W. (as described and illustrated in *The Builder* of August 18, 1922) and the Castles of Raglan and Chepstow affording good opportunities for studying mediæval architecture; while in the picturesque towns of Monmouth and Chepstow many interesting Georgian features were noted.



T. Raffles Davison, del.

RECONSTRUCTION OF THE SOCIETY OF ARTS PREMISES, ADELPHI, 1922: VIEW IN STAIRCASE HALL.

Mr. Arthur T. Bolton, F.R.I.B.A., Architect.



The South Porch, Southwold Church.

From a water-colour by Mr. Martin Shaw Briggs, F.R.I.B.A.

Design submitted by Messrs. L. G. Mouchel & Partners, Ltd.

[The selected design, by Messrs. Considère Constructions, Ltd., was given in our last issue.]

HOUSES ERECTED AT DARLINGTON.

THE photographs on this page show views of the Faverdale, Darlington, Housing Scheme of the London and North Eastern Railway Company (North-Eastern Area) Housing Trust. The lay-out on the architect's original plans provides for, in the near future, four hundred or more houses.

Two hundred of the houses have been erected and are ready for immediate occupation. These houses have been erected in record time. The work was commenced on March 1, 1922, and the contractors handed over the whole scheme complete in every detail, including all necessary roads, drains, and fencing, on February 28, 1923.

The houses are all built in blocks of four, as this construction was considered advantageous from an economical point of view, and also for the increased comfort of the inmates with regard to interior warmth, etc.

Fifty per cent. of the houses are provided with the following accommodation:—Ground floor: Living-room, washhouse, pantry, larder, coal-store. First floor: Three bedrooms, bathroom with w.c. (which in some cases is on the ground floor). The remaining houses are all provided with a parlour or sitting-room in addition, and eight of the houses have four bedrooms. Sanction was obtained from the Ministry of Health for carrying out a specially designed drainage system.

The contractors were John Laing & Son, Ltd., of Carlisle, who had the assistance of the following sub-contractors:—Steel windows, Messrs. Hope & Sons, Birmingham; plumbing and sanitary work, Messrs. Shuksmith, York; baths, Messrs. Doulton & Co., London and Paisley; grates and ranges, Messrs. R. & A. Main & Co., Falkirk, N.B. The entire scheme has been carried out from the designs and under the supervision of the Company's architect, Mr. Stephen Wilkinson, A.F.C., F.R.I.B.A.







London and North Eastern Railway Co. Housing Trust, Darlington: Views of the Oval.
MR. S. WILKINSON, F.R.I.B.A., Architect to the Railway.

THE NEW HOUSING CAMPAIGN:

SELECTION OF TENANTS AND LIMITATION OF RENTS.

BY JAMES P. ORR

(Late Director of Housing to the London County Council.)

THE new Housing Bill is directed towards meeting local needs by enlisting private enterprise in the construction of the dwellings needed. Private builders are not likely to construct dwellings of any particular type if there is any risk of the local authority putting similar dwellings on the market at lower rents or prices than the builder must charge to make a reasonable profit. The Bill provides against this risk: it is only the smaller types of dwellings, which at the present cost of production yield too low a profit to attract private builders, that the local authority may build under State-aided schemes; and the Minister of Health will sanction such schemes, only if and in so far as he is satisfied that there is a need for such dwellings, and that such need can best be met by the provision of such dwellings wholly or partly by the local authority.

Local authorities are empowered by the Bill to assist private enterprise (i) by grants, and (ii) by advances, under certain limitations, the chief of which may be summarised as follows:—

(i) *Time limit.*—The local authority may make a *grant* at any time after the completion of a building, but they will get the State subsidy only for buildings completed before October 1, 1925, except where the Minister allows an extension of the time limit up to June 1, 1926. *Advances* are permissible, if made before October 1, 1926, even though the building is completed later.

(ii) *Limit of amount.*—There is no statutory limit to the local authority's grant to a private builder; but the State subsidy to the local authority is the amount of that grant, subject to a maximum of £6 per house per annum for 20 years. The only limitation on the amount of an advance is that it must not exceed 90 per cent. of the value of the mortgaged property, and must not at any time before completion of the building exceed half the aggregate value of the site, and of the constructional work done to date. There is no State contribution towards the advance.

(iii) *Type of dwelling.*—To qualify for a grant, a dwelling must have a floor area of from 620 to 950 sq. ft. in two-storied buildings, and from 550 to 880 sq. ft. in flats, except where the Minister for special reasons sanctions a reduction of the mimimum by 50 sq. ft. There is no limitation as to value.

To qualify for an advance, a dwelling must not exceed £1,500 in value. There is no limit as to maximum size, but the same minimum is prescribed as for houses subsidised by grants.

(iv) *Circumstances justifying assistance.*—A local authority may make grants for dwellings only if there is a need for such dwellings in their area, and if such need cannot be met without such assistance as the Bill permits.

(v) *Conditions of assistance.*—Local authorities may make both grants and advances subject to conditions approved by the Minister of Health. The only compulsory condition is that an advance must be secured by mortgage.

The Bill does not explicitly provide, as a condition of assistance, that rents shall be limited to certain maxima and that tenants shall be only those who cannot afford higher rents.

The main purpose of this article is (*a*) to urge that there should ordinarily be such a condition, enforceable for say 20 years, and (*b*) to suggest a procedure for enforcing specific performance thereof.

As to (*a*), in the absence of such a condition, builders will naturally dispose of their houses at the best price or rent obtainable: and the result may be that the houses will not be within the reach of the poorer people most in need of relief. For fear of such a result many members of Parliament urged in the discussion of the Bill in Committee that the proposal to make grants to private builders should be dropped altogether. Others supported an amendment in favour of conditions limiting rent. The Minister of Health opposed this amendment on the ground that builders would not accept such conditions; and it is, perhaps, as well that the amendment was lost: for there may be places in which such conditions are unnecessary, *e.g.*, where moderation in rents can be secured by competition among many private builders. It is still open to local authorities to include the conditions in question among those on which the grant is made (though they are not bound to do so), and it is to be hoped that they will do so wherever there is any doubt as to whether the subsidised houses will now or in the near future be let at rents which those for whose benefit they were subsidised can afford to pay.

If the new campaign is to be based on goodwill and kept going by goodwill, as it should be, then its main object should surely be to provide better homes *at rents which those who need the homes can afford to pay.* When this is the declared object of a local housing campaign, we may find local investors more willing to take up local Housing Bonds at moderate interest, workmen and contractors more willing to put their best work into a building scheme, and ratepayers more willing to pay a substantial subsidy from the rates. All this will help towards the earlier solution of the housing problem by reducing the cost of building, and consequently the prices or rents which must be charged to yield a reasonable profit to the builder and the investor.

As to (*b*), the sanction provided in the Bill for breach of any of the conditions of assistance is merely the recovery of the grant and the advance; but obviously that would not set things right in case of levy of rents exceeding the prescribed maxima or admission of tenants able to pay more than the prescribed rents. The high rent would still be charged; the wrong tenants would still be left in possession; and the object of the scheme, viz., the re-housing of the ill-housed at rents within their means, would be defeated.

A more effective sanction can be provided, if among the conditions of public assistance is the condition that the houses shall be erected on the local authority's estate. The regulations (as to maximum rents and class of tenants) that may be necessary to secure the houses to the tenants for whose benefit the assistance is given can then be enforced as conditions of the ground lease. The local authorities are not likely to be driven to re-entry; but, if they should be, they can then bring in tenants of the right class at the stipulated rents. The regulations can be varied with changing circumstances by agreement between house-owners and local authorities; but both the original regulations and any variations should be thoroughly advertised, so that public objections may be duly considered before the regulations or variations are adopted.

The Housing, Town-Planning, etc., Act, 1919, makes it easy for local authorities to acquire land for housing estates, and thereby assist and encourage pioneer developers by securing the permanency of healthy residential surroundings, and obviating that risk of depreciation which results from overcrowding land with a conglomeration of both residential and commercial or industrial buildings. In my opinion the local authorities of all large or growing towns would be well advised to acquire large suburban areas suitable for development as residential estates; to lay out thereon, at least, as many house sites as are required to make good the present shortage of houses; and to announce their intention of letting these sites on 999 years' leases, at low ground rents, to anyone who will build the houses needed, with or without the assistance permitted by the new Bill. Those who accept public assistance must accept the prescribed conditions of lease as to limitation of rents and selection of tenants; others will be free to do what they like with their houses, provided that they build them to plans approved by the local authority, and complete them within, say, two years.

If private builders do not come forward to lease the sites and construct the smaller types of houses under the State-aided scheme to the required number, it will be clear that the circumstances in which, under the new Bill, the local authority may themselves build, instead of relying wholly on private enterprise, have come into existence. The local authority may then take up their scheme for themselves section by section, always giving private builders, including public utility societies, the opportunity to come in at any stage on a new section; but whether they leave the building to private enterprise or do it themselves they must see that the houses built include a sufficiency of the types that the people in actual need of relief from bad housing conditions require, and that these are let to those same people at rents which they can afford to pay.

HOUSING CONFERENCE IN THE NORTH.

A HOUSING conference of Northumberland and Durham local authorities was held in Newcastle recently, Councillor James Smith, chairman of the Newcastle Corporation Housing Committee, occupying the chair. Mr. Henry R. Aldridge, secretary of the Town Planning Council, discussed the new Bill, paying particular attention to the misunderstanding which existed as to the responsibility of local authorities in augmenting the State subsidy for housing. He pointed out that the Bill contemplated that whether the local authority assisted private enterprise or provided the dwellings themselves, an annual charge would fall on the rates. If 20,000 houses were erected, and the rate contribution amounted on the average to as much as £5 per house, the charge falling upon the rates would be £600,000 per year for 20 years. They must accept it for granted that the Treasury would not allow them to adopt the attitude of simply dispensing Exchequer money, either for their own schemes or for private enterprise, without they themselves making a contribution. In his opinion the Government was correct in expecting local bodies to accept part of the responsibility. It was sound in principle, even if it might be unpopular. The speaker produced figures as to the cost of erection of non-parlour houses, and said that if they were let at 7s. per week, a penny rate in Newcastle would cover the local authority liability for nearly 2,000 houses.

Answering questions, Mr. Aldridge said the Council had been pressing for an increased Exchequer contribution for rural areas, and there was a prospect of special legislation to meet this requirement. Industrial and mining areas, too, he considered could not be left without special assistance. In the building industry key men were very urgently required, and greater inducements must be offered to attract men to the trade. He considered that nothing was more antiquated nor more against the best interests of housing than the system of apprenticeship in the building trade.

Welsh Housing and Development Association, to impart information on sanitation, housing, and town development, has arranged illustrated lectures.

BOOK REVIEWS.

English Country Life and Work. By ERNEST C. PULBROOK. London: B. T. Batsford, Ltd., 94, High Holborn. Price 16s. net.

The subject of Mr. Pulbrook's book on English country life is no less important than extensive, and gains in interest both from its own wonderful variety and its close connection with the life of millions of town-bred Englishmen, who understand little or nothing about it.

As Mr. Pulbrook explains, the countrymen of England cannot be grouped together as a peasant class; their activities are far too specialised to permit of sweeping generalisations coming anywhere within hail of the facts. It is only with the spread of education that the local differences in speech and manners are dying out with the ancient pageantry and traditional country lore. A lover of the country as it is, Mr. Pulbrook has little good to say in favour of modern science, and does not seem to look forward to the day when rural England will be one intelligently conducted model farm, where nature has been tamed out of her wildness and all paths made straight. However wasteful and inefficient country ways may be they possess a charm that is possibly a necessary compensation for the arduous nature of agricultural pursuits.

The financial loss due to waste of time and material in negotiating deep mud in the lanes and bye-ways must be far greater than would cover the cost of a metalled cart track, but the substitution of the cheap and efficient tar-mac for the clay and the primroses would also involve a spiritual readjustment in the Englishman's ideas of beauty if it were to be tolerated for a moment.

But though the same ruts have to be negotiated year after year, and hard as country life can be, it has the advantage of encouraging practical efficiency in many minor ways, and keeping alive just those faculties of resourcefulness that become atrophied in the life of the factory hand.

Of country crafts Mr. Pulbrook writes:—

"When we see some of the beautiful things the old craftsmen have handed down to us, it is sad to think that the machine is supplanting the hand working in conjunction with the brain, and that the great factory is taking the place of the individual workshop. The solitary worker, the master and his few assistants, are usually real craftsmen, whereas the factory-hand is the slave to a process, the unnoticed cog in a big machine doing the same thing again and again under identical conditions."

This doctrine of individual interest in doing good work was preached a century ago by Thos. Love Peacock, in his novel "Melincourt," but the difficulty of bringing up young people to take a pride in skilful production is enormously increased by the fact that the monetary return is often less for thoughtful work than for merely mechanical machine-minding. Only the most conservative or the consciously philosophical find themselves in a position to reject the call of higher wages, realising that money coupled with hard conditions is no improvement, and that intelligence and independence would be sacrificed in vain.

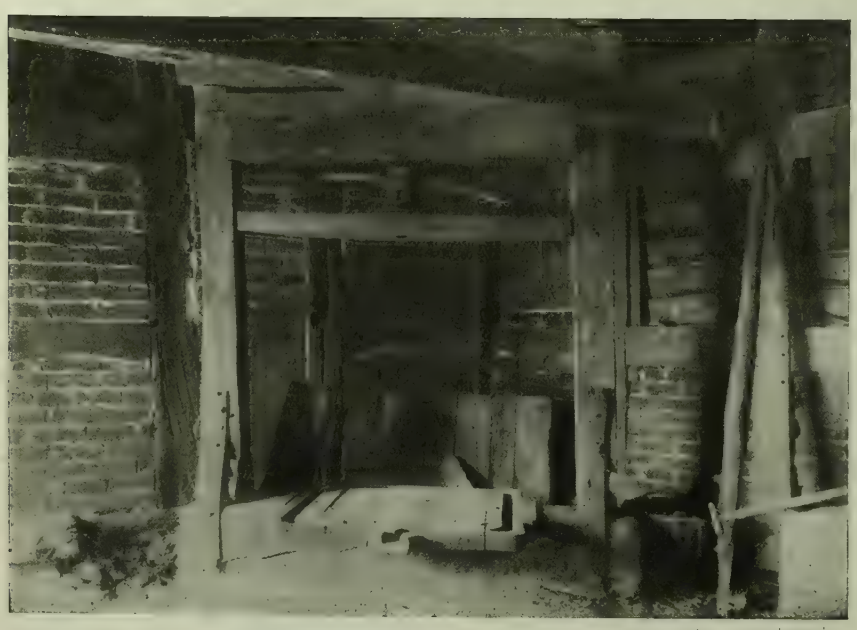
There is another side to the question also, for while men of spirit prefer to direct their labours for themselves, others find in a dull routine relief from the necessity of taking the trouble to think, and, while this vegetable outlook on life is favoured in the factory, it is penalised in the country where it comes into competition with the tendency of the other ill weeds to grow apace.

Mr. Pulbrook's book, however, is a descriptive work and makes no pretence of following all effects to their remote causes, and his remarks upon the changes in the countryside in recent times are often justified by hard and very unpleasant facts, as when he finds that "education seems to have been more successful in eradicating useful knowledge than in destroying superstition."

The author's obvious preference for the countryside in its wilder state betrays itself from time to time in his pages, and he is probably too optimistic in his estimate of the possibilities of the west country orchard.

English country life and work are faithfully chronicled in the two hundred and thirty-six pages of the book, which contains some extremely beautiful illustrations taken from photographs. The patience and skill of the photographer in snapping at the right instant has had the happiest possible results.

Many of the illustrations include moving objects, but the definition seldom leaves anything to be desired. Scenes containing teams of horses, yokes of oxen, flocks of sheep, poultry, to say nothing of human beings at work or play, have been faithfully reproduced in a manner that is now artistic and, with the changes that have been going on rapidly during and since the war, will soon become historical.



From "English Country Life and Work."

An Old-Fashioned Cider Mill

A Concise Explanation of Lord Birkenhead's Act (The Law of Property Act, 1922). By SIR ARTHUR UNDERHILL, LL.D., Bencher of Lincoln's Inn, and Senior Conveyancing Counsel of the Court, &c. London: Butterworth & Co. 1922. Price 10s. 6d. net.

The Law of Property Act, 1922, is no ordinary Act, but it is an attempt to simplify the law of real property and personal estate and thus to amend the law which has been the growth of ages. To quote the title of the Act itself, it is an Act "to assimilate and amend the law of real and personal estate to abolish copyhold and other special tenures, to amend the law relating to commonable lands and of intestacy and to amend the Wills Act, 1827, the Settled Lands Acts, 1882 to 1890, the Trustee Act, 1893, and the Land Transfer Acts, 1875 and 1897." This Act of "assimilation" occupies in the Law Reports 312 pages, which is a severe task for the digestion of any reader, and as the little work before us consists of about 130 pages of larger print than the Law Reports, and also contains an index, any reader will turn to it with a sense of relief. The author in his preface points out that there are two kinds of professional knowledge, viz., "a general and habitual knowledge of the broad principles of law, and a knowledge of where to find when wanted the minute details of the law," and that this work is confined to the first of these classes. As we have referred to the length of the Statute we should perhaps point out that the author in these pages assures us that "the pith and marrow" of the Act is not so voluminous as at first sight it would appear, as that portion containing the amendments of the various Acts mentioned in the title will be removed eventually from the Act and form a series of consolidating Statutes. The author states that this work is founded on certain lectures recently delivered by him at Lincoln's Inn. In the first chapter he gives an historical sketch of the law of real property from early days to the present time, and in the following chapters he shows how the present Act is to operate in simplifying the law. Those who have regarded the 312 pages occupied by this Statute in their Law Reports with awe will be surprised to find that the subject has been treated by the author not only in so small a space, but that his lucid and witty style has rendered even this tough subject interesting and attractive, and those who require what is all that the author has set himself to provide them with—"a general knowledge of the broad principles of the law" as it is affected by this Statute—cannot do better than study this little volume.

Italian Renaissance Architecture. By GEORGES GROMORT, Ecoles des Beaux Arts, Paris. Translated from the French by GEORGE F. WATERS. London: John Tiranti & Co. Printed in France MCMXXII. Full cloth, 20s.; paper wrapper, 17s. 6d.

M. Georges Gromort is an enthusiast in his subject, and the apology for the survival of Renaissance art to the present day contained in the last pages of his book, "Italian Renaissance Architecture," supplies the key to his other remarks upon the works described in the text and illustrated in photographs and measured drawings reproduced in eighty plates. "A form of art," he writes, "could not be imposed upon a people, in a lasting form, except given a mass of affinities, to be met with in traditions, customs, language and literature. It has been said of 'style' that it is the 'man himself.' It can be said of 'style' in architecture that it is the people or the race itself, at a given period in its evolution. If the influence of the Renaissance still succeeds with us to inspire, from time to time, a great work, it proves that we have preserved to a certain extent the spirit of that strong race which brought forth in the fifteenth century the Bramantes and the Brunellesches."

Whatever faults may be found by purists in the Renaissance—and Ruskin had a great deal to say on this head—it had the merit of possessing a firm foundation in popular interest. Our repetition of its forms and even of its formulæ at the present time is justified by their suitability,



From "English Country Life and Work."

An Old Barn.

if not to a perfect state of architectural existence, at any rate to the state we live in.

Like his great compatriot, Zola, whose novel "Rome" should be read by all architects who wish to understand something of the spirit of that mighty city, M. Gromort comprehends the grandiose tradition embodied in such enormous works as the Duomo of Florence and St. Peter's at Rome, of which latter building he says: "Here indeed is the *great work* of the Renaissance, and without doubt the most important production of modern times. Other compositions have perhaps equalled it in grandeur or surpass it in purity of execution, but none has been so completely a résumé of the civilisation of two whole centuries, nor, above all, the realisation by means of novel architectural forms, of a programme at once so imposing and so new. Only the harmonious *ensemble* of Versailles might be seriously compared to it. They are both works of equal interest, inspired by a similar motive, that of raising a durable monument to the glory of the Papacy or of the monarchy. . . . To begin with, St. Peter's is something more than a church; it is not right to judge it as such."

Just as Zola saw in the building the spirit of the old Roman Emperor-gods uniting religious and temporal power, M. Gromort also compares it to the works of ancient Rome. "It is an immense *Basilica*, in the Latin sense of the word, a place of reunion for a host of pilgrims, a waiting hall for the whole of Christendom. . . . Perhaps the Imperial Forums and their great Basilicas, in the first centuries of our era, aimed also at giving to passing strangers, to colonists of the Roman provinces, the impression of clearly established power. . . . Bramante was hardly mistaken, and it was the Basilica of Constantine which seemed to him, from the first, the proper monument from which to draw his inspiration."

The otherwise excellent production of the book is marred by an unusual number of trivial misprints, but the many interesting illustrations alone would render the book a valuable addition to any architect's library, and the measured elevations and full face photographs of these Renaissance buildings permit of analysis of their dimensions and geometrical proportions in a manner likely to be of great use to students.

"*The Studio*" *Year Book of Decorative Art*, 1923. 7s. 6d. and 10s. 6d.

This volume edited by Geoffry Holme, deals with the numerous and essential objects and fitments for the house and garden. In the architectural section many of our architects, well known for the excellence of their domestic work, are represented by exterior and interior views of their executed buildings, many in colour. The latest work by Continental architects is also shown in a similar manner, enabling an interesting study to be made of their ideas of design and construction. In the furniture the percentage of well-designed pieces is small, and there is considerable room for improvement before the standard of the old pieces is attained. The English section is pre-eminently first. Many of the Continental pieces are odd and freakish and repel rather than attract, but presumably this is a record of the vogue of to-day. The pottery section is strongly represented, some of the pots are excellent, others crude. In conclusion, we may add, the garden and garden furniture section is one of the most interesting.

The Organ. A quarterly review for its makers, its players and its lovers. No. 5, Vol. II., quarto, July, 1922. (London: "Musical Opinion," 13, Chichester Rents, W.C. 2. Price 2s.)

The first of the seven articles in this book is by the Rev. Andrew Freeman, Mus.Bac., F.R.C.O., upon "The Organs of Old St. Paul's." Mr. Freeman points out that our knowledge of them is almost entirely conjectural, since the records were destroyed in the Great Fire of 1666. William Beton, who was at work between 1518 and 1552, built an organ for the Cathedral. It stood on the north side of the choir in the third bay over the stalls. It had a Gothic case with carved gables, and folding doors at either side. In 1694, the Dean and Chapter, the Surveyor of Works, Sir Christopher Wren, and Dr. John Blow, the organist, gave an order to Bernard Smith to make a large organ of 21 stops, with all ornaments, carvings and gildings, for the sum of £2,000. This was the beginning of the present organ. Sir Christopher urged that it should stand in the bay, as the old one did, but the Dean and Chapter insisted upon a central position over the screen. Wren accordingly designed the present extremely beautiful case, with east and west fronts, and it was placed on the screen.

The main case was 30 ft. high, 18 ft. wide, and 8 ft. deep. It was provided with glass window sashes, which were supposed to be drawn down when the organ was not in use. They were removed in 1826. The case was made by Charles Hopson, and the carving was by Grinling Gibbons. The choir screen was taken down in 1859, so that the whole building might be available for services. The organ was placed in the second bay over the stalls on the north side of the choir, Mr. Hill carrying out the work. In 1871-2 the organ was rebuilt, enlarged and divided, as we now see it, by Messrs. Henry Willis. The original east front was placed on the north side, and the west front on the south. Francis Penrose, the Cathedral architect, supervised the alterations, while certain carving, designed by him, was carried out by Messrs. Cubitt & Co.

A fine drawing by Mr. H. T. Lilley shows the east front as it stood from 1697 to 1826, when the window sashes were removed. Specifications of the various organs and accounts of four subsidiary organs are appended. The great Schulze organ at Armley, Leeds, is dealt with by Mr. T. E. Pearson, who speaks about it *con amore*, pointing out its defects, but eulogises its many beautiful qualities. There are three fine photographs which demand some attention.

The book is worthy of a place in the library of all lovers of the organ. It is well printed on good paper with large margins; in fact, its qualities, style and price will ensure its success. It is enriched with specifications, and ten beautiful photographs, which are given on art paper.



From "English Country Life and Work."

A Herefordshire Cider Mill.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS.

The Metropolitan District of the Institution of Municipal and County Engineers met at Horsham Town Hall on Friday last week, after which members and friends inspected places and works of interest in the borough, under the guidance of Mr. G. S. Atkinson, Surveyor and Water Engineer.

The Town Hall was inspected with considerable interest. Except for the embattled front bearing the Royal and other arms, it was erected in 1812, on the site of the original structure built some four hundred years earlier, and the building was sold to the town in 1888 by the Duke of Norfolk for £25. The roads of the district were inspected by the party. A section of North-street, it was explained, was recoated in January last with tarred slag, containing 10 per cent. bitumen, at a cost of 5s. 6d. per sq. yd., including the scarifying and shaping of old metal; while surface tarring on all the classified roads and a large proportion of the district roads for the past two years cost 3.68 and 2.74 shillings per sq. yd. respectively.

The urban housing scheme has been carried out on a site of about 5½ acres in Oakhill-road. Eight parlour and forty-two non-parlour type houses have been erected, and eight more are to be built to complete the scheme. The materials used were obtained locally, as far as possible, the cottages being built of stock bricks and roofed with sand-faced tiles, and they are so constructed that the cost of up-keep shall be as low as possible. The houses were built when prices were at their zenith, and cost £43,881, including drainage and fencing. Two cottages of the non-parlour type have been erected at the sewage pumping station, the cost of which was £1,024, including demolition of an old house. The cubical contents is 22,950 ft., and the floor area 855 ft. super. to each cottage.

Prior to the starting of the existing water works in 1865 by a private company, the town was supplied with water from the River Arun, by means of pumps worked by a water wheel, the water being conveyed in wooden pipes. These works were in operation about 1735. Improvements were made in 1877, when a service reservoir of 500,000 gallons capacity was constructed. As time went on and demands for water increased, further improvements were made. The scheme has now been completed and to-day all the pumping is done by electricity generated in the Council's own works, though the steam plant is being retained in case of emergency.

At the invitation of the Sussex Brick and Estates Co., Ltd., the party gathered at "The Black Horse" Hotel, where luncheon was presided over by Mr. W. Wenhan Smith, chairman of the company. In proposing the health of the Municipal and County Engineers, the Chairman said there never was a time when the profession had more important problems to solve. Living, as we were, in more and more congested areas, we were only enabled to do so by the valuable service rendered to the community by the engineers. Those meetings brought them together, and they were able to discuss questions which appeared difficult, though the brick trade was solving its problems separately.

Mr. F. Wilkinson (Willesden Council) replied for the Institution.

The toast of the day—"The Sussex Brick and Estates Co., Ltd."—was given by Mr. F. J. Wood (County Surveyor, East Sussex), who asked the company to drink to the health of the chairman, coupled with the name of Mr. Whitehouse.

Mr. P. E. Harvey (Worthing) proposed "The Horsham Urban District Council," Mr. G. S. Atkinson replying.

After lunch a visit was paid to the Engineering School at Christ's Hospital, *en route* for Southwater Engineering Works, where facing and engineering bricks are manufactured from clay and shale from the Wealden clay measures, at one time known as the oak tree clay. The raw material, which is dug by hand, is drawn up to the pans in small trucks; and the bricks, some 900,000 per week, are produced from one kind of clay, in the making of which 15,000 tons of coal are consumed weekly. Two hundred men and boys are employed in these extensive works, which are picturesquely situated.

The visitors returned to the hotel for tea, after which a vote of thanks to the hosts was proposed by Mr. E. F. Spurrell, Hon. District Secretary.

This was seconded by Mr. A. S. E. Ackermann, B.Sc. (Eng.), who, in making a reference to "making bricks without straw," described the method employed in Egypt in ancient days. The straw was soaked in water till it rotted in order to extract the tannic acid; this liquid was mixed with the clay to bind it, and the same acid was used at the present time.

Amongst those present at the day's proceedings were Messrs. C. A. Austin, S. Evans, H. S. Wood, K. F. Spurrell, C. G. Atkinson, C. Chambers-Smith, L. G. Dashper, W. R. Guilford, F. J. Wood, A. S. E. Ackermann, P. E. Harvey, C. F. Williamson, F. Wilkinson, R. Chart, G. T. Cottrell, C. W. Giles, W. Wenhan Smith, J. Stewart Whitehouse, and D. Hayden Whitehouse.

THE RENT ACT.

Costs.

The case, Wolff *v.* Smith, recently heard in the High Court, raises an interesting point under the Rent Act. The plaintiff had been a weekly tenant of certain premises, but, some twelve months before the cause of action arose, had been given a legal notice to quit, and therefore was a "statutory tenant." The action was brought in the High Court, the plaintiff claiming an injunction as against the landlord in respect of a trespass. This case of trespass seems to have arisen out of a misunderstanding, for the plaintiff had left the premises, and the defendant had understood he was giving up possession and had entered the premises, stacked the furniture, and done other acts acting on this assumption. The Court had held that the defendant was mistaken as to the plaintiff having given notice of intention to quit and had awarded nominal damages on the defendant undertaking to reinstate the plaintiff in possession.

The question now before the Court was one of costs, for section 17, sub-section (2) of the Act provides: "A county court shall have jurisdiction to deal with any claim or other proceedings arising out of this Act or any of the provisions thereof, notwithstanding that by reason of the amount of the claim or otherwise the case would not, but for this provision, be within the jurisdiction of a county court, and if a person takes proceedings under this Act in the High Court, which he could have taken in the county court, he shall not be entitled to recover any costs."

The amount here was within the county court jurisdiction, but that did not conclude the question, because the point taken was that these proceedings were not taken under the Act at all, but were an action for trespass independent of the Act. That point was met by showing that in a claim for trespass the plaintiff must show the right to possession, and to prove this he must rely on the Act, and when, as here, he is a statutory tenant, for he could only show his right by pleading the Act, and therefore his claim rose under the Act. But upon this a further point arose, for it was contended that the plaintiff was not a statutory tenant because the notice to quit had been given twelve months before, and the defendant had continued to receive rent, and therefore under section 16, subsection (3) a new agreement was created. That subsection is: "Where the landlord of any dwelling-house to which this Act applies has served a notice to quit on the tenant, the acceptance of rent by the landlord for a period not exceeding three months from the expiration of the notice to quit shall not be deemed to prejudice any right to the possession of such premises, and if any order for possession is made any payment of rent so accepted shall be treated as mesne profits." The Court was at first impressed by this argument, but in the result followed the decision given in Shuter *v.* Hersch (1922, 1 K.B., 438, *The Builder*, July 28, 1922) that this subsection had not the effect that was contended here, *i.e.*, that a fresh tenancy had been created by waiver, and therefore it was held that the action was one under the Rent Act, and by virtue of section 17 the plaintiff was not entitled to any costs.

No satisfactory interpretation has ever been placed upon section 16, subsection (3). All that has been held is that it does not create a waiver of notice to quit even when rent is received for a longer period than the three months prescribed in the subsection, and it is curious that this point did not receive attention in the Rent (Notice of Increase) Act of this year. We dealt very thoroughly with this subsection in our article July 28, 1922, and it will be remembered that in Shuter *v.* Hersch it was suggested by the Court it had been inserted in the Act on the recommendation of the Rent Commission when Hartell *v.* Blackler (*The Builder*, July 20, 1920) was law. That case decided that receipt of rent even from a statutory tenant would waive a notice to quit, but this case was not followed in Davies *v.* Bristow (*The Builder*, August 26, 1921) where it was held that the principle of waiver could not apply to statutory tenants who were only in occupation against their landlord's will under the Rent Act.

We have frequently drawn attention to the fact that this subsection does away with the principle enunciated in this latter case and that it causes confusion, and we wonder that the legislature has not dealt with the point in the recent Rent Bills. It would be absurd to compel a landlord who has a tenant forced upon him and must receive his rent to give a fresh notice to quit every three months, but under this subsection that is the really only safe course to adopt.

Statutory Tenant's Right to Assign.

Just as the Rent Bill has passed its third reading, a point has been decided by a Divisional Court in two cases, Keeves *v.* Dean and Nunn *v.* Pellegrini (*The Times*, July 14), which appear to give another cause of complaint to landlords. It is unnecessary to set out all the facts; it is sufficient to say that in both cases an assignment of the premises had been made by statutory tenants; but in the second case the subsidiary point was raised that the assignment was bad because it had not been made by deed.

The decision of the Divisional Court is of extreme importance, and it amounts to this: The right to assign must depend upon section 15 of the Act of 1920, which provides that the statutory tenant shall, "so long as he retains possession, observe, and be entitled to the benefit of, all the terms and conditions of the original contract of tenancy so far as the same are consistent with the provisions of this Act . . ." The Court interpreted this section as giving the statutory tenant the right to assign, unless in the original contract of tenancy there was some express provision dealing with the question of assignment. If there was some such provision, the tenant would be bound to observe it, but, in the absence of some such provision, it must be implied that the tenant could assign.

Now the Rent Acts apply to many houses where there is no formal contract of tenancy, and the result of this decision will be that every weekly tenant and every tenant not bound by covenant is at liberty to assign the premises which he is holding after a legal notice to quit and against the will of the landlord. This is such a manifest injustice, we trust it may yet be remedied, for the Rent Bill is not yet through Parliament, and an amendment to meet the case could still be introduced in the House of Lords. As regards the subsidiary point, the form of assignment, it was held that this was a case in which the absence of a deed could, under the equitable jurisdiction of the Court, be given relief from, and thus, in both cases, the assignment by the statutory tenant was upheld.

INTERNATIONAL ROAD CONGRESSES.

Mr. Rees Jeffreys, Chairman of the Roads Improvement Association, and a member of the Permanent International Commission responsible for the organisation of the International Road Congresses, has addressed a letter to the County Councils Association, the Institution of Municipal and County Engineers, and other organisations represented at the Fourth (Seville) International Congress, asking their observations upon certain proposals directed to increase the usefulness of these Congresses to British road engineers. These suggestions for modifying the procedure of the Fifth and subsequent Congresses are practically a summary of those made to Mr. Rees Jeffreys in his capacity as Chairman of the British Committee by British delegates at the Seville Congress, and they are as follows:—

(1) That the Congresses shall be held only in readily accessible capital cities where interesting and modern forms of highway construction can be examined. (2) That there shall be more business meetings so as to enable all the members, and not only the Government delegates, to take part in discussions and debates. (3) That purely sight-seeing excursions be eliminated and their place be taken by road and other inspections of interest to road engineers. (4) That formal meetings and courtesy speeches be reduced to a minimum, and social functions confined to the evenings. (5) That the general reports and resolutions should be circulated at least three weeks before the Congress. (6) That the resolutions which form the basis of discussion shall be framed by persons who are recognised internationally as leading authorities on the subject to be discussed. (7) That an adequate paid secretarial staff shall be attached to the British delegation. (8) That time and facilities shall be provided to allow the representatives from the same countries to meet informally in order to enable them to co-ordinate their views on the resolutions and to draft resolutions and amendments which they desire to move. (9) That seats on the platform during the debates on the papers shall be provided only for (*a*) the chairman, (*b*) the general reporter, (*c*) secretaries of organising committees, and (*d*) translators—the rest of the Government delegates taking their seats with other members of the Congress in the body of the meeting.

A meeting of the Permanent International Commission will be held shortly in Paris to consider an invitation which has been received from the Italian Government that the next Congress—the fifth of the series—shall be held in Italy. Before voting for or against the acceptance of this invitation, Mr. Rees Jeffreys wishes first to obtain the opinions of the principal British organisations supporting the Association, in case they desire that he should propose on their behalf any changes in the policy pursued in selecting the venue of the Road Congresses, as well as in the procedure adopted at its meetings.

ROYAL SANITARY INSTITUTE.

Programme for Conference at Hull.

The Thirty-fourth Congress and Health Exhibition of the Royal Sanitary Institute is to be held at Hull from July 30 to August 4, under the presidency of the Right Hon. T. R. Ferens, P.C., J.P., High Steward of Hull. Nearly 500 delegates have been appointed, and many representatives of public health bodies are expected. The following Government departments have appointed delegates to the Congress: Admiralty; Board of Control, England; H.M. Office of Works; War Office; Scottish Board of Health; Ministry of Health. Foreign and Dominion Governments and Municipalities are also sending representatives as follows: Bombay; South Australia, New South Wales, Victoria; Brisbane; Perth; New Zealand; Christchurch, New Zealand; Capetown; Kimberley; South Africa; Czecho-Slovakia; Greece; Mexico; United States of America. In addition, many of the members of the Institute (which total over 5,000) will be attending.

The Congress will be opened by the President's inaugural address, followed by lectures. There will be conferences on sanitary science, engineering and architecture, maternity and child welfare (including school hygiene), personal and domestic hygiene, attended by representatives of sanitary authorities, port sanitary authorities, medical officers of health, engineers and surveyors to public authorities, veterinary inspectors, sanitary inspectors, and health visitors. An exhibition of apparatus and appliances relating to health and of domestic use will be also held in connection with the Congress.

The following is a list of Members and Associates, elected July, 1923:—

Members.—Mr. G. R. Bruce, M.A., M.D., D.P.H. (M.O.H.), (Hastings), Mr. J. H. Contractor, L.R.C.P. & S. (Edin.), D.P.H. (Assistant Medical Officer, Rangoon), Mr. N. B. Cran (Salisbury, S. Rhodesia), Mr. D. Forbes, M.B.E., M.D., B.Sc., D.P.H. (M.O.H.), (Brighton), Mr. G. T. Hill (Letchworth), Mr. B. S. Joshi, M.B., B.S. (Bombay), (Matunga, Bombay), Mr. B. Mohanti, B.E.(Cal.), (Patna, India), Mr. E. S. O'Brien, B.A., B.E., M.Inst.C.E.I. (Belmont Park, Western Australia), Mr. J. Robertson, M.B., M.S., D.P.H. (M.O.H.), (Darwen), Mr. G. R. Whale (Pretoria), Mr. R. J. Williams, A.M.Inst.M.& C.E. (Gillingham, Kent).

Associates.—Mr. B. T. Bailey (Southsea), Mr. H. L. Baty (Birkenhead) Mr. E. G. Carey (Krugersdorp), Mr. I. E. Clark (Langport, Somerset), Mr. D. Cuthbertson (Leonora, W. Australia), Mr. E. M. Denbury (Abergavenny), Mr. G. L. Evatt (Syston, near Leicester), Mr. J. N. Hughes (Sherwood Rise, Nottingham), Mr. J. W. Lewis (Hamilton, New Zealand), Mr. B. R. Madge (Pontardawe, Glam.), Mr. W. S. Marshall, (Treorchy, Glam.), Miss K. M. D. Oliker (Glenageary, Co. Dublin), Mr. J. W. Phillips (Pinelands, near Cape Town), Mr. S. M. Pillay (Rangoon), Mr. O. Pincock (Erith), Mr. G. Rae (Salt River, South Africa), Mr. C. W. Smith, B.A., A.R.I.B.A. (Cambridge), Mr. A. C. Swim (Brisbane), Mr. D. I. Treharne (Llanelly), Mr. C. W. Walsh (Streatham).

The Right Hon. Viscount Burnham has accepted the office of Vice-President of the Institute.

SHEFFIELD TOWN HALL EXTENSION.

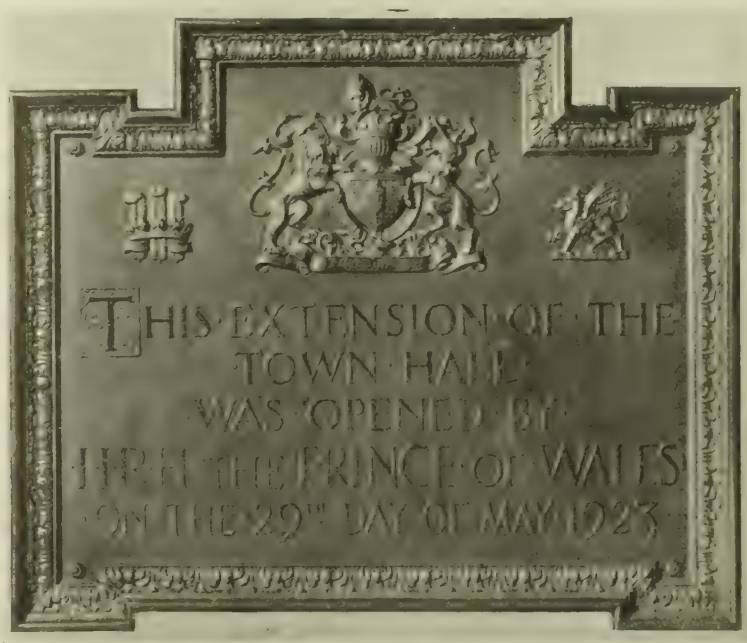
The Sheffield Town Hall extension was opened by the Prince of Wales on June 29. The original portion of the Town Hall, which was designed by the late Mr. E. W. Mountford, was opened by Queen Victoria in May, 1897.

The new building has frontages to Norfolk-street and to the open space of St. Paul's churchyard, and connects the earlier portions of the structure. While the site is only about one fourth of the whole, the floor area of the extension is nearly half that of the original building. This has been attained by increasing the height of the main frontage to seven stories above the basement. The accommodation provided includes new Council library and conference rooms, with rates collecting hall, and new and extended offices for various departments, some of which previously occupied premises outside the Town Hall. This work began in 1914, suspended in 1916 on account of war, was resumed in 1919 and is now practically completed, the estimated cost being about £120,000.

The principal contractors were as follows:—

General contractors, Messrs. G. Longden & Son, Ltd.; structural steelwork, Messrs. Walter Scott, Ltd., Leeds Steel Works; heating and ventilation, The Brightside Foundry & Engineering Co., Ltd.; slating, Proctor & Son; plastering and tiling, Hodkin & Jones, Ltd.; plumbing and glazing, H. Braithwaite & Co., Ltd.; painting, F. Naylor, Ltd.; electric installation, Corporation Electric Supply Dept.; metal casements and dome, Mellowes & Co., Ltd.; leaded glazing, Robertson & Russell, Ltd.; mosaic paving, Rust's Vitreous Mosaic Co.; fireproof floors, Kleine Syndicate, Ltd.; fireplaces and ironwork, H. E. Hoole & Co., Ltd.; J. W. Wilson and Hydes & Wigfull; sanitary fittings, Twyfords, Ltd.; stone and wood carving, F. Tory & Sons; asphalte, Claridges Asphalte Co. and The Limmer Co., Ltd.; strong room doors, Ratners, Ltd.; marble work, Walton, Goody & Cripps and Burke & Co.; office fittings, John Walsh, Ltd. The Clerks of Works were Mr. G. Prebble and Mr. F. W. McInnes.

The new building was designed by and erected under the supervision of Mr. F. E. P. Edwards, F.R.I.B.A.



Commemoration Tablet, Sheffield Town Hall Extension.
Mr. F. E. P. Edwards, F.R.I.B.A., City Architect.

THE BUILDING TRADE.

ESTIMATING FOR SMALL BUILDERS—III.

By J. H. BARNS, F.I.O.B.

CARPENTER.

For readily dealing with this trade it is essential that an estimator be fully conversant with the methods of squaring dimensions. These may be generally stated as methods of arriving at the superficial area or cubical contents of any piece of timber, either by cross multiplication, duodecimals, or other system. These are commonly taught in schools and are generally known, but even the most experienced will find new uses for these systems of multiplication if they would only spend a little time in restudying the subject. Upon a price per standard of timber being stated an estimator should be able by simple mental arithmetic to state the price per ft. run of door frame. Problems in mental arithmetic, however, do not come within the scope of this article.

Analysis of prices for carpenter's work must be dealt with under two main divisions—"material" and "labour." The cost of "material" would depend upon the size and quality of wood selected. There are over 80 sizes of deal ordinarily imported into this country, and a very large number of firms import some or all of these sizes, each having their own standard of quality, so that in dealing fully with the question of prices some hundreds of rates must be dealt with. This is quite impossible for practical purposes, and an average of the size or quality of timber required should be taken. The size of timber required may possibly be found from the quantities. The specification will probably state the quality required. Timber is sometimes specified to come from ports which do not now export timber. It is useless for anyone to expect to buy first quality Archangel deal to satisfy the requirements of all estimates, as there is not sufficient of this quality of wood coming into London to satisfy the requirements of the largest building firms. Timber merchants will not sell first quality wood without a much greater quantity of lower qualities is purchased. The estimator must, therefore, find out what quality of timber will satisfy the customer, and quote accordingly. The best way to acquire information as to the value of timber, is carefully to examine the four or five different qualities of the very best deal, such as Archangel, you may have access to, note its chief characteristics and its price, and after some experience you may be able to arrive at some idea of the value of the quality of the timber required for the job. Before the War, some of the outstanding characteristics of Archangel deal were as follows :—

1st quality.—A few centres, a few small knots, occasionally a little sap, slight shakes.

2nd quality.—A proportion with centres, knots a size larger, more sap, and shakes.

3rd quality.—Centres, definite shake on one side, pith, larger knots, proportion of sap. Suitable for medium class joinery or good class carcasing.

4th quality.—Centres, large knots (usually termed coarse), sap, proportion of waney edge, shakes.

Unsorted is usually a quality between 3rd and 4th.

5th quality.—A few knots, little sap, cross shakes, dote, a little waney edge, or dead sap.

The quality of imported timber has not improved since the War. The batten sizes of timber present a more attractive appearance than the deal and plank scantlings, but the stuff is less mature. If an estimator will construct a table on the above lines from his own observations, he will find it of great value. One can form an opinion of the quality of timber by reversing the procedure, as if a first quality deal is offered at £30 per standard and the price of 4th quality Archangel or similar grade wood is £30 per standard, it may be reasonably inferred that the first quality wood offered is equal to 4th quality of some well-known firm's goods. The cost of timber, apart from quality, will depend chiefly upon the size, as deal 11 in. wide would be very much dearer per ft. cube than wood 6 in. wide.

The following are a few examples to show the variation in prices. The prices are not given with the intention of quoting the lowest market rates, as it is presumed that the estimator will know these from his ordinary sources of supply and he will, therefore, be able to keep in touch with the ordinary fluctuations of the market, although the prices quoted for labour and material are those current in London at the present time :—

Quality.	3″×11″	3″×9″	3″×8″ & 3″×7″	2″×11″	2″×9″	2″×7″
Equal to 1st Archangel yellow deal	£72	£65	£47	£72	£67	£47
2nd	60	56	42	60	56	40
3rd	38	38	30	47	44	30
4th	29	29	26	32	32	25
Inferior brands of deal from various ports	26	25	22	26	27	22

Prices are per Petersburg standard at the docks, and to which must be added the cost of delivery. Timber stored under sheds in docks is likely to be in a better condition than that stacked in the open yard.

The principal imported sizes of deal are: 11 in., 9 in., 8 in., 7½ in., 7 in., 6½ in., 6 in., 5½ in., 5 in., 4½ in., 4 in. wide, and ½ in., ¾ in., 1 in., 1¼ in., 1½ in., 2 in., 2½ in., 3 in. and 4 in. thick. The hammer marks or brands on timber are convenient for identification. Imported sizes of timber less than 7 in. wide are usually immature and are often of inferior quality. A Petersburg standard contains 165 cu. ft., and at 1s. per cu. ft. would cost £8 5s. per standard, or could be roughly stated at £8 per standard. £48 per standard would be 6s. per ft. cube, and 6d. per ft. run of 4 in. by 3 in. On these lines one can easily arrive at the approximate price per ft. run of scantling when the price per standard is known. To state the matter in another way, by what is known as the inch by inch method, 6s. per ft. cube represents a ½d. on every sq. in. of sectional area; therefore, 4 in. by 3 in. = 12 sq. in. sectional area at ½d. per in. = 6d. Similar results can be obtained by cross multiplication.

A square of boarding= 100 super ft. One square of 1 in. boarding is roughly one-twentieth of a standard, so that if deal were £30 per standard it would equal 30s. per square 1 in. thick. The method of arriving at the price per square of ¾ in. or 1¼ in. boarding on these lines is obvious. Imported planed boards are usually sold at the same prices as unplaned boards of the same mark, and it would, therefore, seem that no charge is made for planing, whereas planed boards are more expensive because they are usually about one grade lower in quality than unplaned boards. Unplaned boards hold up the full thickness of wood, whereas in the case of 1 in. prepared boards they would be about 13–16 in. finish.

Example (feet cube fir in plates and lintels) :—

The scantling of the fir is not usually stated, but will probably be about 4 in. by 3 in. The 4 in. by 3 in. imported size is of inferior quality, and for a decent job they would have to be cut out of, say, 3 in. by 8 in., equal to 3rd Archangel.

Feet.	s.	d.
6 run 3 in. by 8 in. deal, at 4s.	4	0
6 ,, flat cutting, say		2
Waste, 5 per cent., say		2
Labour fixing	1	7
	5	11
Add profit and oncosts, 15 per cent.		10
Per ft. cu.	6	9

The cost of labour will necessarily depend upon the class of work, supervision, and many other factors, and must be verified. It would also depend upon the sectional area of the timber to be fixed, as the larger sized timbers will cost relatively less per cu. ft. to fix than the smaller ones. In practice it would cost just as much to fix a 4 in. by 3 in. plate as it would a 4½ in. by 3 in., so therefore all one's calculations on the subject are of little avail. The only possible method of pricing labours when the sizes are not stated is to take them at an average price per ft. cube, or if they are stated, somewhat on these lines :—

	Per ft. cube
18 in. and under square section	1s. 7d.
From 18 in. to 36 in. ditto	1s. 6d.
From 36 in. to 81 in. square end section	1s. 5d.

Example (feet cube fir framed in floors) :—

Fixing wooden joists is worth about 2d. per ft. cube more than fir in wall plates. The cost of framing cannot be exactly stated, as no indication is usually given in the description of quantities of the amount of framing required. Fir framed in joists may mean that every joist is to be framed (that is, mortised and tenoned or otherwise worked), or it may mean that only one joist on a floor has to be framed. Framing is worth from 8d. to 2s. per ft. cube.

Sometimes the description of the timber required in the estimate does not exactly state that imported sizes are to be used, but some form of wording is inserted which leaves the matter in doubt whether imported sizes of deal or fir sawn out of baulk timber are required. Where the wording of the description of the timber is ambiguous, it may fairly be presumed that for items in estimate of fir in plates, or framed in floors and roofs (as rafters), imported sizes can be used. If, however, one description covers both roof and roof trusses, presume one-third would be out of baulk timber. Space will not permit of an analysis of cost subsequent upon conversion and cutting timber, although it may roughly be stated at 30 per cent. on the first cost of timber.

Example (feet cube fir framed in roof trusses) :—

1 cu. ft. sawn timber	5s.	6d.
Waste (in fixing), say, 5 per cent.		3d.
Labour, say	2s.	6d.
	8s.	3d.
Add profit and oncosts, 15 per cent.	1s.	3d.
Per ft. cu.	9s.	6d.

Example—Squares — sup. flat boarded centering for concrete floors and all necessary cutting to 10 ft. story and striking when directed :—

1 sq. 1¼ in. boarding, say, 35s. sq.		£1	15 0
4–10 ft. (40 ft.) 4 in. by 3 in heads	3 ft. 4 in		
12–9 ft. (108 ft.) 4 in. by 2 in. struts	6 ft. 0 in.		
	ft. cu.		
	9 ft. 4 in. 3s. 6d.	1	12 8
Wedges, &c.			2 0
Total cost		£3	9 8
If used three times		1	3 3
Carpenter, 5 hours at 1s. 7½d.			8 1½
Labourer, 5 hours at 1s. 2¼d.			6 2
		£1	17 6½
15 per cent.			5 8
Per square		£2	3 2½

With care the timber may be re-used three or four times. There are many methods of spacing timbers, &c., but the above quantity should suffice. If hanging irons are used, cost would be similar. The cost of labour will depend upon how the centering is fixed against girders, &c. (the above is a simple form). Casing to form temporary beams would cost about 50 per cent. more than above for labour. Timber would cost more, as wider stuff would be used.

Example (feet— sup. centering to segmental apertures):—

A centre 3 ft. 6 in. long and 14 in. wide would girt about 3 ft. 9 in. by 1 ft. 2 in. = 4 ft. 4 in. super.

2– 3 ft. 6 in. 5 in. by 1½ in. deal sides, say	1s. 6d.
23– 1 ft. 2 in. 1 in. by 1 in. lagging ..	10d.
Nails	1d.
Cost of material, 4 ft. 4 in. super	2s. 5d.
Material per ft. super. ..	6½d.
Labour, say, ...	1s. 0d.
Ft. super	1s. 6½d.

Charge for use of struts can be set against credit of timber. It may be possible to re-use centres for other openings on the job.

Add profit and oncosts.

Example (squares — sup. 2 in. by ¾ in. slating battens for Countess slating, 3 in. lap. Battens would be 8½ in. centres) :—

14–10 fts = 140 ft. batten, say.. ..	5s. 0d.
5 per cent. waste	3d.
½ lb. nails..	3d.
Carpenter, 2 hours at 1s. 7½d... ..	3s. 3d.
Per sq...	8s. 9d.

Add profit and oncosts.

2 in. by ¾ in. imported slating battens can be purchased for about 2s. 1d. per 100 ft. run.

[Note.—In Article II, col. 2, line 26, for 500 bricks read 50.]

BUILDING TRADE HOURS.

The official returns from the building trade unions on the proposed change of working hours were issued this week. The proposals were :—

No. 1.—Are you in favour of establishing in the national working rule agreement a variation of the present working week, and setting up what is known as the "spread over," 44 hours weeks, by a longer working week in the eight summer months, 44 hours for two months, and 41½ hours for two months ?

No. 2.—Are you in favour of maintaining the present maximum 44 hours week for ten months, and 41½ hours for two months ?

Proposal No. 1	12,772
Proposal No. 2	118,504
Majority against	105,732

Individual unions voted as follow :—

	Proposal No. 1	Proposal No. 2	Majority
Amalgamated Society of Woodworkers	4,385 ..	35,678 ..	31,293
Amalgamated Union of B'ld'g Trade Workers	2,640 ..	19,756 ..	17,116
National Painters' Society	2,277 ..	19,430 ..	17,153
United Operative Plumbers' Association	597 ..	6,250 ..	5,653
Slaters and Tilers' Provident Society	60 ..	713 ..	653
National Association of Operative Plasterers ..	591 ..	5,085 ..	4,494
Street Masons and Paviors' Society	39 ..	525 ..	486
Amalgamated Society of Woodcutting Machinists	275 ..	1,446 ..	1,171
"Altogether" B. L. and C. W. Society	631 ..	12,136 ..	11,505
N.B.L. and C.W. Society	432 ..	6,316 ..	5,884
National Union of General Workers	619 ..	7 097 ..	6,478
Workers' Union.....	149 ..	1,678 ..	1,529
Building and Monumental Workers' Association, Scotland	50 ..	1,728 ..	1,678
Amalgamated Slaters' Society of Scotland	27 ..	666 ..	639
Total	12,772 ..	118,504 ..	105,732

STANDARD RENT.

There seems some point in a letter dated June 5, by Mr. W. H. Devenish, and which recently appeared in *The Times*, on the subject of standard rent under the Rent Act. He points out that, in the definition of "standard rent," the Act does not take into consideration whether on August 3, 1914, the tenancy was an old tenancy or a new one, and whether it was or was not a repairing lease or only a yearly tenancy, and he gave examples of the result of treating all houses, whatever the tenancy, alike.

At the time the legislation was instituted it only applied to houses which from their character were likely not to be let on leases compelling tenants to repair, and in 1920, in the new Act, some attempt was made to deal with this question by allowing a greater increase of rent where the landlord was responsible for the whole of the repairs. So part of the grievance has to some extent been met, as some difference is now made between a repairing lease and a non-repairing lease where the landlord is responsible for the whole of the repairs. Where, however, the tenant is responsible for part of the repairs the twenty-five per cent. has to be reduced, and in such cases the standard rent clearly does not take into consideration the difference between a tenancy existing in 1914 where a tenant is liable for some repair and a tenant is liable for no repairs at all.

As regards Mr. Devenish's first point, that no account is taken as to the age or currency of the lease or agreement as at the date fixed by the Act, no attempt at all has been made to deal with this question, yet, as Mr. Devenish points out, it has a very important bearing on the rent. No one conversant with house property, in London especially, can fail to recognise that the rent of a house in 1914 at the end of a lease, and the rent of one held on a lease then just renewed or granted, would be very different, and it can only be assumed when the Legislature adopted this rough test it was never imagined that the legislation would be extended and continued for long after the war had ended, but the effect has been not to fix rents on any commercial basis as at August, 1914, but to create an arbitrary standard rent for all houses let on that date, although the leases may date from long before that date.

With the extension of the Acts to houses of higher values and the prolongation of the Acts for so long a period this injustice has become more apparent, but remedy can hardly be looked for when houses are treated as so many counters in a political game.

NEW BUILDINGS IN LONDON.

Edgware-road.—Cinema.—Plans of the new Grand Cinema have been approved by the L.C.C., and it is hoped to proceed with the work at an early date. No contracts have been entered into in respect of the new building. The architects are Messrs. W. G. R. Sprague & W. H. Barton, of 2, Clement's Inn, Strand, W.C.2.

Tottenham Court-road.—Shops and Flats.—Messrs. Y. J. Lovell & Son are erecting shops and flats at 114–115, Tottenham Court-road, under the superintendence of Mr. A. H. Middleton, architect. It is a four-storied building with Bath stone entrance and dressings with main elevation to Tottenham Court-road.

Lewisham.—Plans passed by B.C.: Two houses, Cranston-road, for A. Fitzsimmons; three houses, Belmont-hill, for L. Shore; house, Winn-road, for S. J. Judd; house, Winn-road, for C. Cutler & Son; house, Winn-road, for J. G. Whitcombe; cinema, High-street, for Sir C. T. Ruthen & Co.; nine houses, Rushford-road, for A. J. Glock.

Tottenham Court-road.—New Building.—Messrs. Catesby's, Ltd., have acquired the site on which stood for many years the well-known public house, "The Talbot." On this site they are to erect an eight-story building, which will link up their present extensive premises in Tottenham Court-road, Goodge-street, and Whitfield-street. The builder is Mr. T. Shillitoe, and the architects, Messrs. H. A. & A. S. Whitburn.

Oxford-street.—Building.—Shops and offices are being erected at the corner of Oxford-street and Lumley-street. The building will have a 56 ft. frontage to Oxford-street and 100 ft. to Lumley-street, and will be five stories high (not including basement). Steel frame construction, fronts faced with Portland stone, and cast-iron panels with windows between the piers. Sub-contracts already let include :— Constructional steelwork, Messrs. A. D. Dawnay & Sons, Ltd.; stonework, Messrs. F. J. Barnes, Ltd.; cast-iron fronts, Messrs. Walter Macfarlane & Co.; electric lighting and heating, Messrs. Duncan Watson & Co. General contractors: Messrs. F. D. Huntington, Ltd. Architect: Mr. G. Thrale Jell, A.R.I.B.A.

BRISTOL HOUSING SCHEME.

The report of the Housing Committee, presented at the last meeting of the Bristol City Council, recommended the granting of a lease to the Great Western Railway Co. of a portion of the City's housing estate at Knowle for the erection of 50 houses, subject to the payment of an annual ground rent of £3 12s. 6d. per plot. The company had agreed to erect 26 parlour houses and 24 non-parlour houses in accordance with plans, which have been approved by the Corporation. The houses will be of a similar type to those already erected on the estate. The Committee reported that tenders had been accepted for the erection of 160 houses on Fishponds, Knowle, Luckwell-road and Highbury-road sites. For non-parlour houses the lowest price received was £325 per house, and the maximum price for parlour houses was a little less than £400. The prices were one-third of what they were some little time ago. The Chairman drew attention to the fact that non-parlour houses at £325 were semi-detached houses, whereas the contract price for terrace houses was £350. The last portion of the report dealt with a pamphlet which had been prepared relative to the assistance to be given to private enterprise. The Committee had prepared five different schemes and, at a meeting of the master builders in the city, which had been well attended, the feeling was expressed on the part of all present that they should do everything they could to co-operate in the building of houses. A copy of the pamphlet had been sent to each local builder. The report was adopted by the Council.

Housing in America.

In face of the abnormal demand for housing, new building operations in the United States suffered a further setback in June. According to *Bradstreets* (quoted by *The Times* New York correspondent) permits for construction were valued at $225,090,818 (about £49,000,000) for that month, against $263,044,107 (about £57,000,000) for May. For June, 1923, they show a lower total than for the corresponding month of 1922. The contraction is due to scarcity and the extraordinarily high cost both of labour and building materials. In New York City, where the need for many additional school buildings is pressing, Mayor Hylan has called a mass meeting of bricklayers and masons to devise a way of getting the schools built. The labour unions some time ago promised to furnish men to work on school building at $12 (52s.) a day, but were unable to keep their promise because the average wage on the other jobs was $16 (nearly 70s.). In the Police Force and in the City Departments are many former bricklayers and masons. To these the City is offering leave of absence if they will ply their old trades in school building until the emergency has passed.

THE WEEK IN PARLIAMENT.

WESTMINSTER, *Wednesday.*

The Housing Bill.

DURING Committee stage of the Housing (No. 2) Bill, in the House of Lords, Lord Crawford moved the addition of a new clause, which, he said, authorised the preparation of town-planning schemes in places where there is a special interest, whether architectural, historic or artistic. This could only apply to a very small number of areas in this country, but those areas were in many ways the most interesting and most historic in Britain, and as such were most deserving of consideration. The clause provided in a very modest fashion an opportunity of preserving the historic character of such places.

Lord Onslow, on behalf of the Government, accepted the new clause, which was added to the Bill.

Some discussion took place on an amendment moved by the Bishop of Southwark to limit the number of houses to be built to twelve per acre. He pointed out that there was nothing in the Bill to prevent the building of fifty houses to the acre. There was thus a real danger that there might be overcrowding in the building of houses which were good in themselves. They had to take care that they did not create new slums and problems for the future.

Lord Onslow said the Government could not accept the amendment, although they were in sympathy with its objects. If it were carried, the building of houses would be delayed, and the Government thought it better that the question should be left to the local authorities.

The amendment was negatived.

The Rent Bill.

In spite of a motion for its rejection, moved by the Labour Members, the Rent Bill has passed the third reading in the House of Commons by 212 votes to 111—Government majority 101. Mr. Chamberlain, after replying to a number of points of detail, said the measure was, he believed, generally recognised as an honest attempt to hold the balance fairly between all parties, and he looked forward with confidence to the future, which would be the only true test of the Bill.

Lead Poisoning.

In the course of a debate on the Home Office Vote, a number of Members called attention to the growth of lead poisoning among painters, and urged the Government to put into force the Geneva Convention with regard to the use of white lead.

Mr. Locker-Lampson, Under Secretary to the Home Office, after stating that until misunderstandings had been cleared up it was difficult to put the Convention into force, said he understood that a new process involving the use of wet sand-paper had been invented by means of which the old dangers arising from dry rubbing down could be prevented. It was absolutely essential that further experiments should be made with this new material before a decision was come to.

Price of Building Materials.

Mr. A. T. Davies asked the Minister whether he was aware that since the publication of the Government housing proposals the prices of good, sound building timber, iron and steel bars, glass, white-lead paint, red-lead paint, and other essential building materials had been considerably raised; and whether any means were being adopted to protect builders from these prices?

Mr. N. Chamberlain said the fluctuations in prices of materials from April to June of this year would be seen in the schedule attached to the first interim report by the Committee on the Cost of Building Materials. For the most part prices had remained constant. Fluctuations had, however, occurred in different areas and in certain materials, but had included reductions as well as increases in price.

Sir W. de Frece asked the Minister whether, in view of the certain shortage of building material, he would consider the desirability of employing available and serviceable unemployed labour on schemes of increasing output.

Lord E. Percy, who replied, said there was no evidence at present of any general shortage of building materials, but he had no doubt that manufacturers would increase the employment of serviceable labour up to the limits of their output capacity if they were warranted in so doing by the demand for their products.

Cost of Building.

Mr. N. Chamberlain informed Mr. T. Thomson that the highest monthly averages of cost of building per square foot were as follows:—

	s.	d.
Non-parlour type for September, 1920	20	8¾
Parlour type for October, 1920 ..	19	3

Individual figures did not exceed 22s. per square foot save in a few very exceptional cases. During the last six months tenders at or about 7s. per square foot for both types of houses had been approved, and these might be taken as representing the lowest figures reached. Returns of tenders accepted by local authorities under the new scheme were not yet available, but such tenders as had been referred to the Ministry did not indicate any general departure from the figures of the last six months.

Answering a further question, Mr. N. Chamberlain said that for the last twelve months contracts had usually been let at lump sum prices without quantities and without allowance for fluctuations in rates of labour or prices of materials. No rent data were accordingly available for arriving at any reliable average percentages of the cost of whole work represented by the various trades engaged in building. The percentages varied considerably according to the design of the individual house, the locality and the period and general conclusions could not be drawn from individual examples. An estimate made in the summer of 1921 from a number of examples gave the following average figures for the percentages of the total cost:—

	Per cent.
Excavator, Concretor, &c. ..	7
Bricklayer, &c.	35
Carpenter and Joiner	22
Slater and Tiler	8
Plasterer	9
Plumber and Glazier	12
Painter	4
Sundries	3
	100

Hours Taken in Building.

Mr. N. Chamberlain informed Mr. T. Thomson that complete records of the numbers of hours occupied in the erection of houses were not available. The general tendency was, however, indicated in the following figures obtained from an analysis of the figures for four schemes for which continuous records were kept over a long period. In these schemes the highest recorded average figure was 4,664 hours per house in respect of houses completed in the quarter ending December, 1921, while the lowest comparable figure was 2,711 hours per house for houses completed in the quarter ending March, 1923. The reduction in hours during this period was continuous and fairly regular.

The Subsidy.

Replying to a number of questions, Mr. N. Chamberlain said that there was no authority for the statement that the grant by the State of £6 per house for 20 years would be dependent on the local authority making a contribution out of the local rates. Where the local authority, with his approval, themselves erected houses complying with the Bill, the Government grant would in all cases be £6 for 20 years. Where the local authority granted assistance to private enterprise, the Government grant would be £6 for 20 years if the total assistance so granted was equal to or greater than the equivalent of this annual payment. If the total assistance granted to private enterprise was less than the equivalent of £6 for 20 years, the Government contribution, in accordance with the latter part of the proviso to Clause 1 of the Bill, would be the equivalent of the total assistance actually granted.

Wooden Houses.

Lieutenant-Commander Kenworthy asked the Minister of Health whether, in view of the fact that the shortage of houses would still be acute at the end of this year, he proposed to continue in force the relaxed bye-laws of the Ministry of Health with regard to wooden houses beyond that date.

Mr. N. Chamberlain said that section 25 of the Housing, Town Planning, &c., Act, 1919, which enabled local authorities during a limited period to consent to the erection and use of buildings notwithstanding the provisions of building by-laws, was at present in force till December 31, 1923. Provision had been made in the Expiring Laws Continuance Bill to extend the operation of the section for another year. A person aggrieved by the neglect or refusal of a local authority to give a consent under the section had a right of appeal to the Minister of Health.

Schemes in Surrey.

Mr. N. Chamberlain informed Mr. Ede that schemes have been submitted under the new Housing Bill by Guildford Town Council and Caterham Urban District Council for the erection of 110 houses and 20 houses respectively by the local authorities, and by Maldens and Coombe Urban District Council for the erection of 302 houses by private enterprise. The scheme proposed by Caterham had been approved. The others were under consideration, and a decision would be given shortly.

Brick Prices.

Mr. N. Chamberlain informed Mr. D. G. Somerville that the question of brick prices was engaging the attention of the Committee on Building Materials Prices, who would report further on this subject at an early date. The last published price for Fletton and best and second-hand stock bricks delivered in London was £2 13s. 3d. and £4 2s. and £3 17s. per 1,000. From the published market rates it did not appear that any increase in the price of Fletton bricks delivered to King's Cross had been recorded for some considerable time. It was known that there was a great demand for Fletton bricks in the South of England, and that the manufacturers were making great efforts to meet it.

Housing Loans.

Mr. Emlyn-Jones asked the Minister whether, in view of the fact that local authorities were able to obtain loans for housing purposes at 4¾ per cent. or less, and that the present rate at which they were authorised to intending borrowers under the Small Dwellings Acquisition Acts, viz., 5½ per cent., tended to limit the number of possible house purchasers under the Act, he would issue an order permitting loans to be granted at 5 per cent.?

Mr. N. Chamberlain said the present general rate was 5½ per cent., but lower rates had been fixed in special cases, and he was prepared to consider any case where the local authority were of opinion that 5 per cent. is an adequate rate for their area.

Contract Prices.

Mr. T. Thomson asked what was the average contract prices at the present date for non-parlour and parlour houses, exclusive of lands, roads, sewers?

Mr. N. Chamberlain said that complete information was not yet available, but tenders submitted to him in May and June have ranged from £277 to £400 for non-parlour houses and from £329 10s. to £444 for parlour houses.

Office of Works Staff.

Sir J. Baird, First Commissioner of Works, informed Sir H. Brittain that the professional, administrative and clerical staff of his Department numbered 1,786, and cost in salary and wages approximately £580,000 per annum. In 1913 the number was 655 and the cost approximately £148,000.

NEW BUILDINGS IN SCOTLAND.

Falkirk.—Club House.—The Dean of Guild Court has passed plans for a club house at the new golf course at an estimated cost of £1,550, and for extensions to properties involving an expenditure of £2,000 in all.

Aberdeen.—Various.—Twelve plans, involving an expenditure of £6,405, have been passed by the Plans and Sewerage Committee of the Town Council. The principal one was for additions to Elmhill House, Cornhill-road, submitted on behalf of the directors of the Royal Aberdeen Mental Hospital, which is estimated to cost £2,000. Another plan which was submitted by the Aberdeen Picture Palaces, Ltd., for extensions and alterations to the Globe Picture House, estimated to cost £1,500, was also passed. The list included a house in Broomhill-road for Mr. P. Smith, Newlands, to cost £1,100. The Aberdeen Race Meetings, Ltd., had a plan for a spectators' stand at Seaton House to cost £500. The remainder were for extensions and alterations to existing premises. The Aberdeen Education Authority has been recommended to pass plans for a memorial pavilion to be erected on the Grammar School playground at Rubislaw.

Lanarkshire.—House.—The District Committee of the Middle Ward of Lanarkshire propose that a new programme for the provision of additional houses should be undertaken as soon as possible, subject to the necessary consents. The Committee propose, under the new housing subsidy, to make a lump sum payment to private builders and themselves to undertake the completion of their original scheme propounded in 1919. They also propose that a scheme for slum clearance should be commenced without delay. The total number of houses involved is over 2,000.

Leith.—Houses.—The Corporation has been recommended to erect 30 additional houses at Sheriff Brae, Leith.

Edinburgh.—Various.—Permission has been given to erect a garage in Lochrin Place-lane, at an estimated cost of £3,000, and to convert a house at 41, Moray-place into three small houses. The Dean of Guild Court has passed the following plans: A. Bremner, to erect three double-flatted cottages at Davidson's Mains; Henry Burnet, to erect a bungalow at Davidson's Mains; Peter Cameron, to erect a bungalow and garage at Milton-road, Portobello; Miss M. Clark, to erect a bungalow and garage at Drum Brae, Corstorphine; Craiglockhart Building Co., to erect 12 self-contained houses at Lockhart-avenue; Mrs. J. B. Gibson, to erect a dwelling-house at Duddingston; R. Scott Millar, to erect dwelling house and garage at Barnton; George Graham & Sons, to erect four semi-detached houses at St. Alban's-road; Spylaw Building Association, to erect two villas at Barnshot-road, Colinton. Edinburgh Corporation: To erect three blocks of three-storied tenements (three-roomed houses), at Hope-street, Corstorphine; the Plans and Works Committee has resolved to proceed with the erection of washhouses at Abbeymount at an estimated cost of £15,000.

Brechin.—Schools.—The Education Authority has approved expenditure of £380 in connection with the reorganisation of the High School and Bank-street School. One-third of the amount is for structural alterations, and the remainder for furnishings.

Cults.—Public Hall.—A scheme is on foot for a public hall at Cults, Aberdeenshire. Plans have been prepared for the new building by Brown & Watt, Aberdeen.

Kirkcaldy.—Education Offices.—The Fife Education Authority has approved of the extension to their offices at Kirkcaldy, at an estimated cost of £7,800.

Lochgilphead.—School.—At a meeting of the Argyllshire Education Authority at Campbeltown, the master of works was requested to prepare plans for a new junior school at Lochgilphead, and also alternative plans for the improvement of the existing building.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Masons'	Bricklayers'	Plasterers Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1 0
Bedford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0 11½
Birkenhead	1/9	1/9	1/9	1/9	1/9	1/10	1/9			1 4½
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1 0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3			0 11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1 0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1 1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Cambridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0 11½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Chatham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0 11½
Chelmsford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0 11½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1 0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Colchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0 11½
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1 1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1 1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1 0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½			1 0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0 11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3			1 0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1 1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½			1 2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Great Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0 11½
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1 0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0 11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3			1 0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Ipswich	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0 11½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6			1 1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1 1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1 5½			1 1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Liverpool	1/9	1/9	1/9	1/9	1/9	1/10	1/9			1 4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½			1 2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Luton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0 11½
Maidstone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0 11½
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1 1½
Norwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1 0
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1 0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Oxford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0 11½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5			1 1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1 0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Reading	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1 0
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Rochester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0 11½
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1 1½
St. Albans	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0 11½
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Scarborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1 1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1 1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1 0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1 0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3			0 11½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3			1 0
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0 11½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1 0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1 0½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1 1½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Windsor	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0 11½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1 2½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1 1½
York	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	5½			1 1½

(For rates of wages in the Building Trade in Scotland, see page 110.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

JULY 21.—**Camrose (Pemb.).**—ERECTION OF MANSE.—For erecting a new manse at Camrose (Pemb.), for the Trustees of Camrose Baptist Chapel. The Secretary, Elm Cottage, Camrose.

JULY 21.—**Colchester.**—HOSPITAL BLOCK.—Erection of a new out-patients' block at the Essex County Hospital, Colchester. Mr. W. T. Cressall, A.R.I.B.A., and Mr. Duncan W. Clark, A.R.I.B.A., joint architects, Colchester. Deposit £2 2s.

JULY 21.—**Cudworth and Darfield.**—PAINTING.—Tenders are invited for the external painting and repairs of Council Schools at Cudworth and Darfield. Messrs. G. J. Gibbs, Education Offices, Cudworth.

JULY 21.—**Elgin.**—HOUSES.—Tenders are invited for various works in connection with the erection of one block of four houses in Maisondieu-road, Elgin, for the T.C. Mr. A. G. Cockburn, Town Clerk.

JULY 21.—**Glasgow.**—GAS MAINS.—The Corporation Gas Department invite offers for (1) the execution of the excavator, concrete and brickwork required in the formation of foundations for a 30 in. gas main, and (2) the supply and erection of a 30 in. steel and cast-iron gas main at Provan Gasworks. General Manager, Gas Department, John-street.

JULY 21.—**Greenwich.**—HOUSES.—Erection of 50 houses on the Charlton Housing Estate, for the B.C. Town Clerk, Town Hall, Greenwich. Deposit £2 2s.

JULY 21.—**Hunslet.**—MEMORIAL HALL.—Erection of Temperance Memorial Hall on the Stoney-yard Estate, Church-street, Hunslet. Mr. S. Wagstaffe, secretary, 8, Arthington-street, Hunslet, Leeds.

JULY 21.—**Kirkburton.**—SCHOOL.—Erection of a new school at Kirkburton. Messrs. J. Berry & Sons, architects, 3, Market-place, Huddersfield.

JULY 21.—**Neath.**—PAINTING.—For painting and colouring of the Neath Public Library, for the B.C. Mr. H. Alex. Clarke, Borough Engineer, Gwyn Hall, Neath.

JULY 21.—**Pembrokeshire.**—PAINTING, &C.—For carrying out for County Education Committee, painting and distempering of following schools: County Schools at Tenby, Pembroke Dock, Milford Haven, and Tasker's School, Haverfordwest; Council Schools at Ambleston, Dew-street, Amroth; Goodwick; Barn-street, Llandeley. Mr. Owain T. Thomas, Lic.R.I.B.A., County Architect, Education Offices, Haverfordwest, or Head Masters at Schools.

JULY 21.—**West Riding of Yorkshire.**—RENOVATIONS.—For painting and distempering in connection with the following schools: Bolton-on-Dearne Council School; Boys', Girls' and Infants' Departments, Bolton-on-Dearne: Highgate Council School: Boys', Girls' and Infants' Departments; Mexborough Adwick-road Special Subjects Centre. Also for minor repairs at Mexborough Adwick-road, Doncaster-road, Dolcliffe-road, and Garden-street Council Schools, Conisborough Balby-street Council School, Thurnscoe Council School, Bolton-on-Dearne, Goldthorpe, and Highgate Schools. Mr. W. H. Jones, Divisional Clerk, Education Offices, Mexborough.

JULY 21.—**Worsboro' Bridge.**—PAINTING.—For painting at Barrow Working Men's Club and Institute, Thomas-street, Worsboro' Bridge, near Barnsley. Mr. S. Blackburn, Secretary.

JULY 23.—**Aldermaston.**—BRIDGE REPAIR.—For repair of Oatsford County Bridge, near Aldermaston, for the Southampton C.C. Mr. W. J. Taylor, County Surveyor, The Castle, Winchester. Deposit £1 1s.

JULY 23.—**Bangor.**—BUILDINGS.—For new buildings for the departments of Agriculture and Forestry, Chemistry, Physics, Botany and Zoology, for the University College of North Wales, Bangor. Mr. Alan Munby, F.R.I.B.A., 9, Old-square, Lincoln's Inn, London.

JULY 23.—**Beverley.**—VERANDAHS AT HOSPITAL.—For construction of verandahs at East Riding Mental Hospital. Mr. C. W. Hobson, 28, Lairgate, Beverley.

JULY 23.—**Birkenhead.**—ALTERATIONS.—Alterations and additions to laundry buildings at the Union Institution, Tranmere, for the Board of Guardians. Messrs. Edmund Kirby & Sons, architects, 5, Cook-street, Liverpool.

JULY 23.—**Blackpool.**—ADDITION.—Erection of a new Common Room, 50 ft. by 30 ft., at Secondary School, in Raikes-road. Mr. Francis Wood, M.Inst. C.E., Borough Engineer, Municipal Buildings, Blackpool. Deposit £1 1s.

JULY 23.—**Blyth.**—STAITHS.—Construction of the timber work required for the completion of the new North Side Staiths at Blyth, for the London & North-Eastern Railway Co. Mr. C. F. Bengough, Chief Engineer for the North-Eastern area, Forth-banks, Newcastle-on-Tyne.

JULY 23.—**Cardiff.**—HOUSING.—For the erection of houses in connection with Cardiff City Council's housing scheme. Town Clerk, City Hall, Cardiff.

JULY 23.—**Croydon.**—CONVENIENCE.—Erection of women's convenience, Parchmore-road, for the T.C. Borough Engineer, Croydon.

JULY 23.—**Dinas Powis (Glam.).**—PAINTING.—For painting the exterior of Dinas Powis Non-Provided Schools. Headmaster, at the Schools.

JULY 23.—**Doncaster.**—ADDITION.—Erection of a small annexe to a clinic at the Doncaster Royal Infirmary. West Riding Architect, County Hall, Wakefield.

JULY 23.—**Ely.**—HOUSES.—Erection of a limited number of houses at Ely, for Cardiff C.C. Office of the City Architect, City Hall, Cardiff. Deposit £2 2s to City Treasurer.

JULY 23.—**Hawick.**—BUILDERS' WORK.—For mason, joiner, plumber and painter work at the Hawick Technical Institute. Mr. William A. Edward, Executive Officer, Education Offices, Newtown, St. Boswells.

JULY 23.—**Rochford.**—REPAIRS.—Repairs to two cottages at "Hawkwell," for the R.D.C. Mr. A. C. Madge, Sanitary Inspector, Eastbene, Rochford.

JULY 23.—**Rowley Regis.**—ROLLER HOUSE.—Erection of a roller-house (or engine shed) at the Council's buildings in High-street. Mr. Daniel Wright, Clerk, Council House, Old Hill.

JULY 23.—**Slaithwaite.**—REPAIRS.—For building repairs at the Slaithwaite Nields Council School. Mr. William Heeley, Divisional Clerk, 4, Macaulay-street, Huddersfield.

JULY 23.—**Sowerby Bridge.**—HOUSES.—Erection of four houses on the Albert-road site, for the U.D.C. Mr. J. Eastwood, Surveyor, Council Offices, Sowerby Bridge.

JULY 23.—**Warrington.**—GLAZING.—For re-glazing a portion of the market roof, for the T.C. Mr. A. M. Ker, Borough Engineer, Warrington.

JULY 23.—**Westbury.**—BATHROOM, &C.—Erection of bathroom, sanitary convenience, &c., at Casual Wards, for the B.G. Mr. L. F. M. Blake, Surveyor's Office, Westbury.

JULY 23.—**West Riding of Yorks.**—VARIOUS WORKS.—Colour washing, painting and repair works at schools at Appleton, Biggin, Copmanthorpe, Selby Temp. C. (Abbey Institute), West Tadcaster, Dringhouses, for the West Riding E.C. Mr. A. Rayner, Divisional Clerk, W.R. Education Office Selby.

JULY 23.—**Worsborough.**—HOUSES.—Tenders are invited for the erection of 22 houses at Ward Green, near Barnsley. Mr. T. Shield, Council's Surveyor, Saville House, Worsborough Bridge, near Barnsley. Deposit £3 3s.

JULY 24.—**Connah's Quay.**—HOUSES.—Erection of twelve houses at Glynne-street, for the U.D.C. Mr. F. A. Roberts, M.F.A., Earl Chambers, Mold. Deposit £2 2s.

JULY 24.—**Crieff.**—ADDITIONS.—Additions to Crieff and District Cottage Hospital. Mr. T. Bowhill Gibson, Architect, 29, Queen-street, Edinburgh.

JULY 24.—**East Fortune.**—HOUSES, &C.—Erection of ex-soldiers' colony houses and steadings at East Fortune, East Lothian, for the Board of Agriculture for Scotland. Surveyor to the Board, York Buildings, Queen-street, Edinburgh. Deposit £1 1s.

JULY 24.—**Elland.**—WALL.—Pulling down and rebuilding of a boundary wall, 330 yards long, and for granite paving on concrete, for the U.D.C. Mr. P. H. Whitwam, Surveyor, Council Offices, Elland.

JULY 24.—**Liverpool.**—PAINTING, &C.—Painting and paperhanging at Olive Mount Institution, for the West Derby B.G. Works Department, Belmont-road Institution, Liverpool.

JULY 24.—**Liverpool.**—PAINTING.—For painting railings, shelters, bandstand, conveniences, &c., at Sefton Park, for the T.C. Land Steward and Surveyor, Municipal Buildings, Liverpool.

JULY 24.—**London, E.14.**—HOUSES.—Erection of 55 houses (in block) and a block of six flats on sites at Cubitt Town, Poplar, for the Poplar B.C. Borough Surveyor, Council Offices, Poplar, E.14. Deposit £3 3s.

JULY 24.—**Newbiggin-by-the-Sea.**—HOUSES.—Erection of 20 houses, for the U.D.C. Mr. R. Appleby, Surveyor, Council Offices, Newbiggin-by-the-Sea. Deposit £2.

JULY 24.—**Nottingham.**—PAINTING.—External cleaning and painting at various properties, for the T.C. Estates Surveyor, Guildhall, Nottingham. Deposit £1 1s. each contract (3).

*JULY 24.—**Penge.**—COURT HOUSE.—Erection of a court house, &c., at the Town Hall, Penge, for the Kent County Council; and for the enlargement of the Urban District Council Offices there. Mr. F. W. Ruck, County Architect, 86, Week-street, Maidstone, or Colonel Longden, Surveyor to the Urban District Council, at the Town Hall, Penge, upon payment of £2 2s. deposit.

JULY 24.—**Sheffield.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Sharrow, Sheffield, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s. Cheques payable to the Secretary.

JULY 24.—**Tottenham.**—FLATS.—Erection of three-story flats on the White-Hart-lane Estate, Tottenham, and construction of streets and sewers in connection, for the L.C.C. Architect to the Council, the County Hall, Westminster Bridge, S.E. 1. Deposit £3.

JULY 24.—**Truro.**—PAINTING.—For the painting and decorating of certain parts of the interior of the County Hall, Truro. County Architect, County Hall, Truro.

JULY 24.—**Wigan.**—ALTERATIONS.—For alterations at Public Baths, for the T.C. Mr. R. B. Donald, Borough Engineer, Wigan.

JULY 25.—**Ardrossan.**—HOUSES.—Erection of 20 houses, for the T.C. Joint Town Clerks, Burgh Chambers, Ardrossan. Deposit £1 1s.

JULY 25.—**Ashford.**—REPAIRS, &C.—For internal repairs, painting, &c., to the staircases, &c., to the Council Chamber, for the U.D.C. Mr. Wm. Terrill, Surveyor, Ashford, Kent.

JULY 25.—**Bournemouth.**—CONSTRUCTION OF PROMENADE.—Construction of proposed promenade and sea wall, for the County Borough of Bournemouth. Mr. F. P. Dolamore, Borough Engineer, Town Hall, Bournemouth Deposit £2 2s.

JULY 25.—**Cardiff.**—INFANT HOMES.—Tenders are invited by Cardiff Guardians for two semi-detached infant homes. Mr. R. Stephenson, Clerk, Union Offices, 11, Park-place, Cardiff. Deposit £3 3s.

JULY 25.—**Cardiff.**—LAVATORIES, &C.—Conversion of lavatories into store, and erection of additional lavatories at City Lodge, for the Board of Guardians. Messrs. Willmott & Smith, architects, 4, Park-place, Cardiff. Deposit £3 3s.

JULY 25.—**Cotford.**—COTTAGES.—Erection of four cottages at Cotford, for the Somerset and Bath Mental Hospital Visiting Committee. Mr. A. W. Caley, Clerk, Cotford, near Taunton.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-Masons' layers'	Plasterers' Labourers.
Aberdeen	1/7	1/8	1/7	1/7	1/8	1/8½	1/4½	1/–	
Airdrie	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/5	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/7	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Fort William	1/7	1/6	1/6	1/6	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/7	1/7	1/7*	1/6½	1/2½	
Inverness	1/7	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/–	
Lanark	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 109

JULY 25.—**Dewsbury.**—ALTERATIONS.—Alterations and extensions to Westborough Ratepayers' Club and Institute, Westborough, Dewsbury. Messrs. Kirk, Sons, & Ridgway, F.R.I.B.A., Architects, Market-place, Dewsbury.

JULY 25.—**Doncaster.**—HOUSES.—For erection of 75 houses on the Warmsworth-road site, 38 Class "A" and 37 Class "B" houses. Lump sum tenders required. Mr. R. E. Ford, A.M.I.C.E., Housing Surveyor, 3, Priory-place, Doncaster. Deposit £2 2s.

JULY 25.—**Gravesend.**—ALTERATIONS.—For alterations at Windmill-street Library, for the T.C. Public Library, Gravesend. Deposit £1 1s.

JULY 25.—**Hove.**—REFACING.—For refacing with Portland cement the Hove Baths, King's Esplanade, for the T.C. Borough Surveyor, Town Hall, Hove.

✱JULY 25.—**London.**—PAINTING AND REPAIRING.—Certain painting and repairing works at the following establishments: (1) Institution, 1A, Shepherdess-walk, N.1; (2) Administrative Offices, 53, Clerkenwell-road, E.C.1, for the Guardians of the Poor of the Holborn Union. Mr. Chas. J. Cross, Clerk to the Guardians, Administrative Offices, 53, Clerkenwell-road, E.C.1. Deposit £1 1s.

JULY 25.—**Newton Abbot.**—PAINTING.—For internal painting and decorating at the Congregational Church, Newton Abbot. Mr. Josias C. Beare, A.R.I.B.A., Architect, 42, Devon-square, Newton Abbot. Deposit £1 1s.

JULY 25.—**Nottingham.**—LIBRARY.—Erection of the Southern Branch Library, Wilford-grove, for the T.C. City Engineer, Guildhall, Nottingham. Deposit £2.

JULY 25.—**Pontypool.**—PAINTING.—For painting and decorating, inside and outside, of the Primitive Methodist Church and Schoolroom, Park-terrace, Pontypool. Mr. J. Lewis, Conway-road, Pontypool.

JULY 25.—**Reading.**—FITTINGS.—Supply and fixing of hard and soft wood fittings at the new Post Office, Reading. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

JULY 25.—**Rotherham.**—ALTERATIONS.—For minor alterations at the Grammar School. Mr. J. E. Knight, Architect, Regent House, Moorgate, Rotherham.

✱JULY 25.—**Salop.**—SCHOOL BUILDING.—Erection of a permanent school building at Weston Rhyn, to accommodate 300 pupils at Weston Rhyn, Oswestry, Salop, for the Salop County Council Elementary Education Department. Mr. H. E. Wale, Secretary, County Buildings, Shrewsbury. Deposit £2 2s.

JULY 25.—**Twickenham.**—ALTERATIONS.—Structural alterations in connection with the extension of the Fire Station, Queen's-road, for the U.D.C. Mr. Fred W. Pearce, Surveyor, Town Hall, Twickenham.

JULY 25.—**Whitehaven.**—HOUSES.—Erection of **58** houses near Arrowthwaite, for the T.C. Borough Surveyor, Town Hall, Whitehaven. Deposit £2 2s.

JULY 26. — **Burntisland.** — HOUSING SCHEMES.—Tenders are invited for the various works in connection with the erection of five blocks of houses (10 houses in all) to be erected on the Haugh site, Burntisland. Messrs. Robert Brown or James P. Gilmour, Joint Town Clerks, Burntisland.

JULY 26.—**Dewsbury.**—GLAZING.—For patent glazing work on laundry roof at Staincliffe Institution. Mr. E. T. Tunnicliffe, Clerk, Union Offices, Wellington-street, Dewsbury.

JULY 26.—**Douglas.**—DEMOLITION AND ERECTION OF HOUSES.—Demolition of the existing buildings and the erection of twenty houses on the Hills House site in Circular-road, for the Housing Committee of the Douglas Town Council. Borough Surveyor, Town Hall, Douglas. Deposit £1.

JULY 26.—**Leyburn.**—WALLS, &C.—Erection of boundary walls, entrance gateway, and iron railing in connection with new cemetery at Preston. Mr. W. Bushby, Preston, Leyburn.

JULY 26.—**Liverpool.**—TENEMENTS.—For the demolition of the existing buildings and the erection of 60 tenement dwellings on Prince Edwin-street Site, for the T.C. Director of Housing, Municipal Buildings, Dale-street, Liverpool. Deposit £2 2s.

✱JULY 26.—**London, E.1.**—RENOVATIONS AND REDECORATIONS.—Carrying out of renovations and redecorations at the Hospital, Raine-street, Old Gravel-lane, E.1, for the Guardians of the Parish of St. George-in-the-East. Mr. R. M. Lochner, Clerk, Guardians' Offices, Raine-street, Old Gravel-lane, E.1, on application, or will be forwarded on receipt of a stamped (postage 4d.) addressed large-size envelope.

✱JULY 26.—**London, S.W.**—CONVERSION, CLEANING, PAINTING.—(1) Converting disused loose box adjoining smiths' shop into convenience for staff and men: (2) (*a*) cleaning and painting steelwork, &c., in yard and first floor stables, (*b*) cleansing and painting remainder of external wood and metal surfaces and certain internal iron and steelwork, for the Lambeth Borough Council. Borough Engineer, Lambeth Town Hall, Brixton-hill, S.W.2.

JULY 26.—**Newport (Mon.).**—ADDITIONS AND ALTERATIONS.—For carrying out, for the Representative Body of the Church in Wales, at King's Hill, Stow Hill, Newport, building additions and alterations. Present buildings may be inspected on application to the gardener. Messrs. Rodger & Stevens, architects, 25, Stoke-lane, Westbury-on-Trym, near Bristol.

✱JULY 27.—**Bognor.**—FOLDING-SCREENS.—Tenders from makers for the supply and erection of folding-screens for the Pavilion, Bognor, for the Urban District Council. Mr. Oswald A. Bridges, Lic.R.I.B.A., Town Surveyor, who will supply full information on the payment of £2 2s. deposit.

JULY 27.— **Colwyn Bay.** — CHURCH.—Erection of a new church (in local limestone) for the Building Committee of the English Congregational Church, Old Colwyn. Mr. S. Colwyn Foulkes, architect, Central Chambers, Colwyn Bay. Deposit £1 1s.

JULY 27.—**Leeds.**—EXTENSIONS.—Erecting a boarded fence and extensions to the stables, &c., at the Institution of the Board of Guardians. Mr. James H. Ford, Clerk, Poor Law Offices, South Parade, Leeds.

✱JULY 28.—**Bognor.**—COTTAGES.—Erection and entire completion of a block of eight cottages to be erected in Gravits-lane, Bognor, for the Urban District Council. Town Surveyor, Mr. Oswald A. Bridges, Lic.R.I.B.A., at the Council Offices, Bognor. Deposit £2 2s.

JULY 28.—**Dover.**—PAINTING.—For painting and decorating work during the summer holidays at the Elementary Schools. Mr. William Boulton Smith, Borough Engineer, Maison Dieu House, Dover.

JULY 28.—**Glasgow.**—VARIOUS.—The Corporation Statute Labour Department invite offers for the (1) mason, brick, joiner, &c., works, and (2) sanitary fittings in connection with the construction of an underground convenience at Kirkpatrick-street, off London-road. Town Clerk.

JULY 28.—**Kirkburton.**—PAINTING.—For the outside painting of the Isolation Hospital and Smallpox Hospital, Kirkburton. Clerk, 32, John William-street, Huddersfield.

JULY 28.—**Llandudno.**—HOUSES.—Erection of 21 houses in Mowbray-road and Dyffryn-road, for the U.D.C. Mr. W. T. Ward, Surveyor, Town Hall, Llandudno.

JULY 28.—**Truro.**—ALTERATIONS.—For alterations and additions to the Conservative Club. Mr. Alfred J. Cornelius, architect, Truro.

JULY 30.—**Audenshaw.**—PAINTING.—For decorating St. Stephen's Church, Audenshaw. Mr. D. C. Rolls, 59, Audley-street, Cockbrook, Ashton-under-Lyne. Deposit £1 1s.

JULY 30.—**Bristol.**—PAINTING.—Painting and decorating of the Lesser Colston Hall. Tender can be obtained at the Secretary's Office, Colston Hall, Bristol.

JULY 30.—**Newquay.**—HOUSE.—Erection of a residence at Ulalia-road, Newquay. Mr. Alfred J. Cornelius, architect, Truro.

JULY 30.—**Sheffield.**—OFFICES.—Erection of new offices in Wheel-hill, for the Electricity Committee. Mr. S. E. Fedden, Electrical Engineer, Commercial-street, Sheffield. Deposit £3 3s.

JULY 31. — **Chatteris, Cambs.** — ADAPTATION. — Adaptation of premises in Park-street, Chatteris, Cambs., for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

JULY 31.—**Glasgow.**—TENNIS PAVILION.—The Corporation invite offers for various works in connection with a combined bowling and tennis pavilion at Cowlairs Park, at the junction of Keppochhill-road and Carlisle-street. Town Clerk.

JULY 31.—**Guildford.**—COTTAGE.—Erection of cottage in Old Farm-road, for the T.C. Borough Surveyor, Guildford.

JULY 31.—**Hoyland Nether.**—WELFARE INSTITUTE.—For erection of miners' welfare institute and assembly hall. Secretary, Mr. T. Tomlinson, King-street, Hoyland Nether, near Barnsley.

JULY 31.—**Huddersfield.**—HOUSES.—Erection of 13 houses at Chestnut-street, Sheepridge, for the T.C. Borough Architect, 1, Peel-street, Huddersfield.

JULY 31.—**Langholm.**—HOUSING.—The T.C. invite offers for various works in connection with the erection of four blocks of two houses each and consisting of four three-apartment and four four-apartment houses. Town Clerk, Langholm. Deposit £1 1s.

✱JULY 31.—**London, S.W. 18.**—BUILDING AND ROAD.—Alterations to existing building and forming new roadway to same, at St. James' Hospital, Ouseley-road, Balham, S.W. 12, for the Guardians of the Wandsworth Union. Mr. F. J. Curtis, Clerk, Union Offices, St. John's-hill, Wandsworth, S.W. 18.

JULY 31.—**Pontypool.**—EISTEDDFOD PAVILION.—The Executive Committee of the Royal National Eisteddfod of Wales invite tenders for a timber Eisteddfod pavilion, approximately 275 ft. by 180 ft., at Pontypool Park. Mr. R. Stephen, General Secretary, 1, Victoria-road, Pontypool.

✱AUGUST 1.—**Aldershot.**—REPAIRS AND MATERIALS.—Tenders required for the works contract from August 15, 1923, at the Station, Sandhurst and Arborfield, for the War Department. Royal Engineer Office, Marlborough Lines, North Aldershot, Hants (by letter or in person, between the hours of 10 a.m. and 4 p.m.).

AUGUST 1.— **Loughborough.** — NURSES' HOME.—Erection of a nurses' home, for the Governors of the Loughborough Hospital. Messrs. G. H. & A. M. Barrowcliff, Architects, Town Hall Chambers, Loughborough.

AUGUST 1.—**Southport.**—ALTERATIONS.—For making alterations and converting a portion of the adjoining building for the use of the Atkinson Free Library. Mr. A. E. Jackson, Borough Engineer, Town Hall, Southport. Deposit £2 2s.

AUGUST 2.—**Glasgow.**—VARIOUS.—The Corporation invite offers for the digger, &c., joiner and plumber works in connection with the erection of a joiners', painters' and general workshops at the Dalmarnock Power Station. Town Clerk.

AUGUST 2.—**Southend-on-Sea.**—BUILDING.—Erection of wood-framed building at Municipal School of Arts and Crafts, for the T.C. Mr. R. H. Dyer, Borough Engineer, Southend. Deposit £2 2s.

AUGUST 4.—**Darton.**—MORTUARY.—Tenders are invited for the erection of a mortuary at Darton, near Barnsley. Mr. W. Butterby, Surveyor, Council Offices, Darton.

AUGUST 6.—**Dunfermline.**—HOUSES.—Erection of 20 houses at Townhill, Dunfermline, for the T.C. Burgh Engineer, City Chambers, Dunfermline.

✱AUGUST 7.—**London, S.W. 1.**—PAINTING AND CLEANING.—For internal painting and cleaning at the Admiralty Buildings, London, S.W. 1, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s. (payable to the Secretary).

AUGUST 8.—**Bingley Mornington.**—FLOORS.—Reboarding floors to class-rooms at Bingley Mornington-road Council School. Education Department, County Hall, Wakefield.

AUGUST 13.—**Dartford.**—ENGINE HOUSE, &C.—Construction of an engine house, cottage, road and bridge, drainage, and other contingent works at Eynsford, Dartford, for the Metropolitan Water Board. Mr. Henry E. Stilgoe, Chief Engineer, 173, Rosebery-avenue, E.C.1. Deposit £5.

AUGUST 21.— **Cape Town.**— RESIDENCES, &C.—For erecting residences for men and women, Principal's house, and other contingent works at the site of the new University buildings, Groote Schuur, for the University Council. High Commissioner for South Africa, Trafalgar-square, London, W.C., and Messrs. Hawke & McKinlay, and C. P. Walgate, The Rhodes Buildings, St. George's-street, Cape Town. Deposit £10.

AUGUST 28.—**Cape Town, South Africa.**—MEDICAL SCHOOL.—Erection of a new Medical School and other contingent works at Groote Schuur, near Cape Town, for the Council of the University of Cape Town. High Commissioner for the Union of South Africa, Trafalgar-square, London, W.C. Deposit £2.

NO DATE.—**Bradford.**—ALTERATIONS.—For completion of alterations to the kitchen block at the Institution for the Poor at Clayton, near Bradford (whole trades). Mr. J. Harper Bates & Son, Calverley Chambers, Victoria-square, Leeds.

NO DATE.—**Gateshead.**—ADDITIONS.—For extensive additions to Central Premises of the Gateshead Co-operative Society, Ltd. Co-operative Wholesale Society, Architect's Department, West Biandford-street, Newcastle-on-Tyne.

NO DATE.—**Golders Green, London, N.W.**—HOUSES.—Erection of two houses, Finchley-road, Golders Green. Mr. Alfred A. Ospalak, M.S.A., 25, Victoria-street, S.W.1.

✱NO DATE.—**Hackney Wick, London, E.**—COTTAGE AND OFFICE.—Rebuilding cottage and office at Hackney Wick, 80, Whitepost-lane, Hackney Wick.

NO DATE.—**Longtown.**—HALL.—Erection of the Parish of Arthuret Memorial Hall, Longtown, Cumberland. J. W. Foxall, Architect, Carlisle.

NO DATE.—**St. George-super-Ely (Glam.).**—PAINTING.—For painting of St. George-super-Ely Church. Mr. W. Bowen, Pentwyn, St. George-super-Ely.

FURNITURE, MATERIALS, etc.

JULY 23.—**Islington.**—MATERIALS.—Supply of (1 wheels, tyres, and other work; (2) timber, &c.; (3 iron, steel, and tools. Mr. C. G. E. Fletcher, Town Clerk, Municipal Offices, Upper-street, N. 1.

JULY 23.—**Wakefield.**—SCHOOL FURNITURE.—Supply of elementary school furniture—desks, tables, chairs, &c. Stores Manager, Central Stores, Cliff-lane, Wakefield.

JULY 31.—**New Zealand.**—STEEL WINDOW SASHES, &C.—Supply of galvanised steel window sashes and doors, for the Mangahoo Electric Power Scheme. Department of Overseas Trade (Room 48), 35, Old Queen-street, S.W.1.

AUGUST 8.—**Durban.**—MATERIALS.—Supply of stoneware pipes, bends and junctions to the T.C. Department of Overseas Trade. 35, Old Queen-street, S.W.

ENGINEERING, IRON AND STEEL.

JULY 21.—**Frome.**—BRIDGE.—Construction of a small ferro-concrete bridge over the Rodden Lake Stream, for the U.D.C. Mr. L. Slaughter, Surveyor, Public Offices, Frome. Deposit £1 1s.

JULY 21.—**Honiton.**—BRIDGE, ETC.—(*a*) Reinforced concrete bridge on the Kahn Bar System of the Trussed Concrete Steel Co., Ltd.; (*b*) reinforced concrete culvert on the Kahn Bar System, &c., for the T.C. Mr. J. W. Jones, Borough Engineer, Honiton.

JULY 23.—**Bradford.**—WEIGHBRIDGE.—Supply and erection, at the Valley-road Gas Works, of one 30-ton weighbridge, with platform 16 ft. long, for railway wagon traffic. Mr. N. L. Fleming, Town Clerk, Town Hall, Bradford.

JULY 23.—**Driffield.**—PUMP.—Providing and fixing one borehole hand pump &c., at Butterwick, for the R.D.C. Mr. B. Barker, Clerk, Driffield.

JULY 23.—**Glasgow.**—ELECTRIC LIGHTING.—Offers are invited for work in connection with electric lighting installation of the Coplawhill Housing Scheme (second Section). Town Clerk, Glasgow.

JULY 23.—**Llwynypia.**—ELECTRIC LIGHTING.—For electric lighting installation at the Rhondda Institution for the Blind, Llwynypia. Mr. W. D. Morgan, Architect, 199, Ystrad-road, Pentre.

JULY 23.—**Manchester.**—MORTAR MILL.—Supply to the Withington Institution of a new direct steam-driven mortar mill with 5 ft. pan, rollers, for the B.G. Mr. Hargreaves, Superintendent of Works, Union Offices, All Saints', Manchester.

JULY 23.—**Reading.**—STEEL-FRAMED BUILDING.—For supply and erection of the whole of the steelwork contained in a covered cattle sale ring, for the T.C. Borough Surveyor, Town Hall, Reading. Deposit £1 1s.

JULY 23.—**York.**—BRIDGE.—Construction of a bridge near Hart Station, carrying the new East Coast-road from Easington to West Hartlepool over the Ferryhill and East Hartlepool Branch, for the London & North Eastern Railway. Mr. C. F. Bengough, Chief Engineer, York.

JULY 24.—**Lambeth.**—ELECTRIC LIGHTING.—Installation of electric light wiring and fittings at Relief Station, Renfrew-road, for the Board of Guardians. Mr. James L. Goldspink, Clerk, Offices, Brook-street, Kennington-road, S.E. Deposit £2.

JULY 24.—**Lambeth.**—HEATING INSTALLATION.—Alterations to the domestic hot-water supply at Renfrew-road Relief Station, Kennington, S.E., for the Board of Guardians. Mr. James L. Goldspink, Clerk, Offices, Brook-street, Kennington-road, S.E. Deposit £2.

JULY 24.—**Liverpool.**—HEATING.—Removal of the existing heating boiler at Offices of the B.G., alteration to pipes, and installation of new cast-iron boiler. West Derby Union Offices, Brougham-terrace, West Derby-road, Liverpool.

JULY 24.—**Liverpool.**—VALVES.—Valves for Oswestry new filter beds and stock. Water Engineer, Alexandra Buildings, 55, Dale-street, Liverpool. Deposit £2 2s.

JULY 24.—**Manchester.**—PIPES, &c.—Supply of galvanised pipes, bends, &c. (water strength). Mr. A. Chadwick, General Superintendent, Markers Department, Town Hall, Manchester.

JULY 24.—**Uxbridge.**—WEIGHING MACHINE.—Supplying and installing at the Union Institution, Hillingdon, near Uxbridge, a weighbridge of weighing capacity of 10 to 15 tons. Master of the Union Institution, Hillingdon.

JULY 24.—**Wolverhampton.**—PIPES.—Supply and erection at the Poor Law Institution, Heath Town, of certain steam pipes, for the Board of Guardians. Mr. A. G. Aldridge, Clerk, Poor Law Offices, Wolverhampton. Deposit £2 2s.

JULY 25.—**West Riding.**—HEATING INSTALLATIONS.—(*a*) Installation of new low pressure sectional boiler and alterations to heating cellar at the Swinton Bridge Council School, Trades—(1) Heating engineer, and (2) builder. (*b*) Installation of two new low pressure sectional boilers at Thurnscoe Council School. Education Department, County Hall, Wakefield.

JULY 27.—**Merton.**—FENCING.—Supplying and fixing 500 yds. run of unclimbable iron railing at Abbey Recreation Ground, for the U.D.C. Mr. G. Jerram, Surveyor, Council Offices, Kingston-road, Merton.

JULY 28.—**Bowland.**—BRIDGE REPAIRS.—For construction of ferro-concrete saddle and other strengthening work to Sleidburn Bridge, Bowland, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

JULY 28.—**Enfield.**—BOILERS.—Supply and fixing of six boilers, for the Enfield and Edmonton Joint Hospital Board, at the Isolation Hospital, Winchmore-hill. Surveyor, Public Offices, Enfield.

JULY 28.—**Greenock.**—TRANSMISSION LINES.—Erection of overhead transmission lines between (1) Greenock Electricity Power Station, Dellingburn, Greenock, and the Electricity Power Station, Blackhall-street, Paisley, and (2) the existing transmission lines belonging to the Burgh of Kilmarnock, near Beith, and the said power station at Paisley. Mr. F. H. Whysall, Burgh Electrical Engineer, Greenock. Deposit £2 2s.

JULY 28.—**Grimsby.**—HEATING INSTALLATION, &C.—New centralised heating and hot-water supply plant, water-softening plant, additions to cooking apparatus, and new disinfector, at the Scartho-road Institution, for the Board of Guardians. Mr. J. F. Wintringham, Clerk, St. Mary's Chambers, Great Grimsby. Deposit £2 2s.

JULY 30.—**Audenshaw.**—ELECTRIC LIGHTING.—For installing electric light in St. Stephen's Church. Mr. D. C. Rolls, 59, Audley-street, Cockbrook, Ashton-under-Lyne. Deposit £1 1s.

JULY 31.—**Aberdeen.**—PIPES.—Supply of about 3 miles of 40 in. diameter pipes and specials of the following alternative types, viz.: (*a*) cast-iron; (*b*) mild steel (lapwelded); (*c*) reinforced concrete (spun and ordinary), for the T.C. Mr. George Mitchell, Water Engineer, 41½, Union-street, Aberdeen. Deposit £5.

JULY 31—**Bradford.**—FILTERS.—Providing and erecting at Denholme (Yorks.) an installation of mechanical pressure filters, capable of dealing with two million gallons of water per day. Mr. Lewis Mitchell, Waterworks Engineer, Town Hall, Bradford.

JULY 31.—**Lochboisdale.**—PIERS.—(1) Repairing Lochboisdale pier and shed, and (2) stiffening up of Castlebay pier. Messrs. Carter & Wilson, engineers, 51, Queen-street, Edinburgh.

JULY 31.—**Southport.**—PIPES.—Supply of 350 tons of 9 in. diameter cast-iron pipes and irregulars to the Southport, Birkdale and West Lancashire Water Board. Mr. C. Burton Ede, Engineer, 14, Portland-street, Southport.

JULY 31.—**Uxbridge.**—ROTARY SPRINKLER.—Supply of rotary sprinkler for 75 ft. diameter sewage filter bed, for the U.D.C. Mr. H. M. Blackwell, Clerk, 109, High-street, Uxbridge.

AUGUST 3.—**London.**—STEELWORK.—Supply to the South Indian Railway Co. of steelwork for bridges. Mr. A. Muirhead, 91, Petty France, S.W. Charge 10s.

AUGUST 9.—**Wigan.**—PUMPING PLANT, &C.—Supply and erection of one electrical vertical pumping plant, heating and domestic hot-water supply apparatus, alterations of buildings, additions, and making a well, at the Poor Law Infirmary, Billinge, for the B.G. Mr. H. Gordon Ackerley, Clerk, Victoria Buildings, Kingstreet, Wigan. Deposit £3 3s.

AUGUST 11.—**Warrington.**—PUMPS.—Provision and erection of three electrically-driven centrifugal pumps at pumping stations, for the T.C. Mr. James Gray, Waterworks Engineer, Municipal Offices, Warrington. Deposit £1 1s.

AUGUST 18.—**Chorley.**—ELECTRIC LIGHTING.—Supply and fixing of the necessary wiring and fittings required in connection with the lighting by electricity of a portion of the interior of the Town Hall. Borough Surveyor, Chorley.

AUGUST 31.—Chile.—HARBOUR WORKS.—Extension of the mole of the Port of Valparaiso and complementary harbour works, depots, &c., for the Navy. Chilean Legation in London.

NOVEMBER 1.—**Siam.**—BRIDGES.—Supply of superstructures of steel railway bridges to Siam State Railways. Messrs. C. P. Sandberg, 40, Grosvenor-gardens, S.W. 1. Charge 28s.

NOVEMBER 30.—Sydney.—BRIDGE.—Construction of the superstructure and substructure of a cantilever bridge across Sydney Harbour; also an alternative tender for the construction of the superstructure and substructure of an arch bridge across Sydney Harbour. Agent-General for New South Wales, Australia House, Strand, W.C.

ROAD, SANITARY, AND WATER WORKS.

JULY 21.—**Chester.**—ROADS.—Reconstruction of Hough Green, Chester-street, and Wrexham-road, for the T.C. Mr. C. Greenwood, City Engineer, Chester.

JULY 21.—**Glasgow.**—GAS MAIN.—Formation of foundations for a 30 in. gas main; and (2) the supply and erection of a 30 in. steel and cast-iron gas main, at Provan Gas Works, for the T.C. General Manager, Gas Department, John-street, Glasgow.

JULY 21.—**Wakefield.**—ROADS.—For private street works, for the T.C. City Surveyor, Town Hall, Wakefield.

JULY 23.—**Bromsgrove.**—SEWAGE WORKS.—Extension of Alvechurch Sewage Disposal Works, for the R.D.C. Office of the Council's Engineers, Messrs. Fiddian, Barratt & Deeley, 13, Church-street, Stourbridge. Deposit £3 3s.

JULY 23.—**Croydon.**—VARIOUS WORKS.—(*a*) Asphalte paving at "Crosslands" and "Lindens"; (*b*) provision of baths, &c., at Cottage Homes, in Mayday-road, for the Board of Guardians. Mr. H. Berney, architect, 33, High-street, Croydon. Deposit £1 1s.

JULY 23.—**London.**—SCAVENGING.—For scavenging the Docks, &c., for the Port of London Authority. General Manager, Port of London Authority, E.C. 3.

JULY 23.—**Manchester.**—ROADS.—Making up roads and back passages, for the T.C. Paving, &c., Department (District Surveyor's Office), Town Hall, Manchester. Deposit £1 1s.

JULY 23.—**Withernsea.**—SEWER.—Laying of 24 in., 18 in. and 15 in. sewer in Hull-road, for the U.D.C. Surveyor, Withernsea. Deposit £1 1s.

JULY 24.—**Connah's Quay.**—CEMETERY.—Extension of the cemetery at Connah's Quay, for the U.D.C. Surveyor, High-street, Connah's Quay. Deposit £2 2s.

JULY 24.—**Denton.**—ROADWAYS.—Construction of rock asphalte roadways in Oldham-street, Heaton-street, and Seymour-street South, for the U.D.C. Mr. J. B. Cooke, Surveyor, Town Hall, Denton. Deposit £2 2s.

JULY 24.—**Leyton.**—ROADS.—For making up Epsom and other roads, for the U.D.C. Mr. E. H. Essex, Surveyor, Town Hall, Leyton.

JULY 24.—**Sedbergh.**—WATER SUPPLY.—Supply of about 76 tons of 5 in., 4 in., and 3 in. cast-iron spigot and socket pipes, laying same, construction of a concrete service tank (95,000 gallons), &c., for the R.D.C. Messrs. Taylor & Wallin, Commercial Union Buildings, 47, Pilgrim-street, Newcastle-on-Tyne. Deposit £5.

JULY 24.—**Willesden.**—ROADS.—Improvement works in Clare-road, for the U.D.C. Mr. F. Wilkinson, Surveyor, Town Hall, Kilburn, N.W.

JULY 24.—**Willesden.**—ROADS.—For paving works in various roads, for the U.D.C. Mr. F. Wilkinson, Surveyor, Offices, Kilburn, N.W.

JULY 25.—**Birmingham.**—ROADS.—Road works in connection with the widening of Harborne Park-road, Harborne, between St. Peter's-road and Metchley-lane, and Harborne-lane, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £1.

JULY 25.—**Hackney.**—VARIOUS WORKS.—For drainage, water supply, and sanitary fittings, at garage, Millfields-road, for the B.C. Mr. N. Scorgie, Borough Engineer, Hackney. Deposit £1 1s.

JULY 25.—**Ilkley.**—VARIOUS.—The Ilkley U.D.C. invite tenders for construction of detritus pits, ejector chamber, extending existing engine room, installing ejector plant, and laying sludge rising main, providing new coping to existing settling tanks and contingent works. Clerk to the Council, Town Hall, Ilkley.

JULY 25.—**Prestwich.**—TANK, &C.—Construction of a humus tank and sludge well at the Council's Sewage Works. Surveyor, Town Hall, Prestwich. Deposit 10s. 6d.

JULY 25.—**Sale.**—SANITARY.—Conversion of privies into water closets and ashbins in various parts of the Township. Sanitary Inspector, Town Hall, Sale.

JULY 26.—**Newcastle-on-Tyne.**—ROAD.—Construction and maintenance of a road, with other incidental works, between Newcastle-on-Tyne and Tynemouth, 4.65 miles in length, for the Newcastle-Tynemouth Coast Road Joint Committee. City Engineer, Town Hall, Newcastle-on-Tyne. Deposit £3 3s.

JULY 26.—**Reading.**—ROADS.—(*a*) Surfacing part of Tilehurst-road, (*b*) part of Basingstoke-road, and (*c*) Waverley-road and Grovelands-road, for the T.C. Borough Surveyor, Town Hall, Reading. Deposit £2 2s.

JULY 28.—**Dysart.**—ROADS.—For causewaying part of High-street. Mr. Thomas Ross, Burgh Surveyor, Dysart.

JULY 28.—**Scunthorpe.**—SEWAGE WORKS.—Construction of earthenware pipe sewers, for the U.D.C. Mr. W. Farrar, Surveyor, Council Offices, Scunthorpe.

JULY 28.—**Wakefield.**—SEWAGE WORKS.—For construction of sewage disposal works, for the T.C. City Surveyor, Wakefield. Deposit £5.

JULY 30.—**Loughborough.**—SEWAGE WORKS.—Construction of No. 2 Dortmund tanks, No. 4 bacteria beds, No. 2 humus tanks, and the provision and laying of cast-iron and sanitary pipe effluent and other mains, &c., for the T.C. Mr. W. Granger, Acting Borough Surveyor, Loughborough. Deposit £5 5s.

JULY 30.—**Sheffield.**—WATER MAINS.—Laying 6 in. cast-iron socket and spigot pipes, valves, strainer, concrete stools, manholes, &c., for conveying water along Club Mill-lane, Neepsend, for the T.C. Mr. S. E. Fedden, General Manager, Commercial-street, Sheffield. Deposit £2 2s.

JULY 31.—**Aberdeen.**—WATER MAINS.—Laying and jointing of about 3 miles of 40 in. piping and ancillary works between Banchory and Crathes, for the T.C. Mr. George Mitchell, Water Engineer, 41½, Union-street, Aberdeen. Deposit £5.

JULY 31.—**London.**—DRAINAGE.—For redrainage work at the Money Order Office, Holloway, N., for H.M. Commissioners of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

JULY 31.—**Southport.**—WATER MAINS.—Laying 4,150 lineal yards of 9 in. diameter cast-iron water main, for the Southport, Birkdale and West Lancashire Water Board. Mr. C. Burton Ede, Engineer, 14, Portland-street, Southport. Deposit £2.

AUGUST 1.—**Queensferry.**—ROADS.—Widening, kerbing and channelling roads at the Mancot Royal Housing Estate, Queensferry, near Chester, for H.M. Commissioners of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

AUGUST 1.—**Wanstead.**—ROADS.—For laying 2,600 yds. of 4 in. wood block paving, &c., for the U.D.C. Surveyor, Council Offices, Wanstead, N.E.

AUGUST 1.—**Workington.**—ROADS, &C.—Construction of roads and sewers in connection with the Salterbeck housing scheme. Mr. T. Jackson, Town Clerk, Workington. Deposit £3 3s.

★AUGUST 8.—**Crowthorne (Berks.).**—DRAINAGE WORKS.—Execution of drainage works at Broadmoor Asylum, Crowthorne, Berks., for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s. (payable to the Secretary).

AUGUST 9.—**Bebington.**—SEWAGE WORKS.—For construction of sewers in connection with the Bromborough Sewerage Works, for the U.D.C. Messrs. J. Mansergh & Sons, 5, Victoria-street, S.W. Deposit £5.

Competitions.

(*See Competition News, page* 86.)

Auction Sales, Tenders, etc.

★JULY 23 AND 24.—**London, N.W.1.**—Messrs. Herring, Son & Daw will sell, without reserve, *re* Messrs. Tredegar's, Ltd. (in voluntary liquidation), No. 9A, Diana-place, Euston-road, N.W.1, valuable stock of machinery and builders' plant. Auctioneers, 100c, Queen Victoria-street, E.C.4.

JULY 24 AND 25.—**Marshmoor Mill.**—Messrs. Joseph Hibbard & Sons will sell by public auction, without reserve, by order of Messrs. Timber Operators & Contractors, Ltd., having sold the mill, to clear the site. Stock of well-seasoned English timber. Auctioneers, 15, Newington-green, Islington, London, N.16.

JULY 25.—**Hayes, Kent.**—Messrs. Veryard & Yates, F.A.I., will sell, without reserve, timber and building material, &c., arising from demolition of residence. Auctioneers, 365, Norwood-road, S.E. 27.

★JULY 25.—**Stevenage, Herts.**—Messrs. Henry Butcher & Co. will sell (unless previously disposed of) the valuable freehold property, Messrs. Offord's Coach-building Works, Stevenage, Herts, with vacant possession, within three minutes' walk of the station, comprising the characteristic old-English house facing the bowling-green and known as 3, High-street, Stevenage; also plant, machinery, motor-bodies and miscellaneous stores. Auctioneers, 63 and 64, Chancery-lane, London, W.C.2.

JULY 25.—**Upper Holloway, N.19.**—Messrs. J. T. Skelding & Co. (F.A.I.) will, *re* John Abrahams, Ltd., in voluntary liquidation, by order of the Liquidator, Mr. John William Daffarn, F.S.A.A., at the depots, Cottenham-road and Hatchard-road, Upper Holloway, N. 19, have important unreserved sale of the valuable cartage and road contractors' plant and stock, including 10-ton steam roller, two 6-ton "Sentinel" steam wagons, &c. Auctioneers, 48, Gresham-street, Guildhall, London, E.C. 2.

JULY 25 AND 26.—**Cambs.**—Messrs. Joseph Hibbard, in conjunction with Messrs. T. A. Neale & Alldridge, will sell without reserve, by order of the owners, who are relinquishing business, at the Merton Saw Mill, Galmingay, near Sandy, saw mill machinery, plant and stock of timber, including 125 B.H.P. National gas engine with Ruston suction plant, four rack-saw benches, buildings, rolling-stock, timber, &c. Auctioneers, 15, Newington-green, Islington, London, N.16.

★JULY 26.—**London, S.E.**—Messrs. Veryard & Yates will sell, without reserve, at 126, Norwood-road, S.E., timber, fittings and building materials arising from demolition of the commodious property, Blenheim Mansions, Westminster. Auctioneers, 365, Norwood-road, S.E. 27.

★AUGUST 21, 22 AND 23.—**Eltham.**—Mr. F. H. Clark will sell, without reserve, timbers and materials contained in the Women's Hostels, Well Hall-road. Auctioneer, Railway Wharf, York-road, Wandsworth.

Public Appointments.

JULY 21.—**Southend-on-Sea.**—Assistant Master for Mathematics and Allied Crafts required by the C.B. Mr. H. Farrands, M.A., Director of Education, Education Offices, 20, Warrior-square, Southend-on-Sea.

★JULY 31.—**Manchester.**—First Assistant to the Chief Surveyor and Draughtsman required by the Manchester and District Joint Town-Planning Advisory Committee. Mr. P. M. Heath, Hon. Secretary, Town Hall, Manchester.

★AUGUST 1.—**Sheffield.**—Chief Assistant Architect (Education) required in the City Architect's Department by the Corporation of Sheffield. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield.

★NO DATE.—**London, W.C. 2.**—Required immediately, for temporary duty, one or two thoroughly capable and experienced "takers-off." The Secretary, Air Ministry (S. 1), Kingsway, London, W.C. 2.

★NO DATE.—**Rawmarsh.**—First-class Assistant required by the U.D.C. The Surveyor, Parkgate, near Rotherham.

PROPOSED NEW BUILDINGS & OTHER WORKS.

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERDARE.—The Aberdare U.D.C. has decided to join the Mountain Ash U.D.C. in purchase of Aberdare Canal from private owners for clearing out as a sanitary measure. The Mountain Ash Council requires its portion in connection with development of a housing scheme, whilst Aberdare Council may construct a road in the future in bed; schemes respectively estimated £98,000 and £50,000 (approximately) have already been prepared for a road construction.

ABERDEEN.—Plans passed by T.C.: Alterations, 25, Westfield-terrace, for Mr. Lauchlan Mackinnon, jun., per Mr. A. H. L. Mackinnon; additions, Royal Mental Hospital, Cornhill-road, for the Directors, per Mr. James Anderson; reconstruction of shop fronts, 105-109, Holburn-street, for Mr. William M'Donald: addition to calendar winding-house, Donside Paper Mills, for the Donside Paper Co., Ltd.; alterations, 159, Crown-street, for Mrs. Brown, 52, Bon-Accord-street, per Messrs. Brown & Watt; extension of tea-room, 23-25, Union-street, for Mitchell & Muil, Ltd., per Messrs. Wilson & Walker; house, Broomhill-road, for Mr. Peter Smith, per Messrs. Sutherland & George; alterations, Nos. 7-13, Waverley-place, for Mr. George A. Stephen, per Mr. George Watt: alterations to hall on the south side of Leadside-road, for the Loyal Order of Ancient Shepherds, per Mr. A. H. L. Mackinnon: club-room on the north side of Oakhill-road, for the 25th Troop Boy Scouts, per Mr. Thomas C. Young, C.A.

ABERYSTWYTH.—Plans passed by T.C.: Ten semi-detached villas on land at Penporke, for Messrs. Russell & Moseley, of Walsall; plans submitted, but referred for amendment: House in St. David-road, for Messrs. Edwards Bros.; houses in Upper Caradog-road, for Mr. R. Davies.

ALFRISTON.—The Ministry of Health has refused to sanction plans of 10 new houses proposed by the R.D.C. on the ground that the accommodation is not up to the standard required, and the cost unnecessarily high.

ASHBY WOLDS.—Addition to shop, Ashby-road, for Mr. Woodward.

ASPATRIA.—The U.D.C. has passed a plan for Mr. Oldfield, architect, for a house in Station-road, for Mr. J. Johnston.

AYLESBURY.—Plans passed by T.C.: Alterations to premises, 34, High-street, for G. Cannon: alterations, 10, Temple-square, for Dr. Perrin; new shop front, Temple-street, for G. Smith; two cottages, Havelock-street, for A. W. Hadaway; alterations, Britannia-street, for F. Longley; new timber sheds, Exchange-street, for R. P. Richards & Co.

BARNSLEY.—Plans passed by T.C.: A. Dunk, extension to garage, Victoria-crescent; W. Ibbotson, garage at rear of 3, Greenwood-terrace; Ezra Edson, dwelling-house, Barbro' Hills-road; T. Armitage, three lock-up shops, Summer-lane; James Clarke, dwelling-house, Cockerham-lane: E. Gothard, two dwelling-houses, Smithy Green-road; Markwell & Austin, two dwelling-houses, Middlesex-street; C. F. Moxon, dwelling-house, Cockerham-lane; O. Freeman & H. Potter, two dwelling-houses, Dodworth-road; G. Fenton, dwelling-house, Carlton-road, Smithies.

BATLEY.—Subject to the present Housing Bill becoming law, the Corporation propose to grant a special subsidy of £75 per house upon all houses erected for them which comply with Government requirements.——The Batley and District Hospital Board have decided to proceed with the full scheme of extensions at an estimated cost of about £14,000. Mr. W. Hanstock, of Batley, is the architect.——Plans for alterations at the Maternity Home, to provide further sleeping accommodation for members of the staff, are to be submitted for the approval of the Ministry of Health.

BEDFORD.—Plans passed by T.C.: Mr. K. Gammell, for J. Lovell & Son, offices and flat, Newnham-street; Mr. A. W. G. Prosser, for Mr. J. Smith, garage, 3, St. George's-road: Mr. E. H. C. Inskip, for Mr. T. Ambridge, additions, Ampthill-road; Mr. W. E. G. Hull, for Mr. W. Goldsmith, two houses, London-road: Mr. J. B. Thomas, for Mr. W. J. Bennett, villa, Park-road North: Messrs. Usher & Anthony, for Mr. F. Gale, alterations, 24, Mill-street; Mr. F. Corby, two houses, Bradgate-road; Messrs. H. Young & Son for Mr. E. Bristowe, garage, St. Cuthbert's-street; Mr. E. H. C. Inskip, for Mr. A. T. Covington, house, Goldington-road; Mr. J. B. Thomas, for Mr. W. T. Lansberry, bungalow, London-road; Mr. J. B. Thomas, for Capt. F. Corner, villa, St. Albans-road.

BEDWELLTY.—It was reported to U.D.C. that Powell Duffryn Coal Co. would erect bridge over road in connection with colliery tipping. The U.D.C. is acting jointly with Mynyddislwyn Council in soliciting from B. & M. Railway Co. a new station in the Pengam district additional to the present one.

BELFAST.—Plans passed: Alterations to house and shop, Cliftonville-road, for R. Herron: house, Hillsborough-drive, for J. Elliott: additions to hall, Alfred-street, for Rev. John Canon McKinley: store, Montrose-street, for S. Boyd: stand to football grounds, Ormeau-road, for North of Ireland Football and Cricket Club, Ltd.: factory, Bain's-place, for the Newforth Weaving Co., Ltd.: alterations to premises, Donegall-square North, for the Belfast Banking Co., Ltd.: house, Newtownards-road Upper for T. J. Robinson: dye house, Springfield-road, for the Springfield Dye and Finishing Co., Ltd.: Parochial Hall, Gracehill-street, for Rev. J. MacAuley: shop and house, Crimea-street, for Miss A. Finnigan; two houses, University-avenue, for J. M. Nelson and Mrs. A. Orage; house, Sans Souci Park, for Miss A. Hamill; two houses, Ravenhill-road, for R. J. Kerr: shop and house, Foundry-street, for J. McKenna; conversion of workshops into offices in Fountain-street, for W. Coates & Sons, Ltd.; stores, Norwood-street, for W. D. Breathwaith & Sons; two houses, Ravenhill-road, for G. F. Thompson; four houses, Falls-road, for the White Cross Building Society, Ltd.; nine motor sheds, Dunmore, Antrim-road, for the O. D. Cars, Ltd.; alterations to shop and house, Oldpark-road, for S. Halliday; four houses, College Park, Belmont, for R. S. Sutcliffe; additions to hall, Antrim-road and Brookvale-avenue, for Brookville Masonic Hall Co., Ltd.; additions to hall, Beersbridge-road, for Grove Baptist Hall Committee; golf pavilion, Westland-road, for Cliftonville Golf Club, Ltd.; store, Ann-street, for Jamison & Green, Ltd.; house, Deramore Park, for R. E. Corry; shop and house, Springfield and Whiterock-roads, for Mr. R. Cullinan, Mr. W. I. Convery, architect; two houses, Luxor-gardens, for Mr. F. W. Hall, Mr. James Scott, B.E., architect; conversion of house into shop and house, Lisburn-road, for Mr. G. Fletcher, Mr. James Scott, B.E., architect; extension of house, Lansdowne-road, for Mr. A. H. Muir, Mr. John Seeds, architect: addition to Baptist Church, Great Victoria-street, Mr. James A. Hanna, architect; shop and house, Newtownards-road Upper, for Mr. R. McIlroy, Messrs. Munce & Kennedy, architects: conversion of two houses into a medical students' hostel, plans by Mr. McNaul: four houses, Bloomfield-road, for Mr. J. McMaster, Mr. Hugh Gault, architect; house, North-road, for Mr. S. Nelson, Mr. Robert Lynn, architect: shop and house, Agnes-street, for Mr. P. J. Campbell, Mr. S. J. McAvoy, architect: alterations to shop premises, Oldpark-road, for Mr. Joseph Kennedy: 14 houses, Glandore-gardens, for Mr. Hugh Turtts; house, Grasmere-gardens, for Mrs. E. M. Penpraise, Mr. Benjamin Cowser, architect; 14 houses, Broadway, for Mr. W. J. Ervine, Mr. C. A. Aickin, architect: workshops and motor garage, University-road, for the Governors of the Methodist College, Messrs. Hobart & Heron, architects; workshops and stores, Charlotte-street, for Messrs. Wm. Coates & Sons, Mr. R. I. Calwell, architect; house, Stranmillis-road, for Mr. R. A. Rutherford, Mr. R. Barton, architect; additions to house, Marlborough Park, for Mrs. A. E. Young, Mr. T. Callender, architect; addition to Masonic Hall, Antrim-road, for the Brookville Masonic Hall Co., Mr. D. W. Boyd, architect: sheds and building yard, in Roden-street, for Messrs. J. & R. Thompson; premises, Marlborough-avenue, for Messrs. Walter Munn & Co., Mr. James Scott, B.E., architect.

BLACKBURN.—Plans passed by T.C.: Houses, Preston Old-road, by Mr. Harper Southworth: well house, Smithies-street, by the Blackburn Brewery Co., Ltd.; scullery, 24, Bell-street, by Mr. Kenan; addition, 6, Trinity-street, by Mr. S. Cob; two bungalows, Pleckgate, by Mr. J. Whalley; garage, "Netherwood," Preston New-road, by Mr. J. Rutherford: addition to laundry, Pleckgate, by Messrs. Haydock Bros.; addition to shop, 76, Heys-lane, by Messrs. Dutton & Hindle.

BLYTH.—An inquiry has been held into the application of the T.C. for power to borrow £7,200 for a new fire station.

BOGNOR.—Application is to be made by the U.D.C. for sanction to borrow a further £3,000 to complete the pavilion: it is also intended to borrow up to £5,000, for the completion of the sewage contract.

BOOTHFERRY.—The West Riding County Council Highways Committee has approved the proposal to erect a bridge over the River Ouse at Boothferry, and agreed to contribute a sum not exceeding £30,000 towards the estimated cost of £100,000.

BREDBURY AND ROMILEY.—Plans passed by U.D.C.: Two houses, Stockport-road, Bredbury, for Mr. Allcock and Miss Dewhurst; house, Hyde-road, Mr. G. F. Jeffries: bungalow, Gilbert Bank, Mr. H. Swinfin: bungalow, Compstall-road, Mr. J. F. Chaplin: additions, "Summer Hill," Sandy-lane, Mr. E. Taylor: additions to works, Messrs. J. E. Wards, Ltd.

BRIDGE.—Plans for bungalows at Charing Field, Petham, and Iffin-lane, for Mr. F. A. Smith; for a house, near Shelvin Farm, Barham, for Mr. Austin: and for a house at Kingstone, for Mr. F. C. Clarke, have been approved by the R.D.C.

BRIDGEND.—Plans passed by U.D.C.: Bungalow, Grove-road, for Mr. Stanley Lewis. The U.D.C. has requested Board of Guardians to make up road in front of workhouse and take back boundary wall to conform with submitted plans. Mr. W. Welbury, Electrical Engineer to the Penybont (Bridgend) R.D.C. has advised Council to amend draft of order for supply powers so as to include sanction to erect a generating station. The Penybont R.D.C. has put forward for grant following road works: Road improvement, Oldcastle, to near Emeny Chapel (estimate for work of 1¼ miles), with widening to 21 ft. at cost £10,000, with macadaming: junction of Pont Alum and Ogmore roads at £1,000, and improvement Roger's-road, Larleston at £1,000; total estimated cost £12,000 with additional work to be done at Arcade-road, Pencoed.—The Penybont Council, having provided site for erection of public hall at Llangynwyd, has now decided to fix a time-limit for construction of hall or withdraw site. It was stated that delay in grant from Miners' Welfare Fund has caused delay in contracting out the work of erection.

BRIGHTON.—The E.C. has approved the proposal to build a new girls' secondary school on the Varndean Estate at a cost of £63,800. Provision is made for accommodating 535 scholars, the building to include 23 classrooms, three laboratories, cookery and workrooms, assembly hall, gymnasium, dining-room, staff rooms, &c.——It is proposed to erect a war memorial in the churchyard of the old Church of St. Nicholas.

BUILTH WELLS.—The U.D.C. has agreed to bear half cost of erection of bridge at Nantstalwyn and work will shortly be put in hand.

BULKINGTON.—Plans passed by U.D.C.: Bungalow, Nuneaton-road, for Mr. J. T. Atkins.

BURTON-ON-TRENT.—A proposal to construct a garden village near Burton, on the lines of Bournville, has been made by Lieut.-Col. H. E. Disbrowe-Wise, of Walton Hall.——Messrs. Connsmaker & Armstrong, architects, of Burton-on-Trent, are in communication with the Tutbury R.D.C. as to the sewering of a somewhat extensive area of land between Branstone and Barton Turns. They are acting on behalf of Colonel Wise, the owner. The area involved is about 40 acres, and it is probable that 90 houses will be erected on sites of approximately half-an-acre per house.

CAERPHILLY.—An inquiry has been conducted by Ministry of Health representative into application of U.D.C. for sanction to borrow and expend £5,900 on acquiring Bronhiw, Caerphilly, and grounds for conversion, at £8,000, estimated cost, into Council offices. Some opposition was made, with alte.native suggestion put forward that present Council office should be extended and altered. Announcement of result will be made in due course.

CARLISLE.—Plans passed by R.D.C.: Messrs. Stead, McAlpine, Cummersdale, for two semi-detached houses at Cummersdale: Mr. S. Stewart, architect, Botchergate, Carlisle, on behalf of Mr. G. Cullen, Whitecloseagate, house at Houghton.

CARMARTHENSHIRE.—The County Public Health Committee has adopted recommendation of County Medical Officer that provision be made forthwith of hospital for smallpox isolation, there being none at present.—The Llandovery Borough Council has selected site for proposed new cottage hospital near Llanfair Cottage Farm.—The Carmarthen R.D.C. has adopted road schemes submitted by respective district surveyors as follows: District of Mr. G. Protheroe, estimated £9,786: Mr. W. E. Jones, £10,913 17s. 6d.: and Mr. E. Morgan (after revision), £10,000: and grants have been applied for in respect of works entailed. The County Standing Joint Committee has submitted plans for two houses for police at Llandovery to Home Office for approval.—The Ministry of Health has sanctioned purchase of steam-roller by Whitland R.D.C. The County Education Committee has approved sub-committee's recommendation that cottages and land adjoining Llanelly Intermediate School be acquired for extension of school grounds and to find alternative accommodation for cottage residents in order to demolish them.

CHADDERTON.—Messrs. Alfred Redfern & Sons, builders, Brooklands-grove, Oldham, propose to erect two houses in Fields New-road, Chadderton. Mr. F. E. Thomas, builder, proposes to erect 14 houses off Cornbrook-road, Chadderton: and plans have been approved for a new pavilion for Springbank Bowling Club on their green off Albion-street, Chadderton.

CHEADLE.—Mr. L. Wharton, builder, is erecting detached houses and bungalows off School's-hill.

CHEETHAM.—Mr. P. Cummings, architect, 51, Kingstreet, Manchester, is preparing plans for alterations to the Roumanian Synagogue, Ramsgate-street.

CHERITON.—Plans passed by U.D.C.: Four houses, Royal Military-avenue, for Mr. C. H. Waters.

CROYDON.—Crystal Palace F.C. have bought a big freehold site between South Norwood and Thornton Heath, and some £30,000 is to be spent on stands, offices, &c., and the preparation of the ground. The lease of the club's present ground will expire shortly.——In view of the amendments to the Corporation Bill, under which it had been originally proposed to demolish Whitgift Hospital, in order to widen the roads in the centre of the town, it has now been decided to widen right up to the Hospital which will be left projecting into the road.

DEWSBURY.—Plans passed by T.C.: House, Overthorpe-road, for Mrs. Rowley; garage, Clarence-terrace, Saville Town, for Mr. G. E. Benson: detached house, for the Ravensthorpe and Northorpe Conservative Club: extensions to shops in Green-lane, for Mr. Teale: motor garage and stables, Crackenedge-lane, for Mr. Knowles; shop, Foundry-street, for Mr. Wood: additions to warehouse, Huddersfield-road, for Messrs. Handley & Drury; greenhouse, Vulcan-street, for Mr. G. Simpson: alterations to archway, St. Joseph's Church, Batley Car, for the Trustees.

DORCHESTER.—Rebuilding of Dorchester Brewery, for Eldridge, Pope & Co.

EASTLEIGH.—The Ministry of Transport has sanctioned the scheme for widening North End-road and the erection of the bridge.

EBBW VALE.—The U.D.C. has appointed a deputation to act with the Board of Guardians in soliciting sanction to £25,000 relief work scheme.

EDINBURGH.—The Dean of Guild Court at its last sitting considered 53 cases, the largest number since the war. Thirty-two were full petitions and 22 were granted. They included: A. Bremner, to erect three double-flatted cottages at Davidson's Mains; Henry Burnet, bungalow at Davidson's Mains: Peter Cameron, bungalow and garage at Milton-road, Portobello: Miss M. Clark, bungalow and garage at Drum Brae, Corstorphine: Craiglockhart Building Co., 12 self-contained houses at Lockharton-avenue: Mrs. J. B. Gibson, dwelling-house at Duddingston: R. Scott Millar, dwelling-house and garage at Barnton: George Graham & Sons, four semi-detached houses at St. Albans-road: Spylaw Building Association, two villas at Barnshot-road, Colinton: Edinburgh Corporation, to erect three blocks of three-storied tenements (three-roomed houses) at Hope-street, Corstorphine.——At the last sitting of the Dean of Guild Court 53 cases were considered. Of 33 petitions for full warrants, 18 were granted, including several for the erection of houses in the suburbs. Among these were the following: Mr. David Barrie, two semi-detached villas, Milton-road: Mr. George Roberts,

* See also our List of Contracts, Competitions, etc.

villa, Ravelston Dykes; Mr. Charles W. Mitchell, bungalow, Lanark-road; the Royal Infirmary, cottage, Convalescent House, Corstorphine.—The following warrants were also granted: Dr. W. A. Fowler, laboratories, 21, Walker-street, for X-ray research; Edinburgh Corporation, electric transformer-house, Portobello Power Station; Robert Maule & Son, extension of premises at the west end of Princes-street: Mr. John White, conversion of house, 31, Palmerston-place, into two separate houses; the Scottish Dyers & Printers, Ltd., dispatch house, Inglis-green-road; Sears & Co., alterations to shop front at 23, Earl Grey-street; St. Cuthbert's Co-operative Association, Ltd., alterations to shops, 34-36, Deanhaugh-street.

EPSOM.—A scheme, which is receiving considerable local support, provides for turning the old brewery adjoining the Parish Church into a Church Hall.

EXETER.—The T.C. is recommended by the Housing Committee to approve the City Architects' lay-out of the Buddle-lane housing estate, providing for the erection of 469 houses and 10 shops, with recreation and allotment grounds, and also for the erection of 201 houses, including 58 parlour houses. The Health Ministry has approved the Council's town-planning scheme, and the Council is recommended to appoint an assistant to the City Surveyor, with experience in town planning, at a salary of £350 to £400 per annum, the appointment to be limited to the period of the scheme.

GATLEY.—Alterations to the frontage, kitchen, smoke-room and vault of the "Red Lion" Hotel are proposed by Messrs. Threlfall's Brewery, Ltd., Cook-street, Salford. The plans are being prepared in their own office.

GOLBORNE.—Mr. W. T. Molyneux proposes to erect a detached house in Barns-lane. The plans have been approved.

GRAVESEND.—Plans passed by T.C.: House, Campbell-road, Mr. J. B. Miles, for Mr. P. J. Cork; conversion of "Hillside," Old-road East, into three dwellings, Mr. A. J. Heeley, for Messrs. G. E. Wallis; alterations to cinema, Windmill-street, for the Cinema Co.; alterations at Milton House, Parrock-street, Mr. A. Sidwell, for Dr. Hancock.

GREASEBOROUGH.—Mr. James Totty, architect, has been asked to prepare plans, &c., for the erection of eight bungalows on land in Croft-street, acquired from the overseers as trustees of the late Jane Horsfall's estate.

GUILDFORD.—The T.C. is being recommended to apply for sanction to borrow £41,100 for its housing scheme.

HALE.—Messrs. Walker & Toft, builders, Edale-street, Failsworth, propose to erect a bungalow in Hale-road.

HASTINGS.—Plans passed by T.C.: House, Albany-road, Mr. C. Hughes, owner, Messrs. Callow & Callow, architects; house, Priory-avenue, Misses Wilshin, owners, Mr. H. M. Jeffrey, architect; bathroom, &c., 32, White Rock, Mr. H. Salmon, owner, Mr. H. W. Coussens, architect; bathroom, 40, Quarry-road, Mr. J. Hollingsworth, owner, Mr. H. M. Jeffrey, architect; alterations to shop, 125, Mount Pleasant-road, Messrs. Draper & Co., owners, Mr. H. W. Coussens, architect; garage, "Banavie," St. Helen's Park-road, Mrs. Willett, owner; pair semi-detached houses, Collier-road, Mr. J. B. Ward, owner, Mr. J. Hunt, architect; bungalow, Hoads Wood-road, Mrs. Wade Brown, owner, Mr. J. Hunt, architect; alterations, "The Dun Horse," Albion-street, the Steyning Breweries, Ltd., owners, Mr. Stavers H. Tiltman, architect; bathroom, &c., 79, Battle-road, Mr. W. H. Balkham, owner, Mr. J. Hunt, architect; garage, "Radcliffe House," Sedlescombe-road, Mr. W. H. Young, owner, Mr. H. W. Coussens, architect; garage into lock-up shop, Caves-road, Mr. P. Terrill, owner, Mr. P. H. Oxley, architect; additions, "The Cleve," Old London-road, Mr. B. Malony, owner, Messrs. Callow & Callow, architects; grill room, &c., Queen's Hotel, Queen's Hotel Co., Ltd., owners, Mr. E. L. Haynes, architect; conversion into one house of 25 and 26, Caves-road, Mr. J. H. Poynton, owner, Messrs. Callow & Callow, architects; bungalow, Hillside-road, Mr. S. Dunk, owner; conversion into one house of Nos. 77 and 79, Edmund-road, Mr. G. Rubie, owner, Messrs. Callow & Callow, architects.——Local interest is being taken in the T.C.'s proposal to proceed with the conversion of the East Sussex Hospital buildings into a music pavilion, at an estimated cost of £60,000. Plans have already been prepared.——The Electricity and Public Lighting Committee is submitting a scheme for building a new power station.

HAY.—Plans passed by Hay R.D.C.: Alterations at Three Cocks Mill and for Royston Memorial Hall, Bronllys.

HINDHEAD.—The completion of the nave of St. Alban's Church by the erection of two additional bays is being considered.

HORBURY.—Plans approved by U.D.C.: Two houses, Wakefield-road, for Mr. W. Clarke; motor-garage, for Mr. Fitton; house, Regent-street, for Mr. R. Hemingway.

HORSHAM.—It is proposed to purchase the old Cottage Hospital as an annexe to Collyer's School, and the Governors have received the approval of West Sussex E.C.——The U.D.C. has been urged to accept the tender of Murrell Brothers, of Roffey, for building eight non-parlour houses at Oakhill at £427 each, exclusive of land.

HOVE.—Plans passed by T.C.: Mr. P. D. Stonham, for Mr. J. Rimmer, detached house, Old Shoreham-road; Mr. A. E. Porter, for Mr. H. Porter, pair semi-detached houses, Montefiore-road; J. Parsons & Sons, for Mr. B. E. Hoare, alterations, 5, Davigdor-road; H. J. Green & Co., for Mr. H. P. Phillips, addition, 27, Albany villas; Mr. P. B. Hunter, for Mr. H. Betteridge, detached house and garage, 186, New Church-road; Mr. B. James, for Mr. A. Chadwell, detached house and garage, Hove-street; Mr. B. James, for Mr. W. Colwell, motor garage, Arthur-street; Mr. A. Carden, for Mr. E. Cohen, conversion into flats, 60, Brunswick-place; Mr. R. Griffiths, alterations, 2A, Platchington-road; Mr. E. Bernardi, alterations, 66, George-street; Mr. E. J. Parker, for Mrs. L. Williams, motor garage, Hallyburton-road; Clayton & Black, for Mr. J. Marcus, conversion into flats, 3, Brunswick-terrace; E. Gladman & Son, eight detached houses, Titian-road; Mr. E. E. Brown, for Mr. W. J. Grimes, detached house, Glendor-road; Mr. P. B. Hunter, for Messrs. Fisher & Co., pair semi-detached houses, Hallyburton-road; Messrs. T. Garrett & Son, for Mr. L. Hess, detached house, New Church-road; Messrs. T. Garrett & Son, for Mr. H. A. Malby, detached house and motor garage, Kingsway at Langdale-road; Mr. H. C. Heillier, for Mrs. A. Lentner, detached house and motor garage, Holland-road; Messrs. Santils, Ltd., for Mr. H. H. Sparks, detached house, New Church-road; Messrs. F. Howarth & Co., for Mr. C. Evans, conversion into flats, 35, Adelaide-crescent; Mr. F. M. Cashmore, for Mr. S. Herbert, additions, 2, Drive-court, The Drive; Messrs. J. Parsons & Sons, for Mr. J. Montgomery, additions, "St. Ronans," New Church-road.

KEIGHLEY.—Plans approved by T.C.: Dye store, off Bradford-road, for the Stocksbridge Finishing Co.; house, Cragg-street, for Mr. T. Rushworth; six houses, Oakworth, for Mr. J. W. Midgeley; house, Spring-Garden-lane, for Mr. R. H. Taylor; house, Dameens-road, for Mr. O. Smith; additions to St. Peter's Sunday School, for the Committee; paint store, Coney-lane, for Mr. J. Sunderland; stable, Hard Ings lane, for Spencer & Briggs; garage, Sureness-road, for Mr. A. Hector; shed at Back Foster-road, for R. Firth; workshop, off Bradford-road, for the Stockbridge Portable Building Co.; garage, Becks-road, for Mr. H. Moore; garage, Coney-lane, for Mr. S. H. Horsman.

KING'S LYNN.—Plans passed by the T.C.: Smoke-house, Wellesley-street, for Messrs. Ken Davey & Co., engine-house, Chapel-street, for Messrs. Burman & Wells; alterations, 10, St. John's-terrace, for Mr. R. H. Setchell; cement-house, Harbour-yard, for the Building Material Co.

LEADGATE.—Plans submitted by the Rev. Canon A. Magill and the managers of Brooms Roman Catholic Elementary Schools, for the erection of a new infants' school on St. Ives-road, have been approved by the U.D.C.

LEVENSHULME.—A new billiard-room is proposed by the Committee of the Slade-lane Social Club. Plans are being prepared by Mr. N. H. Hacking, architect, 5, Blackfriars-street, Manchester. Mr. E. Dawson, architect, 49, Deansgate, Manchester, is preparing plans for two houses in Grange-avenue.

LITTLE LEVER.—Mr. J. Roscoe, builder, 62, Lever-street, proposes to develop a site near his residence for a number of houses.

LIVERPOOL.—An improvement scheme is being undertaken in the centre of the city. Old premises in Clayton-square and Parker-street are to be demolished and replaced by a modern business block, estimated to cost £250,000. Messrs. William Thornton & Son, Ltd., of Wellington-road, Liverpool, are to have the contract.——Plans passed by the Corporation (names of the architects in parentheses): Four houses and garage in Honeys Green-lane, for Mr. W. Lothian (Mr. F. H. Peate); warehouse, Preston-street, for D. Mathew & Sons (Mr. A. E. Shennan); garage, 62, Norwood-grove, for Mr. A. Hall (Mr. W. H. Scott); garage, Burnan-drive, for Mr. Thos. Wright (Williams & Sutcliffe); garage, 9, Livingstone-drive, for Signor Lainzga (Mr. Harold C. Davis); alterations and additions, 107, Westminster-road, for J. Irwin & Sons, Ltd. (Medcalf & Medcalf); boiler house, Walton Hall-avenue, for Harland & Wolff (Mr. Frank Hayes); additions to works, Binns-road, for Mr. Selves (Paton, Calvert & Co.); garage, 6, Livingstone-drive, for Mr. Edwin Thompson (Mr. A. J. Skyner); conversion to flats, 17, Croxteth-road, for Mrs. J. N. Clegg (Gray & Evans); two houses and garage, Montelair-drive, for Mr. T. Jones (owner); car showrooms, Rice-lane, for Tinklers Motors, Ltd. (Mr. H. C. Killinder); house, Menlove-avenue, for Mr. Robert McKenzie (Mr. J. W. Jones); two houses, Mersey-road, for Mr. J. Hughes (R. Owens & Son); garage, 29, Balmoral-road, for Mr. J. Gorbutt (W. & A. Piercy); new latrine building, Edge-lane, for Jackson & McConnal (Mr. J. E. Bloden); additions, Lord Nelson-street, for Mrs. A. Bishop (Mr. Robt. Myles); three lock-up shops, 308, Kensington, for Mr. A. Kitchen (R. Owens & Son); alcohol plant, Back Hall-lane, for Preston, Liverpool Distilleries (owners); two houses, Greenhill Orient, for J. D'Arcy & Sons (owners); new bank, Mill-lane, for Bank of Liverpool (Mr. E. C. Aldridge); dance hall and cafe, Beech-street, for Mr. A. Kitchen (R. Owens & Son); stores buildings, Great Nelson-street, for Caeley & Sons (Mr. Jno. Williams); bonded warehouse, Smithfield-street, for Burroughs, Ltd. (J. & A. Burroughs); house and garage, Menlove-gardens, for Mr. J. W. Jones (owner); new works, Stuart-road, for Mr. Allen Liversidge (Mr. A. E. Shennan); showrooms, Berry-street, for Mr. F. S. Whitley (Gray & Evans); house and garage, Harthill-road, for Mr. F. W. Thomas (Russell, Taylor & Son); warehouse, Lower Mill-place, for Tate & Lyle, Ltd. (G. de C. Fraser & Ainley); two houses, Queen's-drive, Walton, for Mr. D. Tippin (Williams & Kelly); warehouse, Westmorland-street, for Jute Industries, Ltd. (Gibson, Fraser & Ainley); new Church of St. Mark, Edge-lane, for the Vicar and Wardens (Mr. F. Rimmington); garage, Carratie-road, for Mr. J. A. Woods (Mr. F. S. Wallis); factory extensions, Rice-lane, for the New Liverpool Rubber Co. (Morter & Dobie); cinema, Queen's-drive, for Victoria Cinema (Williams & Kelly); house, Aigburth Hall-road, for Mr. W. R. Upwood (Mr. J. W. Jones); public-house alterations at 11, Guilford-street and 47, Seldon-street, for Peter Walker & Sons (R. Owens & Son); three new garages, Nelson-road, for Mr. W. Willey (owner); garage, Queen-street, for Geods & Co. (Mr. J. Rimmer); garage and chauffeur's house, Beech-lane, for Mr. T. J. Walmsley (J. Clark & Son); four houses, Grant-avenue, for Mr. Hugh Hughes (R. Owens & Son); six houses, Sandforth-road, for W. Tomkinson & Sons (Fraser & Ainley); two houses, Montelair-road, for Mr. T. Jones (Gray & Evans); house, Greenhill-road, for the Mersey Building Co., Ltd. (owners); bacon factory, Moddrell-street, for the Manchester Bacon Smoking Co. (Mr. H. C. Killinder); Welsh Baptist Chapel, Earlesfield-road, for the Building Committee (Mr. L. Wynne Williams); rebuilding shop, London-road, for Ray & Miles (Quiggin & Gee); warehouse, 25, Marybone, for Audley & Co. (Travis & Co.); four houses and garage, Montelair-road, for Mr. T. Jones (Gray & Evans); two houses, Mersey-avenue, for Mr. R. Cleagh (Brown & Sanders); house and garage, Dudlow-lane, for Sealey & Locas (owners); conversion of flat, Aigburth-drive, for Mr. W. S. Morris (Campbell & Honeyburne); conversion of flat, 13, Parkway, for Mr. T. J. Thomas (Mr. Barlow Davis); four houses, Grant-avenue, for Mr. Hugh Hughes (R. Owens & Son); garage, Richmond-terrace, for Mr. W. H. Christopher (Mr. Geo. Jones); garage, Rodner-place, for Dr. Jennings (Mr. W. H. Scott); house and garage, Harthill-road, and two houses, Greenhill-avenue, for E. B. Taylor & Son (Mr. J. W. Thomas); two houses, Allerton-road, and nine houses and a building yard, Bleasedale-road, for Williams & Sutcliffe (Mr. J. W. Jones).

MANCHESTER.—Mr. H. Barnes, builder, proposes to erect semi-detached houses in Manley-road, Whalley Range.—— Mr. G. Westcott, architect, 13, Bridge-street, Manchester, is preparing plans for alterations to the "Prince of Wales" Hotel, Moss-lane West, for the Manchester Brewery Co., Ltd., Salford.——Messrs. Pendleton & Dickinson, architects, 16, Brazennose-street, Manchester, are preparing plans for works in Sidney-street and York-street, for Mr. E. Nove, builder.

MILES PLATTING.—Messrs. W. Johnson & Son, architects, 27, Oldham-road, Miles Platting, are preparing plans for alterations to premises in Monsall-street, and Craig-street, for Messrs. Wilson's Brewery Co., Ltd., Monsall-road.

MONMOUTHSHIRE.—The County Council has approved plans submitted for erection of a new smallpox hospital for 40 beds, at estimated cost of £15,000.—— Mr. Jones, architect, has submitted plans of new bowling-green and tennis-courts to the Crickhowell R.D.C.—— An offer has been accepted by the County Education Committee, made by the Llanover Estate, of a free site for proposed new school at Llanover, with payment of all costs of erection exceeding £3,000, providing the Estate is granted permission to build according to plan passed to make the school a mode construction.——The Sites and Building Committee of Education Authority is to proceed with erection of new school at Cwmbran upon a site to be agreed upon.——Additional school accommodation is to be provided at Usk.

MYNYDDISLWYN.—The U.D.C. has passed plans for bungalow at Pontllanfraith for Mr. W. H. Treasure and for proposed alterations and additions to Glanyrafon, Pontllanfraith.

NEWPORT (ISLE OF WIGHT).—Plans passed: By Mr. S. Salter, on behalf of Mr. J. Cowper Blake, for house, Cypress-road; by Messrs. Aldridge & Hayward, Ventnor, for the Isle of Wight Electric Light, &c., Co., Ltd., alterations to premises corner of Lugley-street and St. James'-street; by Mr. G. F. Quinton, on behalf of Messrs. H. W. Morey & Sons, Ltd., new lavatories at sawmills, near Trafalgar-road.

NORMANTON.—Plans passed by U.D.C.: Proposed new baths for the U.D.C., and new banking premises in High-street.

OGMORE.—The Ogmore and Garw Council, having considered the matter of lay-out of Llangeinor recreation ground at Cefn Gelli Farm, has decided to offer Mr. Johnson opportunity of building another house on part of land, there being sufficient land adjacent to house site for lay-out.

PEMBROKE.—The Town Council is to repair Town Hall and Council chamber, and tenders are to be invited for this and work of redecoration.

PERSHORE.—Plans passed by R.D.C.: Alterations at "Millers Arms"; cottage at Norton, for Mr. L. G. Harber; cottage at Deptford, for Mr. F. Taylor.

PETERSFIELD.—The R.D.C. is to apply for sanction to borrow £6,560 for its water undertaking, it being intended to take over the Hill Brow Water Co.'s undertaking, and to build a new water tower at Hill Brow.

PONTARDAWE.—The schools managers have decided to paint internally and externally the Girls' Schools.

PONTYPOOL.—The Board of Guardians have decided to build new offices in Hanbury-street, Pontypool, to adjoin the proposed new St. James's Vicarage. The architect for the new offices will be Mr. C. J. S. Wilton.

PONTYPRIDD.—The U.D.C. is to acquire portion of Ynysynghorad Grounds not already owned in connection with a town-planning scheme for the urban area.

PORTSMOUTH.—The Portsmouth Manufacturers' Association is said to be forming a company, with £30,000 share capital, to build factories to suit local requirements. The Association has an option on two acres of land and proposes to put up eight single-storied buildings, the estimated cost being about £12,000.

PRESTON.—Marsh-lane Wesleyan Chapel Trustees have decided on a renovation scheme, which includes alteration of choir pews and new entrance for choir vestry to make room for new organ, painting and decorating inside and outside, and improvement of electric light. Contracts for organ and structural alterations have been placed.

REDHILL.—The T.C. and the Redhill F.C. are in negotiation regarding the Memorial Sports Ground, and it is hoped the Corporation will enlarge the pavilion to accommodate 500 more spectators.

RHONDDA.—The U.D.C. has been requested to proceed with erection of new secondary school at site acquired at Ynyswen, Treherbert, and has replied that as soon as possible this will be done.

RHYMNEY.—The U.D.C. has received notification that Ministry of Health will bear cost of repairs, stated to be estimated at a considerable sum, to Pen-y-dre houses. It was stated at U.D.C. meeting that G.W.R. will erect locomotive sheds at Rhymney. The Council has applied for grant to carry out improvements of Rhymney Bridge and Abertwsswg roads.

(*Continued on page* 116.)

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£	s.	d.
Best Stocks	4	2	0
Second Hard Stocks	3	17	0

Per 1,000. Delivered at London Goods Stations.

	£	s.	d.
Flettons, at 'King's Cross	2	13	3
Do. grooved for plaster	2	15	3
Do. Bullnose	3	8	3
Best Stourbridge Fire brick :—			
2½ in.	11	3	0
GLAZED BRICKS—			
Best White Ivory, and Salt Glazed Stretchers	22	0	0
Headers	21	10	0
Quoins. Bull-nose and 4½ in. Flats	28	10	0

	£	s.	d.
Best Blue Pressed Staffs.	9	11	6
Do. Bullnose	10	1	6
Blue Wire Cuts	7	11	6
3 in.	13	2	0
D'ble Str'tch'rs	30	10	0
D'ble Headers	27	10	0
One Side and two Ends	31	10	0
Two Sides and one End	32	10	0
Splays and Squints	30	0	0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s.	d.
2 in. per yd. super	2	1
2½ in. „	2	5
3 in. per yd. super	2	9
4 in. „	3	7

	s.	d.		
Thames Ballast	10	6	per yard.	
Pit Sand	14	9	„ „	
Thames Sand	15	6	„ „	delivered 2 miles radius Padding-ton.
Best Washed Sand	15	6	„ „	
¾ in. Shingle for Ferro-Concrete	14	0	„ „	
½ in. „ „	15	0	„ „	
¾ in. Broken Brick	10	6	„ „	
Pan Breeze	5	6	„ „	

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6

51/- alongside at Vauxhall in 80-ton lots.

	£	s.	d.
Ferrocrete per ton extra on above	0	10	0
Super Cement	4	8	0
Roman Cement	8	15	0
Parian Cement	5	13	0
Keene's Cement, White	5	8	0
„ „ Pink	5	3	0
Plaster, Coarse, Pink	3	0	0
„ „ White	3	12	6
„ Fine	5	12	0
Sirapite, Coarse	3	9	6
„ Finish	3	17	6
Grey Stone Lime	2	10	9
Chalk Lime	2	10	9
Best Ground Blue Lias Lime	2	13	6
Hair	17	0	0
Granite Chippings	1	12	0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s.	d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2	10
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	3	0½
PORTLAND STONE—		
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4	4½
Do. do. delivered on road wagons at above stations, per ft. cube	4	5½

White basebed, 3d. per ft. cube extra.

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

	s.	d.
Small random blocks, up to 10 ft. cube. Per ft. cube	7	/-
Random blocks from 10 ft. and over „	17	/-
Sawn two sides „	27	/-
Sawn three or four sides „	32	/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s.	d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5	3
6 in. rubbed two sides, ditto „	5	9
3 in. sawn two sides slabs (random sizes) „	2	1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1	5½
1¼ in. to 2 in. ditto, ditto „	1	3

HARD YORK—

Delivered at any Goods Station London.

	s.	d.
Scappled random blocks Per Ft. Cube	5	6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5	4½
6 in. rubbed two sides ditto „	6	0½
4 in. sawn two sides slabs (random sizes) „	2	10
3 in. ditto. ditto „	2	5
2 in. self-faced random flags. Per Yard Super	7	11

ARTIFICIAL STONE.

	s.	d.
Delivered in London Area in full van loads.		
Plain per ft. cube	6	6
Moulded „ „	7	9
Cills „ „	8	3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	28 0	2 × 11	34 0
4 × 7	26 0	3 × 9	32 0
3 × 8	26 0	2½ × 9	32 0
3 × 7	25 0	3 × 4½	24 0
2½ × 7	24 10	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

Inches.	per sq.	Inches.	per sq.
1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	20/-	1¼	33/6
⅞	23/-	1½	38/6
1	25/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	25/6
1¼	33 6
1½	38 6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	22/-
1	26/-

Inches	BATTENS	s.	d.
¾ × 2		2	4 per 100 ft.

SAWN LATHS.

Per bundle				0	2	10
Dry Wainscot Oak, per ft. super, as inch	0	2	0	to 0	2	6
¾ in. do. do.	0	1	6	to 0	2	0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1	9	to 0	2	6
Cuba Mahogany	0	3	6	to 0	4	0
Teak (Rangoon, Moulmein or Java), per load	45	0	0	to 50	0	0
American Whitewood planks, per ft. cube	0	14	0	to 0	16	0
Best Scotch Glue, per cwt.	4	10	0	to	—	
Liquid Glue, per cwt.	4	7	0	to 5	10	0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£	s.	d.		£	s.	d.
24 by 12	37	12	6	18 by 10	21	2	6
22 by 12	34	0	0	18 by 9	18	12	6
22 by 11	31	5	0	16 by 10	17	12	6
20 by 12	29	15	0	16 by 8	13	15	0
20 by 10	25	12	6				

TILES.

	Per 1,000 f.o.r. London. £	s.	d.
Best machine-made tiles from Broseley or	5	7	6
Staffordshire district	5	7	6
Ditto hand made ditto	5	12	6
Ornamental ditto	5	17	6
Hip and valley tiles (per dozen) Hand made	0	9	6
Hip and valley tiles (per dozen) Machine made	0	9	0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£	s.	d.
R. S. Joists, cut and fitted	13	10	0
Plain Compound Girders	15	10	0
„ Stanchions	17	10	0
In Roof Work	20	10	0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£	s.	d.	Diameter.	£	s.	d.
¼ in.	16	10	0	⅝ in. to ½ in.	13	10	0
⅜ in.	14	10	0	⅝ in. to 2⅞ in.	13	0	0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3¾d.
3½ in.	1/2¾	1/0¾	3¾d.
4 in.	1/4	1/1¾	3¾d.
4½ in.	1/5¼	1/4	4d.
5 in.	1/7¾	1/5¼	5d.

O.G. GUTTERS.

3 in.	1/6¼	1/2¾	3¾d.
3½ in.	1/6¼	1/2¾	3¾d.
4 in.	1/7¾	1/4	3¾d.
4½ in.	1/9¼	1/6¼	4d.
5 in.	2/1¾	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7¼	1/1¾	1/8
2½ in. „	1/9¼	1/4	2/0¼
3 in. „	2/1½	1/8	2/5¾
3½ in. „	2/6¼	1/11½	2/10¼
4 in. „	2/11¼	2/4½	3/5¼

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s.	d.	Bends, stock angles. s.	d.	Branches, stock angles. s.	d.
2 in. per yd. in 6fts plain	3	0½	2	2½	2	8
2½ in. „	3	6½	2	5½	3	3½
3 in. „	4	2½	2	8	4	0½
3½ in. „	4	7	3	3½	4	8½
4 in. „	5	1	3	9½	5	5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s.	d.	Bends, stock angles. s.	d.	Branches, stock angles. s.	d.
3 in. per yd. in 9ft. lengths	4	9	5	8	8	10
4 in. „ „	6	3	6	8	11	4
5 in. „ „	7	6	11	6	18	2
6 in. „ „	8	10	14	4	23	5

Per ton in London.

IRON—	£	s.	d.		£	s.	d.
Common Bars	14	0	0	to	15	0	0
affordshire Crown Bars— good merchant quality	14	10	0	..	15	10	0
Staffordshire "Marked Bars"	17	0	0	..	18	0	0
Mild Steel Bars	13	10	0	..	14	10	0

METALS (*Continued*).

	£	s.	d.		£	s.	d.
Steel Bars, Ferro-Concrete quality, basis price	13	10	0	..	14	10	0
Hoop iron, basis price	16	10	0	..	17	10	0
„ Galvanised	31	0	0	..	32	0	0
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	15	10	0	..	16	10	0
„ „ „ 24 g.	16	10	0	..	17	10	0
„ „ „ 26 g.	18	10	0	..	19	10	0
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21	10	0	..	22	10	0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22	10	0	..	23	10	0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24	10	0	..	26	10	0
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21	0	0	..	22	0	0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21	10	0	..	22	10	0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23	10	0	..	24	10	0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23	10	0	..	24	10	0
Best Soft Steel Sheets, 22 g. and 24 g.	24	10	0	..	26	10	0
Best Soft Steel Sheets, 26 g.	26	0	0	..	27	0	0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	21	10	0	..	23	0	0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£	s.	d.		
LEAD—Sheet, English, 4 lb. and up	34	0	0	..	—
Pipe in coils	34	10	0	..	—
Soil Pipe	37	0	0	..	—
Compo pipe	38	0	0	..	—

NOTE—Country delivery, 30s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	21	10	0	..	—
Do., ex country, carriage forward per ton	22	10	0	..	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	43/6	76/-	153 -	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
38/-	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES. S.F.

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
32/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	120/ „

COPPER—	£	s.	d.		
Strong Sheet per lb.	0	2	3	..	—
Thin „ „	0	2	4	..	—
Copper nails „	0	2	3	..	—
Copper wire „	0	2	4	..	—
TIN—English Ingots „	0	2	0	..	—
SOLDER—Plumbers' „	0	0	11	..	—
Tinmen's „	0	1	1	..	—
Blowpipe „	0	1	3	..	—

PAINTS, &c.

	£	s.	d.
Raw Linseed Oil, in pipes per gallon	0	3	8
„ „ „ in barrels „	0	3	10
„ „ „ in drums „	0	4	1
Boiled „ „ in barrels „	0	4	2
„ „ „ in drums „	0	4	4
Turpentine in barrels „	0	6	11
„ in drums (10 gall.) „	0	7	2
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	55	10	0

GENUINE WHITE LEAD PAINT—

"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered 77 0 0

Red Lead, Dry (packages extra) per ton	42	0	0
Best Linseed Oil Putty per cwt.	0	16	0
Filocot per cwt.	0	15	6
Size, XD Quality fkn.	0	3	6

[*Concluded on next page.*]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths	3½d.	32 oz. fourths.....	8½d.
15 „ thirds	4½d.	32 „ thirds.....	10½d.
21 „ fourths	5d.	Obscured Sheet, 15oz.	4d.
21 „ thirds	6½d.	21 „	5½d.
26 „ fourths	6d.	Fluted 15oz.	6½d. 21oz. 9½d.
26 „ thirds.....	7½d.	En'lled 15 „	5½d., 21 „ 7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft
⅛ Rolled plate	4½d.
3/16 Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal flatting	ditto	1 0 6
Hard drying Oak	ditto	0 18 0
Fine Hard drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 0
Knotting (patent)		1 5 0
French and Brush Polish		0 17 6
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

Timber Merchant's Estate.

Mr. William Christie, of Minden, Peebles, formerly of West Point, Saltcoats, timber importer, a director of Messrs. William Christie & Co., Ltd., who died on April 6, aged 77, left personal estate provisionally valued at £318,952, of which the personal estate in Great Britain amounts to £309,418.

Use for Spent Oil Shale.

Mr. H. O. Weller, Director of Building Research of the Department of Scientific and Industrial Research, 16, Old Queen-street, Westminster, S.W. 1, writes :—

"It may interest your readers to learn that a first experiment with spent shale from the Scottish oil-fields at the Building Research Board's experimental station has produced a puzzolanic hydraulic cement of a tensile strength at three months' age greater than that required for Portland cement by the B.E.S.A. Standard Specification. My attention was directed to this waste material by Dr. A. P. Laurie, of Edinburgh. Samples were obtained from the Research Association of the Shale Oil industry. The cement is of a pleasant light red colour, and is much harder than ordinary Portland cement."

PROPOSED NEW BUILDINGS.

(*Continued from p.* 114.)

Rusholme.—Messrs. W. Radcliffe & Sons, Ltd., Brick-lane, Manchester, are erecting six shops with housing accommodation in Birchfields-avenue and Bird Hall-lane, Rusholme. Messrs. Foden & Hilton, builders, are also erecting seven shops with housing accommodation in Beresford-road, Slade-grove, and Clitheroe-road, Rusholme.

Salford.—Groves & Whitnall's, Ltd., brewers, Regent-road, propose alterations to the "Swan Inn," Bury New-road.

Sawbridgeworth.—A plan, submitted by the vicar for the erection of a house in Springhall-lane, for the curate, has been passed by the U.D.C.

Sleipton Mallet.—A scheme involving an outlay of £1,000 for the extension of the water supply of Emborough, including the construction of a new reservoir, has been approved by the R.D.C.

Southwold.—The T.C. has agreed to sell land for a sugar beet factory, the first to be put up in Suffolk.

Sowerby Bridge.—Plans approved by U.D.C.: Shed, Albert Mills, for Messrs. Homfray & Co., Ltd.; house off Park-road, for Mr. J. W. Shaw.

Sunderland.—The R.D.C. is to advertise for tenders for the erection of 70 additional houses; 10 each at Ford, Fulwell and Hylton; and 20 each at Ryhope and Tunstall. The houses will be of the small type of four rooms.——Subject to the passing of the Housing Bill, the T.C. proposes to make the following contributions: Robert Stafford, 16 five-roomed houses, Cuba-street. Grant, £150 per house. Messrs. J. W. White, 5 five-roomed houses, Colchester-terrace. Grant, £145 per house. Messrs. J. W. White, 22 five-roomed houses, Ewesley-road. Grant, £150 per house. Messrs. J. W. White, 28 five-roomed houses, Mount-road. Grant, £150 per house. W. Knaggs, 12 four-roomed houses, Grange-street. Grant, £100 per house. C. T. Elliott, 2 three-roomed houses, Milburn-street. Grant, £150 per house.

Swindon.—The T.C. has received proposals from local builders for the erection of houses, subject to a grant being made, as follows: Mr. A. J. Colborne, 20 houses, County-road; 34 houses, Newcastle-street; 60 houses, Stratton-road; 50 houses, Northampton-street; 60 houses, Wroughton-road; 162 houses, Ferndale-road; Mr. E. W. Beard, 32 houses, Wellingborough-street.——Plans passed: Mr. E. Blake, house, and house with shop, Kingshill-road; Mr. E. W. Beard, 32 houses, Wellingborough-street; Messrs. Bishop & Fisher, two houses County-road, nine houses Leicester-street, and 25 houses and shop Northampton-street; Mr. E. H. Bradley, four shops with living room accommodation, Devizes-road; Messrs. Bishop & Fisher, printing room, Eastcoff-hill; Mr. R. J. Beswick, bakery, Station-road, and additions, 61 & 62, Devizes-road; Mr. A. J. Colborne, house, Stratton-road; Mr. A. Crewe, shop, Station-road.

Taunton.—The T.C. approved a recommendation of the Main Drainage Committee that the work of reconstructing the sewage disposal works and altering the refuse destructor be carried out at a cost of £27,000. It was also agreed that application be made to the Ministry of Health for sanction to borrow this sum, also to the Unemployment Grants Committee for a grant towards the cost.——The T.C. have decided to reconstruct the Sewage Works at an estimated cost of £27,000; also to grant a subsidy of £75 per house for 24 houses to be erected by the Priory Land Development Co., Ltd.

Thornaby-on-Tees.—Plans passed by T.C.: Warehouse, East-street, and picture hall, Mandale-road, for Mr. G. T. Alderson.

Torquay.—Plans passed by T.C.: Mr. J. U. Harris, dwelling-house, Hampton Estate; Mr. G. H. Easterbrook, house, Lincombe-hill Estate; Mr. E. E. Bensley, house, adjoining Barton Nursery; Mr. R. E. Narracot, eight houses, Hill Park Estate, Upton; Mr. J. F. Ford, four houses, Warborough-lane, Babbacombe; Mr. R. Atkinson, for conversion of stable to dwelling-house, rear of Fore-street, Barton.

Tredegar.—The U.D.C. has convened a meeting, with local industrial firms' representatives, other local authorities, and the representatives of the L.M. & S.R. Co., to petition a new station for Tredegar. The Council has requested the Railway Co. to erect covered platforms at the local collieries to avert the waiting in rain for trains by colliers.

Treharris.—Workmen of Deep Navigation Colliery have scheme for erection of institute and hospital at Treharris. The Treharris Lodge of S.W.M.F. is responsible for scheme, and site, &c., is being arranged by Committee.

Wakefield.—The City Council has passed the following plans: Mr. J. P. Firth, two houses, Barnsley-road, for Mr. W. P. Webster; house in Poplar-avenue, for Mr. George Crook; house in Flanshaw-lane, for Mr. George Crook; house in Barnsley-road, for Mrs. L. Baker; Mr. Dobson, house, Horbury-road, Lupsett, for Messrs. A. & E. Norbury; two houses, Gorbury-road, for Mr. D. Naylor; conversion of premises into a house and lock-up shop, Little Westgate and Windmill-yard, for Mr. E. Lockey; house, office and store, at Barnsley-road, Portobello, for the Yorkshire (W.R.) Electric Tramways, Ltd.; warehouse, between Back-lane and Westgate, for Messrs. G. Blakey & Son; for N. A. Whitham, two houses in Woodthorpe-lane, for Mr. F. H. Young; for Bell & Kay, house in Horbury-road, for Mrs. Wigglesworth; for W. H. Watson, conversion of mission hall, Danby-lane, Newmillerdam, for Mr. H. C. Moggs, into a private residence.——The R.D.C. have approved the following plans: Two houses, Denby Dale-road, Dunkar, for Messrs. Wilson Bros.; bungalow at Pontefract-road, Crofton, for Mr. W. Higgins; amended plan of house in Carr-lane, Shillington, for Mr. F. Gill; billiard-room and alterations to the Working Men's Club, Netherton, and two houses, Pontefract-road, Sharlston, for Mr. J. W. Fisher.——The West Riding County E.C. have approved of the erection of two new Middle Schools, one at Rothwell and the other at Wombwell. The former will provide accommodation for 300 children and is estimated to cost £12,000, the latter to provide accommodation for 400 children, estimated cost £16,000.

West Hartlepool.—Plans passed by T.C.: J. H. Geary, villa, Caledonian-road; F. M. Gibbon, addition, Elwick-road; G. J. Bell, bungalow, Stockton-road; Miss Wilson, eight houses, Powell-street; E. M. Tweddle, 16 cottages, Allendale-street; F. M. Gibbon, four houses, Powell-street; J. & R. Hayes, pair semi-detached villas, Stockton-road; Hartlepools Car Co., alterations to premises, 3, 5, and 7, Church-square; Mrs. Waters, alterations to premises, York House, York-road.——The B.C. have accepted tenders amounting to £1,587 for extension to the Maternity Hospital and erection of an Isolation Block.

Weymouth.—Plans passed by T.C.: Bungalow, Carlton-road North, for Mr. Wallis; lavatory accommodation, Roman Catholic Church, Dorchester-road, for Mr. G. A. Andrews; two bungalows, Buxton-road, Mr. A. J. Bennett, for Mr. K. Openshaw; alterations, St. Mary's-street, for International Tea Stores Co.; bungalow, Fernhill-avenue, for Messrs. Jenkins, Hitt & Grant; four houses, Dorchester-road, for Messrs. Jenkins, Hitt & Grant.

Whitby.—Plans passed by the U.D.C.: New gymnasium and dormitory at Smeaton Castle Priory, and two semi-detached houses at Ruswarp.

Whitefield.—Plans approved by the D.C.: For conversion of Park-lane Schools into eight cottages, for Mr. T. P. Willan, contractor, 1, Humphrey-street Hill, and for a bungalow to be erected in Phillips Park-road, for Mr. J. W. Eastwood.

Whitley and Monkseaton.—At the monthly meeting of the U.D.C. it was stated that the past month had established a record for plans. Seventy-nine plans had been approved for privately-owned houses and lay-out plans for no fewer than 408 houses.

Wigan.—Mr. J. Walkden, builder, Monument Lodge, Wigan, proposes to erect a large number of houses, some of a bungalow type, on Brock Mill-lane Estate.

Wirral.—A special meeting of the Board of Guardians has been held to consider the question of providing increased accommodation at Clatterbridge Institution. It was recommended by the Infirmary Committee, among other things, that a separate female infirmary be erected, a maternity ward for 20 cases be provided, and a new building for 24 children be erected, in addition to 12 more bedrooms for nurses. After discussion, the scheme was adopted. It was agreed to advertise for competitive terms from architects in Lancashire and Cheshire.

Withington.—Mr. W. Cambell, architect, Torkington Lodge, Gatley, is preparing plans for a large detached residence in Parsonage-road.

FIRES.

Birmingham.—A destructive fire has occurred on the premises of Messrs. Cole & Co., button manufacturers, Pritchett-street, Aston.

Bognor.—Considerable damage has been done by fire at the depot of the Southdown Motor Services, Ltd.

Liverpool.—A fire has occurred at the premises of the White Star Shipping Co.

Penistone.—Two serious fires have occurred, viz., at the Palace Cinema Theatre, and at the Oxspring Corn Mills, belonging to Mr. C. H. Webb.

F. J. BARNES, Ltd.,
PORTLAND STONE QUARRY OWNERS.
Stone from these quarries used in refacing Buckingham Palace, the construction of Waterloo Station and Victory Arch, etc.
LONDON OFFICE:
25, NINE ELMS LANE, S.W.8.
OFFICE & WORKS:
PORTLAND, DORSET.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty cambor or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings. hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft sup	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/1.	3/2	3 5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and	
Casement stays	1/2	making good	19/-
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/1	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/1	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/1	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt	51	0
Do. Do. in flats	"	49	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	10d.	1/6	1/9	3/1	3/10	
Do. service	"	1/5	1/11	2/3	3/6		
Do. soil	"						6/2
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

			s.	d.
Render, float and set in lime and hair	per yard sup.		2	3
Do. Do. Sirapite	" "		2	6
Do. Do. Keen's	" "		3	6
Add sawn lathing	" "		1	5
Add metal lathing	" "		2	3
Portland cement screed	" "		1	10
Do. plain face	" "		3	0
Mouldings in plaster	per 1 girth		0	1½
One-and-a-half granolithic pavings	per yard sup.		5	9

GLAZIER.

21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance The whole of the information given on this page is copyright.

TRADE NEWS.

Messrs. W. N. Froy & Sons, Ltd., builders and builders' materials' suppliers, of Brunswick Works, Hammersmith, W. 6, have issued two new catalogues. One catalogue, of 230 pages, is devoted to all classes of grates, ranges, stoves, boilers and mantels; and the other, of over 100 pages, lists the firm's builders' ironmongery, door furniture, &c. Both catalogues are fully illustrated, and should be in the hands of all contemplating the purchase of building materials.

We recently referred to Petters, Ltd.'s, 12–14 B.H.P. oil engine for paraffin or crude fuel oil, which starts instantly from cold without pre-heating electrical apparatus. This exhibit has received the Royal Agricultural Society of England's silver medal (highest award) at the show at Newcastle. The engine has also been awarded a diploma of honour in the prime movers' class at the Brazilian Centenary Exhibition.

At a lunch in connection with a general meeting of the Metropolitan District of the Institute of Municipal and County Engineers at the Connaught Rooms, samples of concrete where Novoid cement had been incorporated with ordinary Portland cement, as well as plain concrete specimens, were shown. Novoid cement has been used in the reconstruction of Oxford-street, after successful tests by St. Marylebone Borough Council.

At the annual general meeting of J. W. Singer & Sons, Ltd., the Chairman, Sir William Bull, Bart., M.P., said he was pleased to report that even with the competitive prices now ruling, this Company had been able to maintain the pre-war standard of work which has been associated with the name of Singers for 70 years. The metal work used to-day was generally of much plainer design than formerly, owing to the smaller sums available for building purposes, but he was very pleased that the Company's prices for their quality of work were very low, and that, on the average, the percentage for the difference between the Singer quality and inferior metal work was small. They had been able to maintain their efficient staff of highly-trained and skilled workmen, and the confidence of their overseas customers was well maintained, as was exemplified by the amount of work they had despatched recently to Shanghai, Hongkong, King Williamstown, Stutterheim, Bombay, Calcutta, &c.

Messrs. Dodge Bros. (Britain), Ltd., of Stevenage Wharf, Stevenage-road, S.W.6, have issued a booklet which contains much matter of interest to present or prospective users of motor transport for loads of 15 cwt. or one-and-a-half tons. The booklet is illustrated with a large number of photographs of fleets of "Dodge" commercial vehicles in use by distributors in the London area.

The Plate Glass Publicity Bureau (9, Southampton-street, W.C. 1) have issued a brochure describing the manufacture of plate glass from the crude processes of the Egyptians in 3300 B.C. to the present time. The brochure is well illustrated throughout, and the photographs of the large and heavy machinery used in the making of such a material will probably come as a surprise to most people. The brochure also contains some excellent photographs of modern buildings in which polished plate glass is used.

The Directors of Westminster Bank, Ltd., have declared an interim dividend of 10 per cent. for the half-year ended June 30 on the £20 shares, and the maximum dividend of 6¼ per cent. on the £1 shares for the same period. The dividends (both less Income Tax), will be payable on August 1.

Messrs. Cochrane & Co., Ltd., Ormesby Ironworks, Middlesbrough, have secured an order from the Aberdeen Corporation for the supply and delivery of three miles of 48-in. diameter cast-iron pipes lined centrifugally throughout with 1-in. thickness of concrete.

LAW REPORT.

INSTALLATION OF HEATING APPARATUS.

In this action, the hearing of which occupied Mr. G. A. Scott, High Court Official Referee, during July 9, 10 and 11, Messrs. Z. D. Berry & Son, of Artillery Mansions, Victoria-street, Westminster, sought to recover from Messrs. King & Arnell, Ltd., of West End-lane, Hampstead, who described themselves as building owners, the sum of £130, balance of account relating to the installation of a heating apparatus at one of the defendants' buildings in Kingsway.

Mr. Raynor Goddard, K.C., with Mr. Rickets, appeared for the plaintiffs; and the defendants were represented by Mr. Eness.

From counsel's opening, it appeared that the plaintiffs' account for putting in the heating apparatus was £2,600, all of which had been paid with the exception of £130, liability for which was disputed on the ground of alleged breaches of contract, and in an amended defence the defendants said that Mr. Barker, the supervising engineer, had acted without authority in permitting to be used welded water or gas tubes instead of solid drawn steel steam tubes, which were more expensive. Plaintiffs, however, said that the solid tubes were unprocurable at the time and defendants consented to the use of the welded tubes, which were proved sufficiently effective and reliable for the purpose. Defendants also claimed to be entitled to an allowance for an omission to fix certain radiators mentioned in the specification, but which were not required.

The plaintiffs' case was that the whole of the work had been carried out to the satisfaction of the superintending engineer, who had the consent of defendants to use the welded tubes, and the trouble now seemed to be that defendants thought they ought to have a reduction of price to represent the difference in the cost between the two kinds of tubing.

A considerable quantity of technical evidence was taken on both sides as to the difference between the two classes of tubes, particularly in relation to stability and durability, and differences of opinion were expressed as to the difficulty of obtaining the solid drawn tubes at the time (1919–1920).

The Referee said that if the welded tube was proved, as it had been in this case, to be more than sufficient to resist the pressure, there was no reason why it should not have been used, except that it was not in accordance with the specification. The unions used in the work were admitted to be not first-class, but they were the best obtainable at the time, and they had been in use for two years without mishap. Why, he asked, should they be objected to now?

Mr. Eness said they would be liable to accident owing to expansion and contraction caused by the steam.

The Referee said that a contractor could not be held responsible for defects developed after years of use, especially if the work had been carried out to the satisfaction of the engineer who authorised it. In this case, the engineer had said that the unions would stand thirty-six times the pressure likely to be put upon them.

Mr. Herbert King, a director of the defendant company, said that his company had built upon several plots in Kingsway, and as the building in question was expected to be used by the Office of Works the company desired that the best of materials should be used, and it was suggested that the Mannesman solid-drawn tubes should be used for the heating apparatus.

The Referee said there was nothing in the specification about Mannesman tubes, and evidence in regard to them did not affect the contract.

Witness, continuing his evidence, said that in 1919, Mr. Barker, the engineer, urged him to use Mannesman's tubes, but as it was found that they were unobtainable at the time, he said if he (witness) would allow him to use the other tubes, he would arrange the matter in the account at the end of the job. That was said in the presence of Mr. Berry, who said, if he were not allowed to use the other tubes, he would "chuck up the job," as it was impossible to get the tubes mentioned in the specification.

The Official Referee, in giving judgment, said that the main defence set up was in regard to the tubes, and it was clear that Mr. King made special requirements about this particular installation. It was well known that plaintiffs could not go into a free market and get what they wanted. Under the circumstances, they had to get the best they could, and owing to variations made in the specifications reductions were made in plaintiffs' estimate. No reduction was made on account of the tubes. It was decided that twenty-four of the radiators should not be fitted, and the question was how much should come off the plaintiffs' account. The matter had been properly dealt with in the omissions. He was unable to find that there had been any breach of contract, and there must be judgment for the plaintiffs for the amount of the claim, £130, reduced by £11 1s.

Judgment was accordingly entered for plaintiffs for £118 19s., with costs.

NEW COMPANIES.

The particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117 Chancery-lane, W.C. 2, from the documents available at the Companies' Registry.

Wilkinson & Leech, Ltd. (190,270). Registered May 28. 28a, Manor-row, Bradford. Colour, varnish, pigments, gum, shellacs and enamel manufacturers, &c. Nominal capital £1,000.

A. E. Davis (Holborn), Ltd. (190,301). Registered May 30. Builders' merchants, dealers in hardware, &c. Nominal capital, £2,000.

I. E. Bailey (Smethwick), Ltd. (190,334). Registered May 31. 394, High-street, Smethwick. Builders and contractors. Nominal capital, £500.

River Clubs & Houses, Ltd. (190,373). Registered June 1. To acquire for investment or re-sale lands, houses, buildings, &c. To carry on the business of builders and general contractors, architects, and surveyors, &c. Nominal capital, £10,000.

Leeds Building Guild, Ltd. (190,289). Registered May 29. Marshalls Mills, Water-lane, Leeds. To encourage and promote the establishment of Guild factories, workshops, and building establishments. Builders and contractors, &c. Nominal capital, £200.

A. Burslem & Son, Ltd. (190,385). Registered June 2. Stone and monumental masons, marble merchants, sculptors, &c. Nominal capital, £10,000.

J. C. Wilson (Malvern), Ltd. (190,082). Registered May 18. Belmont Brick Works, Belmont, Malvern, Worcester. Brick manufacturers and haulage contractors. Nominal capital, £7,000.

E. & F. Richardson, Ltd. (190,108). Registered May 22. Duroline Works, Batsworth-road, Mitcham, Surrey. Varnish, enamel and paint manufacturers, &c. Nominal capital, £5,000.

Hall, Beddall & Co., Ltd. (190,183). Registered May 24. Pitfield Wharf, Waterloo Bridge, S.E. 1. Builders, contractors, engineers, &c. Nominal capital, £50,000.

G. & J. Waterman, Ltd. (190,101). Registered May 24. 103, High-street, Watford, Herts. Builders and contractors. Nominal capital, £6,000.

Eternit Pietra Artificiale (London), Ltd. (190,165). Registered May 24. Norfolk House, Laurence Pountney-hill, E.C. 4. Merchants, merchants and dealers in bricks, concrete, artificial stone, tiles, and any other materials used in the construction or erection of public works. Nominal capital, £500.

J. Elliman & Son, Ltd. (190,410). Registered June 4. 102, Bromley-road, Beckenham, Kent. Builders, decorators, &c. Nominal capital, £3,500.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted.* † Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
‖ Denotes *accepted subject to modifications.*

ABERDEEN.—For construction of section of new aqueduct between West Cults and Culter, for the T.C. :—

*Cochrane & Co., Middlesbrough —*cast-iron pipes*	£54,815	0	0
*Stanton Iron Works Co., Ltd., Nottingham—*spec'al pipes*	3,972	9	0
*William Tawse, Aberdeen— *laying the pipes*	41,039	2	3

BIDEFORD.—The British Construction Co., Barnstaple, has secured the contract for the reconstruction of Bideford Bridge, subject to the approval of the Ministry of Transport and the Devon C.C.

BIRCHINGTON.—For erection of a bungalow, Alpha-road, for Mrs. T. E. Wicke :—

Birchington Building Co.	£1,240	0	
A. Ross & Co., Westgate-on-Sea	1,184	0	
C. A. Edmonds	1,157	0	
Operative Builders and Decorators	1,117	0	
Foley & Dallas	1,013	19	
*Fright & Austin	967	0	

BOVEY TRACEY.—For new bungalow for Mrs. Prescott. Messrs. Rowell, Locke & Son, architects, Newton Abbot. Quantities by Messrs. Harris & Hills, Paignton and Torquay :—

A. Best, Ltd.	£4,908	0	0
Zealley & Son	4,392	10	0
S. J. Turner	4,203	17	8
M. Nickols	3,850	0	0
Heath Bros.	3,839	0	0
Davie Bros.	3,785	0	0
*Winsor Bros.	3,779	0	0

BRADFORD.—For erection of 100 houses for the Corporation—8 at Scholemoor, 58 at Thackley, and 34 at Bierley :—

*T. Roper & Sons, Ltd., Sheffield .. £33,588

BRADFORD.—For erection of 270 houses at Odsal, for the Corporation :—

‡T. Roper & Sons, Ltd., Sheffield .. £93,690

BRAUGHING.—For strengthening retaining wall, for the Herts C.C. :—

*E. J. Marshall £244 6

BURNAGE.—For house, Brierley-avenue. Mr. A. McDonald, Architect, 71, Meadow-street, Moss Side, Manchester :—

*Wm. Lancaster, Ltd., Hulme.

CADEBY.—For erection of Welfare Hall under the Miners' Welfare Scheme, for the Denaby and Cadeby Collieries :—

*W. G. Robson, Sheffield £12,408

CASTLEFORD.—For conversion of sanitation to various properties for the U.D.C. Mr. H. V. Slayton, Surveyor :—

*J. L. Rodgers, Castleford	£220	18	
*J. Greaves, Castleford	40	0	

CHEADLE.—For alterations to the "George and Dragon" hotel, for Messrs. Groves & Whitnall, Ltd., Regent-road, Salford. Mr. H. Mee, Architect, 12, Exchange-street, Manchester :—

*S. Megarity & Co., Ltd., Manchester.

CHESTERFIELD.—For extension of the women's pavilion at Walton Sanatorium, for the Derby C.C. Mr. G. C. Copestick, Architect, New County Offices, Derby :—

R. Lehane & Co., Darley Dale	£690	0	0
L. Buxton, Ilkeston	511	0	0
G. F. Kirk, Ltd., Chesterfield	480	0	0
A. Heath, Chesterfield	468	17	6
C. E. Gaunt, Chesterfield	438	10	0
*E. Revill, Chesterfield	412	0	0

CLAYTON.—For additions to works for the Imperial Patent Wadding Co., Turner-street :—

*Riley & Son, Bradford.

CROFTON.—For various street works for the R.D.C. in High-street :—

*J. Marshall & Sons, Wakefield £65

EASTLEIGH.—For supply and erection of a cover to bandstand. Mr. W. Wallace Gandy, Surveyor, Council Offices, Eastleigh :—

*D. Rowell & Co., Ltd., London £322

FAREHAM.—For painting at Isolation Hospital, for the R.D.C. :—

G. H. Riches	£363	17	2
E. Wilkins	310	8	0
F. Hedges	246	0	0
W. G. Moss & Sons	226	16	0
E. G. Moss	206	0	0
T. Draper	205	15	0
Glover & Sons	205	0	0
J. Croad	198	10	0
G. Hoare	193	11	0
*Holdaway & Sons	129	0	0

HOLME CULTRAM.—For widening of Knowehill Bridge, for the U.D.C. :—

*Border Engineering Contractors, Ltd., Silloth	£1,623	6	6

HORNSEY.—For decorations and building at the Racecourse, Alexandra Park, N., for Messrs. Pratt & Co. :—

*Sydney G. Goulding.

HOVE.—Providing and laying new wood paving, &c., in Portland-road, for the T.C. :—

*John Mowlem & Co. £8,072 11

HOVE.—Fitting up central suspended electric lamps in Blatchington-road, Goldstone-villas and Sackville-road, for the T.C. :—

*London Electric Firm £742 10

HOVE.—Providing and fixing 20 cast-iron electric light columns on Sea Wall and King's Esplanade, for the T.C. :—

*J. Every, Lewes £512

LONDON.—For supply of about 163,000 best creosoted yellow deal paving blocks, 3 in. by 9 in. by 4 in. deep, to the Camberwell B.C. :—

	Rate per 1,000 blocks.		
A. S. L. Macintosh & Partners, Ltd.	£13	19	6
Wm. Christie & Co., Ltd.	13	5	0
The Acme Flooring & Paving Co. (1904), Ltd., E.9	13	5	0
Improved Wood Pavement Co., Ltd.	12	17	6
John B. Lee & Sons, Ltd.	12	13	6
British Wood Paving Co., Ltd. (elm)	12	7	6
Sir Wm. Burnett & Co., Ltd.	12	5	0
Gabriel Wade & English, Ltd., S.E.1	12	2	6
*Burt, Boulton & Haywood, Ltd., E.C.	11	15	6

LONDON.—For alterations at Waterloo-road, for Fire Brigade Committee of the L.C.C. :—

John Marsland & Sons, Ltd., S.W.	£268
John C. Mather, N.	199
Snelling & Rayment, S.W.	194
J. R. Sims, S.W.	192
Hall, Beddall & Co., S.E.	189
James Smith & Sons, Ltd., S.E.	187
J. L. Catterall & Sons, Ltd., S.W.	184
Triggs & Co., S.W.	178
*W. J. Dixon & Sons, S.E.	176

LONDON.—For fuel economiser in connection with the enlargement of Abbey Mills pumping station, for the L.C.C. :—

The Clay Cross Co., Ltd., Chesterfield	£2,520
Goodbrand & Co., Ltd., Stalybridge	1,900
Arthur Lowcock, Ltd., Shrewsbury	1,841
*E. Green & Son, Ltd., Wakefield	1,827

LONDON.—For painting four of the engine houses at the Deptford works, for the Metropolitan Water Board :—

*H. Groves & Son £645

LONDON.—Supply of reinforced concrete fabric for repairs at Banbury reservoir, for the Metropolitan Water Board :—

*British Reinforced Concrete Engineering Co. £117 7 6

LONDON.—For repairs at 10–16, Essex-road and 71–74, Colebrook-road, Islington, for the Metropolitan Water Board :—

*E. B. Holmes & Co. £352 4 3

LONDON.—For completion of 31 houses on Pound Park Estate, for the Greenwich B.C. :—

*E. Jackson, London, E. £510

LONDON.—For repairing roadways in Montpelier-row and Woolwich-road, for the Lewisham B.C. :—

*Constable, Hart & Co. 9s. per yd. super.

LONDON.—For repairing surface drains at Royal Victoria Gardens, for the L.C.C. :—

F. R. Hipperson	£436
George Bell & Son	343
John Cronk & Son	337
Howard Farrow	320
*H. Woodham & Sons, Ltd.	316

LONDON.—For repairing roof of mansion at Clissold Park, for the L.C.C. :—

Ewart & Son, Ltd.	£209	11	
J. Moffat & Son	160	10	
*F. Braby & Co., Ltd.	155	0	

LONDON.—For painting bridge carrying the Southern Railway over the southern approach to Tower Bridge, for the L.C.C. :—

R. Woollaston & Co.	£1,446	11	4
D. Anderson & Son, Ltd.	878	0	0
The Aerograph Co., Ltd.	877	9	0
M. Greenwood & Son, Ltd.	841	15	0
*Mayfair Window Cleaning & Decorating Co., Ltd.	700	17	0

LONDON.—For the provision of steel and concrete partitions to existing coal bunkers at Greenwich Power Station, for the L.C.C. :—

The Somerville-Barnard Construction Co., Ltd.	£1,228	15	
P. & W. Anderson, Ltd.	1,200	0	
Thomas & Edge	1,197	0	
Walter Jones & Sons, Ltd.	1,173	0	
T. D. Leng	1,165	0	
J. Garrett & Son	1,120	0	
J. & C. Bowyer, Ltd.	987	0	
*E. C. & J. Keay, Ltd.	980	0	

LOUDWATER.—For rebuilding of bridge, for the Herts C.C. :—

*A. E. Farr £244 17

MARGATE.—For converting dwelling-house into shop at 129, Canterbury-road, Margate, for Mr. E. C. Floyd :—

Rice & Son, London and Margate	£287
J. Parkinson & Sons, Ltd., Blackpool and Westgate-on-Sea	249
F. Jones & Son, Margate	235
*A. Ross & Co., Westgate-on-Sea (*structural work*)	223
*F. J. Pike, Ramsgate (*shop front*).	

MIRFIELD.—For erection of four semi-detached bungalows at Hopton. Messrs. C. H. Marriott, Son & Shaw, Church-street Chambers, Dewsbury :—

Mason and bricklayer— Briggs & Roberts, Batley	£902	0	0
Carpenter and joiner— Joseph Brooke & Sons, Batley	428	0	0
Slater— Albert Shaw, Mirfield	125	9	6
Plumber and g'azier— G. H. Turner, Dewsbury	155	2	0
Plasterer— Fred Robinson, Leeds	61	0	0
Painter— G. H. Turner, Dewsbury	44	11	0

NEATH.—For erection of overhead electricity cables, in connection with lighting supply, for the Neath R.D.C., at Pontwally :—

*Messrs. Henley's, Ltd., London £925

NEWPORT.—For 38 more houses at Somerton, Newport, for the T.C. :—

*Unit Construction Co., Ltd. £14,195 15

NEWTON-IN-MAKERFIELD.—For erection of 40 type "A" houses (in brick) at the South Mesnes, Earlstown, for the U.D.C. Mr. James Elston, Architect and Surveyor, Market Chambers, Earlstown :—

*Clough & Gaskill, Wigan.
Payne & Co., Warrington.
D. Cooper, Warrington.
Harry Fairclough, Warrington.
Geo. Holmes & Co., Warrington.
Geo. Finning, Earlstown.

NORBITON.—For erection of villa at Manorgate-road, Kingston Hill, for Mr. G. C. Smallwood. Mr. J. S. Hodges, architect :—

Coles	£1,542
Mansell	1,479
Matlocks & Parsons	1,465
Hybart Broadhead	1,452
Thomas & Edge	1,442
Limpus	1,390
Ide	1,352
*Slatter & Turner (Amended tender.)	1,338

NUNHEAD.—For rebuilding the "Albion," Gibbon-road, Nunhead, for Messrs. Truman, Hanbury, Buxton & Co., Ltd., Spitalfields. Quantities by Messrs. Meyers & Lane, 8, Railway-approach, London Bridge :—

Shurmur	£3,528 0
Snewin Bros.	3,497 0
W. Pringle	3,440 0
Truett & Steel	3,379 10
Johnson Bros.	3,340 0
Dearing & Co.	3,281 0
Everitt	3,170 0
Courtney & Fairban	3,144 0
H. V. Clogg	2,970 0

OPENSHAW.—For alterations to premises, 1270, Ashton Old-road, for Mr. J. Gee. Messrs. Broughton, Atkinson, Eagle & Co., Architects, 37, Brown-street, Manchester :—

*Mr. J. Penkethman, Openshaw.

PENYBONT.—The R.D.C. has accepted following tender for mains extension at Cefn-road :—

*Messrs. Watson & Horrocks, Bridgend £278 5 4

PONTEFRACT.—For erection of additional wing at the Union Infirmary, comprising new ward, mortuary, laundry, and nurses' quarters. Messrs. Tennant & Smith, Architects, Ropergate, Pontefract :—

*A. Gregory & Sons, Ltd., Glasshoughton.

RHYMNEY.—For erection of ten houses at Rhymney, for the U.D.C. :—

John Lewis & Sons, Caerphilly	£4,500
G. Smith, Ynysddu	4,050
Thornton Hall, Whitchurch	3,990
*Enoch Williams & Sons, Dowlais	3,860

SALFORD.—For alterations to the "Bridge" hotel, Regent-road, and "St. George's" tavern, for Messrs. Groves & Whitnall, Ltd., Salford. Messrs. Brameld & Smith, Architects, Cannon-street, Manchester :—

*R. Carlyle & Co., Ltd., Manchester.

STANWELL.—For erection of school and residence, for Somerset C.C. (rebuilding after fire). Mr. A. J. Toomer, M.S.A., County Architect, Lloyds Bank Chambers, Weston-super-Mare :—

H. G. Smith, Taunton	£1,798	0	0
Wm. Burston, Clevedon	1,701	8	4
G. V. Sheppard, Highbridge	1,658	19	11
G. Pollard & Co., Ltd., Taunton	1,598	0	0
J. G. Steer, Brent Knoll	1,575	17	1
T. Stockham, Bridgwater	1,575	0	0
Wright & Son, Glastonbury	1,565	15	2
H. W. Pollard & Son, Bridgwater	1,524	10	9
A. Geen & Son, Bridgwater	1,515	10	0
F. & E. Small, Taunton	1,477	0	0
W. Palmer, Burrowbridge	1,468	11	0
H. F. Tottle, Bridgwater	1,449	11	4
C. Bryer, Junr., Bridgwater	1,399	0	0
*Dunthorn, Ltd., Glastonbury	1,371	18	0

SWANSEA.—For painting of schools, for the T.C. :—

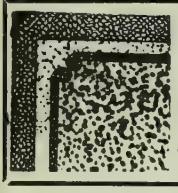
*W. Davies & Co.—Danygraig Council School	£400	10
*Pugsley & Son—Dyvatty Council School	337	11
*Pugsley & Son—Gendros Council School	172	0
*Fred. Morgan—Hafod Council School	480	0
*T. Phillips—Oxford-street C. of E.	270	0

THAMES DITTON.—For rebuilding kinematograph works after fire dilapidations, for Messrs. Watson & Wake :—

*Slatter & Turner, Kingston..... £315

TOTTENHAM.—For extension of garage and store at 24a, Conway-road, South Tottenham, for Mr. T. Pratt. Drawings and bills of quantities prepared by Mr. John T. R. Wildman, F.S. A.I.A., 189, Regent-street, W.1. All sub-contract placed.

	Estimate A.	Estimate B.
W. M. Brand	£794	£500
Willmott & Sons, Ltd.	710	478
Mattock Bros.	757	437
Wm. F. Blay, Ltd.	774	397
*Stewart & Sons	692	438


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WANDSWORTH.—For providing and fixing wood and glass enclosures to three sunning balconies at St. James' Hospital for the B.G. Mr. F. J. Curtis, Clerk. Offices, St. John's Hill, S.W. :—

F. C. Flack, London	£285 0
R. A. Jewell, Ltd., London	252 0
Hudson Bros. (Builders), Ltd., St. John's-hill	243 0
*Hibberd & Northeast, Clapham	190 7

WEST FELTON.—For erection of a public hall. Mr. K. E. Jones, Rednall Mill, West Felton, Oswestry :—

Hayes, Shrewsbury	£1,316 0 0
Higley, Pontesbury	1,265 0 0
J. Vaughan, Oswestry	1,192 0 0
J. Griffiths & Sons, Ellesmere	1,035 14 0
*Sanderson, Whittington	1,025 0 0
J. Lakelin, Longdon, Salop	787 17 4

WEST HARTLEPOOL.—The following tender has been accepted by the Housing Committee for the erection of 36 houses in Chalioner-road :—

J. Bottomley—*joinery.*
E. Phillips—*plumbing.*
W. Mitchinson—*plastering.*
Dawber, Townsley & Co.—*slating.*
A. Charlton—*electrical work.*

WHITLAND.—For repairing police dwellings at Whitland, for the Carmarthenshire Standing Joint Committee : –

Griffiths, Williams & Sons	£152 11
*O. Thomas & Sons	147 17
Surveyor's estimate	139 0

WIGSTON.—For the erection of 34 houses, for the U.D.C. (including the cost of fencing, drains and water supply) :—

	Per house of 3 bedrooms, with bath.	Per house of 2 bedrooms, no bath.
P. Rourke, Lutterworth	£505 6 0	£445 6 0
Slaytor & Co., Leicester	430 0 6	310 12 0
Chitham & Co., Leicester	390 6 6	333 6 6
H. D. Smith & Son, Wigston	367 8 6	312 8 4
J. Hassall, Wigston	366 5 0	311 10 0
R. C. Southam, Wigston	349 0 0	290 0 0
Oldershaw Bros., Wigston	340 6 6	296 16 0
*Bambury & Sowden, Wigston	300 0 0	268 10 0

WOLVERHAMPTON.—For erection of 100 houses on Birches Barn Estate, for the T.C. The Borough Accountant, Town Hall, Wolverhampton :—

B. Whitehouse & Sons, Edgbaston	£42,300
John Ray, Letchworth	42,000
Eadie, Towers & Co., Queen-square, Wolverhampton	41,000
Amies & Sharratt, Wolverhampton	41,000
Burkitt & Thorneycroft, Tipton	40,380
Burton Bros., Heath Town	39,600
H. G. Witcombe, Birmingham	39,565
T. Pickering, Wednesfield	38,500
A. M. Griffiths, Wolverhampton	37,005
Shutt Bros., Hordern-road, Wolverhampton	36,400
*Poole Bros., Heath Town	36,280

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WAKEFIELD.—For laying branch sewers at Sharlston housing site, for the R.D.C. : –

*Wilson Bros. £175

WATH-ON-DEARN.—For the erection of two shops, for the U.D.C. :—

*Firth & Whittington..... £1,849

WORTHING.—For conversion of store, Pearson's Retreat, into dwelling-house, for the T.C. :—

G. W. Stell, Shoreham	£367 0
*Bostel Bros., Ltd.	373 15

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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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"LONDON OF THE FUTURE."

IN place of the usual vague generalities as to the necessity of abolishing slums and of making London a city really fit to live in, Mr. Collcutt* here propounds a perfectly definite solution to the slum problem, and offers, in addition, various suggestions for the improvement and embellishment of the town. The proposals included may not all appeal to us, and some may, for practical purposes, prove impossible of execution; yet we feel that here we have a man of vision, who can see beyond the sordid considerations that influence the average business transaction, and we get a sense of idealism in examining his suggestions.

The book is divided into two parts, the first dealing with slum clearance, and the second with the social life of the people and the change of outlook necessary if we are to set things right. So much has been written about slums, and about those conditions of life that are associated with the monotony of what may be described as semi-slums that we need not here concern ourselves with the author's indictment, beyond agreeing that it is pitiful how easily a family may get accustomed to living in evil conditions; because, while such resignation may save us from unrest and disturbance, at the same time it unquestionably makes the task of the State or the Local Authority who start on a slum clearance scheme more difficult. This attitude of apathy is possibly reflected in the lack of enterprise shown by the Labour Party in the House of Commons on a subject that should not in any sense be a party question. Perhaps the fact that it is not a party matter has allowed the problem of slum clearance to go by default, so far as a sustained and constructive campaign against the evil is concerned. As a solution to the slum difficulty, Mr. Collcutt leads us to the Thames Embankment, and points to that part of Lambeth facing the river that extends from the London County Hall to Waterloo Bridge and southward as far as York-road. Here, he suggests, is the only part of London where the regeneration of the slums can begin in a practical manner. "At present," he says, "the Thames in Central London on one side takes rank with the most beautiful of city rivers, while on the other side it looks as ugly as a mean river in some dirty manufacturing town, and at low water discloses a shelving bank of dingy and unwholesome mud."

The author's plea is for the construction of a South Embankment with, facing the river, blocks of residential flats containing varying accommodation suitable to house different classes of the community. It is pointed out that the structures might here rise to the height of ten stories, each of these blocks containing sixty homes, served, of course, by lifts. While fully admitting that such huge blocks would be justified facing north across the river, yet we do not feel that the river front is the right place for residential buildings. Suitable though it may be for hotels where extra convenience of access is essential, yet even with a south embankment the river front is strictly limited in extent and is surely more suitable for public or quasi-public buildings. There would be plenty of room for blocks of flats (of the kind provided with lifts at Tabard-street by the London County Council) inland behind the river front, and an additional advantage would be obtained by building them away from the front because there would then be no necessity for them to face north. This is, however, a minor point, and few with the interests of London at heart can wish to see the formation of a South Embankment delayed. The author's inspiring vision and optimism in mapping out the future shows perhaps the defects of its qualities in the suggestion that Trade Unions and employers should arrange a kind of truce for a period and agree that "no matters of divergence should arise that would lead to a strike or a lock-out." The suggestion is eminently right and reasonable, but differences of opinion are liable to arise, and human nature is not always governed by what is right and reasonable, in which case agreements that are not enforceable are apt to be ignored. If such an agreement can be enforced it means, of course, that some form of arbitration is legally provided for, and we find ourselves back much where we are now.

The formation of a new Charing Cross Bridge is intimately bound up with any scheme for a South Embankment, and Mr. Collcutt frames so able an appeal for a bridge with buildings on either side that it is hard to resist the conclusion that in no other way could we effectively link up the two banks. Whereas an open bridge would entail "a dreary waste of road . . . nearly half a mile in length . . . with no shelter from blustering wind and rain, excepting that afforded by an inadequate umbrella, on the other hand, a street bridge would afford the shelter of covered colonnades, with places of business throughout its length, meaning a mile of valuable property." The author adds that "this great advantage can be obtained if 'the powers that be' use that corporate common sense with which God, sometimes, endows them." We sincerely hope that the authorities concerned will seriously consider this proposal, giving due weight to public convenience, architectural beauty, and sound finance, all of which aspects are dealt with in this book. It would seem certain that such a closed bridge would add enormously to the value of property in South London, and this should not be overlooked in considering the desirability of erecting it.

In the second part of the book attention is drawn to the necessity of improving our ideals and we are reminded of Mazzini's dictum: "He who could spiritualise democracy would save the world." It is implied that if religion and business have failed to combine, it is because such a union has never been attempted. May it not be because our views on both require drastic amendment to bring them into harmony with an idealised everyday life? One has an uneasy feeling that what may be described as "hard business methods" are not compatible with Christianity; a feeling that is evidently shared by Mr. Collcutt, as is the confidence that business and religion are not of necessity antagonistic. In deprecating the hard business mentality, we do not overlook the failure of the Church in the past as a disinterested interpreter of religion, nor do we forget that applied science has done more for child welfare than ever the Church attempted in the days of its power.

We hope this little book will be widely read and its lesson taken to heart. It points to the movement for a "brighter London" that will not only mean longer hours for drink, and more frivolity, but a real improvement in the condition and lives of its inhabitants.

* By Thomas Edward Collcutt, P.P.R.I.B.A. London: Leonard Parsons, 1923. Price 2s. 6d. net.

NOTES.

The Dinner to Professor Pite.

The dinner in honour of Professor Beresford Pite, M.A., Hon.A.R.C.A., who, for twenty-three years has held the Professorship of Architecture at the Royal College of Art, South Kensington, was an event of more than usual interest and was the occasion for the expression not only of the high regard and esteem of those present for their guest, but of some striking remarks on the importance of art and architectural education. Those who had the pleasure of listening to Professor Pite's speech in reply to the toasts previously proposed could not fail to be impressed by its sincerity and earnestness, and while his influence as a teacher was well known, the speech was another illustration of the importance of the work he has been engaged in during the last quarter of a century. The questions he addressed to his audience on the position of modern architecture, and the movements and efforts of the last century, are not without significance, and we shall do well to take cognisance of them. Because we have no doubt Professor Pite's influence as a teacher is far-reaching, we venture to express the hope that the active part he will now take in the practice of his art will not be a barrier to the further exercise of his gifts as a teacher. We endorse the suggestion made, in the appreciation we give elsewhere, that as a Professor of Architecture at the Royal Academy, on some future occasion, he would be an admirable successor to the many brilliant men who have held that position. His friends greet him with good wishes, in which we heartily join, for we have not forgotten his early year on the staff of this journal.

Inspiration in Drawing.

Allusion is made on another page to Professor Pite's ability as a draughtsman. When he won the Soane Medallion in 1881, with his Gothic club design, the perspective (which we publish to-day) came with quite a startling force through its audacity and character. It was looked upon as the cleverest essay in a Dureresque manner which the modern architectural world had known. Notwithstanding its unsuitability for a modern west-end club, it still holds something of an inspiration, and we can now see that the moving spirit which prompted it has survived with a sustaining force through Professor Pite's career. Of this design the author says: "This was made in the autumn of 1881 in the interval of leaving my father's office on the termination of five years' articles, and before obtaining a stool as improver with the late Mr. John Belcher. It was a boyish venture; I was then 20 and probably was as astonished as anyone with what ensued. The motive was an enthusiasm for the Albert Durer wood blocks which Wm. Burges had recommended to students and for the mediæval world, which he had suggested by his design for the Gloucester fountain. This had been stimulated by the possession of a copy of the sketch-book of Vilars d'Honnecourt, an Institute prize in the preceding year. Alas, for my visions of honour—both G. E. Street and Burges were gone before the design was published! What the rest of the world thought did not matter."



Bush House, Strand, W.C. Messrs. Helme & Corlett, Architects.

Professor Pite's Successor.

In the appointment of Mr. Hubert Worthington, of Manchester, to succeed Professor Pite, we believe an excellent choice has been made, and though the Professor-elect is a comparatively young man, his personality and knowledge eminently fit him for such a position. Mr. Worthington is at some disadvantage in following a professor of the exceptional ability of Professor Pite, but that in itself is a distinction, and the newly-elected professor is to be heartily congratulated upon his appointment.

Mr. Paul Waterhouse.

At the Royal Institute of British Architects on Monday, Mr. Paul Waterhouse, Past-President of the R.I.B.A., was handed an Address in recognition of his services during his two years of Presidency. The Address was signed by members of the two Councils over which Mr. Waterhouse presided, and of the Board of Architectural Education of which he acted as Chairman, and by the Presidents of the Allied Societies of the Royal Institute who were in office during the same period. In presenting the Address Mr. J. Alfred Gotch, the new President of the R.I.B.A., Mr. Arthur Keen, Hon. Secretary of the R.I.B.A., and Mr. T. R. Milburn, Past-President of the Northern Architectural Association, spoke in warm terms of Mr. Waterhouse's services as President. We give a report of the proceedings, which were of a very happy and spontaneous character, on p. 125.

Lincoln Cathedral.

One of the most charming appeals ever made for public subscription is the little pamphlet issued on behalf of the Lincoln Cathedral Restoration. Anyone who receives that appeal should gladly give something, however small, for this most laudable object, for the picture of the Cathedral by the late F. W. Rich is well worthy of a frame. It is an admirable reproduction of one of the best drawings that gifted artist has made. Everyone who has been touched with delight in our beautiful English Gothic art owes a tribute towards the preservation of Lincoln Cathedral; the very name of the Angel Choir conjures up a vision of pleasure.

Competitions.

The discussion of this subject is of periodic appearance as, indeed, we should expect it to be, and more often moves within a range which leaves out the most important considerations, be



Bush House: Side View.

cause, as a matter of fact, no wholly satisfactory system of securing the right man for the job, either through public competitions or other machinery, can be obtained. It is sometimes forgotten that there are not remedies for everything, and that failing a general level of appreciation in a nation, to know the good from the substitute, and to be guided by the right things, we can only flounder on as at present with such adjustments as the jury system over the individual assessor secure for us. How fallible is the system of public competition is illustrated in the case of the Wellington statue, when eighty-three models were sent in, a committee of selection to deal with them having been appointed. As a result Mr. Calder Marshall took the first prize, and Mr. Woodington the second!—and had not, owing to a change in the Government, Lord John Manners, at the Office of Works, heroically stepped in, and ignored the finding of this committee of taste, entrusting the work, amid much outcry, to Alfred Stevens, over the heads of the committee, we should not possess Alfred Stevens' masterpiece at all! We are not anxious to press the argument to the condemnation of competitions, but to illustrate their extreme unreliability, the inadequacy of machinery in the absence of the one fundamental qualification—an educated and enlightened nation. There are signs, however, of the growth of this in the doubts felt for a security resting only on official reputation and machinery.

The Regent's Park War Buildings. It is strange that nearly five years after the Armistice the public should still be deprived of large areas of Regent's Park by monstrous buildings erected to meet the emergencies of war. As members of the public we are accustomed to departmental methods, but it is hard to believe that this prolonged delay in the removal of these eyesores is necessary. St. James's Park and the Embankment Gardens were cleared, as a result, we believe, of public agitation, and we hope that similar pressure will be brought to bear on the Government to give us back Regent's Park; otherwise we are afraid that these buildings may become permanent and unwelcome additions to London's architecture.

Colour in London. The silvering of the lamp-posts has been followed by further evidence that we are to be given relief from London's usual drab monotony. Not only is London Bridge Station receiving a coat of cheerful colour, but rival omnibuses are appearing in every tint from the usual red to violet and coffee. In the days of the horse-drawn vehicle its destination was known by the colour of the 'bus—the white Putney and the Chelsea chocolate for example. The uniform colour now adopted by the London General Omnibus Company, with the dull word "General" given the place of honour on the vehicle's side, can by no means be ranked among the beneficial changes introduced by that enterprising organisation. The rival 'bus companies may, or may not, be desirable additions to London's traffic, but they have at least given us an added gaiety of colour.

The Professional Classes Aid Council. We have pleasure in drawing attention to the second annual report of this body, as the assistance required by the professional classes in these days of heavy taxation and diminished incomes is great. Judging from the report the Council disperse their funds with care and discrimination, and in many cases the recipients have sent the body grateful letters of thanks for their timely assistance. Contributions should be sent to the Hon. Treasurer, Mr. E. W. Monkhouse, 251, Brompton-road, S.W.3.

The Bank of England Façade. There will be much agreement in architectural circles with the protest against the mutilation of Sir John Soane's Bank of England façade, which has just been published by the Soane Trustees. It may not be an exceptionally fine work, but what are we going to put in its place? That there are living architects who could do better work to-day we can hardly doubt, but had we not better leave well alone?



Bush House, Aldwych, W.C. Messrs. Helme & Corlett, Architects.

GENERAL NEWS.

Professional Announcement.

Messrs. Holt & Glover, architects, of Liverpool, have opened an office at 6, Auckland-terrace, Parliament-street, Ramsey, I.O.M., and will be pleased to receive catalogues, &c.

Appointment.

The Llantarnam (Mon) U.D.C. has appointed Mr. Arthur L. Vinney, Abergavenny, to the District Surveyorship from twenty-five applicants for the post.

Presentation.

Mr. A. Hewitt, J.P., architect, of Llandudno, has been presented with a solid silver tea and coffee service in a case, subscribed for by the residents of the town, and a lady's dressing-case. The presentations were made in appreciation of his services to the town.

British Engineering Standards Association.

At the fifth annual general meeting of the British Engineering Standards Association, held recently at the Institution of Mechanical Engineers, the Chairman, Sir Archibald Denny, Bart., in reviewing the year's work, laid stress on the fact that the Association was faced with a deficit of some £1,700, and said he hoped the Government, who represented the purchasing public as well as industry as a whole, would assist in putting the finances of the Association on a more stable basis. The national character of the work of this organisation, devoted to simplification and the promotion of national economy in our engineering and allied industries, was well known. It was not a profit-making concern, and had nothing to gain but much to give to industry generally and the country as a whole.

Liverpool Reconstruction Schemes.

A Liverpool Corporation scheme for the demolition of old property, at an estimated cost of £135,000, was the subject of a public inquiry at Liverpool, conducted by Mr. E. Leonard, of the Ministry of Health, on Thursday and Friday last. Mr. Dudley Aukland (Deputy Town Clerk), stated that the Corporation had already spent £400,000 in clearing away insanitary property and £850,000 in re-housing. There remained in the city just over 2,000 houses to be dealt with. Of these, 502 houses, accommodating 2,376 persons, were involved in the present four areas, which extended to 5½ acres. It was proposed to re-house between 1,800 and 2,000 of the dispossessed people on the same sites. Mr. F. E. G. Badger, A.M.Inst.C.E. (Director of Housing), said there would be no demolition till other accommodation had been found for the residents. The number of new dwellings, which would have either two or three bedrooms each, would be 307.

A scheme of street-widening and re-building, involving an estimated outlay of £130,043, is before the Liverpool City Council. The improvements have been recommended by the Estates Committee of the Council. This scheme affects a central shopping area on the north-west side of Parker-street and Clayton-square. The scheme contemplates demolitions, the building of large modern stores, large café premises, and a widening of two streets—Parker-street and Houghton-street.

COMPETITION NEWS.

Hull.

For the Corporation.—Designs for the erection of a cenotaph in Paragon-square. Sending-in date July 31. Conditions from the Town Clerk on receipt of a cheque for one guinea. The estimated cost of the work is £4,000, and premiums of £150, £75, and £50 are offered for the designs placed first, second and third respectively. The assessor is Mr. Stanley Hamp, F.R.I.B.A., whose decision will be final.

Halifax.

For the Corporation.—Plans and reports for lay-out of Bull Green site and part of centre of the town adjoining. Premium, £50. Sending-in day, October 1.

New Wesleyan Church and Sunday School Warrington.

The conditions of this competition are not in accordance with the regulations of the R.I.B.A., and Members and Licentiates are advised to take no part in it.

Wirrall Union.

For the Guardians.—Design for extensions at the Poor Law Institution, Clatterbridge. Premium, £50.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Singapore College (Jan. 1, 1924; March 30). Greenwich Baths (Aug. 25; May 4). Hull Art Gallery (Nov. 5; May 4). Mint competition for plaques (Sept. 30; May 25). Birmingham Masonic Temple (Sept. 12; June 22). Hull Cenotaph (July 31). Colour scheme (Sept. 30; June 29). Glasgow Pavilion (June 22). Warrington Church (Aug. 8).



Poultry Cross, Salisbury. (*See p.* 136.)

BRISTOL SCHOOL OF ARCHITECTURE.

FIRST PRIZE DISTRIBUTION.

On Saturday the first annual prize distribution and exhibition of work of the students of the Bristol School of Architecture, which was founded about four years ago, was held at the Royal West of England Academy, Bristol. The chair was taken by Mr. G. C. Lawrence, A.R.I.B.A., R.W.A. (Vice-President of the Bristol Society of Architects), in the unavoidable absence of the President (Mr. W. S. Skinner, F.R.I.B.A.).

The Chairman gave a brief history of the school, which was founded by the Bristol Society of Architects, its maintenance and covenance being undertaken by the Society. All the students are either articled to or are assistants with architects in practice, so they have the combined advantages of theory and practice. Mr. Lawrence said they were glad that, after some anxiety, they had gained the assistance of Mr. G. W. Gordon Hake, A.R.I.B.A., as Master of the School. Under his guidance the school had made great progress, as the examples of work exhibited on the walls proved. They had a meritorious school, which would be recognised to a much greater degree in due time. He hoped that the citizens of Bristol would take a pride in the existence and progress of a school that would be doing an important work in training young men who would be doing their part in making more perfect the architecture of the city.

Mr. Gordon Hake expressed his thanks to the students and the council for the co-operation that had been extended to him during the year. He was proud of the work of the students, and he was glad to be able to announce that Mr. E. H. Button, who would cease to be their senior student, would commence duty next term as assistant master of the school.

The Lord Mayor, who presented the prizes, said that he owed much to the School of Art, a precursor of that School of Architecture. In his early days he was a student at that school for four years, and he owed much of his success to what he learnt in those years. He was sure that the students now attending the school would receive excellent education and also an impetus in their work. Architecture was a wonderful subject, and he thought it ought to be a part of the education in the elementary schools. Some time ago the King made a speech, in which he said that the municipality that was meanly housed was apt to be meanly esteemed. He hoped that at no distant day the city of Bristol would have buildings for its municipal offices and life that would be a credit to it, and which would give a lead to the erection of even more magnificent examples of architectural art in the city. He congratulated the students of that school upon the work they had done and wished the utmost success to them all.

The prizes having been presented, the usual votes of thanks concluded the proceedings.

The Awards.

The following were the awards:—

The Dame Janet Stancomb Wills Travelling Studentship: E. H. Button.

Royal West of England Academy Silver Medal and Bristol Society of Architects' Prize: W. J. Thrasher.

Royal West of England Academy Bronze Medal and Bristol Society of Architects' Prize for the best student in the preliminary course: J. H. Bourne.

Architectural Association Design Prize: R. H. Brentnall.

The Savory Design Medal: A. J. Saise.

Master's Prize for the most marked progress during the year: T. W. Snailum.

International Congress on Architectural Education.

The Board of Architectural Education R.I.B.A. announce that the International Congress on Architectural Education will be held in London from July 28 to August 1, 1924.

PRESENTATION OF AN ADDRESS TO MR. PAUL WATERHOUSE.

Mr. Paul Waterhouse, who has been President of the Royal Institute of British Architects for the past two years, was the recipient on Monday afternoon of an illuminated address from his colleagues.

Among those present were Sir Aston Webb, R.A., Sir Reginald Blomfield, R.A., Professor Beresford Pite, M.A., Sir Banister Fletcher, Professor W. R. Lethaby, Major H. Barnes, and Messrs. J. W. Simpson, P.-P.R.I.B.A., Gilbert Scott, R.A., Edward P. Warren, T. R. Milburn (Newcastle), W. G. Newton, Michael Waterhouse, H. T. Buckland, Percy Thomas, Lewis Solomon, G. C. Lawrence (Bristol), W. A. Pite, Searles Wood, Delissa Joseph, Alan Munby, Stockdale Harrison, Francis Jones, H. B. Ashley, Walter Cave, H. Austen Hall, Stanley Hall, H. B. Lanchester, H. Charlton Bradshaw, Max Clarke, W. Gilbee Scott, Herbert A. Welch, Herbert Shepherd, Frank Woodward, A. G. R. Mackenzie, John Slater, H. M. Fletcher, and Maurice E. Webb. There were also many ladies present.

Mr. J. A. Gotch, the President, in opening the proceedings, said, as they all knew, they had met for the most pleasant purpose of giving an expression of their appreciation to Mr. Paul Waterhouse for the excellent manner in which he had fulfilled the duties of President.

Mr. Arthur Keen, Hon. Secretary of the Institute, said that those immediately concerned in that meeting were those who were members of the Council of the Institute over which Mr. Waterhouse had presided and the Presidents of the Allied Societies. They would, perhaps, regard him (Mr. Keen) as the chief conspirator in that matter, but he did not mind that, as he confessed he was the chief conspirator two years ago when a presentation was made to the then outgoing President, Mr. Simpson. At that time it was seriously declared that what they were doing should not be regarded as a precedent, but he did not say that he shared that view, for he felt they should leave it to the future to do what was right and proper under the particular circumstances of the occasion. They felt they could not let Mr. Waterhouse go with merely a word of thanks. They wanted to express in the written word what they wanted to say to him, and so, with the help of Professor Pite and Miss West, they had produced a document which would be handed to him by the President. They also wanted to go further, and one of them had suggested that as Sir Wm. Orpen was painting the portrait of Mr. Waterhouse, to go with those of other Past Presidents in the Institute Room, it was thought it would give considerable satisfaction to Mr. Waterhouse and his family if a replica of that portrait could be presented to him. Sir William said he was quite prepared to produce, in due time, a copy of the portrait—that was, a copy finished by Sir William's own hand. So they hoped to present Mr. Waterhouse with a copy of the portrait later on. It was not the qualities most apparent in a man which were always the most important. They knew Mr. Waterhouse mainly on account of his delightful speeches and the manner in which he had conducted the affairs of the Institute. But, above all, it seemed to him that the most important characteristic of Mr. Waterhouse was his tremendous belief in the Institute and what it was capable of, and he (Mr. Keen) did not think he could please him more than by assuring him that he had contributed tremendously to the influence of the Institute and increased its prestige in a very large measure. If he might be allowed to speak on behalf of everyone present, he thanked Mr. Waterhouse very cordially indeed for all he had done for them.

Mr. T. R. Milburn, President of the Newcastle Allied Society, said Mr. Waterhouse had made his name honoured in the Provinces by the esteem they had for him, and he felt sure that what he (the speaker) said would be endorsed by all the other societies. He could sincerely say, without any disrespect to the dead or living, that no President had ever done more for the Provinces in the way of bringing them in touch with the Institute. The way in that direction was paved by Mr. Simpson, their previous President, and Mr. Waterhouse, during his two years of office, had cemented that feeling. As to Mr. Waterhouse's work for the Institute, he had attended conferences in all parts of the country; they had only to make the request and Mr. Waterhouse would at once take the train and journey down to their annual dinner or meeting. As a member of the Council for two years he paid his tribute to the fair chairmanship of Mr. Waterhouse, and as a member of the Institute he thanked him for the splendid speeches he had made. Their best wishes also went out to Mrs. Waterhouse. They esteemed Mr. Paul Waterhouse as their Past-President, as an architect, and as an English gentleman.

The President said the duty devolved upon him of presenting to Mr. Waterhouse their first instalment of their token of appreciation of his conduct in the chair, and he did so with the very greatest pleasure. They all felt that during the last two years Mr. Waterhouse had filled the chair with the greatest tact, courtesy, fairness and judgment. It was not only they, as architects, who had been struck by the eloquence of Mr. Waterhouse's orations, but he had heard those orations spoken of with the greatest wonder and delight by gentlemen who were entirely outside the Institute. Mr. Waterhouse was scientist enough to know that icebergs were only seen on the surface of the water, and that the bulk was underneath, and this analogy might be applied to their feelings towards Mr. Waterhouse.

The President then handed to Mr. Waterhouse an illuminated address, bearing the names of many of his colleagues, as follows :—

"The Royal Institute of British Architects.

"Dear Paul Waterhouse,—Your colleagues, who are all your friends, wish by this document to record the sincere pleasure that you have given them during the past two years of your Presidency. The chair of the Institute has acquired a new distinction by your addresses; the amenities of professional contact have been increased by the wisdom and grace of your conduct of business; our conviction of the high aim of the universal but complex art of architecture has been strengthened by the eloquence and dignity of your appeals to the students; and we have been charmed by the lambent humour with which your scholarship has been illuminated.

"For these particular advantages, which you have as our President conferred upon all the concerns of the Institute, and for the maintenance of the high professional tradition of your father, whose memory is so strong and valued, we hereby offer to you this testimony of gratitude and affectionate esteem."

Then follow the names of about 70 signatories, including members of the two councils over which Mr. Waterhouse had presided, and of the Board of Architectural Education, of which he had acted as chairman, and by the Presidents of the Allied Societies in office during the same period.

Mr. Waterhouse, in reply, said he had been touched by the kind words said about him, but what had touched him so much was to see so many of his old friends present that afternoon. But he might say this—he was a man of sufficient personal vanity to be entirely pleased with all that they had said about him. Those proceedings, as he had said, were all very pleasant to him. He wanted to make two acknowledgements—the first was, the help he had always received when in the chair; the good feelings always shown him and which set him on his voyage as their President with confidence. He had tried not to abuse that confidence. He had always felt, on the occasion of any difficulty, that there was a body of friendly feeling which would help him to carry through and assist him more than he deserved. Then there was another acknowledgment he had to make—the help he had always received from the staff of the Institute. It was no mere figure of speech to say that almost everything had depended upon their staff. To begin with, Mr. McAlister had always willingly given every kind of help it was possible to give; and with regard to the other members of the staff he could not say better than observe that they were following the type of Mr. McAlister and were a valuable help. Then there were others—and they were always ready and willing to held night and day. Proceeding, Mr. Waterhouse said he felt that it had been impossible for him to have gone through two years of the Presidency without, in his speeches at some time or another, unconsciously hurting someone's feelings. Words were often dangerous two-edged weapons, and he would like them to remember that what he might have said hurt the speaker as much as the hearer. In saying "Good-bye," he meant no more than "Farewell, adieu!"

The proceedings then terminated.

Since the meeting on Monday the following letter was sent by Mr. Waterhouse to Mr. Arthur Keen :—

My Dear Keen,—It was impossible on Monday last to say even half the things that ought to have been said by a man in the position in which I found myself. I had no idea, when I accepted your invitation to be present with my wife at Conduit-street, what the acceptance was to imply. Of a meeting with a few friends I was assured, but that the gathering would be so large, so representative and so distinguished, was quite beyond my thoughts. Your own delicate speech and the graceful words of the President touched me very deeply, so did the cheery address in which Mr. Milburn gave expression to what he assumed to be the voice of the "Greater Institute." Even now in writing this I am embarrassed by realising that the mere enumeration of these unexpected and undeserved honours emphasises the disproportion between your praises and my performance. The suggestion of a duplicate of the portrait, overwhelming in its generosity, means a great deal more than even the kindest of the givers can well imagine, because it, and the parchment with its warmly fraternal greeting, will form a very enduring memorial of the handgrip between our family and the Institute.

At moments when I can set aside the thought of the undue value put upon my doings I see with increasing clearness the amazing kindness of my friends.

Mrs. Waterhouse and I were made very happy and quite unreasonably proud.

Yours very sincerely,

Paul Waterhouse.

Athenæum, July 26, 1923.

The New County Hall.

At Tuesday's meeting of the London County Council the General Purposes and Establishment Committee reported on the provision of better accommodation for the Press.—Miss Susan Lawrence moved that the report be referred back as nothing was proposed for removing the difficulty. The reporters could not hear with sufficient fullness. There was plenty of room on the floor of the chamber for the Press.—Sir F. R. Anderton said it was hoped there would be some means by which the acoustic qualities of the chamber could be improved.—Sir John Gilbert said the committee were prepared to receive any practical suggestions, and he promised again to consider the matter.—On this undertaking Miss Lawrence withdrew her motion, and the report was passed.

CORRESPONDENCE.

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

The Competition System.

Sir,—It is primarily necessary in the consideration of any new scheme to recognise the facts that have in the past regulated and affected the progress of competitions. Briefly, twenty-five years ago many competitions were conducted on very unfair lines by both the assessor and the promoter, and the competitor who had influence invariably got the job. Evolution has, however, entirely stamped out this deplorable state of affairs. Competitions of late years have been run on very honest lines, particularly those under the jurisdiction of the Royal Institute of British Architects and the Society of Architects, but in addition to honesty of purpose there is a great deal more to be desired, especially with regard to the conditions of the competition and the procedure as to the assessment.

Mr. Howard Robertson's views published in your issue of July 13, are deserving of consideration, and I hope will conduce to a big discussion on this matter with a view to improving the existing objectionable methods. I would like first of all to point out that without competitions the profession would lose a great deal of prestige, as competitions are an important medium through which the public are interested in architectural matters and architects in particular. In my opinion, all public bodies should put their proposed buildings out to open competition. It is not only the fairest way, but it gives a better chance to younger men in the profession to find an opening. For instance, a proof of this was the result of the competition for the New County Hall. Apparently the greatest objection the authorities have to holding a competition is the large amount of expenditure it involves, more particularly with regard to the fees paid to the assessors. It is, therefore, imperative if we are to get the authorities to put their work out to competition that it must not cost them a serious amount over and above the cost of placing the work with a practising architect in the usual way.

In my opinion there is no doubt whatever that a jury of assessors is in every way more efficient than a single assessor, who unconsciously may be against designs which do not conform to his taste, and who may meet with many points in a competition with which he may not even be familiar. Again, the competitors themselves, knowing who the assessor is, have a strong tendency to follow and copy his work and play up to his taste. I am convinced that there should be a jury composed of three assessors, each nominated by the Royal Institute of British Architects or the Society of Architects, and each assessor being an eminent architect and a specialist in at least one branch of architecture. Such an arrangement would eliminate the possibility of a biased opinion on the part of any one of the assessors influencing the award, and the discussions which would undoubtedly take place between the assessors would prove of infinite value in making the award.

The time has now arrived when the methods of competitions should be still further improved, more especially with regard to the appointment of assessors and the question of their remuneration. Architects should not consider their appointment as assessor to a competition part of their lucrative business, but should look upon it as an honourable appointment of a very high standing. There should be no payment other than out-of-pocket expenses to any assessor, and I am sure the leaders in architecture would willingly give their services to such an honourable cause. It would prove to the general public that architects are actuated by a keen public spirit and *esprit de corps* and are not out merely for their own gain.

The non-payment of assessors would have a very important influence on the willingness of authorities to advocate competitions, as the expense they now consider prohibitive would be entirely eliminated. I would suggest that each assessor should be presented with a small gold medal suitably inscribed by the authorities as a mark of some appreciation for the services they have rendered. Trusting you will be good enough to find space for these views in your paper, and that it may be the means of further discussion on this important matter.

Thos. Wallis.

Sir,—I am very interested to see the correspondence in your columns started by Mr. Robertson in his able article on the important question of employing juries instead of single assessors in public competitions. As one who, in the course of his ordinary work, acts on a jury to assess designs several times a week, I can very heartily commend the jury system. Indeed, I think it is the only fair system and the only one which can reduce to a minimum the element of luck which is inseparable from competition work.

For judging student designs, where the personal idiosyncrasies of the various teachers and their relations to the students have to be discounted, there is no other method. It has been adopted by every architectural school of any importance. It leads naturally, in balancing one opinion against another, to a system of marking by points, the only way by which the various complicated issues of even an ordinary architectural problem can be properly weighed.

Now, if this system is necessary to do justice to student work, how much more is it necessary to the highly responsible work of a public competition? I have assessed these latter both as a member of a jury and as, nominally, a single assessor, and I unhesitatingly say the former is the method to be preferred. I say "nominally" with regard to the latter, because in the cases where I have acted as a single assessor I have always consulted colleagues whose opinion I value on the last half-dozen or so designs, which I have brought away with me so that I might live with them for a while and let their points and character sink in. I take this consultation with colleagues not to be evidence of weakness, but a proper realisation of the personal bias which any designer must have when viewing designs by others.

C. H. Reilly.

Liverpool.

Coincidence in Design.

Sir,—At the dinner given last week to mark appreciation of Professor Pite's attainments upon his retirement from the Royal College of Art, Professor Rothenstein aptly referred to the opportunity that time would now present to Professor Pite for the further exercise of his "creative work"—I wonder whether any one at the function carried in mind a "creation" of Professor Pite's recorded by the enclosed abstract from your journal.

Bush House, now erected at the Strand terminus of Kingsway, is singularly coincident in design with Professor Pite's "Central Offices" of 21 years ago. With Bush House to guide us may we entertain the hope that the South side of the Thames in the coming period of its development will gain an accession to its architectural set out by the building of such a work as is conceived in Professor Pite's design.

[*** We republish the abstract and the illustration on p. 132.]

Canada's New Offices.

The High Commissioner for Canada announces that permanent premises have been secured for the Dominion of Canada, in London. The Crown lease of the premises in Trafalgar-square (west side), belonging to the Union Club, has been purchased. Canada will not enter into occupation until March. A suggested scheme of treatment of the exterior of the building is being prepared by Mr. Septimus Warwick, F.R.I.B.A., who has been retained by the Dominion Government.



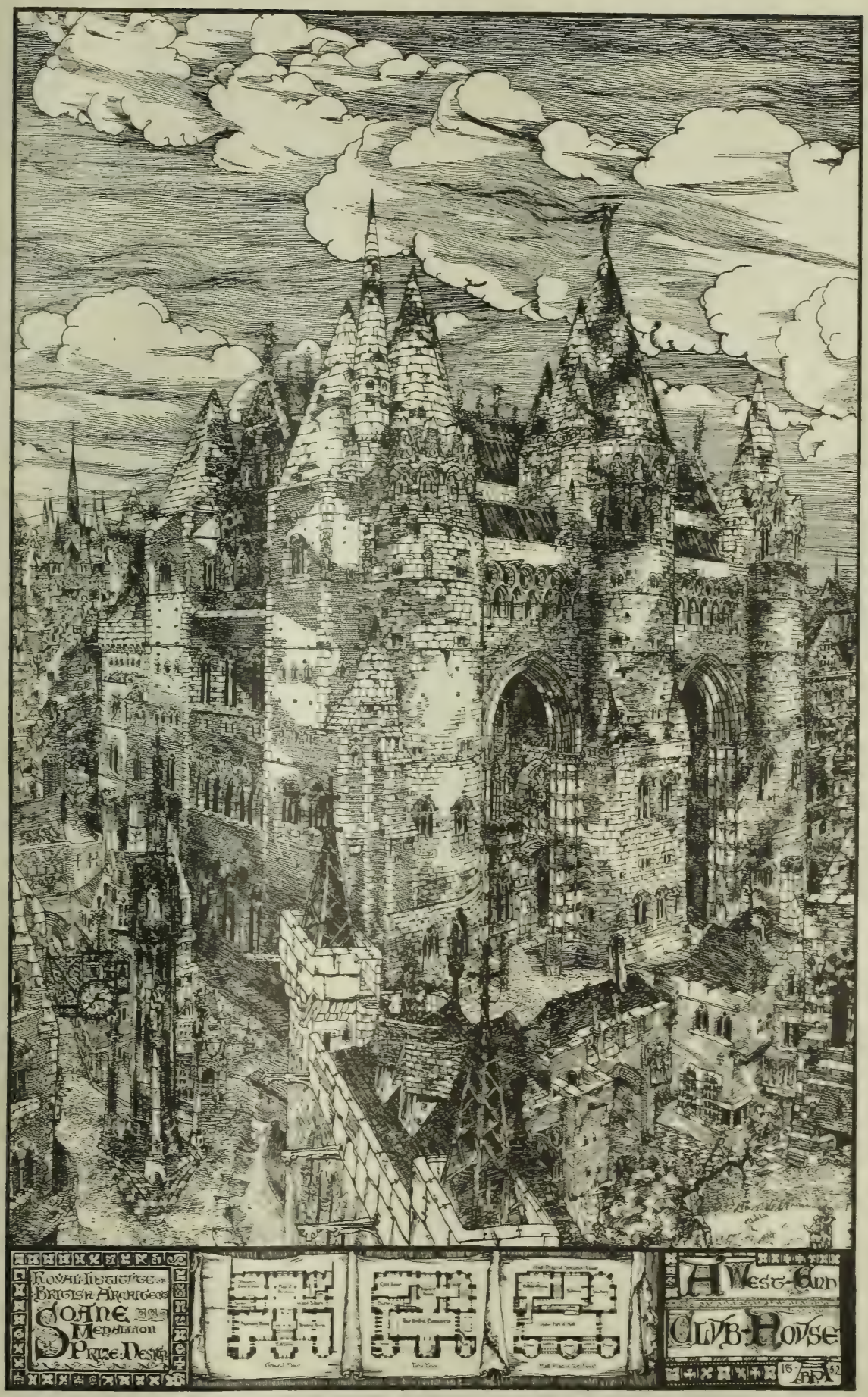
Muiredach's Cross, Monasterboice.

(*See p.* 136).

THE ARCHITECTURAL ASSOCIATION.

The annual excursion of the Architectural Association will be to Avignon and district commencing on September 6 and returning to London on September 17. Headquarters will be at Avignon, and excursions will be arranged to Nîmes, Arles, Orange, &c., which will be optional. Arrangements will be made for second class travel (first class boat) and hotel accommodation (rooms, breakfast and dinner), tips, &c., at a cost not exceeding £12 for the whole excursion. Those joining the party will make their own arrangements for meals on the journey out and home, and also for lunches. The overhead charge will not provide for fares, &c., to places outside Avignon, and members will be free to attend excursions, arrangements for which will be made from day to day, or make their own arrangements. Those proposing to attend the excursion are requested to send their names to the Secretary immediately, as the number of the party will be limited. Tickets will be available for thirty-three days, and although members must travel out to Avignon in one party they may return independently, breaking the journey in Paris if they so wish.

The annual School of Architecture prize distribution and exhibition of students' work will take place on July 27, at 3 p.m., to which all members are invited. There will be an exhibition of students' work, which will remain open daily (10 a.m. to 6 p.m.), until August 17.



A West-End Club House. Design by PROFESSOR BERESFORD PITE, F.R.I.B.A.

[The perspective of this design, made in the autumn of 1881, was awarded the Soane Medal of 1882. The motto "Yo he trovado El Dorado," was perhaps significant of the enthusiasm of the early days.]

THE ROYAL COLLEGE OF ART.

DINNER TO PROFESSOR PITE.

The departure of Professor Pite from his tenure of the Chair of Architecture at the Royal College of Art, South Kensington, which he has held for the past twenty-three years, has called forth a remarkable manifestation of affection and esteem not only from the students themselves, and the professorial staff of the college, but also from his colleagues and friends. During the past week he has been acclaimed by his private pupils, the students of the college, and finally on Friday last he was entertained at Pagani's at dinner, when a large and representative company assembled to do him honour. We do not remember that it has fallen to the lot of any past-president of the R.I.B.A., as it has to Mr. Paul Waterhouse, to address three prominent members of the profession within a month—the three being Sir John Burnet, Mr. John Slater, and now Professor Pite; but Mr. Waterhouse, as might be expected, acquitted himself as happily as ever.

An Appreciation.

The following appreciation of Professor Pite by one who knows him well will be read with interest:—To receive the commendation and to gain the goodwill of professional colleagues is surely the most desirable and precious reward that any professional man can desire, for there is none more distinctive. In saying this it has to be acknowledged that the gifts with which Professor Pite has been so richly endowed are remarkable in range and cumulative in character. The epithet, "architect, artist and gentleman," can in the best way be suitably applied to him, and yet fails to comprise his essential qualities. First and foremost of his many gifts he is a draughtsman with a compelling character of his own in whatever medium he employs. His methods have a wide range, from the breadth of the Durer woodcut manner of thick line, manifested in the now famous "club house" design perspective and other drawings of that early period, and which will be known by the motto adopted for the Soane Medallion design in 1882 of "El Dorado." From this method to fine line and medium line in his direct sketches of old work, and further of modern design, each have the definite qualities of a master of his craft. The same can be said for his rendering of architectural composition and apart from his executed works, the output of which has doubtless been limited by his devotion to his professorial duties. These possess the same qualities of distinction which, in originality and value, has seldom been equalled.

Professor Pite's quality of architectural expression, like that of his medium of draughtmanship, has exceptional characteristics of original beauty, which at times pass almost to the range of eclecticism, and though commanding in force, may sometimes fail in achievement, being often beyond the ken of the public mind of to-day. It is to be hoped that now he is freed from labours that must in a measure be regarded as altruistic, we may in the years to come see much more executed work from his hands than has hitherto been possible.

Professor Pite is also a speaker of compelling interest, being a trenchant debater, and one who would not be unwilling to take an opposite view to that supposed to rule. Apart from general addresses, his lectures to students have not been confined to South Kensington, but have been delivered to students throughout the country. His gifts and qualities have been recognised by the University of Cambridge, where a School of Architecture has been founded, largely due to his initiation. These qualities as a lecturer are such as should not be lost to the public, and it is to be hoped that it may be possible for the Royal Academy to recognise this. That body has a magnificent record behind them in the courses of lectures, which have been of far-reaching value, by Sir Gilbert Scott, Mr. G. E. Street, Mr. E. M. Barry, and Sir Reginald Blomfield, and no one would be more suited to carry on this work. Professor Pite is a very able writer upon all architectural topics, and has considerable legal knowledge, especially in regard to the law of ancient lights. These gifts so lightly carried have, however, been sedulously cultivated by wide reading, "so vast is art, so narrow human wit," that, although genius has been described as the capacity for taking pains, there is something definitely beyond this, for is it not a spiritual gift so graciously bestowed on mankind to be used for the good of fellow man, being the spirit of wisdom and skill in all cunning work, a divinity that shapes our ends rough hew them how we will.

The Royal College of Art has been but one side of Professor Pite's activities. For many years several evenings in each week have been devoted to the direction of the architectural section of the School of Building carried on by the London County Council in Ferndale-road. Here a very remarkable work has been carried on among youths who have passed out of elementary schools into this great technical secondary school for industrial instruction, and which must have a marked influence upon the welfare of art in the country. Mr. Waterhouse, at the dinner, briefly referred to another aspect of Professor Pite's activities as a leader of the laity of the Church of England, being a member of the National Assembly, where he is a keen debater.

In his reply to the toast of his health, the guest outlined a programme for advance in architecture, asking where we were and whither we were going, and his remarks, which were of unusual interest, were characteristic of the speaker and helped to explain the affection and esteem in which he is held by those who have passed through his courses.

The Dinner.

A dinner was held at Pagani's Restaurant, Great Portland-street, on Friday evening last week, when Professor Pite, M.A., F.R.I.B.A., Hon. A.R.C.A., was the guest of honour of the Royal College of Arts, on his retirement from the Professorship of Architecture which he has held at the Royal College of Art for twenty-three years. Mr. W. R. Davies, C.B., of the Board of Education, presided, and among those present were Sir Reginald Blomfield, R.A.; Sir Frank Short, R.A.; Lieutenant-Colonel E. F. Strange; Professor W. Rothenstein, Professor W. E. Reilly, F.R.I.B.A.; Mr. Paul Waterhouse, P.P.R.I.B.A.; Mr. Eric Maclagan; Professor W. R. Lethaby, Mr. W. A. Pite; Professor Anning Bell, R.A.; Professor Derwent Wood, R.A.; Mr. Halsey Ricardo, Professor S. D. Adshead; Mr. Topham Forrest, Superintending Architect L.C.C.; Mr. Maurice Webb, Mr. J. J. Jones; Mr. Hubert Worthington, Professor elect of Architecture at the Royal College of Art; Mr. Ian MacAlister, Secretary of the Royal Institute of British Architects.

Mr. Paul Waterhouse proposed the toast of "The Profession and Professor Pite." He said that his ambition for a long time had been to be allowed to propose the toast of a man like Professor Pite. There was no other man just like Professor Pite, and it was by a strange coincidence, he thought, that they that evening had allowed him to have that honour on that occasion. He had had the honour of being acquainted with Professor Pite and his works for many long years, and when he lived in Marylebone in his early days it used to be his pleasure to look up to him and his architectural works in that neighbourhood. All around there they found specimens of the art of Professor Pite, and in all cases he (Mr. Waterhouse) had enjoyed them. Since Professor Pite had left King's College School many honours had been bestowed on him. They all knew that his great work in education, outside his actual professional work, had been crowned by the honorary degree of M.A. of Cambridge University. "Worthy" was the word he should like to apply to such a man as Professor Pite, and he could not help realising that his life had been throughout one of unselfishness and devotion to his art. He had shown a reverence for his art by giving many years of his life to teaching others, without any attempt at personal aggrandisement—all to his honour and glory. Architecture was the best of the arts, and he (Mr. Waterhouse) considered there was no nobler task than spreading the knowledge of that great art, and with occasional creations on his own behalf that was what Professor Pite had done. None of those architects present could fail to realise what he had done in the way of collaboration with artists and architects. They heartily wished him every success in his

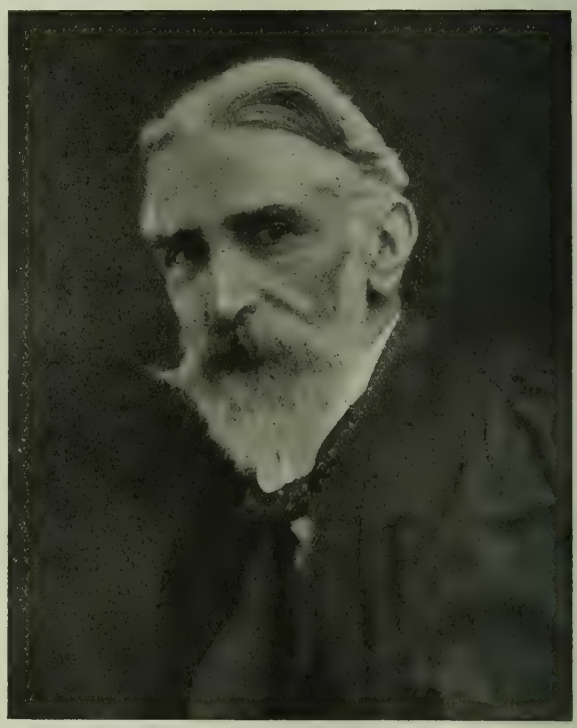


Photo: Elliott & Fry.

Professor Beresford Pite, M.A., F.R.I.B.A., Hon A.R.C.A.

removal to a freer sphere of architectural practice than he had been able to enjoy during the present century.

Sir Reginald Blomfield, in dealing with architecture, said that, with all apologies to his colleagues, the painters and sculptors, it seemed to him that the future of art lay with architecture, because in the first place architecture was a necessity of civilisation, and in the second place because architecture was strictly conditioned by practical needs, and by the laws of statics and dynamics, and this had protected the art from the aberrations which in recent years had distracted their colleagues in the sister arts. He even ventured to say that the architects of this country were the best in the world. Our supremacy in domestic architecture had long been admitted, but he believed that supremacy extended to civil and ecclesiastical architecture as well; and by architecture he did not mean either the plastering on of ornament or the reproduction of other people's designs, but skilful planning and the wise and orderly disposition of material. That had been found to be a real necessity for civilisation, and would be found to be more so in future. The more intelligent business men were beginning to realise that it was wise economy in building to have an architect in control, and not to leave things just to the fancy of the builder. But the wise, skilful and ordered disposition of material required every ounce of brain a man had got, and it was all-important that behind it all there should be a sound foundation of æsthetic, in regard to theories, standards and ideals controlling the practice of the art; and important as buildings were as showing the art in practice, scarcely less important were the written and spoken word and in this regard he wished to pay his tribute to the work of Professor Pite. Sir Reginald referred to the days, forty years ago, when Professor Pite's drawing, "El Dorado," took the profession by storm at the R.I.B.A., and said that since those days architects had always watched with interest the ideas and proposals of Professor Pite and his distinguished colleague, his (Sir Reginald's) old friend, Professor Lethaby. They were men who had been a stimulating influence in architecture in his generation. It must always be a comforting reflection for Professor Pite to know that he had left his mark on his generation and that he was one of those who had served the Mistress Art faithfully and well.

Professor Rothenstein gave the toast, "Professor Pite of the Royal College of Art," and spoke of the regret the students and his friends at the college parted with Professor Pite, who had been a wise and devoted colleague. They knew that Professor Pite would now have more time for his creative work. There was little so stimulating, so wise, and so clear as Professor Pite's lectures, and he had the admiration of the most distinguished members of his profession.

The toast was drunk with musical honours.

Professor Beresford Pite, in reply, thanked them heartily for their touching manifestation of kindness. He said that, like his friend, Mr. Paul Waterhouse, he shared ancestral interest in architecture, and among early recollections of his childhood were the smell of tracing paper and games with the drawing boards and "T" squares, when the office staff had gone. Before he was articled, his father sent him with his brother, whose ability and affection had been a life-long stimulus, to the South Kensington School of Art to learn drawing, and it must have been then or very soon afterwards that the happy discovery was made of inward pleasure in the revelation of art, a "good gift" that does not fade away and remains constant as a part of the inheritance to come. They all, as architects and artists, shared this gift; it gave them fellowship, even with Wren and Michaelangelo; it was more than the bond of mere professional sympathy; and its force was strongly expressed by that gathering. He valued greatly his long association with the Royal College of Art, an institution the existence of which expressed the fact that the State could not neglect art as a vital element in the intellectual life of the nation. It was a necessity that the Government should be connected with so delicate and abstract a thing as art; it would be deplorable if this contact was not recognised, and, therefore, organization became essential. The Royal College was the head of the system of schools of art and it was centred at the truly wonderful art collection at South Kensington. If this official recognition of art was not afforded, how insistent would be the demand for something else! How loud would be the cries for a Ministry of Fine Art! Surely fated to become dictatorial. Were not London, England and the whole Empire enriched by the possession and by the study of the State collections at South Kensington? Could they conceive of London to-day without these treasures of artistic workmanship or of the condition of our industries without this valuable stimulus? The art schools were the educational link between the Government and the industries—a link which the country owed to the prescience of the Prince Consort, who, somewhere about 1849, conceived the idea of a Frankfort Fair in England. He would wish to emphasize that it was impossible to omit architecture from a national art education that dealt with everything that possessed form, and thus capable of expressing not only purpose but refinement, culture and knowledge. How, important, too, was the scope of building, which was third amongst the largest industries of the kingdom. The value of architecture and its fundamental relation to the arts was seen very clearly in the valuable architectural index gallery at the South Kensington Museum; it provided a key to the historical import of the collections more usefully than either religious or social history. The combination and union of the arts was not only illustrated by the Museum, but embodied in the constitution of four schools in the College, viz., Architecture, Sculpture, Painting, and Design, utilising the training in drawing provided by the schools of art. Referring to the position of the architectural profession, Professor Pite asked for what ideal does architecture stand to-day? A century ago it stood for a pure Greek, of which the Athenæums, invaded by Corinthian domes, were an illustration; later for a Romantic Gothic, which supplied the Oxford Movement in the Church with a mediævalism that is still valued; to be followed by a Free Renaissance, which might be dubbed licentious if it was not protected by the names of Elizabeth and Queen Anne. Can we not ask ourselves if the Classicism of the eighteenth century is really sufficient for the twentieth? Ought we to stand on the parapet of Somerset House and forbid the Victorian era as a blot to be forgotten? Do the three or five orders exhaust the legitimate possibilities of design? Is it not indisputable that architecture should be in its full measure the reflection of current thought, and that its impetus depends upon architects as thinkers—that is, as designers? Without progressive design the work of the architect of to-day, who elects to jump off, say, from the grave of Sir Wm. Chambers, and then to leap backwards, will be a stagnant museum subject. But where, he might be asked, are the new ideas? Must we wait for a second Wren? New ideas certainly had come in construction and requirements, and in the new interest of town planning. These were live movements to-day, and the conviction that all work honestly done would acquire æsthetic value was a healthy stimulant. It remained to "stir" up the gift that is within them. He was most thankful for many years of delightful comradeship at the Royal College, and happy to think that they had been in some measure successful.

"The Chairman of the Board of Education" was proposed by Mr. E. R. D. Maclagan.

The Chairman briefly replied.

Professor Lethaby, in the course of a few remarks, said he would like to thank Professor Pite for what he had been to him personally. He had really been one of his greatest friends since he came to London about 45 years ago.

We may add that Professor Pite is taking offices at 101, Great Russell-street, W.6.

Presentation of Diplomas to Students.

Sir Montague Barlow Minister of Labour, distributed the diplomas to students of the Royal College of Art in the Lecture Theatre of the Victoria and Albert Museum, South Kensington,

Professor Rothenstein (Principal of the College) mentioned that Sir Montague Barlow was once a student at the college. One of their students, Mr. J. W. Hunter, had been appointed the first Inspector of Art for the Northern Government of Ireland. An important event in the history of the relations between Government departments and the college was that two research studentships in art had been founded by the Minister of Agriculture in co-operation with the Development Commission. The Goldsmiths' Company had offered, through the Board of Education, £100 a year for three years for the development of the Silversmiths' Department of the college. Two great printing firms had also guaranteed £200 a year for two years to support the new school of engraving, and the Federation of British Potteries had collected £138 for the development of the pottery school of the college.

Sir Montague Barlow, after distributing the awards, delivered an address, and said he retained the very liveliest sense of the great comradeship and good work that prevailed in the college during the short time when other and comparatively trivial occupations allowed him to be present. It was true that the great advances in the art of the world were made by the leaders. The great painters, sculptors, and architects showed the way, but it was equally true that the great works themselves were achieved by the common people—the craftsmen, the ordinary members of the community. All those who left the school were going to be engaged probably for the rest of their lives in the practice of art.

Following are some of the awards:—

Full Diploma.—A. K. Lawrence.

School of Architecture.—A. Hafez, H. Z. Kassem, F. Mikhail.

School of Design.—Dorothy E. Alderton, Muriel E. T. Aspray, Marguerite E. Bayley, Violet W. Borrow, Alice M. Cottam, Kathleen L. Dickinson, Margaret F. Heaven, Doreen M. Hewison, Dorothy N. Hollingsworth, Hilda C. Lewis, Erna Manners, Elsie M. Rist, Katherine Ritchie, Mary M. Robertson, K. B. Smith, Edith Solomon, B. J. Statters, Frances M. Stringer, L. G. Studd, R. Till, Phyllis E. Walters

School of Sculpture.—Jocelyn B. Hepworth, H. S. Moore.

Travelling Scholarships.—Architecture.—K. Cheesman. Design.—R. Till. Drawing and Painting.—Kathleen M. Robertson. Sculpture.—T. Bayley.

Prize of £10.—Architecture.—F. W. Bosley. Design.—Hilda C. Lewis. Drawing and Painting.—H. M. Carr, J. E. Nicholls. Sculpture.—H. S. Moore.

Prize of £5 for Drawing from the Life.—N. Dawson.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

Following are notes from the minutes of the Council Meeting held on July 9:—

Drawing.—It was decided cordially to support the National Society of Art Masters in their view that drawing should be included for credit in matriculation and school examinations.

Architectural Scholarship.—A vote of thanks to Mr. John Keppie, of Glasgow, for his gift of a scholarship to be held in alternate years by the most distinguished student of the Glasgow School of Art and the Glasgow School of Architecture was passed by acclamation.

British Waterworks Association.—Mr. H. D. Searles-Wood and Mr. Percival M. Fraser were appointed to represent the R.I.B.A. upon the Standing Committee on Water Regulations of the British Waterworks Association.

Retired Fellowship.—Mr. I. R. E. Birkett, elected Associate in 1886 and Fellow in 1923, was transferred to the list of Retired Fellows.

Town-Planning Conference.—Mr. Raymond Unwin, F.R.I.B.A., has been appointed to represent the Royal Institute of British Architects at the Town-Planning Conference, to be held at Gothenburg from August 3 to August 10.

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ILLUSTRATIONS.

Messrs. Liberty's New Buildings.

Messrs. Liberty's new buildings, in Regent-street, which are illustrated in this number, were designed by the late Mr. Edwin T. Hall and Mr. E. Stanley Hall, in 1914, just prior to the outbreak of war. The design has a base two stories high, above which is an Ionic order of three stories and an attic storey with end pavilions. Above the base the centre portion is recessed and crowned with a sculptured frieze of life-size figures representing Britannia receiving merchandise from the ends of the earth. The building has a frontage to Regent-street of 206 ft.; to Argyll-place of 51 ft.; to Foubert's-place of 73 ft.; and the back abuts on Kingly-street, which separates this block from Messrs. Liberty's Argyll-place premises. It is to be built of Portland stone. The shop fronts are of Swedish granite and bronze, and the lamps on the balustrade above the base will be of bronze. The total height is about 86 ft. There are basement, ground, and five other floors.

Rugby Memorial Chapel.

This chapel was illustrated in *The Builder* for January 20, 1922, when plans and working drawings were given and the building was fully described. The contractors were Messrs. Wooldridge & Simpson, of Oxford. The foreman of works and master mason was Mr. W. Simpson, Jun.; the master carpenter was Mr. Green, and the chief carver Mr. Moss. The stained glass in all the windows is by Mr. H. Grylls. The north-east and south windows contain the story of the Passion and Resurrection of Christ and attendant figures of prophets and evangelists. The traceries contain types of the subjects of the windows, and below are small predella subjects appropriate to those in whose memory the chapel is built, *e.g.*, kneeling figures of a soldier and a nurse, a celebration of the Eucharist at the front, a soldier's burial, the Vision of St. Martin. The west window is a more or less allegorical subject; the principal figure is that of the glorified Christ. He is attended by St. George and St. Nicholas, patrons of soldiers and sailors. In the tracery are figures of the virtues. Below is a scene in which ships are depicted entering a harbour, with a sunset background and a city set upon a hill. The subject of this window was suggested by the donor of all the glass. In the ante-chapel are lancet windows with figures of the founder of the school, and of old English warrior kings. In the cloister connecting the new building with the school chapel the windows have roundels illustrating war episodes by land, sea and air.

The elaborate inlaid wood lectern shown on the drawings was made by Messrs. Daymond, of Westminster, and is intended to hold the books of records of those who fell in the war. It is surmounted with a bronze statuette of a young officer, modelled by Mr. E. Burton, of Red Lion-street, London.

The reredos was carved by Mr. Moss at Oxford, but the five figures in the niches are Mr. Burton's work. They represent in the central niche a pieta group; in the side niches are St. Peter and St. Nicholas on the dexter side, St. Martin and St. Alban on the sinister. The vestry door has two carved label stops copied from the "listening angel" at Southwell; these were carved by Mr. McDougald. The altar is of Polyphant stone worked by Messrs. Nicholls, of Launceston; the cross and candlesticks are of copper gilt and were made by Mrs. Sandheim, of Notting Hill-gate.

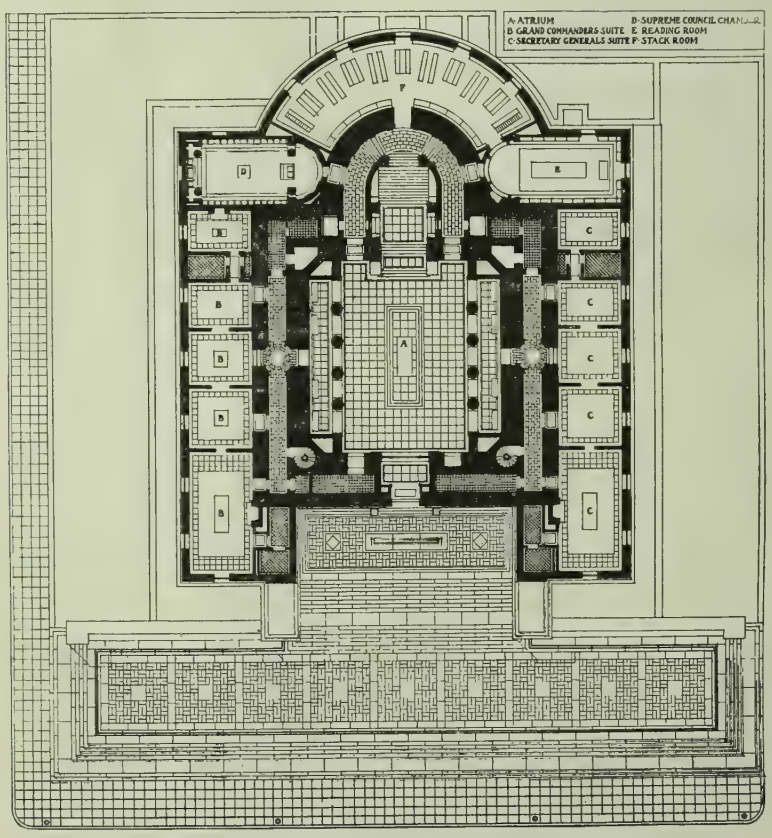
The heating is by Messrs. Haden's and the electric lighting by the Rugby Corporation Electrical Works. The lamps were made by Mr. G. Howard, of Berners-street. All the oak furniture of vestries, chairs for chapel, and other accessories were made by the contractors to the designs of the architect.

The names of the fallen are cut on the walls of the north and south transepts in plain roman letters coloured red.

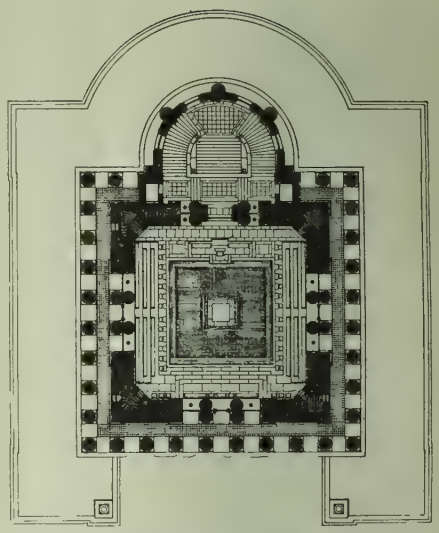
There is a small but very choice organ built by Messrs. Harrison, of Durham. The oak organ case was made by the contractors from the architect's designs.

The chapel was dedicated in the summer of 1922, but some of the details had not then been completed. It is now, however, finished.

Sir Charles Nicholson, Bart., F.R.I.B.A., is the architect.



Entrance Floor Plan: The Temple of the Scottish Rite, Washington, D.C.
Mr. John Russell Pope, Architect.



Temple of the Scottish Rite: Principal (Temple) Floor Plan.

The Merchants' Marine Insurance Co., Ltd New Premises, Cornhill, E.C.

This new building occupies an important site at the corner of Cornhill and Birchin-lane, and is designed as offices for the Merchants' Marine Insurance Company, who are in occupation of a large portion of the building. The remaining floors are arranged as offices to be sub-let.

The main entrance is at the corner of the two streets above referred to, and the entrance to the office floors is in Birchin-lane, where there is a staircase and passenger lift for the use of the tenants. The whole building is steel-framed in accordance with the 1909 Act, and the fronts are faced with Portland stone. The roofs are covered with red Italian tiles, and the turret at the corner is finished in copper. The fittings generally are in oak, very slightly darkened. The architects are Messrs. Campbell Jones, Sons & Smithers, of Dowgate-hill, E.C.

The general contractors are Messrs. Ashby & Horner, Ltd., and the list of sub-contractors is as



Royal Academy Exhibition

MESSRS. LIBERTY'S NEW PREMISES, EAST INDIA HOUSE, REGENT STREET, W.

Messrs. Edwin T. & E. Stanley Hall, FF.R.I.B.A., Architects.



MEMORIAL CHAPEL, RUGBY SCHOOL

Sir Charles Nicholson, Bart., F.R.I.B.A., Architect.

follows :—T. B. Colman & Sons, Ltd., revolving door and lobby : Omar R. Albrow, metal railings ; G. P. Bankart, fibrous plastering for ground floor ceiling ; the Luxfer Co., stallboard and pavement lights ; Redpath, Brown & Co., Ltd., constructional steel ; W. Aumonier & Son, carving ; Crittall Manf. Co., Ltd., metal casements and frames and metal cills ; Colley Meikle Co., hot-water heating and ventilating installation ; Alex. Potter, for sanitary fittings ; N. Page, electrical installation ; Siegwart Fireproof Floor Co., Ltd., fire-resisting floors ; Nollis Bros., wood-block flooring ; Improved Wood Pavement, wood-block flooring ; Fenning & Co., Ltd., granite ; Ames & Finnis, roof tiles ; Art Pavements and Decorators, Ltd., terrazzo-paving ; C. Smith, Sons & Co., ironmongery ; Waygood Otis, Ltd., lifts ; Caston & Co., Ltd., metal enclosures for lifts ; Crittall Freeman Bronze, bronze-work and collapsible gate ; Bellman, Ivey, Carter, Ltd., scagliola columns ; Lawford & Co., asphalt work ; J. W. Singer & Sons, Ltd., fascia letters and numerals ; Sankey, Sheldon, Ltd., lockers (metal).

The Temple of the Scottish Rite.

The Temple of the Scottish Rite is located on the corner of the Avenue of the Presidents, and a mile distant from the White House, Washington. It was designed by Mr. John Russell Pope to serve as the headquarters of the Supreme Council of Scottish Rite Freemasonry for the Southern Jurisdiction of the United States, and was completed and dedicated on October 18 last. The building stands upon a plot about 250 ft. square. Externally this building—developed from the well-known mausoleum erected by Queen Artemisia at Halicarnassus for the tomb of King Mausolus—is so treated as to front entirely upon the Avenue of the Presidents, the rear elevation displaying the staircase, which is so arranged as to remain external to the massive pylon, entirely given to containing a single central room on each of its principal floors. On the first entrance floor this entire central space, practically a big hall, is termed the Atrium ; and from the side opposite the entrance doorway rises the staircase to the floor above, at the back of which is placed the stock-room, with the reading-room on one side balancing the Supreme Council Chamber upon the other. On this floor the Atrium is flanked, right and left, by two suites of offices, in the one case for the use of the Sovereign Grand Commander, and in the other for the Secretary-General. The basement contains a large banquet-room beneath the Atrium, with offices, kitchens and other dependencies, while the sub-basement is occupied by the elaborate mechanical plant and the machinery necessary to carry on the structure and its offices.

The staircase, as it rises from the entrance floor, divides into two side runs to reach the landing in front of the Temple Room, to which the entire upper portion of the structure is devoted.

Built as the headquarters for the entire Southern Division of the chief Masonic Order in the United States, every regard was paid to permanency, durability, and the enduring massiveness that would aid the monumental aspect of so pretentious a structure.

MEETINGS.

July 27 *and* 28.

Institution of Municipal and County Engineers.—East Midland District Meeting. At Nottingham.

July 24—*August* 1.

Royal Archæological Institute.—Summer Meeting, Norwich.

FRIDAY, *July* 27.

Architectural Association.—Annual Prize-giving, by Mr. H. Corbett. At 34, Bedford-square, W.C. 1. 3.0 p.m.

With reference to our illustrations of designs for Oswald-street Bridge, Glasgow, Messrs. L. G. Mouchel & Partners, Ltd., of Victoria-street, S.W., inform us that the actual architectural design was prepared for them by Messrs. Henry Tanner, 3, Hanover-square, W.1.

THE WHEELWRIGHT'S SHOP.*

The unassuming title given to this volume might mislead us as to the importance of a record of waggon building ; of a hand-craft so deeply wedded to the traditional life of England as to be a part of its very being. Mysterious relations to nature, to locality, to agriculture and to use, are perceived which deepen our sense of the nature of this traditional craftsmanship in which the solid worth of the English character was so well expressed. It is part of the quality of this admirable book that the author is content to let facts speak for themselves, and it does not suffer from sentimental appreciations which sometimes accompany any review of old-world industries. He draws his conclusions from life and acquaintance at first hand—for it was his own business—with the wheelwright's craft. In the making of these waggons time is of relatively small account, throughout the aim is excellence. The quality of the work was the first consideration, for had not the waggon to last a lifetime? And for this reason the seasoning and selection of the wood was of the first importance. We are taken through the craft of the woodman, and get a glimpse of the traditional intelligence in its choice and seasoning—not less than six or seven years. It is worth thinking of this when wood is lacerated under the machine before the sap is out.

It is not, however, only the excellence of the work, it is the quality of the workmen as well. We read of George Cook, of whom the author writes : " I never could get axe or plane or chisel sharp enough to satisfy him ; but I never doubted then or since that his tiresome fastidiousness over tools and handiwork sprang from a knowledge as valid as any artist's. He knew not by theory, but more delicately in his eyes and fingers." We touch here on a fact of craftsmanship which was a preponderating influence in the excellence of the work, for much of it was not only traditional but intuitive. Our friend George could not have given the reason why he did this or that, but in him, as the author says, " was stored all the local love of what good wheelwright's work should be, century-old tradition was still vigorous in them." This tradition, carried on intuitively, included the knowledge of local conditions, the lie of the land, the requirements of agriculture, the kind of roads, and the character of their customers, all deeply rooted in a hereditary knowledge of the wheelwright's craft. " The very grain of the wood held secrets for them. I never came on a quick substitute for the seasons in drying timber," says our author, and adds, " My first experience of steamed Canadian ash made me very sceptical. It looked nice ; but it seemed a little ' frow ' or ' biscuity ' under the workmen's tools ; and after three years of use it crumbled into touch-wood." This would not do for waggons built to last a lifetime, and no second best was of avail. Craft knowledge in these old industries was learned as an artist learns to reach results. We find the beauty of these waggons determined by no merely sentimental approach—the chamfering of the woodwork, and the exquisite tapering of the shafts has for its primary object the lightening of the bulk, for, in order to lighten the horse's load, the waggon must carry no unnecessary weight. Use is the root on which beauty flowers. Nor did wood suffer then as now. The timber, as the author says, was " far from being a prey, a helpless victim to a machine."

A faithful record such as this, which contains in it the day by day history of a traditional craft and of the human relations born through it, and the standards of life it sustained, leaves us with much to ponder over. These old craftsmen had not learned to make things badly, nor were they forced to do so, for one reason that they would not have been forced. So the life of a waggon would stretch to 70 years. The Windsor chair in my study has given rest for over a hundred years, and has a century of further service before it. This raises the issue whether the economy of production for profit instead of for use is preferable, seeing what it brings with it. The enormous excess of production to-day of necessary and unnecessary things gives employment, no doubt, to a largely increased population, and is carried on not only to supply our own wants, but the markets of the world. But if, through increasing the quantity, we have lowered the standard of the thing produced, has not life suffered meanwhile in that the pleasure and pride has gone from its labour? It is this human question that remains paramount. If men lived by bread alone we might be content in carrying on civilisation at the cost of lowering civilisation, but instead of rest it has brought unrest ; instead of union it has brought division ; instead of the assurance of life it is leading thousands to doubt of it. Wages are much better to-day than when this wheelwright's business, which industrialism has destroyed, kept men happy, though poorer than ourselves, because they had that freedom to excellence, to beauty, which the industrial age has undermined. Beauty can only come of labour rightly and faithfully applied—the crown of its effort. Art will not be scamped—is not mocked. But though saying this, the matter is not a question of alternatives, of returning to the ancient provincial life of England. The new era is here, and out of itself must the new better world be woven. Let us conclude the review of a book which contains in it so much that is instructive for us, and which we can praise so heartily, with the following passage from the author's chapter on " Prices " :—

" But no higher wages, no income, will buy for men that satisfaction which of old—until machinery made drudges of them—streamed into their muscles all day long from close contact with iron, timber, clay, wind and wave, horse-strength. It tingled up in the niceties of touch, sight, scent. The very ears unawares received it, as when the plane went singing over the wood, or the exact chisel went tapping in (under the mallet) to the hard ash with gentle sound. But these intimacies are over. Although they have so much more leisure, men can now taste little solace in life of the sort that skilled handwork used to yield them. Just as the seaman to-day has to face the stokehole rather than the gale, and knows more of heat waves than of sea waves, so throughout. In what was once the wheelwright's shop, where Englishmen grew friendly with the grain of timber and with sharp tools, nowadays untrained youths wait upon machines, hardly knowing oak from ash or caring for the qualities of either. And this is but one tiny item in the immensity of changes which have overtaken labour throughout the civilised world. . . That civilisation may flourish a less-civilised working-class must work. Yet others wonder at working-class ' unrest.' But it remains true that in modern conditions work is nothing like so tolerable as it was, say, thirty years ago ; partly because there is more hurry in it, but largely because machinery has separated employers from employed, and has robbed the latter of the sustaining delights which materials used to afford to them."

R. H.

* " The Wheelwright's Shop." By George Sturt (George Bourne). (Cambridge : University Press. Price 12s. 6d. net.)

Sir E. Geddes' New Residence.

Albourne Place, near Hurstpierpoint, Sussex, a comfortable country manor house, with interesting features of seventeenth-century work, is being restored and improved for the occupation of Sir Eric Geddes, who is shortly to take up residence there, and for whom Messrs. Knight, Frank & Rutley acted.



Design for Central Offices and Public Hall, Thames Embankment. By Professor Pite

(From *The Builder* of April 26, 1902)

["This design was prepared some time since for a large site then vacant at Whitefriars, fronting the Embankment, for a combination of offices, warehouses and printing works, with a great public hall for religious meetings. The buildings were arranged with a central mass to emphasize that they formed grouped departments of one organisation, the importance of which was to be expressed both in the building and the site. Surrounding rights of light indicated the advisability of setting back the upper stories, internal areas were provided, and smoke and ventilating shafts were grouped in the central tower."—*The Builder*, April 26, 1902.]



MARINE INSURANCE OFFICE, CORNHILL, E.C.

Messrs. Campbell Jones Sons & Smithers, Architects.

Memorial Chapel Rugby School.



Royal Academy Exhibition

SIR CHARLES NICHOLSON, Bart., F.R.I.B.A., Architect.



The Temple of the Scottish Rite, Washington, from the South-west.

MR. JOHN RUSSELL POPE, Architect. (*See p.* 131.)



The Temple of the Scottish Rite, Washington: Entrance side of the Temple Room.

Mr. John Russell Pope, Architect. (*See p.* 131.)

Hawick War Memorial.

Mr. Jas. B. Dunn, A.R.S.A., R.I.B.A., Architect; Mr. Alex. J. Leslie, Sculptor.

[This Memorial was built in Doddington stone. The figure represents the Spirit of Youth trampling on Evil.]

MEDIÆVAL CROSSES.

By F. SYDNEY EDEN.

Prior to the sixteenth century changes in religion, it was the universal custom to set up in all prominent positions, wherever multitudes forgathered and wherever the tired wayfarer was likely to set him down to rest, the symbol of man's salvation. In the market place, in the churchyard, at the cross roads, in the shady dell, and on the mountain path one saw the cross.

Such had been the good custom; not only during the period covered by our chroniclers, but, far away, in the dim mists of antiquity, this use of the cross is discerned. Still we see the rude monolith, roughly chipped into the form of a cross, on the wild moorlands of the northern and western parts of England—in Cumberland, Wales, Devon and Cornwall in particular.

Coming to historical times, the more elaborate sculptured crosses of Ireland, of which some thirty are known, attract notice. Of these the finest example is, probably, Muiredach's Cross (see p. 126) at Monasterboice (early tenth century). Its height is 19 ft., and the shaft is carved with stories from the Bible set in rectangular panels within a cable moulding, while the three upper limbs are occupied, on one side, by the Crucifixion, and, on the other, by the Last Judgment.

Here we may note an interesting point, evidencing the fact that the master-idea which inspired all outward forms of Christianity was the cross, with its lessons of vicarious suffering and Judgment deferred. As we see the Crucifixion on one side of these ancient crosses and the Last Judgment on the other, so, when painted glass came to fill the windows of the churches of later times, we see the same plan—in the east window the Crucifixion and in the west window the Last Judgment.

From contemplation of the sufferings of Our Lord, shown in the east window, the Christian learnt to bear gladly burdens which were not his, and, on leaving the church, the west window, with its picture of the Final Judgment, gave assurance that, at last, crooked things should be made straight, and all wrong estimates should be rectified. The top limb of Muiredach's Cross is capped with a square finial having a gabled roof, suggesting the idea of a reliquary or shrine.

Of English crosses of pre-Norman days there are several examples extant, all north of Humber save one—that at Crowle in Lincolnshire. Of these the best are the Bewcastle and Ruthwell crosses, which are carved, the former with figures of Our Lord, St. John with the Agnus Dei, a man carrying a hawk, and panels of interlaced work, foliage and animals, and the latter with subjects from the New Testament and the Apocryphal Gospels, Latin inscriptions and foliage and birds. Both crosses, also, bear inscriptions in Anglian runes, from which we learn that the Bewcastle cross was erected about A.D. 653 as a memorial to Alefrith, King of Northumbria.

Interesting as these very ancient crosses are, it is to the thirteenth, fourteenth, and fifteenth centuries that we must turn for the High Crosses which most appeal to us of to-day; for their architecture—always some form of Gothic—is in a style of which examples abound in every part of our islands.

Leaving out of consideration the large class of wayside crosses, the least decorative of their kind, but not, on that account, of the less interest, we may notice a few examples of crosses in market places and churchyards.

Every market place had its cross, though to-day we may look for it in vain in many an ancient market square. In some cases, the old market places have themselves disappeared, their convenience as thoroughfares having caused them to be straightened out into ordinary streets. Who would recognise in the street called Cheapside in the city of London the ancient market of West Cheap, and who would think to look to-day for the cross which of old times stood there, about the spot where Milk-street joins Cheapside?

Sometimes the steps upon which the cross stood, with, perhaps, part of its shaft, are left, but oftener the whole structure has gone. Even then, however, so persistent is custom, we may often know where the old cross stood by observing the spot in the market place where public proclamations and announcements are made, and, in this connection, one may call to mind that the written or printed notices of such things are usually dated from "the market cross." Public meetings, too, are often called "to be held at the market cross," when, in fact, no cross has stood in the market place for many years, and the meetings will be held, as everybody knows, in a building, usually the town (or guild) hall, contiguous to the site of the vanished cross. This, among other instances known to the writer, is the case at Thaxted, in Essex; there, meetings of the polls—one may designate them folk motes—are called for the market cross, but they are held in the beautiful fifteenth century hall of the Guild of Cutlers—once the governing body in Thaxted—in front of which the cross formerly stood.

The steps of the market cross were, as one might expect, used by vendors of goods as convenient places for displaying their wares, and this practice led to the calling of the cross after the things laid out on its steps, *e.g.*, the Butter Cross at Winchester, set up in the fifteenth century by Cardinal Beaufort, and still in its old place, although it had a narrow escape from destruction in the eighteenth century, when the Town Council agreed to sell it for paving purposes. Fortunately, however, Winchester men rose in its defence, and stopped the contemplated outrage.

A time would, of necessity, come when the steps of the cross would no longer accommodate all who required this convenience, and the need for more room for setting out goods for sale would arise. To meet this demand, a large space, more or less circular, was covered with a vaulted roof, tapering in the centre, supported by buttressed pillars, the whole surmounted by a cross. Of this kind of cross, of which the finest example, perhaps, is the restored Poultry Cross at Salisbury, many are still standing. From structures such as these it seems likely that the market house—a large building capable of giving stall space to all of every craft and trade attending the market—gradually developed, and it is a sad comment upon trade conditions of to-day that the cross is so seldom seen atop of our market houses and that architects have forgotten that the market house, big and imposing as it may be, had its origin in a simple stone cross set on a few steps.

A cross which has a special historical interest may here be noticed—the very fine example of fifteenth century work now at the head of the main street at Hedon, in the East Riding of Yorkshire, the Early English and Perpendicular church of which has been called the "Pride of Holderness."

Judging from the present position of this cross alone, one would be warranted in classing it as a market cross, but, if tradition is to be trusted, that was not its original character, nor was Hedon the place where it was first set up. The known facts about it are that in 1818 it was standing on the coast close to the sea, at Kilnsea, on the Yorkshire side of Humber-mouth; that, in that year, it was taken down and re-erected in the park at Burton Constable, and that it was, in 1832, removed to its present position at Hedon.

For the story of this cross prior to 1818 we are dependent on tradition, which tells that it was erected at or near Ravenspur, a once prosperous Yorkshire port which was mostly washed away by the sea in the second half of the fourteenth century, to commemorate the



Cross at Hedon, Yorkshire.



Cross, Buckland Churchyard.

landing thereabouts in 1399 of Henry of Bolingbroke, afterwards King Henry IV, and, subsequently, the sea still encroaching, it was removed to Kilnsea.

This tale may be wholly correct, but, perhaps, there has been some confusion between the landing at Ravenspur of Henry of Bolingbroke and that of Edward, Duke of York, afterwards Edward IV, at the same place, in 1471, and it may be that this cross is in memory of Edward's, not Henry's, coming to Ravenspur. The fact that one of the shields round the capital of the shaft bears what looks like the arms of de Burgh—a red cross in a gold field—favours this view. The coat of de Burgh did not belong to Henry IV, but it was quartered by Edward IV in token of his descent, through the Mortimer family, from Elizabeth, daughter and heiress of William de Burgh, Earl of Ulster, and it is scarcely likely that, in the fifteenth century, when heraldry spoke truth, a memorial to Henry IV would have borne an heraldic bearing to which he had no title, and to which he would never have laid claim. The carving of the head of the Hedon cross is elaborate. On the west side the sculpture represents the Crucifixion, with Our Lady and St. John on either side of the Cross, and a seated figure of Our Lady—two figures supporting a crown above her head—on the top limb. On the east side of the head is carved what appears to be the Blessed Trinity enthroned, the animals below the throne having reference, apparently, to the beasts of the Apocalypse. Round the capital of the pillar are four shields, supported by angels, alternating with fleurs-de-lis; on one of the shields, as already mentioned, are the arms of de Burgh, and on another is a device resembling a W, which is, probably, intended for the merchant's mark of the donor of the cross.

It is likely that cemetery crosses existed before permanent churches, for one of the earliest needs of a Christian community has always been a burial ground. The church would, at first, have been represented by a small wattle-built oratory ancillary to the cemetery, though, in accordance with ancient tradition, the stone-built churches of later days invariably had their churchyard cross, which, by that time, had become an adjunct to the church.



Churchyard Cross, Ampney Crucis.

Comparatively few ancient churchyard crosses have survived in anything approaching a complete state, not so much by reason of intentional destruction as by the natural effects of non-repair. Few of them retain their sculptured heads, for, being often constructed of several stones, they would, in the absence of repair, necessarily tend to fall to pieces owing to the action of the weather. There are more old crosses which have the shaft, or a considerable part of it, still standing, while, in many cases, nothing remains but the base of the shaft and the steps or altar-like table on which the cross stood, as at Bickleigh, Devon.

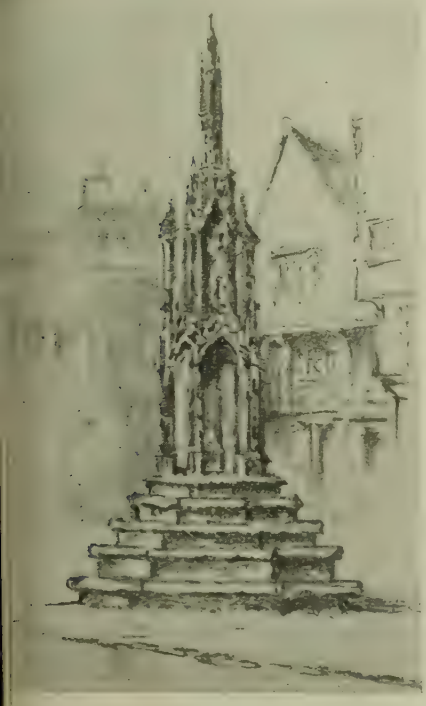
A fine example—partly restored, it is true—of a thirteenth century churchyard cross in its original state is that on the south side of Ampney Crucis Church, near Cirencester, in Gloucestershire. The head is sculptured with trefoiled niches facing the cardinal points; on the east side is the Crucifixion, with its usual attendant figures of Our Lady and St. John, facing west is Our Lady with the Divine Child, and single figures are on the north and south sides.



Sampford Spiney Cross, Dartmoor.

Of churchyard crosses which retain part of the shaft we may mention that at Mileham, in Norfolk, of fifteenth century date. Of the cross itself, the base, a small piece of the shaft, and the top crocketed pinnacle—much weathered—remain, while the table, except for the action of the weather, is in its original state. On the sides and ends of the table are quatrefoiled panels enclosing shields of arms.

The revived interest in ecclesiology which has characterised the last century or so, is responsible for a good deal of repair and restoration of decayed churchyard crosses. Some of these attempts have not been altogether happy; but, as an example of a sympathetic and, on the whole, successful restoration of a churchyard cross, one would like to commend the restored cross on the north side of the old church on the west cliff at Folkestone, in Kent.



The Butter Cross, Winchester.



Churchyard Cross, Folkestone.

THE ROYAL ARCHÆOLOGICAL INSTITUTE.

At a meeting of the Royal Archæological Institute, held in the apartments of the Society of Antiquaries, Burlington House, Piccadilly, W., recently, a lecture was given by the Rev. J. K. Floyer, D.D., F.S.A., on "English Brick Buildings, Henry VII—VIII."

The lecturer said there was a fair amount of evidence to show that the great revival of building in brick which took place in the fifteenth century had its origin in France, before or at the same time as it came to the Low Countries; that the artificers in brick in England were Flemish, and that through those brick workers the industry was revived and systematised. The art of making bricks was retained in England, especially in the eastern counties, through the Middle Ages, and though it was at one time at a very low ebb, yet the demand for large houses by the returned warriors from France in the early fifteenth century gave rise to the fashion of building in that style and in certain forms, not only in the counties where stone was scarce, but practically all over the Midlands and South of England. The word "brick" was of French origin and was not found in England before the fifteenth century. In the building accounts of Lincoln's Inn, 1517–8, an entry was found for the making of tiles, called "Les Brikes."

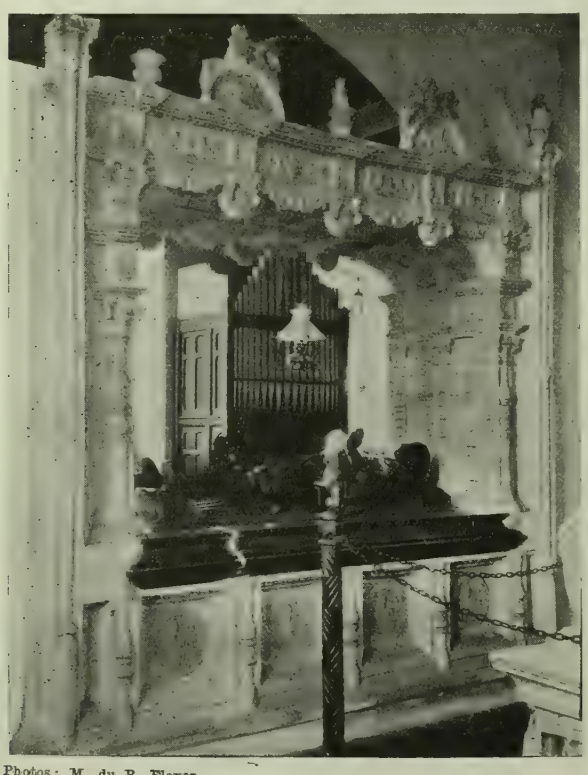
The brickmaking industry was not recognised in the Act of 14 Ed. IV, which regulated artificers, showing that it was still at that time a foreign industry, although the same Act regulated tile-making. In the accounts paid for building Stonor Manor House, Oxon, 1416–7, reference was made to "Les Flemynges," "de Brykes," and "brikes," showing that Flemings were using French terms for their trade employed in the manufacture of material for an English country house. The bricks averaged 4½ in. by 2¼ in., with a length of 9 in. to 9½ in., and were set in old English bond, though irregularly carried out. The same kind of brickwork was used at the same period in the French-speaking parts of Belgium; for example, Cloitre de Tervueren, a building which was probably in existence in 1407, when the Duc de Brabant made it his temporary residence. The work of the almshouses at Ewelme, the licence to found which was dated 1437, within a few miles of Stonor, was of the same kind, and the entrance porch to the cloister was very similar to a recessed arch at the Hopital de St. Jean at Bruges. It looked as if the Flemish workmen had gone on to Ewelme from Stonor. The accounts of the building of Kirby Muxloe in Leicestershire gave some details of the way in which a large building of brick was constructed at that period.

A gang of Welshmen was procured as navvies; the bricks were burnt near by; the foremen were English, but some at least of the brickmakers were from the Low Countries. The bricks were delivered in batches of 13,000 to 24,000 every week for a considerable period, and altogether the payments were for 1,342,500 bricks actually laid. Some light was also thrown upon the way in which the patterns of brick headers were worked, which were characteristic of the fifteenth and sixteenth centuries, but in the later buildings and in those of Henry VII's time the patterns were more often laid quite regularly in lattice work, such as at Bishop Fox's gateway at Farnham, 1501–29. In the earlier ones they appeared as frets, monograms and devices. Examples were to be seen at Henry VII's castle at Richmond, Tattershall Castle, Lincolnshire, and other places; but regular lattice patterns were commoner and were produced by the bricklayer and not added afterwards.

At Tattershall Castle, about 1450, the bricks were 8 in. by 2 in., but that appeared to be an exception, as the standard brick at the time when Flemish builders were at work was 9¼ in. by 4½ in. by 2¼ in. The length of 9¼ in. instead of 9 in. pointed to the measurement being a quarter of the Flemish ell of 37 in., which was a standard long measure in England up to 1553. The general characteristics of brickwork before 1500 were that it was laid in old English bond; short bricks of about 6 in. or 7 in. were often worked in to make a better cover for the joints; the bricks were very rough and often uneven, which necessitated a good thickness of mortar. Down to 1500 mouldings or ornamental details were not moulded on the bricks beforehand, but were carved with a chisel and rubbed down by a superior craftsman known as a hewer, after the bricks of ordinary size had been laid. The chimneys at Hampton Court showed this work.

Generally, very little stone was used even for dressings; windows were high and narrow. In the absence of stone lintels a long, flat arch was a difficulty, but in the church at Layer Marney, Essex, the builders put brick transoms in the windows, which had lasted more than four hundred years without sagging, though an iron rod running through them was used after 1500. At that period moulded bricks also appeared and were used as well as carved ones.

Another foreign influence was felt when Cardinal Wolsey introduced Italian workmen. Tonigiano, a Tuscan, executed the tomb of Henry VII at Westminster. Others who came over were Benedetto da Rorezgano and Giovanni da Majano, and both were employed in the decoration of Hampton Court, 1521, and the latter carried out the large terra-cotta medallions of the Roman Emperors. The Italian architects and sculptors introduced terra-cotta and moulded brick ornament which never seemed to fit the places where they were introduced and bore no relation to the architecture; the harder material did not harmonise with the brickwork. It was doubtful if they erected any houses in England, their work being confined to embellishment of the large brick houses which rose at that time all over the country, though chiefly in the eastern counties. Because their work was not a natural growth, or outcome of architecture, but only a fanciful excrescence, a school was never produced in England. They remained for about twenty-five years, employed mostly in Norfolk and disappeared as silently as they came. Typical examples of their work were Sir Henry Marney's tomb, Layer Marney, Essex; three sedilia at Wymondham, Norfolk, and Bedingfield Chapel in Oxborough Church. It was generally discernible by the material, its distinctive style, lettering of the inscriptions and shape of the heraldic shields, which were equal in width at top and bottom, bowed in at the sides and with a rest for the lance cut out of one border. Oxborough, one of the finest of English brick houses, 1482, was completed when the Italians arrived, but at Layer Marney, which was not so far advanced, they were employed to make in terra-cotta some of the upper window



Photos: M. du B. Floyer.

Tomb in Layer Marney Church.



Italian Tomb, Oxborough Church.



Photo: M. du B. Floyer.

Sedilia, Wymondham Abbey.

mullions and the ornaments of the parapet. They finished the house, worked the tombs of some of the Marney family, and made an attempt to imitate Gothic in one of the windows, with a very curious result.

Some of the best developments of purely English brickwork of the fifteenth century could be seen in such buildings as Tattershall Castle; Middleton Towers, Norfolk, before 1460; Falkbourne Hall, Essex, 1439; Hatfield Old Palace, Herts, 1479–86; Oxborough, 1482; West Wickham, Kent, about 1470; Jesus College, Cambridge, and Alcock's Tower in Ely Palace. The effect of Italian decoration could be seen at Layer Marney; Sutton Place, Surrey; East Barsham Manor House, 1538; Great Dressingham, about 1542; Great Snoring Manor, Hethwold, Norfolk. All those presented fine examples of terra-cotta work in plaques and mouldings, and were finished between about 1520 and 1545.

Speaking of prices, the lecturer said in the building accounts of Stonor, 1416–7, bricks were paid for at the rate of four shillings a thousand. The higher grade brickmaker received sixpence a day, and labourers fourpence. The higher grade man paid fourteen pence a week for board and lodging, and the labourer ten pence. At Lincoln's Inn, 1568, bricks were paid for at three shillings per thousand, while at Grafton, Worcestershire, in the same year, a labourer received sixpence and a bricklayer elevenpence per day.

The lecture was profusely illustrated with lantern slides.

BIRMINGHAM ARCHÆOLOGICAL SOCIETY.

The second excursion of the season was made recently to Wootton Wawen. A halt was made at Lapworth Church, whose chief features were described by the Rector, the Rev. F. L. Bell. Attention was directed to work of various dates, indicating the gradual growth of the structure from a comparatively small Norman building. Special notice was taken of the small chapel at the west end, which, it was thought, must have been a relic chamber or chapel, and also of the tower on the north side of the church, which was originally isolated from the main building. The party then moved on to Anstey Manor, where they were hospitably entertained by Mr. W. J. Feldhouse.

Wootton Wawen Church, one of the most interesting mediæval buildings in Warwickshire, was described to the party by the Vicar, the Rev. L. A. Pollock. The greater part of the tower in the centre of the church is of Saxon construction; the north wall of the nave is of Norman workmanship, and many examples of the later styles can be seen—in fact, a complete history of Gothic architecture can be found in this one building.

ROYAL SANITARY INSTITUTE CONGRESS.

The thirty-fourth Congress of the Royal Sanitary Institute will be held at Hull from July 30 to August 4. The eleven sections and conferences arranged cover the whole range of official and personal health, and these several meetings will be presided over by well-known authorities:—Sir William Hamer of the London County Council; Dr. J. R. Kaye, Medical Officer of Health to the West Riding County Council; Dr. Eustace Hill, Medical Officer of Health Durham County Council; and Professor H. R. Kenwood, C.M.G., of the University of London.

An attendance of about 1,000 is expected, being largely officers and representatives of Government Departments, Municipal and Public Health Authorities, but including also many representatives of Foreign Governments, Dominions and Colonies of the Empire. The opening address of the President, the Right Hon. T. R. Ferens, P.C., J.P., and the lecture by Mr. B. Seebohm Rowntree, J.P., will both deal with the latest movements for promoting the welfare of workers in trades and occupations. Water supplies will be dealt with in the lecture by Sir Alexander Houston.

The important questions of housing and town-planning, and dealing with slums under present conditions, will be given due consideration, and there is a conference specially of Port Sanitary Authorities. Disease will receive attention from its causation and preventive point of view, and recent investigations with regard to cancer, tuberculosis and diphtheria will be discussed, as well as heliotherapy and the advantages of sunlight and open air.

As a practical demonstration of many of the subjects a Health Exhibition is held in connection with the meeting.

THE ARCHITECTS' AND SURVEYORS' ASSISTANTS' PROFESSIONAL UNION.

Members of the Architects' and Surveyors' Assistants' Professional Union visited the works of Messrs. John Knowles & Co., at Mount Pleasant, near Ashby-de-la-Zouch, on July 12. The party were interested in the manufacture by this firm of the stoneware drain pipe, witnessing the intricate processes through which it passes from quarrying the raw clay until it emerges complete from the kiln. A remarkable experience for the visitors was the descent of the pit shaft where the fireclay used in the manufacture of refractory wares is obtained. The light of an acetylene lamp showed the difficulties contended with in obtaining this class of clay. Roads led in all directions. Here and there outcrops of coal, clay of an inferior nature, and shale could be seen, all having to be worked before the good fireclay was reached. Continuous pumping has to be maintained to keep the pit anywhere near dry, but here economy was in evidence; the water pumped was not wasted, but passed through a softening plant and re-used for divers purposes. Later the quarries and other parts of the works were visited.

Civil Service Rifles Memorial.

A column will shortly be erected in the square at Somerset House to the memory of members of the Civil Service Rifles who lost their lives while serving with the regiment during the war, 1914–1918.

THE BI-CENTENARY OF SIR JOSHUA REYNOLDS.

Among the most precious personal relics of the great President are the two sketch books in the Sir John Soane Museum. Here we are in touch with him as the eager student whom chance and a good friend in the Navy has landed on the classic shores of Italy. In these pages are to be found pencilled memoranda of the masterpieces that attracted him and were destined afterwards to be reflected in his own work. The old masters, in fact, are the fixed pole round which Reynolds' work, for all its variety, always revolved. He had the settled conviction of a conjunction of "Nature" and "A Standard of taste" as a permanent criterion, subject always to that "breaking through," which is the salvation of the artist in practice, however dominant his theory may appear to be.

This high conception was the subject of his Discourse in December, 1776, when he handed to John Soane, a promising pupil in the Royal Academy Schools, the Gold Medal for the design of a triumphal bridge. With this high distinction he gave such words of praise, hope, and encouragement to the young student as seemed to his fellows to be even more worth having than the medal itself. Sir John Soane acquired one or two books on architecture containing Reynolds' autograph, and the famous picture of Kitty Fisher, "friend of Brooks," known as "The Snake in the Grass," or, alternatively, as "Love Unloosing the Zone of Beauty." It is impossible to say why Soane chose that particular work to represent Reynolds in his museum of contemporary art. Although Soane's life was almost equally divided between the 18th and 19th centuries, his attitude and outlook remained with the former period. He gathered up, in fact, the recollections of the great age, into which he was born and had passed his early life, and has handed down to us priceless relics, that a new "after-the-war age" had already condemned to neglect.

An unfortunate, but easily understood, gap in Soane's Note Books, following on his marriage in 1784, makes it impossible to say whether he ever had any relations with Reynolds, after his own return from Italy in June, 1780. Reynolds' death in 1792, the same year as that of Robert Adam, was too early for him to have seen any notable work of the young architect to whose future he had wished such success. If we could imagine his life prolonged to 1805 he would most assuredly have been satisfied with the fulfilment displayed in the north-western corner of the Bank. An artist so insistent on composition, that he could enlarge upon Robert Adam's prior tribute to the ill-treated Sir John Vanbrugh, would have hailed with satisfaction a masterpiece after his own heart. It is as certain as anything can be that the last half of the eighteenth century in England has in its art a definite character, as clear and distinct as that of any other great epoch in art. There is a certain common thread which runs through and unifies the work of Reynolds and Gainsborough, Adam and Chambers, Bacon and Flaxman, however much they had differed in their lifetime. This unity in divergence is only to be realised by the lapse of time. It is in fact the most realisable form of that universality to which Sir Joshua Reynolds desired to appeal.

It may not be absolute truth that the works of the ancients are superior by reason of time to those of the moderns, but it is clear that a galaxy of artists of such a half century does establish a standard, by which we are inevitably judged.

An examination is being conducted by the Yorkshire Archæological Society of the Roman Coast Watch Fort at Carr Lane. This is one of a chain of old forts along the coast.

ROMAN SITE OF CIMIEZ, NICE.

A few minutes from Nice is the remarkable Arènes, or Arena, of the ancient Roman site of Cemenelum, or Cimiez as it is now called, the ruins of which overlook the whole of Nice. Not much appears to be known very accurately about these remarkable vestiges of the past. Monsieur F. Brun, author of a "Description des Bains de Cemenelum," printed in 1877, and of a "Promenade . . . dans Nice," 1894, gives a short notice of them. But they are worthy of an exhaustive and scientific investigation. The town, called also by some writers Camenelion, had at one time no fewer than twenty-three thousand inhabitants, and is reputed to have begun its existence about A.D. 130. In the garden of the Villa Garin are the remains of a so-called Temple of Apollo, now doing duty for a summer-house. The Temple of Diana was converted into a religious house for Capuchins in 1543. It contains a very old group of St. Francis and the four-winged Seraph who appeared to him in a vision. The church is ornamented with five turrets or pinnacles, and possesses many fine and valuable old paintings, including a *Pietá*, by Lodovico Brea the elder, in 1478. Other large pictures are by Francesco Brea, known as the Nizzard, *i.e.*, of Nice.

The chief glory of Cimiez is its Arena, through the diameter of which runs a wide road on the right hand from the high road to Nice. This most interesting building is capable of holding eight thousand spectators. The dimensions are stated to be fifty-five mètres long by thirty-four wide; the amphitheatre sixty-five by fifty-four. Brun gives the width of the *podium* at three and a half mètres, and of the *balteus* 1.80 mètres. This writer attributed its date to the third or early fourth century. Much of the masonry, which consists of cubical stones, fairly, but not finely, squared and faced, is crumbling away, and a good deal of it has fallen from its places for want of attention; the whole structure, may we call it the *spectatorium*, is bounded by a high and very massive wall exhibiting a consecutive circular arcade of small arches built in the prevailing fashion of provincial Roman work without voussoirs, or abaci.

Another view of the entrance shows the road which bisects the arena, the lofty arch at the side of the half-destroyed main entrance arch, and the character of the masonry which comprises the facing of the walls.

A further view, taken from the interior of the circus, shows the arched entrance or exit opposite the imperfect arch; the raised circle on which the front row of spectators were stationed; and the arcading of the upper row of the less-distinguished personages, with occasional passages leading from both the upper and lower tiers to accommodate ingress and egress, and to facilitate the entry of the gladiators, actors, captives, wild beasts, and other details provided for the delectation of the conquerors' demand for *panem et circenses*. The standing figure facing the centre, on the right-hand side of the arch, enables one to judge the dimensions of the whole building. This fine relic, although not presenting so great an ensemble as that at Fréjus, representative as it is of one phase of ancient Roman manners and customs, deserves the most conservative and careful treatment throughout, if its gradual decay from weather and wantonness is to be arrested. That it has withstood the vicissitudes of nearly two thousand years speaks well for the solidarity of its work and the care of its constructors.

If the Society for studying antiquarian remains in the South of France, which has been recently suggested in this journal, should materialise, as we hope, this is one of the many sites which rightly come within its scope.



Cimiez, Nice: Entrance to the Arena.

HALF AN HOUR IN YORK.

By KENNETH GLOVER.

A man finds in York what he finds in many other cities in England—that strange, disturbing mingling and contrast of the ancient and modern. York is particularly full of these contrasts. One gets the first astonishment in the fine railway station, a quarter of a mile long, and standing no Gothic nonsense. And this avoidance of Gothic forms is in itself astonishing in England, where usually the presence of a cathedral was sufficient during the nineteenth century to impose Gothic forms on the stations and other buildings. But here at York we have a fine curved platform with sturdy Corinthian columns supporting the wide spans of the roof. The dim perspective broken by the dark forms of footbridges and lit up by white steam or grey smoke is unquestionably impressive. And if, as occasionally happens, some railwaymen begin singing a few lines of a chant-like part song, the poetical traveller will agree that the Minster is not alone York's attraction.

One crosses a bridge flanked by old towers and buildings which are a delicious patchwork of brick, stone and tile. One of them has stone walls, but the joints are patched up with brick, with delightful consequences. Look up and here is the cathedral, not so impressive, perhaps, as Durham, but a great pile, a testimony of the loving labour of man and of his conception. You go in, I think, by the transept door and at once the impression is of vast spaces and remarkably fine scale. The thunder of the organ fills the great voids; and an amber glow, a quiet, cool light filters in through the wonderful old glass. Here is none of that grand massiveness of Durham, none of that weightiness, that sense of terrible permanency, that axe-cut cyclopean rotundity. Space and air and colour—that is York. One is dwarfed. Look away, and in remote distances one sees other pigmies admiring this wonder. High above the floor other mites are repairing the old glass. The old glass! What character those saints have, and what splendour of crushed jewels are these marvellous old colours. But what has time not done for them? That gold of imprisoned sunlight, that blue of Mediterranean seas, that green of the cool desert oasis—what alchemy produced these tints? Some strange, bad-tempered monk sat with strained vision and watched dark and prolonged processes producing these tints of Heaven.

And one saint in the nave you will never forget if you see him. He looks from his window with something of contempt, but his features bear the mark of suffering of a thorny pathway to peace. He is like that man of Durer's who glares from the canvas. Looking at this York face you turn away with a shiver; the thing is alive in some obscure fashion. One last look round, and so into the quaint streets again.

Internal Staircases.

"Architect," writing to *The Times*, says: "It should not be forgotten that smoke more than fire is the enemy of human life in buildings in which persons sleep, and for that reason the internal staircases should be enclosed on all floors by solid partitions and doors provided at suitable points to prevent smoke spreading. Where a second internal staircase is not practicable, and an outside staircase is for some reason out of the question (if a building is very much hemmed in), it may be practicable to subdivide the main staircase, so as to prevent its forming a flue from the bottom to the top of the building, but this is a matter on which expert advice is essential."



Roman Site of Cimiez, Nice: The Arched Entrance.



Roman Site of Cimiez, Nice: Interior of the Arena.

EXHIBITION NOTES.

THE LONDON SCHOOLS EXHIBITION.

(From a Correspondent.)

The exhibition of the work of the London schools which closed on Friday, July 20, after running a fortnight, was visited by nearly 40,000 people. Its purpose was three-fold—to enable the overseas delegates to the Imperial Education Conference to see the complete range of activity of the largest local education authority in the Empire; to let ratepayers in London know what they are getting in return for their generous support of education; and, lastly, to make known to parents the educational facilities available for their children. The London County Council wisely decided that the exhibition should also be a "school." Accordingly, 5,000 school children and older students and 400 teachers gave demonstrations at the exhibition of modern methods of learning and of teaching. The students demonstrating were often men and women of mature years; sometimes they were accompanied by their own children. It says much for the *esprit de corps* of the London schools that students who are themselves parents should be willing, by their example, to try to infuse enthusiasm in the younger generation for technical and general educational achievements.

The exhibits emphasised the practical instruction which has become so predominant a feature in education nowadays. Wood-working benches were fitted up and classes of boys from elementary and central schools were schooled at the exhibition daily in the presence of visitors. 76,000 boys are receiving manual instruction in the London schools. A section of the exhibition was devoted to the methods of teaching design in the elementary stages of woodwork, and, although the training is designed to be educational and not vocational, the standard of craftsmanship surprised the visitors. In the metalwork section the exhibits ranged from a centre punch up to a small horizontal steam engine. The boys at work (aged 13–14) gave demonstrations of cutting and fitting dovetails, mortices and tenons. A former foreman and manager remarked that much of the manual training work of the boys showed promise of exceptional craftsmanship.

The Junior and Senior Technical and Trade Schools in London specialising in the building trades were represented by many fine exhibits in plaster work, masonry, carpentry and joinery, plumbing, interior decoration, architectural design and building construction. Outstanding displays were those of furniture, and designs for interior decoration and furnishing from the Shoreditch Technical Institute; of woodcarving, mainly from the School of Woodcarving at South Kensington; and of architectural design from Regent-street Polytechnic. The School of Building at Brixton was represented by a series of exhibits which worthily upheld its reputation as the most important building school in the world. It is a significant fact that many boys who have had a good secondary school training are joining the technical schools for vocational training in the building trades. The exhibition should do much to impress parents with the dignity and delights of craftsmanship. Architecture, like poetry, expresses man's noblest efforts. The London schools, by training our young folk to appreciate the beautiful, are helping to build up the prosperity of those who can give it adequate expression.

The great revival in musical interest in this country is due very largely to the fact that the schools for the last decade have been trying to turn out good "listeners." Instruction in musical appreciation has done much for the musical professions and trades. The schools of London might now follow up the idea with classes in architectural appreciation. In this way the man in the street would gradually come to demand more insistently that our towns and our homes should provide noble expressions of the skill of the architect and the builder. Those who can provide this skill would then be relieved of the economic anxiety which so often prevents national progress.

NORWICH ARCHITECTURAL EXHIBITION.

The Norfolk and Norwich Association of Architects organised an exhibition of architecture, which was opened last week in the new gallery of Norwich Castle Museum, the opening ceremony being performed by the Sheriff of Norwich (Mr. Wm. Hubbard).

Mr. G. J. Skipper, presided at the opening proceedings, and among those present were the Sheriff of Norwich and Mrs. Hubbard, Mr. H. N. Holmes (ex-Lord Mayor), Sir Eustace Gurney, Mr. A. Cozens-Hardy, Mr. Basil Cozens-Hardy, Mr. W. R. Rudd, Dr. Chalmers, Mr. T. Glover, Mr. Hugh Ramage, Mr. Hobbis, and many well-known Norwich architects. The Chairman remarked that that exhibition was not to be taken as the final proof of their abilities as architects to produce anything that might be interesting. They had still an opportunity of pulling down Norwich and rebuilding it. Meanwhile architects were interested in town planning and he sometimes wondered why such a lot of money was being spent on roads around Norwich. It seemed as if the roads were intended for the purpose of taking people outside Norwich instead of bringing them in. The whole idea of the activity of the city's life and prosperity lay in the fact that people came into the city. Some of the great town-planning experts said that the traffic must be taken round the cities and not brought into them. That was done in the old railroad days. The stations were as a result kept from the towns, as at Ipswich and Colchester. Isolation of that kind meant stagnation. Architects were interested in town-planning as much as many people.

In declaring the exhibition open the Sheriff spoke appreciatively of its scope and character. Photography, he pointed out, was discovered in 1830 by an accident, after Englishmen such as Davy and Sir John Herschel, had helped it forward. But architecture itself dated back to the Tower of Babel and the Pyramids, so that by calling in photography to the aid of architecture they had youth supporting the ancient. If only they could have had brought before them the wonders of Solomon's Temple, Babylon, ancient Greece, and Rome, how much richer they would have been. They could, however, by means of photography, secure in all their grandeur the glorious cathedrals of their beloved land, the castles, and the stately mansions and halls, so that their successors should see the masterpieces of architectural design and structure. The citizens of Norwich would no doubt avail themselves of such a unique opportunity to see so fine a collection of present-day architecture.

Dr. H. C. Pattin, in moving a vote of thanks to the Sheriff, commented on the interesting examples of architecture, particularly domestic architecture, and expressed his pleasure that they had been shown some of the interiors, and warmly congratulated the architectural profession on so admirable a display.

THE LEICESTER GALLERIES.

There are two or three pleasant things amongst the modern French drawings at the Leicester Galleries, but for all this skill most of the subjects are anything but pleasant. A good antidote is to be found in some excellent paintings in the next gallery, where qualities of tone, colour and composition are to be found in almost every picture. The unusual, but charming colour and design in Campbell Taylor's "Motherhood," the brilliant and characteristic Lamorna Birch's "The White House," Charles Sims' "Repose," and Dacres Adam's admirable "Lincoln's Inn Gateway," are works which do modern art some real credit.

WALKER'S GALLERIES.

The subjects of exhibitions at Walker's Galleries are attractive ones, and both the exhibitions are of some exceptional interest. The early English water-colours include a great many interesting things by Turner, Cox, the two Cotmans, P. de Wint, Henry Holland, Leitch, Malton, Varley, Joseph Farington—altogether near a hundred-and-fifty pictures. The beautiful drawing of Loch Lomond by Joseph Farington, two brilliant sketches by Henry Holland, the eight drawings by J. M. W. Turner, ten small pictures by P. de Wint, and many other delightful pieces, make up an exceptionally good exhibition. Many of these drawings may appear to the loose thinking of our day laboured and tight in handling, but great qualities are to be found amongst them; it is a real pleasure to see such a collection. The pictures of British and American gardens show the artist, Mary Helen Carlisle, to be a capable painter with true appreciation of colour values and expert sense of picture composition. The glory of Californian gardens and wild flowers is finely suggested, and in some of the pictures the colour value and decorative sense are quite admirable as in Nos. 32, 39, 40, and 21. A charming pastel is "The Birthplace of Burns," full of nicely-modulated tone and colour. "The River Nore," "Twilight at Drummond Castle," "Evening at the late Col. Wauchope's," and "The Anchusa Border, Sutton," are outstanding examples of the artist's power; she knows where the essential values lie and how to emphasise them in a broad and telling way; and though brilliant and strong colour is set forth, there is no theatrical exaggeration or over-statement. This is one of the best exhibitions of garden effects by a woman we have ever seen.

RAMSEY ABBEY CENSER AND INCENSE BOAT.

The Ramsey Abbey Censer and Incense Boat have just been acquired for the Victoria and Albert Museum. These superb objects in silver gilt, which appear to have formed part of the treasure of Ramsey Abbey, in Huntingdonshire, represent the high-water mark of English goldsmith's work of the fourteenth century. The nation is indebted to the generosity of an enthusiastic connoisseur of mediæval art, Mr. C. W. Dyson Perrins, of Malvern and Ardross. Mr. Perrins has provided by far the greater part of the purchase money. These incomparable pieces of English mediæval craftsmanship are rescued at a moment when there was reason to fear they would be permanently lost to this country. The objects are now on exhibition among the great collection of ecclesiastical goldsmiths' work in the South Court of the Museum. The censer and incense boat were found, together with a group of articles in pewter and pottery, in the course of draining Whittlesea Mere in 1850. From the occurrence of rams' heads issuing from the sea, on the incense boat, and a ram's head on the pewter dishes, it is concluded that they belonged to Ramsey Abbey, which bore the same canting device in its arms. The censer is a work of great magnificence, richly gilt, standing 10½ ins. in height. It consists of a circular bowl, the foot pierced with a border of quatrefoils, within which stands a six-sided tower of open tracery with conical roof surmounted by a finial of foliage. The tower has three windows of decorated Gothic tracery alternating with three of plain lancets, recalling the design of the octagon of Ely Cathedral; and the whole is enriched with buttresses, crockets, and pierced and embattled crestings. The incense boat is simpler in character. It is long and narrow, with six-pointed foot, and one-half of the top is hinged as a lid, opening with a pyramidal knob. The surface is plain, set off by delicately enriched mouldings and an embattled edge. At either extremity the ram's head rebus of Ramsey forms a finial, and each half of the top is engraved with a rose; the whole is plain silver, except for the enrichments, which are gilded; its length is 11¼ in. The date of both pieces must be about the middle or possibly the second half of the fourteenth century.

The death occurred at his residence, in Kensington-terrace, Sunderland, of Mr. John Edward Nelson, a well-known slate merchant, aged 75. He had been in business on Wearside for half-a-century.

LEGAL SECTION.

NOTES ON CURRENT CASES.

Breach of Covenant: Forfeiture.

Under the Rent Act much has been heard of tenants sub-letting parts of the premises without the landlord's consent, and, indeed, Rent Restriction has turned the law relating to landlord and tenant upside down, for the landlord, far from being the master of his own house, is saddled with tenants who drag him before the Courts on the slightest pretext.

In case tenants who are not under the protection of the Rent Act should think the law a dead letter, we may refer to a recent decision, Elliott *v.* Boynton (1923 1 Ch. 422), which turned on forfeiture on account of breach of covenant not to sublet without the landlord's consent. In January, 1918, the plaintiff had demised to the defendant Boynton and another certain premises in the Goswell-road for a term of 14 years at a yearly rent of £280 and a sum in respect of insurance premiums, and the lease contained a joint and several covenant by the lessees not to "sublet or part with the possession of the premises or any part thereof without the consent in writing of the landlord first had and obtained, but such consent was not unreasonably to be withheld in the case of a respectable and responsible person." The lease also contained a proviso for re-entry if there was any breach of or non-observance of any of the lessee's covenants, in which case it should be lawful for the lessor at any time thereafter to re-enter upon the said premises or any part thereof. On October 20, 1919, November 3, and December 15, 1919, the lessees sublet parts of the premises to different persons without asking for or obtaining consent. On December 30, 1919, the plaintiff at that time being unaware of these sub-lettings, gave his consent to an assignment of the lease to the defendant Boynton alone.

On May 15, 1920, Boynton sublet another part of the premises and on October 28, 1921, he sublet to another tenant the portion of the premises he had originally sublet on November 3, 1919, these sub-lettings being made without asking for or obtaining the landlord's consent.

In March, 1922, the plaintiff for the first time became aware of these breaches of covenant and after a short correspondence he issued the writ in this action against Boynton and his sub-tenants, claiming possession of the premises and mesne profits, and an order was made for possession with mesne profits to be assessed. The Master made the assessment of mesne profits the sum of £841, basing them from the date of the first breach of covenant on October, 1919. The present summons was taken out by the defendant Boynton for a review of the Master's certificate, claiming that the mesne profits should be assessed as from the issue of the writ. The Court held that the mesne profits must be assessed from the date of the writ and not from the date of breach, for the lease is only determined from the time the landlord by some unequivocal act shows his intention to take advantage of the breach.

This seems only reasonable besides being the effect of decided cases, for the receipt of rent would operate as waiver of the breach, but the Court pointed out that the receipt of rent after the landlord had unequivocally shown his determination to put an end to the lease would not operate as a waiver, and the matter, as regards the amount to be arrived at in connection with rent, was referred to the Master unless the parties agreed, the order of the Court being that on the basis that the defendant admitted liability to pay rent down to the date of the writ then mesne profits were payable only from that date.

Covenants Not to Assign, Underlet, &c.

We may also very briefly refer to the case Jackson *v.* Simons (1923, 1 Ch. 373) which also turns on breaches of covenant. In this case the predecessors in title of the plaintiff had demised to the defendant a ground floor shop, and the lease contained a covenant that the defendant should not assign or underlet or part with the demised premises or any part thereof, or part with or share the possession or occupation thereof, or any part thereof, without the consent in writing of the landlord previously obtained, such consent, however, not to be withheld from a respectable and responsible tenant, and there was the usual proviso for re-entry in the event of a breach or non-performance of the covenants. The defendant had for payment arranged with a third party that part of the shop might be used for the sale of tickets in connection with a night club, during certain hours, and a removable partition was used during those hours, but it is unnecessary to detail the facts, as for the purposes of this note it is sufficient to say that the Court held what was done did not constitute an underletting as it conferred no interest or estate, but it amounted merely to a licence to use part of the premises, the defendant retaining the legal possession the whole time, and a person who retains such possession does not commit a breach of covenant against parting with possession by simply allowing other persons to use part of the premises.

The covenant in this case, however, went further than that, as it prohibited sharing the possession of part of the premises, and what was done did constitute a breach of this part of the covenant, but in this action for possession it was argued in defence that as the plaintiff had not complied with Section 14 of The Conveyancing Act, 1881, the action was not maintainable. The defence involves a technical point, but one which should be borne in mind. Section 14 of the Conveyancing Act provides that a right of re-entry or forfeiture under any proviso or stipulation in a lease for a breach of any covenant or condition in the lease shall not be enforceable by action or otherwise unless and until the lessor serves on the lessee a notice specifying the breach complained of, and if the breach is capable of remedy, requiring the lessee to remedy the breach, and in any case requiring the lessee to make compensation in money and the lessee fails to do either; but by subsection (6) certain exceptions are introduced, as the subsection provides that the section should not apply to a covenant or condition against "assigning, underletting, parting with the possession or disposing of the land leased" and the Court held that a covenant not to share the possession was not within the exceptions contained in subsection (6), and therefore as the plaintiff had not given notice of the breach and complied with section 14, the action for possession at the present time was not enforce able and the action must be dismissed.

Specific Performance.

In our Legal Section last month we referred to a case where specific performance was granted although the engrossment had not been signed, as the engrossment, coupled with a letter, was held a sufficient memorandum to satisfy the Statute of Frauds, but we may now refer to a case, Allsopp *v.* Orchard (1923, 1 Ch. 323) where letters were held not to express the contract which was being sought to be enforced. The plaintiff was rector of a parish, and as his stipend as rector was inadequate to maintain the house, he desired, if he could obtain the necessary consents, to sell the rectory house and premises standing on some 2½ acres of land and some 88 acres of glebe, retaining 3 acres on which to erect a smaller rectory. He communicated his intention to the defendant, explaining that he could not obtain the consent of the Bishop unless he already had an offer. He further informed the defendant that a bath and some fixtures would have to be taken over, and when asked as to the boundaries of the portion of the premises he desired to reserve, he said that could be arranged later. The defendant made an offer of £3,000, but subsequently, on being informed that the Bishop did not consider this adequate, he increased it to £4,000. These offers were made before a valuation had been made, but the property was subsequently inspected and valued by Messrs. Clutton, who reported to the plaintiff's solicitors, Messrs. Cowlard, Grylls & Cowlard, and they wrote to the defendant the first of three letters relied upon by the plaintiff in this action. This letter was dated March 10, 1921, and was as follows: "We are acting for the rector, who proposes to sell the rectory and glebe subject to the necessary consents to be obtained. The property has been valued by Messrs. Clutton, and as we understand that you would like to have the opportunity of purchasing privately, we suggest that you should make us an offer in writing, or come and see us within the next few days."

The defendant had an interview with Messrs. Cowlard the day after he received the abovg letter, and on March 14 wrote the followine letter to Messrs. Cowlard: "With regard to Jacobstow Rectory and glebe, I am prepared to give £4,500 for the property. As regards to (*sic*) fixtures, &c., no doubt we shall be able to arrange that later. I trust you will be able to manage transfer on my behalf, and oblige." The third letter was from Messrs. Cowlard, March 15, 1921: "I am obliged for your letter of 14th inst. offering £4,500 for the property, which I am authorised to accept on behalf of the rector subject to the necessary consents being obtained, and I will at once apply for these."

At the trial certain oral evidence was given and certain documents were referred to, but it is unnecessary to consider this evidence as the Court based its judgment without resort to this evidence, but on the letters and the valuation alone.

It must be remembered that the contract it was endeavoured to enforce was the purchase of the rectory and the glebe, not the property the subject of the original negotiation: that property less the 3 acres reserved. The Court found that the only subject of negotiation had been the property with this reservation, and that the first letter did not disclose the fact that an offer was invited for something different, *i.e.*, the whole property. The Court came to this conclusion on two grounds. First, in the letter of March 10, Messrs. Cowlard said, "The property has been valued by Messrs. Clutton," which clearly meant the property the subject of negotiations, and if there was any doubt about this the valuation made it clear, for the valuation was not of the rectory and glebe, but the rectory house and the glebe less three acres, and the valuation also proceeded on the footing that the rector should retain the use and occupation of the rectory house and premises for two years from the date of sale, and should have the right to lay on water for the new rectory from a pipe supplying the old house. The second point was that by his letter the defendant so understood the offer, for otherwise the mention of fixtures, &c., would be irrelevant.

Therefore the action failed as the Court held that the contract sued upon for the whole property was never intended by the parties.

This disposed of the matter, but we may mention one other matter raised at the trial. It was offered by the plaintiff to abandon all reservations and to treat the offer of £4,500 as including the whole property, and it was contended that in the face of this offer made by the vendor to his sole disadvantage the defendant could not resist an order for specific performance, but the Court held that when a defendant had established the defence that he never contracted as alleged and that there never existed a contract in the terms sued upon, it is not competent for the vendor or the Court to hold him to some contract not the subject of the action.

Patent Law.

We may refer to a point in patent law recently decided by the Court of Appeal in the case Ellis and Sons *v.* Pogson (*Weekly Notes*, June 9).

Section 36 of the Patents and Designs Act, 1907, as amended by section 20 of the Patents and Designs Act, 1919, provides that "Where any person claiming to have an interest in a patent, by circulars, advertisements or otherwise threatens any other person with any legal proceedings or liability in respect of any alleged infringement of the patent, any person aggrieved thereby may bring an action against him and may obtain an injunction against the continuance of such threats and may recover such damages (if any) as he has sustained thereby if the alleged infringement to which the threats related was not in fact an infringement of the patent. Provided that this section shall not apply if an action for infringement of the patent is commenced and prosecuted with due diligence."

The Court below held, and this has been confirmed by the Court of Appeal, that the section presupposes the existence of a patent in respect of the infringement of which legal proceedings were threatened, so that a threat by a person who has applied for a patent and whose complete specification had been accepted, but to whom a patent had not been granted and was ultimately refused, was not a threat within the meaning of the section in respect of which a remedy was provided. Apparently this finding is based upon the fact that a person cannot have an "interest in a patent" until a patent is in being. But at present the case is only reported as a headnote.

The Rent Act : Subtenants

We may note a recent case, Ward *v.* Larkins (*Weekly Notes*, June 16, 1923), on the position of subtenants under the Rent Act. Four houses in Stratford, by a lease dated March 24, 1881, had been demised to one, Carpenter, for a term of 80 years less one day from December 25, 1877, at the yearly rents of £4 4s. for each house. The lease contained covenants for the repair of the houses by Carpenter, and a proviso for re-entry in case of breach of covenant. The grantor of this lease had subsequently assigned all his interest in the reversion to the plaintiff in this action, and Carpenter had assigned all the leasehold interest to one Monckton, who was a defendant in this action. Monckton had subdemised the premises by way of mortgage, and the other defendant (Larkins) was assignee of the mortgage. Before the present proceedings were commenced the premises had been sublet on weekly tenancies, and were in the occupation of eight subtenants. The premises comprised in the lease and the parts of the same were dwelling-houses within the Rent Act.

The plaintiff had brought this action against Monckton for possession, mesne profits and damages, and against Larkin and the subtenants for possession. Monckton did not defend, and Larkin, although he put in a defence, at the trial admitted breach of covenant and did not ask for relief from forfeiture; thus there was no defence except on the part of the subtenants, and they claimed the protection of the Rent Act. The plaintiff relied upon Chapman *v.* Hughes (see *The Builder*, May 4, 1923), whilst the defendant cited Cottell *v.* Baker (*The Builder*, March 26, 1920).

The Court distinguished Chapman *v.* Hughes, as there the subtenancy had not only been created by an act in breach of covenant, but the subtenant had been privy to that breach, whilst in this case there was no breach of covenant at all in subletting; and the Court held, having regard to section 5, subsection (5), of the Act, and section 15, subsection (3), an order for possession as against the subtenants would not be justified.

It will be remembered that section 5, subsection (5), provides that an order or judgment against a tenant for possession shall not affect the right of any subtenant to whom the premises or any part thereof have been lawfully sublet, before proceedings for recovery of possession or ejectment were commenced. to retain possession, whilst section 15, subsection (3) provides that where such an order for possession or ejectment is made the subtenant to whom the premises or any part thereof have been lawfully sublet shall subject to the provisions of the Act become the tenant of the landlord on the same terms as he would have held from the tenant had the tenancy continued. That is the effect of the judgment delivered in this case, as the subtenants would become the tenants of the plaintiff.

At the time Cottell *v.* Baker was decided the law was not the same as it is now, for the expression "lawfully sublet" which occurs in the above sections was introduced in the Act of 1920. In Cottell *v.* Baker, however, the Court held, on the authority of Wilson *v.* Rosenthal (1916, 22 T.L.R. 233) that a covenant not to underlet without consent did not apply to an underletting of part of the premises. Since the decision of the Court of Appeal in the case Terrell *v.* Chatterton (*The Builder*, July 28, 1922), now affirmed in the House of Lords (see *The Times*, June 20), it may be doubted whether the Court of Appeal would place such a narrow construction on such covenants as that adopted in Wilson *v.* Rosenthal, and followed in Cottell *v.* Baker, but a new paragraph has been inserted in the Rent Restriction Bill now before Parliament, apparently to meet the decision in Cottell *v.* Baker, which is to follow paragraph (*g*) in section 5, subsection (1). Section 5, subsection (1), lays down that orders for possession or ejectment are not to be made unless the circumstances are such as are detailed in the paragraphs which follow, and the suggested new paragraph is "unless the tenant without the consent of the landlord has at any time after July 31, 1923, assigned or sublet the whole of the dwelling house or sublet part of the dwelling house the remainder being already sublet." Since the words "lawfully sublet" have been added to sections 5 and 15 of the Act of 1920, why should not a subletting of any part of a house without the consent of the landlord, unless permission is conceded in the agreement, be made a ground for obtaining possession? As it stands the new paragraph appears to weaken the effect of the Act, and we venture to suggest that the words "the remainder being already sublet" should be omitted, thus giving the paragraph the effect we recommend.

The point is of importance, for when we come to Clause 6 of the Bill, which allows an increased rent in the case of subtenancies, the expression "lawfully sublet" is again found, and it is therefore essential that it should be clearly understood what is "lawful subletting."

HEAVY TRAFFIC AND VIBRATION.

We are glad to see that correspondents in *The Times* are again calling attention to the damage caused to buildings by the ever-increasing weight of motor or mechanical traffic on the roads. This is a question we have repeatedly drawn attention to in these columns for many years. In our issue, September 29, 1922, we noted a local inquiry was being held at Cowes as to the serious damage arising from this cause, and in our issue, February 11, 1921, we noted a case where a ceiling had fallen, and although no negligence was proved, the owner of the house—an eating house—had been held liable for injury to a customer. In the recent case, Hoare & Co., Ltd., *v.* McAlpine & Sons (*The Builder*, December 1, 1922), it was held that the private individual who introduces modern methods in preparing a site for building is liable to his neighbours if damage results from the vibration so set up, but that case depended upon the principle laid down in Rylands *v.* Fletcher (1868, L.R. 3, H.L. 330) that if a person brings material on his land or lets loose a force from his land which is dangerous in its nature, he is liable to the owners of neighbouring property That decision can hardly apply to the public roads, but it lays down a principle which, if the law as it stands does not apply to enforce, should be the subject of legislation. In Hoare's case, the learned Judge is reported as having said that it was an alarming proposition that the Court should have to consider when does an old building lose its right to protection? That is a question we have often raised, but which has not yet received an answer; but in Hoare's case the Court held that the house was in a reasonably sound condition, and there was no justification for its being shaken down in its declining years by "an adventurous and powerful neighbour." Surely the same reasoning must apply to properties near our highways. On the highways the same protection is extended to the maimed, the halt, and the blind, as to vigorous members of the public who use the highways, and it is but an extension of this principle that only such traffic shall be put upon the highways as is compatible with the safety of house property adjoining the highway, whether it be new or old so long as it is in a sound condition.

As it is, the owners of property are being rated to constitute the roads fit for traffic entirely unsuitable to roads and for maintaining them in that condition, and thus they are made to subscribe to the engine which works destruction to their own property. Legislation will have to be passed to remedy this serious state of affairs, and the sooner it is passed the better. Our roads form a strange contrast to our railways; the latter are hedged in with all kinds of legislative restrictions although the undertaking is conducted on private property; but the public roads which border private property are practically turned into tracks which could be termed "railways" were it not for the fact that the heavy traffic is not supported on rails and therefore the vibration is accentuated.

LAND FOR WATER UNDERTAKING.

Mr. Howard Martin, Official Arbitrator, sitting at the Municipal Offices, Southampton, heard a claim by Mr. Alfred Bowker, of "The Malms," Shawford, near Winchester, against the Southampton Corporation, regarding the Corporation's acquisition of 12¾ acres of land under their Water Act of 1921, for their water undertaking.

Mr. A. F. Wootten, K.C., and Mr. William Allen were counsel for claimant, while Mr. E. Charles, K.C. (instructed by Sir Richard Linthorne, Town Clerk), appeared for the Corporation.

On behalf of the claimant a valuation of £30,742 10s. was submitted, while the valuation detailed on behalf of the Corporation amounted to £1,805. Witnesses for the claimant attached considerable value to gravel in seven acres of land, but this value was disputed by witnesses for the Corporation.

The Official Arbitrator, who reserved his decision, has since issued his award, as follows:—"That the Acquiring Authority is to pay the claimant the sum of £3.375 as compensation, and erect and maintain a suitable fence where necessary to divide the land to be acquired from the claimant's adjoining land, and I Order the Acquiring Authority to pay the stamp duty and the claimant to contribute £78 15s. towards the costs of the Acquiring Authority."

One portion of the land is subject to a statutory right of way for pedestrian and vehicular traffic for the claimant, his heirs and assigns.

Talley Abbey.

According to the *Western Mail*, persons have been digging into the remains of the two piers in the north transept of Talley Abbey, the famous Carmarthenshire monastery, and it is suggested that the Advisory Board for the Preservation of Ancient Monuments should prevent the desecration of this historic relic.

THE AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE.

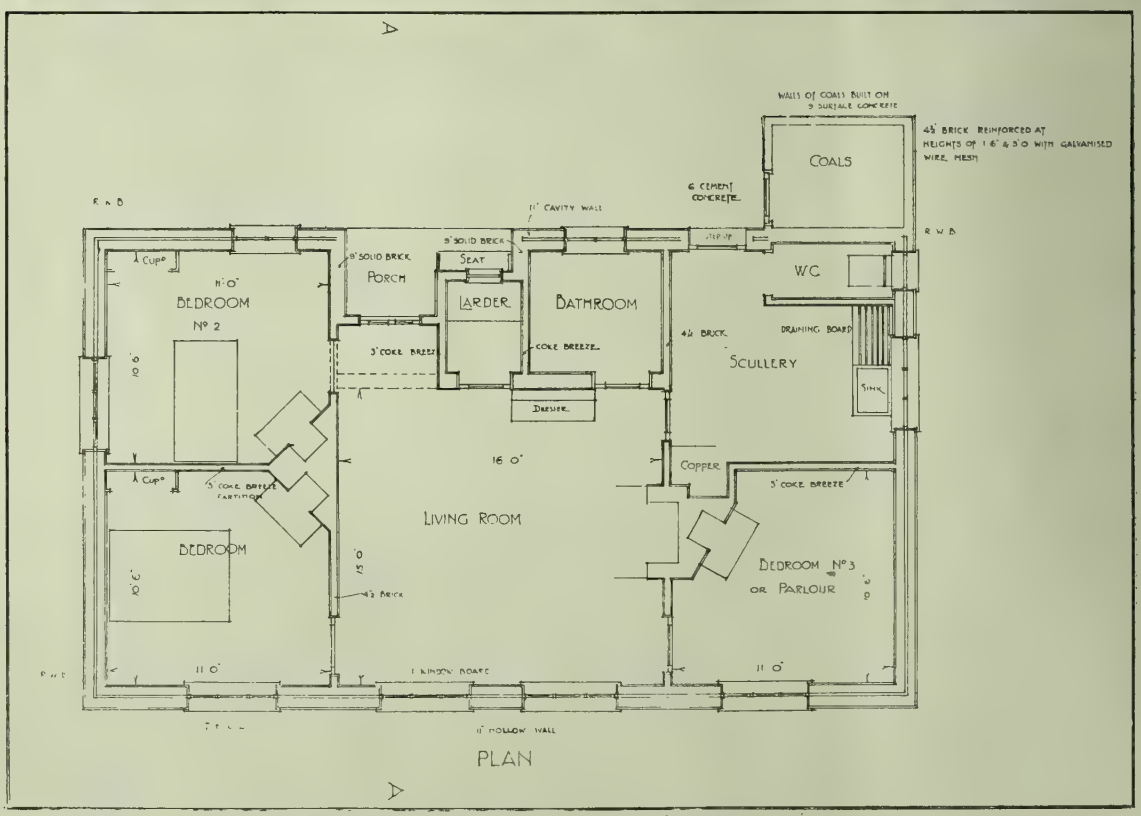
THE PRESIDENTIAL ADDRESS.

In the course of his Presidential address at the annual meeting of the Auctioneers' and Estate Agents' Institute, held at the Royal West of England Academy, Bristol, on July 26, Mr. George E. Kemp, J.P., said :—

The Registration Bill, promoted in co-operation with the Surveyors' Institution and the Land Agents' Society, had been launched, and little fault seemed to be found with the main principle underlying it. The responsibility of the duties specified in the Bill was great, and the public was entitled to protection against unknowingly employing an unqualified or irregular practitioner. That was, shortly, what they were aiming at; it was for the benefit of the public and for the good repute of their own honourable calling. There was no desire whatever to interfere with the legitimate work of other professions, or with those established practitioners or experienced assistants who were not members of the Societies promoting the Bill. They would be entitled to register, and, if they conducted their professional work in a clean and honourable way, they would, he believed, appreciate their proposals when they were placed upon the Statute Book and their full value began to be felt.

Although the Bill did not reach its second reading on the appointed day, and little further progress in Parliament was likely this session, the Joint Committee of the promoting Societies was not standing still. The nature and extent of the opposition had been largely disclosed. Much of it was due to misunderstanding, and it could, he believed, easily be overcome. Conferences were taking place with this object, and certain concessions had been made. The chief of those was the deletion of the sub-clause relating to connection with other business. They were satisfied that they could not successfully ask Parliament to take away part of a man's living if such a man now obtained his living partly by the work of their profession and partly by connection with other business.





Bungalow, Winforton. Mr. M. Waterhouse, Architect.

[The cottage illustrated adjoins a private laboratory and was recently erected at Winforton, Herefordshire, for Mr. T. R. Merton. The cottage is for the use of the laboratory assistant. By the use of Poilite pantiles in the laboratory and the cottage a roof of lighter construction over a large span was secured. The tiles in question look like ordinary pantiles from a distance and give a pleasant appearance.]

They had to be patient and persistent, confident that it was only a question of time before Registration became the law of the land and that by their efforts they would leave the profession better than they found it, to the benefit of those who came after them

The Rent Restriction Act, although amendments would be made, was evidently to remain for a further period. Considerable modification of the Government proposals had already been made during the passage of the Bill.

Housing.

In connection with the Housing Bill, one was glad to see that a more elastic system than that originally put forward was likely to be adopted, in regard to both the class of house and the Government grant. From personal experience in his own district, he found that many people who, by thrift, saved money during the war, were purchasing new freehold houses, which private enterprise was producing ready for occupation—houses of a better type than those they had hitherto resided in. He was referring more particularly to houses of the value of about £700 or £800. In the majority of cases this action was automatically leaving smaller houses available for the class of persons for whom it was proposed to provide the so-called non-parlour house. There was, therefore, no reason why the Government grant should not apply to the better houses referred to, just as much as to a somewhat inferior class of house. In going about the urban and rural districts, one could not but deplore the appearance of some of the houses hurriedly constructed under the subsidy system. In the urban districts they had too often been expensively and indifferently built, without any pretence to artistic treatment. In the rural districts they were too often what one might describe as "shanties," prejudicially affecting the beauty of the country-side.

Town Planning and Roads.

Though dormant for some time, town planning was now coming into prominence. The systematic planning of areas was a most estimable object. In localities where there was undeveloped land belonging to different owners, one would welcome a comprehensive scheme, although such a scheme might not be capable of satisfactory application to a self-contained estate where a considered development had been in existence many years. Adjoining owners could be benefited by a comprehensive scheme, though he would submit that any town-planning scheme should not be adopted arbitrarily, but rather after genuine collaboration between the authorities, owners and their agents. It was to be feared that, in projecting a scheme of this nature, owners could not obtain full pecuniary advantage in regard to their land. With a view to meeting this point, there should be a relaxation of the existing by-laws, so as partly to relieve owners in connection with the expense of road construction and similar items. The cost of such work at present prices was a most serious matter; apart from increasing the frontage price to private builders and others, it retarded owners from even incurring the liability during a period when the confidence of the investor had not been regained.

In many large towns the by-laws provide for the construction of roads having a width of 40 ft. or more, irrespective of whether they were to be main or lateral roads. This, he assumed, was for the purpose of providing adequate air space and of preventing overcrowding. When such roads had been constructed and the houses built, the local authorities, before incurring the responsibility, under the Public Health Act or the Private Street Works Act, of taking over such roads and maintaining them for all time, called upon the individual owners of the houses to pay their proportion of the cost of making up the roads. The investor, whether occupying owner or otherwise, therefore had a very direct interest in this matter. In the case of a main road, 24 ft. was the least width of macadam that should be provided. In the case of lateral roads, however, he thought such a width of macadam far more than necessary. It not only involved individual owners in an expenditure which could well be avoided, but it involved the municipality for all time in unreasonable cost of upkeep. So long as they had a hard-and-fast line in by-laws, anomaly prevailed. It was easy to propound destructive criticism; what alternative could one put forward? Respectfully, he would suggest that, to ensure adequate light and air and to prevent the overcrowding of an area, the front elevations of houses (excluding bay windows and porches) might be 50 or even 60 ft. apart, and that the width allowed for roads and open spaces for the public use should be 40 ft., thus leaving the remainder for forecourts. Main roads might have a 24 ft. width of macadam and 8 ft. footpaths; lateral roads, say, 14 to 16 ft. of macadam, grass strips and pavements, at the discretion of the authorities. Gas, electric light and water mains could then be placed outside the macadam and so prevent what they now so often saw—the disturbance of the roadway itself when these had to be dealt with.

Schedule "A" Assessments.

An increase in assessment in many cases must be anticipated and could be justified. It was not outside the range of probability, however, that these assessments for Schedule "A" would govern local assessments. While this might lead to a reduction in rates, and, in the long run, be a benefit to all, one must not lose sight of the possibilities. Some authorities might consider this only in the light of increased revenue, and might be induced to make increased expenditure, with a consequent diminution of the benefits that would otherwise accrue from increased assessments. The pressure of public opinion might, however, be strong enough to combat this. Many of the blue forms were already in their hands, and a good number were capable of easy adjustment with the Inspectors of Taxes without having to go before the Commissioners. One was rather at a loss, however, to understand the incongruities apparent when one had the opportunity of comparing several similar cases which come into one's hands. As a modest practitioner, he might be permitted to say that an assessment based upon the 40 per cent. increase allowed by the Rent Restriction Act must be open to objection if, of that 40 per cent., the 25 per cent. allowed by the Act (in addition to the one-sixth pre-war allowance) to cover the enhanced cost of repairs, was not eliminated in arriving at the net assessment.

THE WEEK IN PARLIAMENT.

WESTMINSTER, *Wednesday.*

Housing Bill.

THE Housing Bill has been read the third time in the House of Lords.

Insanitary Houses.

Replying to a query by Mr. T. Thomson as to the number of local authorities taking action under the Health and Housing Acts in respect of insanitary houses in 1921, Mr. N. Chamberlain gave the following figures: Local authorities who submitted reports, 1,665; local authorities who reported action under the Health and Housing Acts, 1,364; houses in respect of which closing orders were made, 2,291; houses in respect of which closing orders became operative following declaration of owners after action under Section 28, Housing Act, 1919, 623.

A New Scheme.

Mr. R. Richardson asked the Minister of Health whether he had received a suggestion that local authorities should be encouraged to purchase land for housing purposes; that each plot might be offered free or for a nominal rent to any person, other than a speculative builder, for the purpose of building a house thereon; that the plot should remain the property of the local authority and not be transferable; and that each person given the offer of a plot should undertake to build a house within a certain time limit or forfeit the use of the land; and whether any action had or could be taken to promote house building on such lines?

Mr. N. Chamberlain said he had received from time to time suggestions on the lines indicated. He saw no particular advantage in the suggestion of a reduction of ground rent, which was not, in fact, contemplated in the Housing Bill now before Parliament. A local authority could, however, purchase land and after development lease the plots to persons intending to build houses thereon, and, subject to such conditions as might be laid down, assistance might be given to the intending occupier in the shape of a lump sum contribution to the cost of the house. Further assistance by way of loan might be given under Clause 5 of the Bill.

Rents.

Mr. N. Chamberlain informed Mr. T. Thomson that the lowest and highest rents agreed to by the Ministry for A and B type of houses were:—

A TYPE.

Lowest rent	3s. 3d. a week.
Highest rent	18s. 6d. do.

B TYPE.

Lowest rent	4s. 3d. a week.
Highest rent	21s. 6d. do.

These rents were in all cases exclusive of rates.

Houses Approved.

Mr. N. Chamberlain informed Capt. W. Benn that the number of houses approved to date which would rank for assistance under the new Bill was 16,215.

Building Costs.

Mr. N. Chamberlain informed Capt. Benn that it was estimated that, if the costs of the material in a cottage in September, 1920, were taken as 100, the present costs would be put at 58.

The Rent Bill.

Mr. T. Thomson asked the Minister of Health whether, in view of the complicated form in which the amendments of the existing Rent and Mortgage Interest Restrictions Act had been made, he would publish, as soon as possible, for the guidance of the public, a simple statement of the chief alterations which would come into force next month.

Mr. N. Chamberlain said he proposed, when the Rent Bill had been passed, to reprint the Act of 1920 with the amendments made by the new Act.

Housing in Durham.

Mr. N. Chamberlain informed Mr. Herriotts that, under the State Assisted Housing Scheme of 1919, local authorities in the County of Durham completed the following numbers of houses: 1919, nil; 1920, 44; 1921, 1,591; 1922, 4,381; 1923 (up to July 1), 690; total, 6,706. In addition, a further 655 houses, which had been authorised, were either under construction or had not been commenced on July 1. The number of houses in respect of which applications had been received from local authorities in the county under the provisions of the new Bill was 1,447.

Westminster Hall.

Sir H. Brittain asked the First Commissioner of Works whether, following the recent successful renovation of Westminster Hall, he would consider the desirability of installing a more effective system of artificial lighting which would display the beauties of its unique and historic roof?

Sir J. Baird said he thought they must have further experience of the new lighting arrangements before considering any change, involving considerable expense.

THE BUILDING TRADE.

SOME COMMON DIFFICULTIES IN PAINTERS' WORK.

By CHARLES P. SHARP and L. F. J. TUBB.

Broadly speaking, the term "painting," as generally accepted for everyday use, may be said to be divisible into two classes—(*a*) the application of paints of oil media and varnishes; and (*b*) the application of paints of water or tempera media and distempers. In either case, the durability, *i.e.*, the protective quality, of the paint depends upon the chemical composition, the physical condition, the method of application, and the nature of the surface treated. Thus, if difficulties arise, they must be due to one or more of the causes classified below:—

1. Difficulties due to the surfaces to which paint is applied.
2. Difficulties due to the pigments composing the paint.
3. Difficulties due to incidental causes.

Difficulties arising from the surface to which the paint is to be applied most frequently occur, and will be discussed under the headings of (*a*) external surfaces, and (*b*) internal and miscellaneous surfaces.

In the category of painting on metals must be included iron (cast, wrought and galvanised), steel, copper and aluminium. There has been much controversy in trade journals and elsewhere as to what pigment offers the greatest protection from corrosion to ironwork; but red lead is still to be regarded as the best paint for this purpose. Owing to the "spongy" nature of iron, the best time to apply the primer is while the metal is still warm from the casting, the advantages being that, firstly, the metal has not been able to absorb any moisture; and, secondly, the pores or interstices, will, owing to the higher temperature, be larger, thus giving the paint a greater chance of sinking in. The metal on cooling contracts and holds the paint to the surface more efficiently. As a low drying paint will ultimately bring oxygen into contact with the iron through slow oxidation, a quick drying colour is to be recommended. For this reason, boiled linseed oil is preferable to raw, because in the process of boiling a certain amount of drying agents are added which accelerate the drying. Other efficient materials are graphite compositions, aluminium paint, and animal blacks, which have a good effect upon the iron because of their greasy nature; these are chiefly proprietary articles, sold under the title of anti-corrosive paints.

The painting of galvanised iron with oil paint generally yields unsatisfactory results when a short time has elapsed after its application. This is due to the paint peeling off through lack of adhesion. The remedy is to give the iron two coats of water paint, which, acting in the same way as claircolle, provides a key for the oil paint. Copper should be treated in the same way as galvanised iron.

Aluminium, like zinc and galvanised iron, is very greasy, and requires special preparation before painting. This may be done by washing with benzine, and then going over the surface with fine emery cloth or glass paper, to provide a key for the paint. Alternatively, a coat of Japan goldsize may be applied as a primer, followed by a coat of paint made up with varnish and turpentine, which may be varnished if required. Priming paint of white lead should not be used direct upon aluminium, as the two metals (lead and aluminium), form a combination which leads to the breaking-up of the paint in the form of a powder. White lead, 2 Pb. C.O. 3 Pb. (O.H.) 2, being a hydroxide, and as hydroxides react with aluminium, the 2 Pb. C.O. 3 Pb. (O.H.) 2 will react with the metal, forming, possibly, lead aluminate, hence the "powdering."

Cement should not be painted in summer months within two months of being rendered, or four months in winter; and even then it should be specially treated before applying oil paint. For this a solution of zinc sulphate (Zn. S.O. 4), of one part zinc to five parts water, should be applied after a spell of dry weather. The zinc sulphate reacting with the calcium compounds of the cement, forms calcium sulphate, which fills the pores of the cement.

Paint on stone does not act as a true preservative in the actual sense of the word. For enriched masonry, a coat of raw linseed oil, alone, will harden it and enable it to withstand the elements; for large stone surfaces, oily coats of red and white lead are satisfactory, and for exposed seaside surfaces a mixture of Zn.O.—zinc oxide—and white lead will stand the weather and prevent chalking. Under certain conditions zinc oxide has a tendency to crack, owing to its extreme hardness, and the admixture of pigments recommended is on the principle of correcting the defects of each material by the addition of the other. For brickwork an oily coat is to be recommended, or, if preferred, a coat of petrifying liquid—sodium silicate—to prevent undue absorption.

It is undesirable to paint on pithy or sappy wood; if this occurs only in small patches it may be treated the same as knots. But if in large areas two coats of water paint may be applied; this will absorb the moisture from the wood, and will provide a good ground for subsequent painting. When paint is applied over timber which has been previously creosoted, it turns yellow and does not dry, the creosote working through the paint preventing it from drying. The only cure or prevention seems to be the application of two generous coats of patent knotting or water paint on the timber, which will keep the creosote back and may be painted in the usual way.

It is inadvisable to apply paint to a damp wall as, even if the surface is dry, should the wall contain moisture, this moisture will not consent to be trapped, but will, when heated, expand or vaporise, causing blisters. If the moisture is on the surface as well as in the wall it will, in the process of painting, become mixed with the paint and again blisters are the sure outcome. Should the damp come from the exterior surface, the latter should be given a coat of waterproof solution, consisting of one of the following: (*a*) a hot mixture of linseed oil, resin, and tallow; (*b*) the application of a coat of strong soap jelly, followed by a coat of strong alum size; (*c*) two coats of petrifying liquid (sodium silicate); (*d*) two coats of water paint; the last, thinned with petrifying liquid, is probably the most efficient.

Having made the outside watertight, light fires inside and draw the moisture completely from the wall and apply a thin and penetrative coat of oil paint. If the damp rises from the ground it is due to the inefficiency or absence of a damp-proof course; the cure is obvious. Damp is sometimes caused through the lack of ventilation where cavity walls are used; a few air-bricks used judiciously should obviate this difficulty, and the present damp may be got rid of as before. Water paints and distempers are apt to peel off from patent plasters, unless a first coat of sharp oil colour is applied as soon as the plaster is hard enough to stand the brush, probably within a day of setting.

The cracking of painted surfaces is due to a large amount of difference in the expansion and contraction between the top coat of paint and the one beneath; as, for instance, flatting on hard, glossy varnish colour. If, however, it is necessary to apply flatting to a coat of varnish colour, it can be done with little fear of cracking if it is applied soon after the paint has set, but not after it is thoroughly dry. Actually, cracking can be almost entirely obviated by providing a good key, in this case obtained by covering an undercoat which is still tacky. Cracking can also happen between varnishes of different expansions.

Blistering is the consequence of trapped moisture either in the wood, plaster or stone or between subsequent coats of paint; no coat of paint can withstand the force of expanding moisture, so that when the surface becomes heated, room must be found for the steam that is formed; a coat of water paint will, if the moisture is not excessive, absorb it when the heat draws it towards the surface.

For such materials as paper, beaver board, uralite, and textiles, where unequal or excessive suction is liable to occur, a good preliminary coat is size, which will correct any tendencies in this direction. If oil paint is used upon textiles without such a preliminary coat, the textiles will absorb the oil, thus leaving little or no binder for the pigment, while the oil will create a form of slow combustion between itself and the material which will act upon the fibre and cause it to perish and fall to pieces.

A BUILDING TRADE STOPPAGE AVERTED.

The following are the terms of the agreement reached between the Liverpool, Birkenhead and Wirral Districts Building and Allied Trades Employers' Association and the National Federation of Building Trade Operatives, comprising joiners, machinists, painters, bricklayers, masons, slaters, plasterers, plumbers, and labourers, dated Friday, July 20, 1923:—

1. That the wages as and from the commencement of work on Monday, July 23, 1923, shall be as follows: (*a*) Bricklayers, masons, slaters and plasterers to remain the same as at present; (*b*) joiners, machinists, painters, and labourers, ½d. per hour reduction on the present rates; (*c*) plumbers, 1d. per hour reduction on the present rates.
2. In all other respects the existing rules to remain as at present.
3. This agreement to last until April 30, 1924, subject to six months' notice in accordance with the rules.

YORK DISPUTE SETTLED.

The dispute in the building trade at York has been settled, the men at a mass meeting held in the Co-operative Hall deciding to accept the employers' offer that York be graded A1 as and from November 1, 1923, with Grade A as and from January 1, 1924.—Mr. R. Smith, chairman of the York branch of the National Federation of Building Trade Operatives, presided, and there were also present Mr. C. Rickard, of the A.U.B.T.W.; Councillor J. Noon, Yorkshire Regional Secretary of the Federation; and Mr. J. Hutchinson, the Secretary of the York branch.—A vote was taken on the second of the employers' offers, which was accepted. The other offer of the employers was for joint application being made for York to become Grade A as and from January 1, 1924.

An appeal was made from the platform to the men to return to work immediately.

L.C.C. SCHOOL OF BUILDING, BRIXTON.

MEMORIAL TO THE FIRST PRINCIPAL.



On the 17th inst. a memorial to the first Principal of the School of Building, Mr. H. W. Richards, who died in November, 1921, was unveiled by the Rev. Canon R. D. Swallow, M.A., Chairman of the Higher Education Sub-Committee, supported by Mr. H. D. Searles-Wood, F.R.I.B.A., Chairman of the Advisory Committee; Mr. J. C. Smail, O.B.E., Assistant Education Officer, L.C.C.; Mr. Hugh Davies, of the Board of Education; Prof. A. Beresford Pite, M.A., F.R.I.B.A.; Mr. A. Sage, O.B.E., Principal of the School of Building; and Messrs. W. L. Bragg, W. Davis, G. Hicks, G. E. King, V. T. Sulston, and S. W. Wilson, members of the Advisory Committee. After conducting the usual morning service and prayers, Canon R. D. Swallow addressed some 300 of the staff and scholars, and dwelt upon the zeal of the late Principal in the cause of technical education, and the valuable part he had played, not only by his organising ability and enthusiasm in imparting knowledge of the art and science of building work, but also in helping to build the characters and careers of the students under his charge. He pointed out that the school, built up from such small beginnings by Mr. Richards, was a monument and memorial itself to the late Principal's energy and capability, and that a great testimony of the success he had achieved was to be found in the number of visitors interested in building work, who came not only from the provinces, but from all parts of the world, to see the activities of the school. The memorial, in which the bronze plaque is set, was designed by Professor A. Beresford Pite, M.A., F.R.I.B.A., and is the result of the combined work of the craftsmen of the school. It carries an added interest owing to the fact that every section of the varied branches of instruction in building and decorating is represented. The medallion was modelled by Mr. J. A. Stevenson, A.R.C.A.

BOOK REVIEWS.

Practical Joinery and Carpentry. By R. Greenhalgh, First Class Honours in Carpentry and Joinery and Practical Geometry; late Chief Lecturer in Building, Halifax Technical College. With 486 illustrations. (London: George Routledge & Sons, Ltd.; New York: E. P. Dutton & Co). Price 6s. net.

A special feature of Mr. R. Greenhalgh's book on joinery and carpentry is the inclusion of illustrations of wood-working machines drawn in simple outline. These have the merit of really conveying an idea of the function and possibilities of the machines in a way that is almost impossible when illustrations are prepared by the use of photographic blocks, since the camera seems to take a perverse delight in concentrating attention upon the inessential and leaving the working parts confused in fog. The description of these machines and the method of using them is also clear and opens up to the reader a knowledge of modern workshop practice that is otherwise very difficult to obtain except by experience.

The usual hand tools, their purposes, and method of use are described in the first four chapters of the book, and some excellent hints on the care and sharpening of tools are given in Chapter 5. Processes of setting out and making the ordinary joints are made clear not only from the draughtsman's point of view, but in reference to the stages gone through in the workshop and this application of the craftsman's point of view is consistent throughout the book. Under the heading "Drawing and Setting Out," specimen rods are illustrated and a printed form of material sheet as used in large workshops for ordering stuff for any given job from the sawmill.

In a chapter on roofs, instructions are given for the graphic determination of bevels of roof timbers, and for finding them by an alternative method involving the use of the steel square. This chapter ends with the remark, "the application of the steel square to roof-trusses, framing and partitions is chiefly a matter of common sense." If this is so, the very prevalent method of setting out roof timbers by trial full size on the building may be regarded either as a confession of a lack of common sense or as evidence that where valuable material is liable to be wasted by a mistaken cut it is best to know how things are going to fit by actual experience. It happened to a carpenter setting out bevels with a steel square that he concentrated so intently on obtaining the correct levels as absent-mindedly to select the wrong timber and cut and spoil a piece reserved for the wall plate when he intended to prepare a rafter.

Gauging and marking off one piece of stuff by another are recognised in the earlier chapters as the correct methods for the joiner, and it can hardly be wondered at if the carpenter sometimes prefers them to the more abstruse, if universally applicable, rules derived from the study of mathematics. The science of handrailing, which demands the application of geometrical rule, is allotted a chapter to itself, where the tangent method of setting out a wreath is very clearly explained by means of working diagrams and some sketches illustrating the nature of the problem.

It is a curious commentary on our present-day outlook that there is no suggestion anywhere in the book that beauty of design could possibly concern the joiner, and in illustration of this indifference one might point to the moulding shown on page 57, and to the stereotyped shop front on page 215. One would like to make an urgent plea that experts, such as the author, should instil it into their students that there is such a thing as beauty, that it requires study, and that it cannot be found in the blind acceptance of meaningless Victorian "ornament." The days are over when it could be said with impunity that construction was all that mattered, and that senseless applied "ornament" could be added as a sop to those who thought that everyday things might be pleasing to the eye. Ugliness is becoming no longer a virtue nor even a matter of indifference.

Accepting the book with this reservation, one can only compliment the author upon his clear and lucid style and excellent illustrations. He might with advantage have insisted somewhat more strongly upon the precautions that should be taken to guard against dry-rot, more especially in connection with the solid floor, shown on page 170. Practical advice is always helpful, and it is to be hoped that Mr. Greenhalgh's readers will take to heart the recommendation to avoid hammering screws nearly home; not only is this a common practice, but the writer has heard it excused by an offender on the plea that it was the usual custom. The sections devoted to geometry and setting out are clear and concise, but it may be doubted whether the author is justified in his contention that an approximate ellipse made up of segments of circles cannot usually be detected from a true ellipse. While it is probably a fact that few people could at once say what was the matter, yet it must not be forgotten that every circle seen in perspective is a true ellipse and the eye is unconsciously accustomed to this form, hence a sham ellipse always has an unsatisfactory appearance.

The book can confidently be recommended to the apprentice carpenter and joiner, and also to the architectural student, but we should like to feel that the student of joinery was being taught the difference between good and bad proportion and design, as well as how to set about efficient construction.

A First Course in Building Construction (formerly entitled "First Stage Building Construction"). By Brysson Cunningham, D.Sc., B.E., F.R.S.E., M.Inst.C.E. (London: University Tutorial Press, Ltd.) Price 4s. 6d. net.

This book on the elements of modern building construction possesses the very great advantage of containing much information in small space, since it can be carried in one's jacket pocket and referred to by the student during visits to works in progress. It is only in this way that the connection of theory and practice is ever likely to be clearly understood in time for the knowledge to be made use of in the first days of office life. The book also is as definite in its statement as it is concise, and will form a trustworthy guide to the normal methods of procedure in building.

Beginning with a chapter upon drawing instruments, the preparation of drawings, their reproduction, and the simple rules of mensuration the book proceeds with a description of the common tools used by the workers in the different trades. The line diagrams illustrating these are models of precision and economy of line, and students of building construction would do well to practise the style for their own "shorthand" sketches. Shading is omitted, but the objects are drawn with such fidelity in perspective that the main lines are comprehended without the slightest difficulty. Though not all up to the same high standard, the diagrams throughout the book are admirably descriptive of the various points at issue. An exception to this rule is to be seen on page 130, where the figure illustrative of "fox wedging" fails to indicate the saw cuts in the tenon which are essential to the formation of the joint and where the wedges are shown much too far from the edges of the wood.

A valuable feature of the book is the inclusion of a series of questions at the end of each chapter on the work that has been described in it. Some of these are actually reprints from examination questions and contain sketches showing incorrect or unusual methods which the reader is required to correct. The exercise should bring home to the student's mind the structural and mechanical principles underlying sound building construction.

A Fair Wage, being Reflections on the Minimum Wage and some Economic Problems of To-day. By Edward Batten, M.I.M.E., etc. (London: Sir Isaac Pitman & Sons, 1923.) 2s. 6d. net.

The author states in his foreword that the matter contained in this little volume originally appeared as articles in a contemporary, but that they have been revised and are now presented in a more "coherent form." The author claims a thoughtful reading and adds, "because a general agreement with what he has written would be one new in time, true in fact, and potent for Industrial Peace." We are not quite certain what this means, but we can say that he should be accorded a thoughtful reading, for his pages are worth perusal, and we gather that the author is no extremist, and therefore his views are the more entitled to consideration. Agreement can also be given to many of the general principles that he enunciates, but it may be doubted if his conclusions are decisive or that they solve any great problem, but his style is clear and pungent and his pages are interesting, and his readers will form their own opinions.

The author accepts the fact that a minimum wage must be conceded, but we doubt if he sufficiently deals with this question apart from profits. In Chapter IX he combats the fact that wages are part of the cost of production. This is summarised in the Contents as "It is a fundamental necessity to obtain general acceptance of the truth that wages form no part of the cost of production," and this statement somewhat startled us, but on perusal of the text we find that this is qualified in two ways: first, it is limited by applying it only as regards the community; and, secondly—and this is the most important qualification—the author treats the minimum wage, which he terms maintenance, as part of the cost of production, and limits the above statement to wages paid out of profits.

It is here that, we think, is the weak point in the argument. In times like the present, if a minimum wage such as is defined by the author, based on the cost of living (p. 87), is fixed, the great difficulty is to provide that minimum wage at all quite apart from the question of profits, which in such circumstances is subsidiary. Then, although he concedes output must be increased, he does not appear to us adequately to deal with the difficulty of increasing output if the population is maintained by a minimum wage on the scale he accepts. Human nature being what it is, it is the few and not the many who will strive to improve their condition by increased exertion, and in times of bad trade the minimum wage may also prevent the increase of capital which the author recognises is necessary if progress is to be maintained, and thus a double deadlock may result, hindering increased capital and increased output.

To meet foreign competition and to produce goods that will find a market is the first essential to a country situated as ours is, and the burdens laid upon industry make this increasingly difficult, and the problem is not as to sharing any profits that may be made, but how to carry on in times of depression when profits are small if not non-existent.

When he comes to profits, we see the author advocates councils on which employers, workmen, and the community are represented—the latter with a preponderating voice—to determine what are fair wages. A suggestion difficult to accept as practicable.

The author refers to the coal dispute and settlement, and illustrates his views by a criticism of that settlement. We gather he advocates a pool for the miners of profits from the whole industry, whilst the investors' profit would depend on the profits of their own mines. Even conceding this debatable point, it may be doubted whether the author's suggestions would meet the difficulty.

The author has produced a very interesting little volume, but we cannot think he has solved the immediate problems "potent for industrial peace."

CONFERENCES ON HOUSING.

Bristol.

Housing Conferences are being held in different parts of the country under the auspices of the National Housing and Town-Planning Council. On July 17 one of these gatherings was held at the Council House, Bristol, representatives of local authorities in Gloucester, Somerset and Wilts being present.

The Conference was welcomed by the Lord Mayor, Mr. Alfred Dowling, himself the head of a local building firm, who said the subject of housing was always with them. In Bristol their pressing needs had been accentuated in recent years because of the lack of building in the city. They would defeat their own purpose if they moved faster than they could provide labour to build the houses, and would not be decreasing the cost but increasing it. If they went on with the things they were able to do they would be helping nationally much more than if they bit off more than they could digest.—Mr. E. W. Savory, Chairman of the Bristol Housing Committee, who presided, said that to-day building costs were very materially reduced, but the greatest hindrance to their work was the great scarcity of labour available for it. In Bristol there were definite signs that the builders were going to co-operate with regard to houses built by the Corporation; they had obtained very favourable contracts, but the thing would proceed slowly. When they came to the reconstruction of slum areas they had a far more difficult problem, because it was farther than ever from an economic possibility, and under no circumstances would it be touched except by the local authorities.

Mr. H. R. Aldridge, the secretary, said he thought that 70 per cent. of the houses under the Bill would be built under schemes of local authorities, for the chief reason that most of the people who might be induced to come under the private subsidy were absorbed in other work of a more remunerative character. Regarding prices, he thought they should not take an over-sanguine estimate built on the too cheap house, but should take the normal cost. Mr. Aldridge dealt with the questions of owner-occupier, the remission of rates, and a lump sum subsidy, the latter of which he said he regarded as a dangerous method; he favoured loans enabling men to become owners of their own houses, through building, friendly, co-operative or public utility societies.—During the discussion which followed, Mr. Harrison (Cirencester) expressed the opinion that the houses would only be obtained through the local authorities, and not by private enterprise, particularly in the rural areas.

A resolution was passed urging that greater help be given in the case of urban areas for great housing needs and small rateable values, and rural areas in which only low rates could be obtained.

Mr. Aldridge said he thought Parliament had lamentably failed to deal with the question of building rings and trusts, and he believed it would continue to fail. There was one hope that the local authorities, more directly concerned than they had ever been, might be able to exercise far greater power collectively with other buyers than was exercised in the past. Local authorities, taking concerted action might be able to do some good.

Slum Clearance.

Dealing with the question of slum clearance, Mr. Aldridge said the proposal was for the Government to pay half of the annual loss, and they had the assurance that this clause in the Bill applied to rural areas. He appealed to every urban and every rural authority to get a clearance and rehousing scheme under way. Of the two problems the slum problem was the more urgent. Even if people were willing to go on living in a slum house they should be prevented as soon as other accommodation was offered, and the slum house should be pulled down. There were nearly a million houses that ought to be dealt with in that way.

The Chairman mentioned that Bristol had adopted the provision of clearing houses, with the reservation that those houses would be kept vacant rather than be let to anyone but slum-dwellers, by whom they would be used as slums were demolished. The Medical Officer for Somerset, Dr. W. G. Savage, welcomed the assurance that this part of the Bill applied to rural areas, but he regarded it as almost a dead letter in rural areas. He estimated that there were 7,000 houses unfit for habitation in Somerset. Inability to pay a higher rent was not always the reason for living in unfit houses.

On the matter of town-planning, Mr. Aldridge said there was a reactionary move in some parts of the country and the numbers of houses to the area were being increased. From the point of view of cost there was nothing in the argument in favour of increasing the number of houses from 12 to 20 to the acre, as the cost only worked out at 2½d. per week less. The Chairman said they should take a long view and try to visualise at the moment the effect of their work in 50 years' time.

Cardiff.

Many representatives of local authorities in South Wales attended a conference at Cardiff last week, under the auspices of the National Housing and Town-Planning Council, and the Welsh Housing and Development Association, to consider the administration of the new Housing Bill (1923). Mr. A. J. Howell, Chairman of the Cardiff Housing Committee, presided.

Mr. Aldridge said no houses could be built under the new Housing Bill without a loss, and the Government now said definitely that the grant would be £6 for 20 years. The hope of a local authority carrying through a housing scheme without placing a burden on the rates, was a futile one. He could not hope to see the type of house they wanted erected for less than £450 each.

Reviewing the position in the Rhondda Valley, Sir Walter Nicholas said there was sore need for 3,000 houses without delay. At £400 apiece, that number would cost £1,200,000, whilst the proposed Government grant would be equal to but £225,000. According to Mr. Chamberlain's proposal, the local authority would contribute a similar sum, which would bring the grants from the public purse up to £450,000. Deducting that sum out of £1,200,000 they got the figure of £750,000, which was the economic value of the houses. The Rhondda local authority would have to borrow £225,000 for 20 years, and that would involve an annual payment out of the rates of £18,000 to meet repayment and interest. The income from 3,000 houses at a rental of 7s. per week, exclusive of rates, would be £54,000 per annum, less 25 per cent. for repairs, £13,650, which, in his opinion, would be totally inadequate, leaving a net revenue of £40,950. Eventually, after allowing for interest and sinking fund, the Council would only have a margin of £1,450 with which to meet contingencies, such as damages due to subsidences, loss of rents owing to industrial stoppages, reduction of rents, owing to the situation becoming more economic, and furthermore there would be practically nothing to meet the heavy new charge of £18,000 a year which the authority would have to bear for the first 20 years.



Wrought Iron Balustrading and Newel Lights: Victory Hotel, London.

[This work was recently executed by the Bostwick Gate & Shutter Co., Ltd., at their metal works, Hythe-road, Willesden, London, N.W.]

NEW BUILDINGS IN LONDON.

Bloomsbury.—Alterations.—Messrs. L. & W. Whitehead, Ltd., of Portland Works, 2, Portland-place North, Clapham-road, S.W.8, are converting store rooms of basement at the Palace Hotel, Bloomsbury-street, into a ballroom. Sub-Contractors :—Wood block flooring, Mr. Joseph F. Ebner; plastering and plaster decoration, G. & A. Brown; heating, Haywards, Ltd.; marble mosaic paving, Bryon & Co.; copper glazing, Luxfer Co.; electrical work, Duncan, Watson & Co. The architects are Messrs. Bomer & Gibbs, of 14, Riding House-street, W.1.

East Ham.—New Houses, &c.—Plans passed by B.C.: Eight houses, Boston-road, for Seymour Construction Co.; two houses, Caulfield-road, for J. T. Line; detached house, corner of Aldersbrook and Merlin roads, for E. G. Wilks; addition to 446, Barking-road, for W. H. & G. F. Mitchell; alterations to 39, High-street North, for Messrs. Dean, Ltd,; addition to 257, High Street North, for S. Strykowski; alterations to "White Hart" hotel, Green-street, for Messrs. Davies & Bailey; alterations to 25-29, Wakefield-street, for G. J. A. Baker; alterations to 920, Romford-road, for F. C. Rogers.

Oxford-street.—Rebuilding.—A new building is being erected at 40-42, Oxford-street by Messrs. Townsend & Pearson, Ltd., of 81, Dean-street, W.1, under the supervision of Messrs. R. H. Kerr & Son, architects, Grafton House, 2 and 3, Golden-square, W.1. The front elevation is in Portland stone, and the sub-contract for this has been placed with The United Stone Firms, Ltd. The floors are concrete throughout. The steelwork is being supplied by Messrs. H. Young & Co., Ltd., 4-6, Wandsworth-road, Vauxhall Cross, S.W. The other sub-contractors have not been definitely decided.—Alterations.—The contract for extensive alterations, &c., to No. 451, Oxford-street, for Messrs. Barclays Bank, Ltd., has been secured by O. P. Drever & Son (Kettering) Ltd., 141, New Bond-street, W.1. The only sub-contract so far placed is to Messrs. Fenning & Co., Ltd., for granite front; the new mahogany bank fittings, counters, &c., will be made by Messrs. Drevers at their own joinery works. The architects are Messrs. C. J. Dawson, Son, & Allardyce, of Clock House Chambers, Barking.

Regent-street.—Building.—A new building is now being erected at 203, Regent-street, W.1, The sub-contractors so far settled are: Asphalt work, Engert & Rolfe, Ltd.; steel construction, Matt. T. Shaw & Co., Ltd.; Portland stone elevation, The United Stone Firms, Ltd.; steel windows, R. E. Pearce & Co., Ltd.; fire escape staircase, Geo. Wright, Ltd.; carving, Mr. W. C. H. King; pavement lights, Geo. Wright & Co., Ltd.; heating and hot water installations, Mumford, Bailey & Preston, Ltd.; general contractors, O. P. Drever & Son (Kettering), Ltd.

Becontree Estate.—Housing.—The L.C.C. is understood to be considering the erection of a further 3,400 houses on the Becontree Estate, near Ilford.

Stratford.—Town Hall.—The proposed extension of the Town Hall is deferred, as sanction to the expenditure has been refused owing to local unemployment.

Hampstead.—Institute.—The Garden Suburb Institute is to be enlarged at a cost of £16,000.

Lambeth Bridge.—The L.C.C. has decided to reconsider the question of rebuilding Lambeth Bridge, at the end of the year.

Hackney.—Houses.—Plans passed by B.C.: House, Grove-lane, for J. Garey & Son; factory premises, De Beauvoir-road, for G. Keetch.

Builders' Merchant's Death.

Mr. T. G. Williams, managing director of Messrs. T. G. Williams & Co., builders' merchants, Cardiff, who died suddenly, was an accomplished speaker, and past president of the Builders' Merchants' Alliance. He took a keen interest in all phases of Welsh national and religious life.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur :—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Bricklayers' Labourers.	Masons' Labourers.	Plasterers Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Bedford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Birkenhead	1/9	1/9	1/9	1/9	1/9	1/10	1/9			1/4½
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3			0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Cambridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Chatham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Chelmsford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Colchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½			1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3			1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½			1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Great Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3			1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Ipswich	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6			1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Liverpool	1/9	1/9	1/9	1/9	1/9	1/10	1/9			1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½			1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Luton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Maidstone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Norwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Oxford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5			1/1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Reading	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Rochester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
St. Albans	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Scarborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3			0/11½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3			1/0
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Windsor	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
York	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½

(For rates of wages in the Building Trade in Scotland, see page 151.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

JULY 28.—**Bognor.**—COTTAGES.—Erection and entire completion of a block of eight cottages to be erected in Gravits-lane, Bognor, for the Urban District Council. Town Surveyor, Mr. Oswald A. Bridges, Lic.R.I.B.A., at the Council Offices, Bognor. Deposit £2 2s.

JULY 28.—**Dover.**—PAINTING.—For painting and decorating work during the summer holidays at the Elementary Schools. Mr. William Boulton Smith, Borough Engineer, Maison Dieu House, Dover.

JULY 28.—**Glasgow.**—VARIOUS.—The Corporation Statute Labour Department invite offers for the (1) mason, brick, joiner, &c., works, and (2) sanitary fittings in connection with the construction of an underground convenience at Kirkpatrick-street, off London-road. Town Clerk.

JULY 28.—**Kirkburton.**—PAINTING.—For the outside painting of the Isolation Hospital and Smallpox Hospital, Kirkburton. Clerk, 32, John William-street, Huddersfield.

JULY 28.—**Llandudno.**—HOUSES.—Erection of 21 houses in Mowbray-road and Dyffryn-road, for the U.D.C. Mr. W. T. Ward, Surveyor, Town Hall, Llandudno.

JULY 28.—**Pontefract.**—HOUSE AND SHOP.—For erection of house and shop at Airedale, for Mr. D. Pagan. Tennant & Smith, architects, Ropergate, Pontefract.

JULY 28.—**Truro.**—ALTERATIONS.—For alterations and additions to the Conservative Club. Mr. Alfred J. Cornelius, architect, Truro.

JULY 29.—**Pontefract.**—HOUSE AND SHOP.—For erection of house and shop at Airedale, for Mr. Atkinson. Tennant & Smith, architects, Ropergate, Pontefract.

JULY 30.—**Audenshaw.**—PAINTING.—For decorating St. Stephen's Church, Audenshaw. Mr. D. C. Rolls, 59, Audley-street, Cockbrook, Ashton-under-Lyne. Deposit £1 1s.

JULY 30.—**Bangor.**—EXTENSIONS.—Extensions to the Carnarvonshire and Anglesey Infirmary, Bangor, North Wales. Messrs. Rees & Holt, architects, 64, Rodney-street, Liverpool.

JULY 30.—**Blandford.**—PAINTING.—Redecorations to Blandford Secondary School. Mr. W. H. Wilson, Salisbury-street, Blandford.

JULY 30.—**Bristol.**—PAINTING.—Painting and decorating of the Lesser Colston Hall. Tender can be obtained at the Secretary's Office, Colston Hall, Bristol.

JULY 30.—**Dartford.**—HOUSES.—Erection of 28 houses (in blocks of four) on the Lowfield-street housing estate, for the U.D.C. Mr. J. James Hurtley, Clerk. Council Offices, Dartford.

JULY 30.—**Dewsbury.**—EXTENSIONS.—Extensions and alterations to club premises, Brunswick-street, Westboro', Dewsbury. Messrs. Kirk, Sons & Ridgway, architects, Market-place, Dewsbury.

JULY 30.—**Harrogate.**—SUB-STATION.—Erection of high tension electricity sub-station, shelters and lavatories, in Otley-road; and also for the erection of a public shelter on the Town Hall site, Station-parade. Mr. C. E. Rivers, Borough Engineer, Municipal Offices, Harrogate.

★JULY 30.—**London, S.W.1.**—ARMY HUT.—For the purchase of an Army hut (wood-framed and galvanised corrugated steel sheeted) building, with open wood trusses and wood purlins, by the Director of Army Contracts (D.C.7), Imperial House, Tothill-street, Westminster, S.W.1.

JULY 30.—**Long Sutton.**—PAINTING.—For painting and decorating interior of the Baptist Church, Long Sutton. Messrs. Geo. F. Read and J. C. Skinner, Hon. Secs., Bull-lane, Long Sutton, near Wisbech.

JULY 30.—**Longtown.**—HALL.—Erection of the Parish of Arthuret Memorial Hall, Longtown, Cumberland. Mr. J. W. Foxall, architect, 54, Lowther-street, Carlisle.

JULY 30.—**Newquay.**—HOUSE.—Erection of a residence at Ualia-road, Newquay. Mr. Alfred J. Cornelius, architect, Truro.

JULY 30.—**Sheffield.**—OFFICES.—Erection of new offices in Wheel-hill, for the Electricity Committee. Mr. S. E. Fedden, Electrical Engineer, Commercial-street, Sheffield. Deposit £3 3s.

JULY 30.—**Southend-on-Sea.**—PAINTING.—For painting at Leigh Council Offices, for the T.C. Mr. R. H. Dyer, Borough Engineer, Southend. Deposit £1.

JULY 31.—**Chatteris, Cambs.**—ADAPTATION.—Adaptation of premises in Park-street, Chatteris, Cambs., for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

JULY 31.—**Dorsetshire.**—VARIOUS WORKS.—(*a*) New house, Holding No. 10, Oborne; (*b*) repairs and adaptation of house and farm buildings, Holding No. 9, Morgan's land, Netherbury; (*c*) new set of farm buildings, Holding No. 8, Wooth Grange, Netherbury: (*d*) general repairs and adaptation to farm buildings, &c., on various holdings at Mappowder and Buckland Newton; (*e*) general repairs to farm buildings at Oborne Estate. Mr. T. R. Ferris, Director of Agriculture, Dorchester.

JULY 31.—**Fleet.**—LATRINES.—Erection of latrines for Church of England Schools. Mr. J. Love, architect, Fleet-road, Fleet. Deposit £1 1s.

JULY 31.—**Forres.**—VARIOUS.—For the mason, carpenter, slater, plumber, glazier, and painter works in connection with the rebuilding of the farm steading at Grangegreen, Forres. Mr. J. Leask, solicitor, Forres.

JULY 31.—**Glasgow.**—VARIOUS.—For works in connection with proposed erection of a combined bowling and tennis pavilion at Cowlairs Park at the junction of Keppochhill-road and Carlisle-street, viz.: (1) Brick, &c., work; (2) joiner work; (3) slater work; (4) plumber work; and (5) plaster work, for the Corporation. Mr. J. Lindsay, Town Clerk, City Chambers.

JULY 31.—**Gresford.**—PAINTING.—For painting exterior of the Constitutional Club. Mr. B. Hewitt, Secretary, Gresford, Denbigh.

JULY 31.—**Guildford.**—COTTAGE.—Erection of cottage in Old Farm-road, for the T.C. Borough Surveyor, Guildford.

JULY 31.—**Hoyland Nether.**—WELFARE INSTITUTE.—For erection of miners' welfare institute and assembly hall. Secretary, Mr. T. Tomlinson, King-street, Hoyland Nether, near Barnsley.

JULY 31.—**Huddersfield.**—HOUSES.—Erection of 13 houses at Chestnut-street, Sheepridge, for the T.C. Borough Architect, 1, Peel-street, Huddersfield.

JULY 31.—**Langholm.**—HOUSING.—The T.C. invite offers for various works in connection with the erection of four blocks of two houses each and consisting of four three-apartment and four four-apartment houses. Town Clerk, Langholm. Deposit £1 1s.

JULY 31.—**London, S.W.18.**—BUILDING AND ROAD.—Alterations to existing building and forming new roadway to same, at St. James' Hospital, Ouseley-road, Balham, S.W.12, for the Guardians of the Wandsworth Union. Mr. F. J. Curtis, Clerk, Union Offices, St. John's-hill, Wandsworth, S.W.18.

JULY 31.—**Pontypool.**—EISTEDDFOD PAVILION.—The Executive Committee of the Royal National Eisteddfod of Wales invite tenders for a timber Eisteddfod pavilion, approximately 275 ft. by 180 ft., at Pontypool Park. Mr. R. Stephen, General Secretary, 1, Victoria-road, Pontypool.

JULY 31.—**Pontypridd.**—ADDITIONS.—For additions and alterations to St. David's Presbyterian Church, Pontypridd. Work includes rearrangement and extension of schoolroom. Messrs. Thomas & Morgan & Partners, architects, 23, Gelliwasted-road, Pontypridd.

★JULY 31.—**Wallasey.**—HOUSING.—Erection of 30 houses on the Belvedere-road housing site in two sections of 16 and 14 respectively (contractors may tender for either one or two sections), for the County Borough of Wallasey. Borough Engineer and Surveyor, Town Hall, Wallasey. Deposit £2 2s.

AUGUST 1.—**Aldershot.**—REPAIRS AND MATERIALS.—Tenders required for the works contract from August 15, 1923, at the Station, Sandhurst and Arborfield, for the War Department. Royal Engineer Office, Marlborough Lines, North Aldershot, Hants (by letter or in person, between the hours of 10 a.m. and 4 p.m.).

AUGUST 1.—**Breconshire.**—PAINTING.—For painting internally and externally the parish hall at Llanfynach, Breconshire. Mr. C. H. de Winton, Maesderwen.

AUGUST 1.—**Ealing.**—VARIOUS WORKS.—Additional lavatory accommodation and internal decoration of the Branch Library, Melborne-avenue, West Ealing. Mr. W. R. Hicks, Borough Engineer, Town Hall, Ealing, W.5. Deposit 10s. 6d.

AUGUST 1.—**Larne.**—PAINTING.—For painting work at Larne and M'Garel Cemeteries, for the U.D.C. Mr. W. G. Younge, Clerk, Town Hall, Larne.

AUGUST 1.—**Loughborough.**—NURSES' HOME.—Erection of a nurses' home, for the Governors of the Loughborough Hospital. Messrs. G. H. & A. M. Barrowcliff, Architects, Town Hall Chambers, Loughborough.

AUGUST 1.—**Port Glasgow, Chapelton.**—VARIOUS.—The T.C. invite tenders for works in the erection of 27 blocks of semi-detached and flatted cottages, containing 98 houses, viz.: (1) Excavator and brick; (2) carpenter and joiner; (3) slater and roughcast; (4) plumber and gasfitting; (5) plaster and cement; and (6) glazier. Mr. Andrew Paton, Town Clerk, Port Glasgow.

AUGUST 1.—**Southport.**—ALTERATIONS.—For making alterations and converting a portion of the adjoining building for the use of the Atkinson Free Library. Mr. A. E. Jackson, Borough Engineer, Town Hall, Southport. Deposit £2 2s.

★AUGUST 1.—**Spalding.**—BLINDS.—Renewal of the roof blinds in their Corn Exchange, for the Spalding U.D.C. Mr. Raymond W. Hastings, Clerk to the Council, Spalding.

AUGUST 1.—**Thornbury.**—COTTAGE.—Erection of a cottage in High-street, Thornbury, for the Parish Council. Mr. S. Fudge, Architect, Castle-street, Thornbury.

AUGUST 2.—**Glasgow.**—VARIOUS.—For works in connection with erection of joiners', painters', and general workshops at the Dalmarnock Power Station: (1) Digger, brick and reinforced concrete work; (2) joiner work; and (3) plumber work, for the Corporation. Mr. J. Lindsay, Town Clerk, City Chambers.

AUGUST 2.—**Southend-on-Sea.**—BUILDING.—Erection of wood-framed building at Municipal School of Arts and Crafts, for the T.C. Mr. R. H. Dyer, Borough Engineer, Southend. Deposit £2 2s.

AUGUST 3.—**Edinburgh.**—PAINTING, &C.—For the interior painter and paperhanger work required in Gogarburn House, for the District Board of Control. Mr. James D. Gibson, Surveyor, 60, Frederick-street, Edinburgh.

AUGUST 4.—**Brierley Hill.**—HOUSES.—Erection of 20 houses, with roads and sewers, for the U.D.C. Mr. John Yorke, Surveyor, Town Hall, Brierley Hill, Staffs. Deposit £2 2s.

AUGUST 4.—**Darton.**—CONVENIENCE.—Erection of a public urinal at Mapplewell, for the U.D.C. Mr. Wilfred Butterley, Surveyor, Council Offices, Darton

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Plasterers' Labourers.
Aberdeen	1/7	1/8	1/7	1/7	1/8	1/8½	1/4½	1/–	
Airdrie	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/5	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/7	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Fort William	1/7	1/6	1/6	1/6	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Inverness	1/7	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/–	
Lanark	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 150.

AUGUST 4.—**Darton.**—MORTUARY.—Tenders are invited for the erection of a mortuary at Darton, near Barnsley. Mr. W. Butterby, Surveyor, Council Offices, Darton.

AUGUST 4.—**Dewsbury.**—EXTENSION.—Extension of the bowling green pavilion at the Dewsbury and Savile Cricket Ground. Messrs. C. H. Marriott, Son & Shaw, Church-street Chambers, Dewsbury.

AUGUST 6.—**Dunfermline.**—VARIOUS.—The T.C. invite tenders for works in connection with the erection of twenty houses at Townhill, Dunfermline, viz.: Brick and mason, joiner, slater and roughcast, plaster, painter, glazier, plumber. Mr. Andrew Shearer, Town Clerk, City Chambers, Dunfermline.

AUGUST 7.—**Kirkcaldy.**—HOUSES.—Erection of 40 houses of three rooms at Glencraig site, Lochore, for the District Committee. Messrs. William Williamson, F.R.I.B.A., and Geo. B. Deas, Joint Architects, Kirkcaldy. Deposit £1 1s.

AUGUST 7.—**London.**—PAINTING.—For internal painting and cleaning at the Admiralty Buildings, S.W.1. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

AUGUST 7.—**Sandwich.**—HOUSES.—Erection of 16 houses at Boatman's Hill, for the T.C. Mr. R. Saunders, Borough Surveyor, The Barbican, Sandwich. Deposit £3.

AUGUST 8.—**Bingley Mornington.**—FLOORS.—Reboarding floors to class-rooms at Bingley Morningtonroad Council School. Education Department, County Hall, Wakefield.

AUGUST 8.—**Warrington.**—PAINTING.—For painting of Union buildings, for the B.G. Mr. F. J. Barnish, Architect, Golden-square, Warrington. Deposit £1 1s.

AUGUST 10.—**Castle Cary.**—COTTAGES.—Erection of seven pairs of semi-detached cottages at Castle Cary. Messrs. Woodforde & Drewett, solicitors, Castle Cary. Deposit £2 2s.

★AUGUST 10.—**France and Belgium.**—CEMETERIES.—Tenders for the following contracts: Programme (1923), O, consisting of approximately 23 cemeteries in France; Programme (1923), P, 29 cemeteries in France; construction of Tyne Cot British Cemetery (Belgium); construction of St. Sever Cemetery, Rouen (France); construction of Poelcapelle and Passchendaele British Cemeteries (Belgium). Secretary (Works Department), Imperial War Graves Commission, 82, Baker-street, London, W 1. Deposit £10 10s. per set of documents.

★AUGUST 10.—**London, W.C.**—PAINTING.—Execution of painting works at Dudley House, Endell-street, London, W.C., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s. (payable to the Secretary).

AUGUST 11.—**Horwich.**—MARKET ERECTIONS.—Erection of stalls, sheds, &c., for the Public Market of the U.D.C. Surveyor, Public Hall, Horwich.

AUGUST 13.—**Dartford.**—ENGINE HOUSE, &C.—Construction of an engine house, cottage, road and bridge, drainage, and other contingent works at Eynsford, Dartford, for the Metropolitan Water Board. Mr. Henry E. Stilgoe, Chief Engineer, 173, Rosebery-avenue, E.C. 1. Deposit £5.

★AUGUST 13.—**Hereford.**—DWELLING HOUSES.—Erection and completion of dwelling houses (20, 24, or 28), on the Portfields Estate, Hereford, for the Housing Committee of the Corporation, City of Hereford, proposed housing scheme. Mr. H. E. Bettington, Secretary, The Hereford Associated Architects, Ltd., Palace Chambers, Hereford. Deposit £2 2s.

AUGUST 14.—**Llanerfyl.**—CHAPEL.—Erection of chapel and schoolroom. Mr. R. A. Ford, architect, Llanidloes.

AUGUST 14.—**Wallasey.**—HOUSES.—Erection of 30 houses on the Belvidere-road Housing Site, for the T.C. Mr. W. H. Travers, Borough Engineer, Town Hall, Wallasey. Deposit £2 2s.

★AUGUST 15.—**London, E.**—FLATS.—Erection of a block of flats in Pritchard's-road, Shoreditch, London, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s. (payable to the Secretary).

★AUGUST 20.—**Walthamstow, E.17.**—HOUSES.—Erection of a total number of houses not exceeding 100 at Higham Hill site, Billet-road, Walthamstow. Contractors may tender for two or more houses for the Walthamstow U.D.C. Mr. G. W. Holmes, A.M.I.C.E., Engineer and Surveyor to the Council, Town Hall Annexe, Orford-road, Walthamstow, E.17.

AUGUST 21.—**Cape Town.**—RESIDENCES, &C.—**For erecting residences for men and women, Principal's house, and other contingent works at the site of the new University buildings, Groote Schuur, for the University Council. High Commissioner for South Africa, Trafalgar-square, London, W.C., and Messrs. Hawke & McKinlay, and C. P. Walgate, The Rhodes Buildings, St. George's-street, Cape Town. Deposit £10.**

AUGUST 28.—**Cape Town, South Africa.**—MEDICAL SCHOOL.—Erection of a new Medical School and other contingent works at Groote Schuur, near Cape Town, for the Council of the University of Cape Town. High Commissioner for the Union of South Africa, Trafalgar-square, London, W.C. Deposit £2.

SEPTEMBER 4.—**Cardiff.**—PAINTING.—(1) External painting, City Lodge, East; (2) external painting, City Lodge, West, for the B.G. Mr. R. Stephenson, Clerk, Union Offices, 11, Park-place, Cardiff.

★NO DATE.—**Epsom, Surrey.**—ALTERATIONS.—Alterations at the Christ Church Room, Epsom. Messrs. J. Hatchard-Smith & Son, architects, 11, Hay market, S.W. 1.

NO DATE.—**Everton.**—REPAIRS.—Repairs to tower of Everton Parish Church. Secretary, Church Council, Everton, Doncaster.

NO DATE.—**Frimley.**—HOUSES.—Erection of three, six or nine pairs of semi-detached houses, for the U.D.C. Mr. W. H. Tucker, Architect, "Ayston," Firwood-drive, Camberley. Deposit £1 1s.

NO DATE.—**Leeds.**—ALTERATIONS.—Alterations and additions to the "Morning Star" Inn, Kirkstall-road, and Lloyd-street, Leeds, for the Leeds and Wakefield Breweries, Ltd. Messrs. Garside & Pennington, architects, Pontefract. Deposit £2 2s.

Penrhiwceiber.—*Re* EXTENSION OF CHAPEL.—Builders, before submitting tenders for extension of Bethel Welsh Wesleyan Chapel, should communicate with the Secretary, Merthyr, Aberdare, &c., Master Builders' Association, 23, Canon-street, Aberdare.

FURNITURE, MATERIALS, etc.

JULY 30.—**Horncastle.**—MATERIALS.—Supply of road materials to the U.D.C. Mr. F. Weeber, surveyor, Foundry-street, Horncastle.

JULY 31.—**New Zealand.**—STEEL WINDOW SASHES, &C.—**Supply of galvanised steel window sashes and doors, for the Mangahoo Electric Power Scheme. Department of Overseas Trade (Room 48), 35, Old Queen-street, S.W.1.**

AUGUST 1.—**Truro.**—FENCING.—Supply of wrought-iron fencing for railing to the T.C. Mr. F. A. Barnes, City Surveyor, Truro.

AUGUST 2.—**Newport (Mon.).**—MOTOR AMBULANCE.—For supplying to Newport (Mon.) Guardians of a motor ambulance. Mr. William Dowler, Union Offices, Queen's-hill, Newport (Mon.).

AUGUST 3.—**Grimsby.**—MATERIALS.—Supply of highway, sanitary, &c., materials, to the T.C. Mr. H. Gilbert Whyatt, Borough Engineer, Grimsby.

AUGUST 4.—**Bridlington.**—MACADAM.—Supply of 3,400 tons of tarred slag macadam to the T.C. Borough Engineer, Bridlington.

AUGUST 8.—**Durban.**—MATERIALS.—**Supply of stoneware pipes, bends and junctions to the T.C. Department of Overseas Trade. 35, Old Queen-street, S.W.**

AUGUST 22.—**Belfast.**—MATERIALS.—Supply to the Belfast and County Down Railway Co. of stores for twelve months. Storekeeper, Belfast Terminus.

NO DATE.—**Treorchy.**—MATERIALS.—Supply to the Ocean Coal Co., Ltd., of bolts and nuts, castings, ironmongery, nails, oils and greases. The Ocean Coal Co., Ltd., Ocean Collieries, Treorchy.

ENGINEERING, IRON AND STEEL.

JULY 28.—**Bowland.**—BRIDGE REPAIRS.—For construction of ferro-concrete saddle and other strengthening work to Sleidburn Bridge, Bowland, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

JULY 28.—**Enfield.**—BOILERS.—Supply and fixing of six boilers, for the Enfield and Edmonton Joint Hospital Board, at the Isolation Hospital, Winchmore-hill. Surveyor, Public Offices, Enfield.

JULY 28.—**Greenock.**—TRANSMISSION LINES.—Erection of overhead transmission lines between (1) Greenock Electricity Power Station, Dellingburn, Greenock, and the Electricity Power Station, Blackhall-street, Paisley, and (2) the existing transmission lines belonging to the Burgh of Kilmarnock, near Beith, and the said power station at Paisley. Mr. F. H. Whysall, Burgh Electrical Engineer, Greenock. Deposit £2 2s.

JULY 28.—**Grimsby.**—HEATING INSTALLATION, &C.—New centralised heating and hot-water supply plant, water-softening plant, additions to cooking apparatus, and new disinfector, at the Scartho-road Institution, for the Board of Guardians. Mr. J. F. Wintringham, Clerk, St. Mary's Chambers, Great Grimsby. Deposit £2 2s.

JULY 30.—**Audenshaw.**—ELECTRIC LIGHTING.—For installing electric light in St. Stephen's Church. Mr. D. C. Rolls, 59, Audley-street, Cockbrook, Ashton-under-Lyne. Deposit £1 1s.

JULY 30.—**Bath.**—RESERVOIR.—Construction of a 150,000 gallon ferro-concrete covered-in service reservoir, for the T.C. Mr. J. D. Young, Engineer, Guildhall, Bath.

JULY 30.—**East Preston.**—HEATING.—Installation of a low pressure hot-water heating apparatus at the Board Room and Offices, for the B.G. Mr. J. W. Calvert, Clerk, East-street, Littlehampton.

JULY 30.—**Kirkstead.**—PUMPING PLANT.—Provision of a pumping plant for an area of about 1,200 acres, for the Kirkstead Drainage Board. Mr. G. R. C. Harding, 29, Broadgate, Lincoln.

JULY 30.—**Southend-on-Sea.**—ELECTRIC LIGHTING.—For electric light installation at Leigh Council Offices, for the T.C. Borough Engineer, Southend. Deposit £1.

JULY 30.—**Wath.**—HEATING.—Providing and fixing 3 in. cast-iron heating pipes to new class-room, also provision of gas radiators at Wath Secondary School. Education Department, County Hall, Wakefield.

JULY 31.—**Aberdeen.**—PIPES.—Supply of about 3 miles of 40 in. diameter pipes and specials of the following alternative types, viz.: (*a*) cast-iron; (*b*) mild steel (lapwelded); (*c*) reinforced concrete (spun and ordinary), for the T.C. Mr. George Mitchell, Water Engineer, 41½, Union-street, Aberdeen. Deposit £5.

JULY 31—**Bradford.**—FILTERS.—Providing and erecting at Denholme (Yorks.) an installation of mechanical pressure filters, capable of dealing with two million gallons of water per day. Mr. Lewis Mitchell, Waterworks Engineer, Town Hall, Bradford.

JULY 31.—**Bristol.**—BRIDGE.—Construction of a bridge under the railway near Ashley Hill, Bristol, for the G.W. Railway Co. Engineer, Bristol Station.

JULY 31.—**Lochboisdale.**—PIERS.—(1) Repairing Lochboisdale pier and shed, and (2) stiffening up of Castlebay pier. Messrs. Carter & Wilson, engineers, 51, Queen-street, Edinburgh.

JULY 31.—**London.**—STEEL GIRDERS.—Supply of about 476 tons of steel girders and other iron and steel work of British manufacture, for the G.W. Railway Co. Engineer, Paddington Station.

JULY 31.—**Manchester.**—CRANES.—For 7½ and 10 ton hand-operated, overhead, travelling cranes. Mr. F. E. Hughes, Secretary, Electricity Department, Town Hall, Manchester. Deposit £1 1s.

JULY 31.—**Southport.**—PIPES.—**Supply of 350 tons of 9 in. diameter cast-iron pipes and irregulars to the Southport, Birkdale and West Lancashire Water Board. Mr. C. Burton Ede, Engineer, 14, Portland-street, Southport.**

JULY 31.—**Uxbridge.**—ROTARY SPRINKLER.—Supply of rotary sprinkler for 75 ft. diameter sewage filter bed, for the U.D.C. Mr. H. M. Blackwell, Clerk, 109, High-street, Uxbridge.

AUGUST 2.—**Howdon-on-Tyne.**—BOILER.—Supply and erection of a waste heat boiler for the Repairing Yard, Howdon-on-Tyne, for the Tyne Improvement Commission. Mr. Richard Aughton, General Manager, Tyne Improvement Commission Offices, Berwick-street, Newcastle-upon-Tyne. Deposit £1 1s.

AUGUST 2.—**Rhondda.**—BRIDGE STEELWORK.—For supply, delivery and construction of approximately 160 tons of bridge steelwork, for the Rhondda U.D.C. Mr. E. Taylor, Engineer and Surveyor, Council Offices, Pentre, Rhondda.

AUGUST 3.—**London.**—STEELWORK.—Supply to the South Indian Railway Co. of steelwork for bridges. Mr. A. Muirhead, 91, Petty France, S.W. Charge 10s.

AUGUST 4.—**Salford.**—HEATING EXTENSIONS.—For Lancashire boiler, economiser, feed pumps, steam and water pipes, &c., in connection with the laundry, and extensions to the heating and hot-water system at the Union Infirmary. Mr. T. Roland Wollaston, Lord's Chambers, 26, Corporation-street, Manchester. Deposit £2 2s.

AUGUST 8.—**Birmingham.**—FUEL ECONOMISERS.—Supply and erection of fuel economisers at the P.O. Telegraph Factory, Birmingham. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

AUGUST 9.—**Birtley.**—ELECTRIC LIGHTING.—For lighting with electricity the streets at housing site, for the P.C. Mr. R. Hobson, Clerk, Birtley.

AUGUST 9.—**Wigan.**—PUMPING PLANT, &C.—Supply and erection of one electrical vertical pumping plant, heating and domestic hot-water supply apparatus, alterations of buildings, additions, and making a well, at the Poor Law Infirmary, Billinge, for the B.G. Mr. H. Gordon Ackerley, Clerk, Victoria Buildings, King-street, Wigan. Deposit £3 3s.

AUGUST 11.—**Warrington.**—PUMPS.—Provision and erection of three electrically-driven centrifugal pumps at pumping stations, for the T.C. Mr. James Gray, Waterworks Engineer, Municipal Offices, Warrington. Deposit £1 1s.

AUGUST 15.—**Solihull.**—HEATING INSTALLATION.—Installation of heating and hot-water services and steam mains, &c., for Solihull Institution. Mr. Chas. H. Cook, Clerk, Union Offices, Solihull. Deposit £3 3s.

AUGUST 18.—**Chorley.**—ELECTRIC LIGHTING.—Supply and fixing of the necessary wiring and fittings required in connection with the lighting by electricity of a portion of the interior of the Town Hall. Borough Surveyor, Chorley.

AUGUST 25.—**Hamilton.**—GAS HOLDER.—Erection of a spiral guided gasholder and steel tank of approximate capacity of 1¼ million cubic ft., for the T.C. Mr. David Robb, Engineer, Hamilton Gas Works.

AUGUST 31.—**Chile.**—HARBOUR WORKS.—**Extension of the mole of the Port of Valparaiso and complementary harbour works, depots, &c., for the Navy. Chilean Legation in London.**

★AUGUST 31.—**Tottenham, N. 15.**—REFUSE DESTRUCTOR.—Dismantling certain cells, boilers, economiser, &c., and the substitution of a modern refuse destructor plant at the Refuse Destructor Works, Down-lane, Tottenham, N., for the Tottenham District Council. Engineer of the Council, Town Hall, Tottenham, N. 15. Deposit £1 1s.

SEPTEMBER 17.—**London.**—MACHINE TOOLS.—Supply of machine tools, for the Council's Tramway Central Repair Depot, Charlton. General Manager, London County Council Tramways, Victoria-embankment, W.C. 2. Deposit £2.

NOVEMBER 1.—**Siam.**—BRIDGES.—Supply of superstructures of steel railway bridges to Siam State Railways. Messrs. C. P. Sandberg, 40, Grosvenor-gardens, S.W. 1. Charge 28s.

NOVEMBER 30.—**Sydney.**—BRIDGE.—**Construction of the superstructure and substructure of a cantilever bridge across Sydney Harbour; also an alternative tender for the construction of the superstructure and substructure of an arch bridge across Sydney Harbour. Agent-General for New South Wales, Australia House Strand, W.C.**

NO DATE.—**Manchester.**—EJECTOR PLANT.—For a small hydro-pneumatic ejector plant capable of raising ten cubic feet of sewage per minute to a height of ten feet. City Engineer, Town Hall, Manchester.

ROAD, SANITARY, AND WATER WORKS.

JULY 28.—**Dysart.**—ROADS.—For causewaying part of High-street. Mr. Thomas Ross, Burgh Surveyor, Dysart.

JULY 28.—**Scunthorpe.**—SEWAGE WORKS.—Construction of earthenware pipe sewers, for the U.D.C. Mr. W. Farrar, Surveyor, Council Offices, Scunthorpe.

JULY 28.—**Wakefield.**—SEWAGE WORKS.—For construction of sewage disposal works, for the T.C. Chief Surveyor, Wakefield. Deposit £5.

JULY 29.—**Llanharan (Glam.).**—WATER MAINS.—For supply and laying, for the Mid-Glamorgan Water Board, of 1,750 lineal yards of 6-in. cast-iron pipes, with appurtenant works, Llanharan. Messrs. Thomas Morgan & Partners, civil engineers, 23, Gelliwaste road, Pontypridd. Deposit £2 2s.

JULY 30.—**Abertillery.**—REINFORCED CONCRETE ROAD WORK.—For carrying out, for the Abertillery U.D.C., the completion of a reinforced concrete road widening scheme at Royal Oak-road, Llanhilleth, Mon. The Engineer and Surveyor, U.D.C. Offices, Abertillery, Mon. Deposit £2 2s.

JULY 30.—**Leatherhead.**—ROADS.—For making-up part of Poplar-road, for the U.D.C. Mr. S. R. Drake, Surveyor, Council Offices, Leatherhead. Deposit £1 1s.

JULY 30.—**Loughborough.**—SEWAGE WORKS.—Construction of No. 2 Dortmund tanks, No. 4 bacteria beds, No. 2 humus tanks, and the provision and laying of cast-iron and sanitary pipe effluent and other mains, &c., for the T.C. Mr. W. Granger, Acting Borough Surveyor, Loughborough. Deposit £5 5s.

JULY 30.—**Sheffield.**—WATER MAINS.—Laying 6 in. cast-iron socket and spigot pipes, valves, strainer, concrete stools, manholes, &c., for conveying water along Club Mill-lane, Neepsend, for the T.C. Mr. S. E. Fedden, General Manager, Commercial-street, Sheffield. Deposit £2 2s.

JULY 31.—**Aberdeen.**—WATER MAINS.—Laying and jointing of about 3 miles of 40 in. piping and ancillary works between Banchory and Crathes, for the T.C. Mr. George Mitchell, Water Engineer, 41½, Union-street, Aberdeen. Deposit £5.

JULY 31.—**Cirencester.**—BOREHOLE.—Sinking of a borehole at pumping station, for the T.C. Mr. E. J. Silcock, 25, Victoria-street, S.W.1. Deposit £5.

JULY 31.—**Gellygaer.**—ROADS.—Re-surfacing (with tar-bound or bituminous or asphaltic material, 4 in. thick) a length of about two miles of roadway at Bedlinog, Gilfach, Tirphil, and Pontlottyn, for the U.D.C. Mr. F. Read, Council Offices, Hengoed.

JULY 31.—**Goole.**—BOREHOLE, &C.—For sinking of a borehole and laying of a drain, for the U.D.C. Mr. E. J. Silcock, 25, Victoria-street, S.W. 1. Deposit £5.

JULY 31.—**London.**—DRAINAGE.—For redrainage work at the Money Order Office, Holloway, N., for H.M. Commissioners of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

JULY 31.—**Northwich.**—WATER WORKS.—(1*a*) Sinking a borehole at Delamere; (2*a*) supply of about 1,200 tons of cast-iron pipes; (3*a*) laying 11,000 lineal yds. of cast-iron pipes; (4) valves; (5) covered service reservoir, holding 1½ million gallons; (6) machinery. Mr. C. E. Newton, Engineer, 19, Cooper-street, Manchester.

JULY 31.—**Southport.**—WATER MAINS.—Laying 4,150 lineal yards of 9 in. diameter cast-iron water main, for the Southport, Birkdale and West Lancashire Water Board. Mr. C. Burton Ede, Engineer, 14, Portland-street, Southport. Deposit £2.

AUGUST 1.—**Cardiff.**—SEWERS.—Construction of about 1,000 lineal yds. of earthenware pipe sewers in the Parish of Whitchurch, for the R.D.C. Mr. William Farrow, Engineer, Park House, 20, Park-place, Cardiff.

AUGUST 1.—**Hemel Hempstead.**—ROADS.—For street improvements, for the T.C. Mr. Walter R. Locke, Borough Engineer, Market-square, Hemel Hempstead.

AUGUST 1.—**Huntingdon.**—SEWER.—For construction of reinforced concrete sewer, for the T.C. Borough Surveyor, Town Hall, Huntingdon.

AUGUST 1.—**Queensferry.**—ROADS.—Widening, kerbing and channelling roads at the Mancot Royal Housing Estate, Queensferry, near Chester, for H.M. Commissioners of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

AUGUST 1.—**Wanstead.**—ROADS.—For laying 2,600 yds. of 4 in. wood block paving, &c., for the U.D.C. Surveyor, Council Offices, Wanstead, N.E.

AUGUST 1.—**Wembley.**—SEWER.—Construction of an outfall sewer (part in tunnel), for the U.D.C. Total length about three miles. Mr. Cecil R. W. Chapman, Surveyor, Council Offices, Wembley. Deposit £5 5s.

AUGUST 1.—**Workington.**—ROADS, &C.—Construction of roads and sewers in connection with the Salterbeck housing scheme. Mr. T. Jackson, Town Clerk, Workington. Deposit £3 3s.

AUGUST 2.—**Cheadle.**—SEWAGE WORKS.—For construction of sewage disposal works at Weston Coyney, for the R.D.C. Mr. W. H. Makepeace, Westfield, Stockton Brook, Stoke-on-Trent. Deposit £1 1s.

AUGUST 3.—**Aberkenfig (Glam.).**—STREET WORKS.—For making-up, under Private Street Works Act, Coronation-street, St. Bride's-road and Cross-street, Aberkenfig, for the Penybont R.D.C. Mr. J. Simon Davies, F.S.I., 8, Wyndham-street, Bridgend.

AUGUST 3.—**Blean.**—SEWER.—Construction of about 256 yds. lin. of 9-in. stoneware pipe sewer, etc., in the parish of Herne, for the R.D.C. Mr. F. A. Ward, Surveyor, Blean Institution, Herne Common, Herne, Herne Bay.

AUGUST 7.—**Cranbrook.**—SEWAGE DISPOSAL.—Construction of a main sewer and sewage disposal works at Sandhurst, for the R.D.C. Mr. J. H. Bailey, Sanitary Surveyor, Penryn, Cranbrook.

AUGUST 7.—**Stockton-on-Tees.**—ROADS.—Construction of a new roadway, 60 ft. wide, from Norton-road to South-road, for the T.C. Mr. J. P. Wakeford, Borough Engineer, Victoria Buildings, Stockton-on-Tees. Deposit £2 2s.

AUGUST 8.—**Crowthorne (Berks).**—DRAINAGE WORKS.—Execution of drainage works at Broadmoor Asylum, Crowthorne, Berks., for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s. (payable to the Secretary).

AUGUST 8.—**Sefton.**—ROADS.—Paving with granite setts portions of various highways, for the R.D.C. Mr. F. Pool, Surveyor, 21, Evered-avenue, Rice-lane, Walton, Liverpool.

AUGUST 9.—**Bebington.**—SEWAGE WORKS.—For construction of sewers in connection with the Bromborough Sewerage Works, for the U.D.C. Messrs. J. Mansergh & Sons, 5, Victoria-street, S.W. Deposit £5.

AUGUST 10.—**France and Belgium.**—CEMETERIES.—Programme (1923) O, consisting of approximately 23 cemeteries in France; programme (1923) P, 29 cemeteries in France; construction of Tyne Cot British Cemetery (Belgium); construction of St. Sever Cemetery, Rouen (France); construction of Poelcapelle and Passchendaele British Cemeteries (Belgium). Secretary (Works Department), Imperial War Graves Commission, 82, Baker-street, W. 1. Deposit £10 10s.

AUGUST 10.—**Kingsbridge.**—WATER WORKS.—Construction of a collecting tank and the providing and laying of about 1,240 yds. of 3-in. cast-iron mains, &c., for the R.D.C. Mr. T. Burdett, Surveyor, Tacket Wood, Kingsbridge. Deposit £1.

Competitions.

(*See Competition News, page* 124.)

Auction Sales, Tenders, etc.

✱AUGUST 1.—**London, W.C.2.**—Messrs. W. & S. Freeman, of Aldridge's, have been instructed to sell by order of the bank, who are holding them, a consignment of 1922 Scammell 6-wheel 10-ton lorries. Auctioneers' Sale Rooms, St. Martin's-lane, W.C.2.

AUGUST 21, 22 AND 23.—**Eltham.**—Mr. F. H. Clark will sell, without reserve, timbers and materials contained in the Women's Hostels, Well Hall-road. Auctioneer, Railway Wharf, York-road, Wandsworth.

✱AUGUST 23.—**London, E.C.**—Messrs. B. Norman & Son will sell re Chinns, Ltd., in liquidation, by order of the liquidator, removed from 7, Waithman-street, Ludgate-hill, for convenience of sale. Valuable London stock of brasswork, &c., plate-glass showcases, mirrors, office furniture. Auctioneers' Sales Rooms, 5, Little Britain (close to G.P.O.).

Public Appointments.

JULY 31.—**Manchester.**—First Assistant to the Chief Surveyor and Draughtsman required by the Manchester and District Joint Town-Planning Advisory Committee. Mr. P. M. Heath, Hon. Secretary, Town Hall, Manchester.

AUGUST 1.—**Sheffield.**—Chief Assistant Architect (Education) required in the City Architect's Department by the Corporation of Sheffield. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield.

✱NO DATE.—**Derby.**—Clerk of Works required, to supervise widening of bridges in concrete and steel construction. The County Surveyor, St. Mary's Gate, Derby.

✱NO DATE.—**London, W.C.2.**—Architectural and civil engineering assistants (unestablished) required for drawing office staff. The Secretary (S.E.1), Air Ministry, Kingsway, London, W.C.2.

TENDER PRICES FOR HOUSES.

In the House of Commons, in answer to Mr. T. Thomson, Mr. N. Chamberlain said the following statement showed the average tender price of A3 and B3 type houses built under the Housing Act, 1919, Assisted Scheme:—

	A3 Type.	B3 Type.		A3 Type.	B3 Type.
1919.	£	£	1921.	£	£
June ..	643	785	July ..	665	752
July ..	713	833	Aug. ..	612	707
Aug. ..	757	852	Sept. ..	594	659
Sept. ..	800	868	Oct. ..	573	667
Oct. ..	750	834	Nov. ..	577	661
Nov. ..	735	822	Dec. ..	514	566
Dec. ..	744	837			
1920.			1922.		
Jan. ..	782	856	Jan. ..	494	560
Feb. ..	798	932	Feb. ..	494	518
Mar. ..	817	919	Mar. ..	436	513
April ..	817	914	April ..	395	446
May ..	855	953	May ..	392	422
June ..	860	972	June ..	382	419
July ..	870	955	July ..	378	413
Aug. ..	875	956	Aug. ..	370	407
Sept. ..	881	949	Sept. ..	349	398
Oct. ..	888	958	Oct. ..	346	407
Nov. ..	859	960	Nov. ..	332	387
Dec. ..	841	943	Dec. ..	346	387
1921.			1923.		
Jan. ..	834	932	Jan. ..	346	373
Feb. ..	824	878	Feb. ..	367	373
Mar. ..	700	838	Mar. ..	363	402
April ..	697	798	April ..	355	390
May ..	697	813	May ..	363	378
June ..	693	792	June ..	299	—

PATENTS.*

194,111.—J. D. Bennet, Jun.: School furniture.

194,120.—H. R. Burt: Device for securing work to benches.

194,128.—H. H. Garlick: Splash panel for use with lavatory bowls.

194,129.—A. M. Tucker: Rotary earth boring drills.

194,137.—W. E. Baker: Writing desks.

194,139.—J. Kirkcaldy and H. H. Rennie: Combination chair and ladder.

194,170.—J. & J. Siddons, Ltd., and W. H. Baggott: Doors for the grates of furnaces of domestic boilers or coppers.

194,175.—D. Foulis: Apparatus or appliances for treating wood when attacked with woodworm.

190,464.—A. Cousinard: Grooved frames for sliding windows.

194,738.—T. Rigby: Processes for the manufacture of cement.

194,749.—E. C. R. Marks (Tuckaway Folding Ladder Co., Inc.): Ladders.

194,776.—H. H. Green: Hinges for casement windows.

194,783.—S. Rees, E. Thomas, W. L. Hitchings and J. Davies: Cocks and taps.

185,081.—P. A. J. M. Constan and C. Standaert: Construction of jetties, breakwaters, quays and other structures.

184,764.—J. B. Dandois et Cie: Counterbalance and operating devices for sliding windows.

194,841.—J. Ryan: Machines for the manufacture of slabs or blocks for building purposes.

194,853.—G. Betjemann & Sons, Ltd., and H. V. Andrew: Cabinets.

194,880.—G. E. Clare: Fireproof floor construction.

194,893.—H. Hacking: Pipe fittings for water-closets.

194,896.—R. W. Smith: Tables.

194,912.—J. R. Moffat: Domestic fireplace of the barless type.

194,952.—Lamson Paragon Supply Co., Ltd., and A. Winder: Desks and writing-tables.

194,953.—T. E. Mansfield: Table and seat frames.

194,961.—M. Hardman: Chairs.

194,999.—J. E. C. Van Geuns: Process for the production of coloured or other tennis courts.

195,003.—Scottish Stamping & Engineering Co., Ltd., J. G. Latta and J. G. Young: Handrail stanchions for platforms and gangways.

195,015.—E. Baker: Picture framing materials.

188,312.—A. Riva-Roveda: Device for lifting and lowering window sash-frames.

195,115.—L. W. Goold (Blaw-Knox Co.): Apparatus for moulding concrete structures.

195,142.—W. Leadbetter: Ball and float valves.

195,143.—T. W. Woodhouse and G. H. Woodhouse: Taps or cocks for baths and lavatories.

195,145.—W. G. Martin and North British Rubber Co., Ltd.: Rubber treads or floor coverings for rail or road vehicles and gangways.

195,146.—W. G. Martin and North British Rubber Co., Ltd.: Rubber treads for steps and staircases.

195,175.—H. B. Smith: Boxes and method of making the same.

195,188.—G. Hughes (J. G. Thomas): Window sash cord fastener.

195,233.—E. Robinson: Machine for producing wooden or like rods, dowel pins, and pegs.

195,271.—E. G. Knapman: Scaffolding.

195,280.—F. P. Jones: Manufacture of bricks.

195,305.—T. B. Colman: Revolving doors.

183,447.—Soc. Anon des Hauts Fourneaux et Fonderies de Pont-a-Mousson: Rain pipes for buildings.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERDEEN.—The T.C. has agreed to dispose of two estates for £35,000 as a site for a proposed joint hospital. Important extensions are under consideration by the Board of Control at Kingseat Mental Hospital, including a male villa with 60 beds, £17,324; a female villa, £15,758; and a nurses' home, £6,568; making a total of £39,650.

ABERTILLERY.—The Medical Officer of Health has recommended U.D.C. to erect a special house for motor ambulance and additions to the Isolation Hospital, the latter being described as an urgent need.

ALTON.—The Council of All Saints' Church are inviting tenders for installing electric light in the building.—Over £600 is to be expended on re-seating and renovating the Assembly Rooms.—An offer by Mr. F. B. Summers to build two new wards and improve the rooms for the nursing staff at Alton Cottage Hospital, at a cost of over £2,000, has been accepted.

BAILDON.—The U.D.C. are approaching the Yorkshire Electric Power Co. to obtain a supply of electricity by mutual arrangement.

BARNOLDSWICK.—Work is about to be commenced upon a new bridge. A tender has been accepted by the Council subject to the approval of the County Council and the Ministry of Transport.

BELFAST.—As a result of a visit to Liverpool by the Housing Committee, it has been decided to proceed with the erection of concrete houses in the city.

BELFONT.—Plans passed by R.D.C.: Additions to Tughall Hall, for Mr. H. Stephenson, per Messrs. Manchlan & Weightman, architects, Newcastle.

BINGLEY.—The U.D.C. have approved plans for the lay-out of the Ferncliffe Estate, where the Bingley Housing Co., Ltd., propose erecting working-class houses. Messrs. Jones & Stocks, of Park-row, Leeds, are the architects.

BIRMINGHAM.—The Licensing Justices have agreed to alterations being carried out to the following licensed premises: "Marshal Foch," Corporation-street; Benson's Luncheon Stores, Lower Temple-street; "Eagle," Scholefield-street; "Golden Cross," Shortheath-road; "Grove" Tavern, Grove-lane, Handsworth; and "Fox and Goose," Washwood Heath-road.

BLAYDON.—The U.D.C. have received sanction to borrow £18,000 for the erection of fifty houses. Plans passed: For the Consett Iron Co., twelve houses at Chopwell for the Durham Aged Miners' Homes' Committee, and sixteen semi-detached houses at Rowland's Gill for Messrs. Stoddart & Wilkinson.

BOOTLE.—Under certain conditions the T.C. are prepared to assist builders or owners of new houses by contributing £100 per house, to be started before December 31, 1923, and finished before October, 1925.

BOSHAM.—A proposal is made to build a village hall.

BOURNE.—Plan passed by U.D.C.: Two houses in Abbey-road, for Mr. T. Hinson.

BRADFORD.—The Corporation are erecting 286 houses on the Lower Grange Estate as part of a scheme for rehousing people of the White Abbey slum area, which is to be demolished. The City Architect has been instructed to prepare plans and obtain estimates. Including these 286 houses mentioned, there are 700 houses to be erected, 50 of these being "B" type (parlour house), 50 "A2" type and 600 "A" type houses.——Housing schemes launched by the Bradford Council of Social Service have now matured. The Shuttleworth Hall Estate, of 39½ acres, at Fairweather Green, is being purchased, and 100 parlour dwellings will be erected as a start. It is hoped that ultimately a total of 400 houses may be reached.

BRISLINGTON.—Mr. Alfred Clayfield-Ireland, Brislington Hall, has left £500 towards the cost of additional church buildings in connection with the parish church.

BROMLEY.—Plans passed by R.D.C.: Twenty houses, Chelsfield-lane, for Mr. C. A. George; house, Northfields Lodge Farm, Grigg's Cross, for Mr. C. R. Smith; house, Broxbourne-road, Orpington, for Mr. L. S. Gray; bungalow, West Wickham, for Mr. P. A. Chant; house, North End-lane, Downe, for Mr. J. W. Still; alterations to Holly Cottage, Burlings-lane, Knockholt, for Mrs. Hodson; Wesleyan Chapel, St. Paul's Cray, for the Trustees; house at Leeson's Estate, for Mr. E. E. Morris; bungalow at Cudham, for Mr. George Harris; garage at The Cabin, Cudham, for Mr. V. R. J. Nightingale; alterations to house at Hayes, for Mr. S. Staples; bungalow, Dowlerville-road, for Mr. A. S. Mitchell; house at Crofton-road, Orpington, for Mr. Brian Gotti?.

BUXTON.—The T.C. has acquired, at a cost of £2,000, a part of the well-known Devonshire Hotel, Market-place, for gas workshops and offices. At one time known as the "Eagle," the hotel was famous years ago as a coaching house.

CAERPHILLY.—The U.D.C. has been recommended by M.O.H. to allow no delay in erection of public slaughterhouse, and additional Council houses at Nelson, Trecenydd and Caerphilly are advised.

CARLISLE.—Plans passed by R.D.C.: Mr. S. Stewart, architect, Botchergate, Carlisle, on behalf of Mr. G. Cullen, Whiteclosegate, for house at Houghton; by Messrs. Stead, McAlpin, Cummersdale, for two semi-detached houses at Cummersdale.

COWES.—The U.D.C. has a scheme in hand for extending the Esplanade to Gurnard, at an estimated cost of about £20,000, providing financial Government assistance can be obtained.

CHAWTON.—Sufficient funds have been collected to enable a start with the erection of the Village Hall, which has been designed by Mr. J. Coleridge, F.R.I.B.A.

CHESTERFIELD.—The Town's Football Club have decided to extend the Pavilion at an estimated cost of £400.

CROYDON.—A memorial window is to be placed in St. Paul's Presbyterian Church, in memory of Mr. MacKray, and £400 has been subscribed for this object.

DENBIGH.—The Ministry of Health has sanctioned the purchase by the North Wales Visiting Committee of Pontystrad Farm for extension of Denbigh Mental Hospital.

DEWSBURY.—The Corporation have decided to adopt the following relief scheme for the unemployed this winter: Widening of Hebble Bridge, estimated cost £7,000; improving Huddersfield-road, £12,822; levelling the playing field at Wheelwright Schools, £7,217; improvement of Church-lane, £5,508; and the provision of tennis courts at Crow Nest Park, Earlsheaton-Park and Ravensthorpe Park. Work will be provided for about 350 unemployed; full cost of same, £40,000.—A new scheme of decorations and renovations, including enlargement of the organ, is being adopted at the Leeds-road Baptist Chapel. The architect is Mr. Sharpe, of Halifax-road, Dewsbury.

DOUGLAS.—After a long debate on the proposals by the Isle of Man Harbour Commissioners for the improvement of the accommodation on Victoria Pier, Douglas, the Tynwald Court has resolved to erect on the south side of the pier a shelter for passengers similar to that already provided on the north side of the pier.

DOVER.—An offer to build and maintain for two years at his own cost an adult dental clinic has been made to the Corporation by Major Astor, M.P.

DRIGLINGTON.—Plans have been passed for a house at Moorside for Mr. Thomas Riley.

EBBW VALE.—The Ebbw Vale U.D.C. is to erect new footbridge over railway at south end of Bailey Estate. Plans have been passed for erection, at estimated cost £625, of house, by the Council, at cemetery for the sexton, and it has been decided to put work in hand immediately.

EDINBURGH.—Petitions granted by Dean of Guild Court: Mr. John Kyles, six semi-detached villas at Belgrave-road, Corstorphine; Miss J. R. Morris, two houses and shop, Northfield-road; Dr. F. Dittmar, villa, Barnton-avenue, Davidson's Mains; Mr. Alexander Morrison, bungalow, Barony-terrace, Corstorphine; Colonel Lelean, villa, Barnton-avenue, Davidson's Mains; Mrs. F. Campbell, convert self-contained house, 19, Eglinton-crescent, into three separate houses; Mr. W. B. Dalgleish, blacksmith's workshop, 27, Queen-street, Leith; Right Rev. H. Graham and another, church hall and offices, Ferry-road, in connection with the Holy Cross Roman Catholic Church; Edinburgh Royal Infirmary, convert three houses, 7, Archibald-place, into one house, to be used as a nurses' home; Scottish Malt Distillers, Ltd., convert Dean Distillery, Dean Path, into bonded warehouse; Mr. John Robertson, stables at Breadalbane-street, Leith; John Gibson & Son, Ltd., motor engineers, extend workshops, Jameson-place, Leith; Mrs. Gordon, alterations, 21, Heriot-row; Thomas Rankine & Sons, alterations to shop, 75, South Bridge; Royal College of Surgeons, alterations and additions, Nicolson-street premises; Mr. James Alexander, alterations, 92, Lothian-road; Mr. A. S. Blair, additions, 36, India-place; St. Cuthbert's Co-operative Association, Ltd., alterations to shops at 4-6, Spottiswoode-road.—The T.C. has agreed to offer £110,000 for certain L. & N.E. Rly. property at the East-end of Princes-street, the company stipulating that it shall not be used in such a way as to compete with the North British Station Hotel.

EPSOM.—Owing to the state of the present West Hill Infants' School strong representations are being made to Surrey Education Committee to erect a new school without delay.

FARNHAM.—The Housing Committee of the U.D.C. has been instructed to prepare a scheme for building as many houses as considered necessary.

FISHGUARD.—Plans passed by U.D.C.: Additions and alterations to Tabernacle Congregational Church for Trustees. The Ministry of Transport has notified U.D.C. that providing work is immediately put in hand grant of half cost will be made for widening 90 yds. of road (estimate £370) at Brynymor. The U.D.C. has instructed the Surveyor as follows: To obtain tenders for pavement construction at Market-square, West-street, Lewis-terrace and Victoria-avenue, and to submit to Ministry for grant road improvement scheme for Tregrolo and Cefn roads.

FLINT.—Plans passed by T.C.: House and farm buildings at Flint Mountain; bungalow at Bryntirion; new shop front in Trelawney-square; new public house in place of the present "Hawarden Castle"; and garage at the back of the "Royal Oak" Hotel.

GELLYGAER.—The U.D.C. has applied for sanction to erect public conveniences at Bargoed at estimated cost of £3,000. The Council has also applied for sanction to proceed with Deri and Cylla sewer schemes at estimated cost £47,000. The estimate twelve months ago was £7,000 higher. At a meeting of the Rhymney Valley Water Board it was decided to proceed with work of preparing supply to new houses, to be erected by Powell Duffryn Coal Co., at Heolddu and Bargoed, at estimated cost £1,250. It was reported that of the 500 houses to be erected by the Company in next five years, the plans of first eighty had just been approved by Gellygaer U.D.C.

GILDERSOME.—An enquiry has been held by the Ministry of Health (Mr. W. Cross, A.M.I.C.E.), into the Council's application for sanction to borrow £2,500 for sewerage works extensions. Two schemes were submitted by the Council, one of which was the proposed cleaning out and reconditioning the present works, which originally cost £12,000.

GOSPORT.—The Education Committee is considering the erection of a Central School on a site belonging to the Council in Gordon-road.

HALIFAX.—The T.C. is considering the immediate construction of a new reservoir at Gorple Valley, for which Parliamentary powers have already been obtained.

HAMPTON.—The U.D.C. has decided to build 24 houses.

HASLEMERE.—Plans have been prepared for a new Roman Catholic Church and Presbytery in Derby-road.

HECKMONDWIKE.—Plans passed by U.D.C.: Proposed new building line and alterations to property for Messrs. T. F. Firth & Sons, Ltd.

HOLSWORTHY.—Plan passed by U.D.C.: House, Whimble Hill, for Mr. J. H. Stranger.

HORNCASTLE.—A Ministry of Health inquiry has been held into the application of the U.D.C. to borrow £6,400 for installing a new Tully gas plant at the gasworks.

HORSHAM.—The Board of Education have approved the purchase by the Governors of the Grammar School of the old Cottage Hospital at Horsham for £2,500 and the expenditure of £500 on equipment, &c. It is intended to extend the school accommodation.

HOVE.—The T.C. are considering conditions under which financial assistance will be granted to house builders. The Ministry of Health has deferred sanction to the Corporation's proposal to erect 280 houses under the new Housing Act, as no action has been taken in connection with the erection of 20 houses for which sanction was previously given.

HUDDERSFIELD.—The Ministry of Health has sanctioned loan to the B.C. of £4,800 for erection of twelve houses on the Hollin Carr Estate. The Council have decided to extend Greenhead Park by taking in land at Gledholt-road.

HUNSWORTH.—Plans passed by U.D.C.: Conversion of two cottages and outbuildings at the Model Farm, Toftshaw, into four cottages.

LEEDS.—The General Purposes Committee of the Corporation have adopted relief schemes for the unemployed during the coming winter, estimated to cost £39,584, giving employment for 800 men each week. Extensive damage has been caused by fire at Messrs. Mann's Engineering Works, Hunslet; Messrs. A. & F. Moseleys are the architects for the rebuilding.

LEWES.—Sussex Territorial Army Association have submitted to the War Office tenders for converting Lewes Naval Prison into a local artillery headquarters, and hope to proceed with the work immediately.

LITTLEHAMPTON.—The extension of the U.D.C. offices was discussed on a tender of £2,000 being submitted. It was agreed to await further tenders.

LLANELLY.—The T.C. has instructed the Surveyor to prepare plans and estimates of work of arching the river Lliedi. Mr. H. Griffiths, Surveyor, Llanelly, has submitted plans for erection of houses at Ty'rfrau, on behalf of a client. The plans are to be amended so that no more than twelve houses will be built to the acre.

LLANTARNAM.—The Surveyor has reported to U.D.C. that Ministry of Transport has favourably considered the proposal of the Council to build new 30 ft. bridge and do road work at Abbey-road, at estimated cost £3,800, and advises Council to proceed at an early date.

LONDON (BERMONDSEY).—Plan passed: Alterations to "The Mitre," Tooley-street, for Messrs. Barclay, Perkins & Co.

MANSFIELD.—The T.C. have accepted tenders for 62 more houses, and sanction is being asked to a loan of £22,250.

MILFORD.—The Milford U.D.C. has passed following plans: Alterations to 13, Priory-street, for Miss Philbes; bungalow at Pill-lane, for Mr. F. Russel; additions to Wesleyan Chapel, Hakin, for Trustees; garage at 22, Greville-road, for Mr. W. Wilcox; additions to 13, Robert-street, for Mr. Sherriff. The Council has instructed the invitation of tenders for repairing and renovating Council Chambers.

MUSSELBURGH.—The T.C. has accepted the conditions of tender for 10 houses as a further instalment of the town's housing scheme. The question of widening the new stone bridge, with State-aid towards the estimated cost of £17,000, is under discussion.

NEWCASTLE-ON-TYNE.—On the initiative of the Bishop of Newcastle, a forward movement has been started for the erection of a number of new churches and mission rooms in certain centres where the population has lately increased, and may be expected to increase in the near future. The places that call for the earliest possible attention are Fenham, Balkwell (Percy Main), East Howdon and Chirton. A site for a new church, to be situated in Grange-road, Fenham, has been presented by Mr. J. R. Blackett-Ord.

PAISLEY.—Applications approved by Dean of Guild Court: Mr. Thomas Cullen, baker, 4, North Croft-street, shop and a dwelling house on the site at 14, Abercorn-street, and 2 and 4, North Croft-street; Galbraith's Stores, extension of their ham-curing department in Back Sneddon-street; trustees of the High Parish Church, additions to halls in Oakshaw-street; Paisley Society for the Treatment of Incurable Diseases, additions to property in Meiklerigg's.

PETERSFIELD.—The R.D.C. has had five proposals for providing a water supply to Liphook and Bramshott, and has decided to obtain expert advice.

PORT TALBOT.—The U.D.C. has accepted the offer of a free gift of land known as St. Theodore's Park, providing the Council submits scheme of laying out for the public before August 21, and such scheme is now being prepared.

PORTSMOUTH.—A Housing Investigation Committee is organising a campaign for the abolition of slum

* See also our List of Contracts, Competitions, etc.

property. It is reported that despite the house shortage 268 houses stood empty during the year.——It is proposed to widen Fratton Bridge on the east side and plans will shortly be placed before the T.C.——Artisans attending Copnor Baptist Church will carry out extensions to the Sunday School themselves. Materials are to be purchased out of a 3,000 shilling fund.

PRESTON.—Plans passed by T.C.: E. J. Andrew for Mr. Dobson, shop front, 48, North-road; Longworth & Gardner for Mr. Hodson and Mr. Crompton, two houses, Mulgrave-avenue; W. A. Carter for the Preston Industrial Co-operative Society, Ltd., alterations and additions, Moor-lane; F. N. Pinder for J. Shutt, garage, Skeffington-road, N.; R. Cooper & Sons for R. Tait, lock-up shop, Deepdale-road; N. Fazackerley, two houses, Tulketh-brow; J. Inman for Railway Mission, extensions, Corporation-street; J. W. Cookson for R. Shaw, lock-up shop, Holme Slack-lane; R. Cooper & Sons for Mr. Parish, scullery and bathroom, 7, Hill-place; J. W. Lee for Mr. Pike and Mr. Pottie, two bungalows, Powis-road; T. Cookson, garage, Tulketh-brow; T. L. Eaves for Mr. Smith, garage, St. Annes-street; A. J. T. Ellison for R. Kinnear, shop front, 198, Deepdale-road; W. G. Crossthwaite for Fryer & Hancock, shop front, Lord-street; F. Howorth for Miss S. Pickup, house, Fishwick-view.

RHYL.—Mr. J. C. Dawes has held a public inquiry into the Council's application to borrow £2,191 for the purposes of a town yard.

RISHTON.—Plans passed by U.D.C.: House in Blackburn-road, for Mr. G. Knowles; alterations to premises of Rishton Co-operative Society.

RUGBY.—Plans passed by R.D.C.: House, Mr. R. Bell, Long Lawford; village hall, Mr. J. F. Shaw, Bourton; bungalow, Mr. G. A. Johnson, Overslade, Rugby; house, Mr. H. C. Wheat, Brown's Farm, Hillmorton; conversion of barn into cottage, Mr. Binnersley, Dunchurch; garage and out-buildings for house, Mr. Blyth, Hill; dwelling house, Mr. H. Pratt, Overslade-lane, Rugby; house, Mr. C. J. Cockerill, Toft Hill, Dunchurch; new offices, Bluemel Bros., Wolston; house, Mr. J. T. Evans, Hillmorton-road estate; bungalow, Mr. W. Adkins, Blue Boar, Bilton; new stores, Bluemel Bros., Wolston.

SCUNTHORPE.—It is proposed to erect a new General Hospital with accommodation for 72 beds, the estimated cost being £45,000. Mr. Wallace Marchment is the architect.

SELBY.—The U.D.C. have approved the laying out of new streets on the Flaxey-road Estate. The construction of a new road leading through Union-lane to the railway station is proposed as a relief work scheme for the unemployed during the coming winter.

SHEVINGTON.—Plans passed: Four cottages at Broad-o'-th'-Lane, for Mr. John Hooton.

SOUTHEND-ON-SEA.—Plans passed by T.C.: Bungalow, Esplanade-gardens, G. W. Eves; alterations, 35, Cambridge-road, Miss A. Bacon; two houses, Central-avenue, F. Cook; alterations and additions, 52B, High-street, Southend, L. Bertorelli; bungalow, Cheltenham-drive, Smith Bros.; garage, "Kimbolton," The Leas, A. Goodman; two houses, Armitage-road, F. S. Dunnett; house, Western-esplanade, R. T. Howard; three houses, Fleetwood-avenue, F. A. Eastty; two houses, Elm-grove, J. Bartlett; garage, Crowstone-road, Wheeler & Houlding; drainage, Carlton-drive, G. C. Coxhead; house, Eastern-esplanade, trustees, Stamford-hill Cripples' Home; two bungalows, Park-road, Leigh, D. R. Wells; alterations and additions, Tudor Lodge, Boston-avenue, C. Lord; six houses, Wellsted-gardens, F. J. C. Ingram; three houses and three garages, Elm-road, J. Snell; bungalow, Grasmead-avenue, W. Sadd; two houses, Fairfax-drive, A. Aberdeen; two garages, The Broadway, Thorpe Bay, C. Matthews; two houses, Bonchurch-avenue, T. E. Gill; bungalow and garage, Olivia-drive, J. Wardell; three houses, Northview-drive, Holmes & Sorensen; additions, "Cambrai," Shorefield-road, C. Dudley; house, Glenbervie-drive, W. Bowles; four houses, Station-road, Leigh, G. C. Spurgeon; bungalow, Cheltenham-drive, E. S. Lloyd; house, Bonchurch-avenue, V. J. Briggs; two bungalows, Gainsborough-drive, G. F. Cattell; house, Elm-grove, J. Swift; additions, 9, Ailsa-road, W. & H. Johnson; shop, flats and workshop, London-road, H. H. Tomlin; garage, Crosby-road, Mrs. F. M. Francis; house and garage, Chalkwell-avenue, A. J. Cross; ten bungalows, Trinity-road, J. E. Smith; drainage, Station-road, Leigh, G. Wood; eleven houses, Quebec-avenue, F. W. Taylor; house, workshop and shop, London-road, G. W. Eves; house, Eastwood-lane, H. Squire; house, shop and two lock-up shops, London-road, F. Hiatt; bungalow, Western-road, Allen & England; two houses, Burlesboombe-road, A. Popham; billiard hall, Londonoad, Derrick & White; nine bungalows, two in rescent-road and seven in Western-road, Twitchett & o.; house, Grasmead-avenue, E. C. Markby; alteraons, "Snaresbrook," Nelson-road, F. Barley; wo houses, Pall-mall, Leigh, Hart & McCrow; two ouses, Leamington-road, R. Pratt; bungalow, Vestbourne-grove, H. W. Heley; house and garage, hadwick-road, E. Wren; bungalow, King's-road, . G. Glibbery; five garages, rear of Bournemouth ark-road, F. Hart; house, Western-esplanade, W. cGibbon Martin; alterations and additions, Hillsidescent, Sisters of Charity (Sister St. Gabriel Pickood); house, Eastwood-lane, J. R. Tuxill; garage, St. Hilda," Hadleigh-road, G. W. McRae Murray; o houses, Northville-drive, G. Foulds; eighteen ouses, Warwick-road, S. Leigh; house, Crescentad, J. Witcher; seven bungalows, W. E. Coleman; ngalow, Grasmead-avenue, W. Sadd; two houses d shops, London-road, T. Edwards; house and rage, Glendale-gardens, H. Thompson; four houses, ntral-avenue, L. J. Simpson; bakehouse, Sandownenue, D. E. Kerridge; house, Fleetwood-avenue, s. F. Bovington; seven bungalows, Park-road, Leigh, itchett & Co.; house, Galton-road, A. G. Riley; rteen bungalows, Darlinghurst-grove, H. Smith os.; alterations, 367, Westborough-road, K. E. lyneux; four flats, Baxter-avenue, T. D. Nevard; use, Crosby-road, C. W. Ardley; four houses, North-avenue, W. T. Cusdin; bungalow, Boston-avenue, S. A. Morris; bungalow, Southsea-avenue, S. R. Boalch; conversion of house into shop, 39, West-road, E. Newton; three houses, Central-avenue, H. C. French; conversion of house into shop, 763, London-road, B. Cossey; bakery, 339, Westborough-road, E. S. Upson; bungalow, Southbourne-grove, B. Clark; house, King's-road, Wheeler & Houlding; house, Seymour-road, P. G. Hayward; additions, High-street, Southend, Longmans, Ltd.; alterations and additions, Argyll-road, trustees, United Methodist Free Church; three houses, Silverdale-avenue, A. Mullord; additions, Tower Building, Tankerville-drive, R. Phillips; house, Cheltenham-drive, F. Hardwicke; four houses, Hildaville-drive, P. Barnes & Sons; garage, "The Stoep," Ditton Court-road, A. Woolfson; twelve houses, Leigh Park-road, Nixon & Chamberlain; drainage, 2, Carlton-drive, Westcliff, H. A. Agar; school hall, Pall-mall, Leigh, Mrs. A. B. Watts; bungalow, Honiton-road, A. Wheeler; eight houses, Portland-avenue, F. W. Taylor; house, Northview-drive, A. Held; bungalow, Cheltenham-drive, Mowle & Langdon; conversion of house into shop, 100, Hamlet Court-road, F. Squier; four flats, Beach-avenue, J. J. Blanch & Sons; bungalow, York-road, W. Brown; garage and store, Christchurch-road, R. Gooday; conversion of house into flats, 37, Cotswold-road, H. W. U'Ren; two houses, Rockleigh-avenue, G. Grisley; house, Kingswood-chase, H. A. C. Deckman; two houses, Riviera-drive, R. Ling; four houses, Woodgrange-drive, J. C. Ingram; conversion of house into shop, 47, West-road, J. C. Drawater; additions, 60, Southchurch-road, C. H. J. Talmage; showroom, Leigh Hall-road, W. T. Taylor; house, shop and dairy, Pall-mall, Leigh, J. Murray; conversion of house into two houses and shops, Leigh Lodge, London-road, A. Hedges; garage, Grand-drive, Mr. Blackburne.

STOCKTON-ON-TEES.—Plan passed by U.D.C.: Alteration, 78, Dovecote-street, for Walter Willson, Ltd.

SUTTON.—A site has been secured in Devonshire-road for the Sutton Hard Court Tennis Club, and nine hard courts are to be laid out; a club house (licensed for plays and dancing) and costing £5,000, is proposed.

SWANSEA.—Plans passed by T.C.: Two shops and dwellings, Woodfield-street, for Mr. Isaac Jones; house, Pentregethin-road, for Mr. W. G. Saunders; mission hall, Eaton-road, for the Trustees of the Wesleyan Methodist Church; bungalow, Caemawr, for Mr. W. Skidmore; additions, 8, Singleton-street, for Mr. E. M. Evans; dwelling accommodations, Main-road, The Dunns, Mumbles, for Mr. G. R. Williams; church, Greenhill-street, for the Rev. W. J. Bromham; reconstruction of premises for dwelling purposes, Southward-lane, Mumbles, for Mr. W. Williams; house, Clydach-road, Ynistawe, for Mr. D. J. Howells; house, Pentregethin-road, for Mr. F. Rosser; 32 houses, Penlan Estate, for Messrs. L. L. & G. V. Thomas; house, Langland, for Mr. R. H. Martin; additions, Llangyfelach-road, Treboeth, for Mr. T. Clement; two bungalows, Hendrefoilan-road, for Messrs. D. W. & G. H. Banes; steel-frame building, Cefn Coed Farm, Waunarlwydd-road, Cockett, for Mr. Thomas; shop front and garage, 10, Gwydr-terrace, Uplands, for Mr. T. W. Jenkins; house, Heol Cnap, Treboeth, for Mr. E. J. Evans; bungalow, Manor-road, for Mr. M. J. Richards; bungalow, Manor-road, for Mr. B. Harris; house, Maple-crescent, Glanmor Estate, for Dr. Anderson; garage, Sketty-road, for Mr. D. B. Harris; house, Glanmor Estate, for Mr. F. Harries; house, Clydach-road, Ynistawe, for Mr. E. C. Rees; house, Heol Cnap, Treboeth, for Mr. A. Jones; house, Hendrefoilan-road, for Mrs. Jenkins; two houses, Park Wern-road, for Messrs. T. & G. Spragg; two bungalows, Glynderwen-crescent, for Messrs. Lewis and Davies; house, Eversley-road, Sketty, for Miss Davies; house, Glanmor-road, for Mr. F. Stares; additions, Rutland-street, for the Swansea Paint Co.; alterations to schoolroom, Baptist Chapel, Walter-road, for the Committee; two houses, Gwernllwyn-chwyth-road, Llansamlet, for Mr. J. G. Howells; house, Neath-road, Plasmarl, for Mr. D. R. Jones; additions, St. Mary-street, for Messrs. B. Evans & Co.; new street off Derwen Fawr-road, for Mr. Hews; house, Heol Cnap, Treboeth, for Mr. S. Richards; house, Garth-road, Glais, for Mr. S. Roberts; alteration for lodging house, Fisher-street, for Messrs. Fordyke & Phillips.

TENTERDEN.—Plans for the building of a bungalow on the Appledore-road, for Miss A. Finn, and two cottages at Cold Harbour Farm, for Mr. Oliver Barden, have been approved by the T.C.

THAKEHAM.—The Guardians have decided to invite tenders for rebuilding the roof of the dining-hall at the Institution, said to be past repair.

THURNSCOE.—Plans passed: New swimming baths under the Miners' Welfare Scheme.

TREDEGAR.—Plans have been subitted to Board of Education for new school at Pontllanfraith. The schools managers have invited attention of County Council Building Committee to need of greater accommodation at Argoed Schools, and asks for selection of site for proceeding with new school erection at Markham.

TRING.—The U.D.C. has approved plans of a building adjoining the Empire Picture Hall, and of a shop front for the Farmers Produce Co. (submitted by Mr. R. W. Bedford), Tring.

TYNEMOUTH.—Plans passed by T.C.: House and shops, corner of Cleveland-avenue and Queen Alexandra-road, by Mr. A. K. Tasker, for Mr. H. D. Burton; four houses, Cleveland House Estate, by Mr. A. K. Tasker, for Mr. G. A. Leck; oil store, Tynemouth-road, for Messrs. Shell-Mex; six houses, Kingsway, Kenners Dene, by Mr. A. K. Tasker, for Mr. H. D. Burton; two semi-detached houses, "The Broadway," Kenners Dene, by Mr. A. K. Tasker, for Mr. G. H. Stansfield; villa, Beverley-gardens, Cullercoats, by Mr. S. J. Stephenson, for Mr. R. Burgess; four houses, Billy Mill-road (Balkwell Estate), by Mr. W. Stockdale, for Messrs. Robinson & Browse; garage in garden at rear of 27, Beverley-terrace, by Messrs. Hope & Waller, for Mrs. B. Smith; eight semi-detached houses, Hawkey's-lane, by Messrs. Hays & Gray, for Messrs. Chisholm & Co.; garage, "Parkhurst," Mariner's-lane, by Messrs. Hays & Gray, for Mr. Rigby.

WALSALL.—Plans passed: House, Stafford-road, Bloxwich, for Mrs. B. J. D. Hickman; residence, Stafford-road, Bloxwich, for Mr. W. J. Phillips; bungalow, Highgate-avenue, for Mr. W. G. Francombe; and public house, Raleigh-street, for Messrs. John Lord, Ltd.

WANDSWORTH.—Plans passed by B.C.: Mr. W. Cook, six houses, Wyatt Park-road, Streatham; Mr. S. Lindus Forge, house, Rosedene-avenue, Streatham; Messrs. E. Ackerman & Sons, re-drainage of 46, 48 & 50, Southfields-road; Mr. J. Welling, for the L.C.C. Tramways Department, addition to store at the Tramway Depot, Jews'-row, Fairfield; Mr. E. H. Smith, for J. Garrett & Son, workshop, Stonhouse-street; Messrs. J. Garrett & Son, extension of chapel, 19, Cedars-road, Clapham North; Messrs. Holloway Bros. (London), Ltd., four houses, Ellerton-road, Springfield; Mr. W. S. Jones, four houses, Penistone-road, Streatham; Messrs; Wm. Willett, Ltd., twelve one-story houses with cottages and garages, and drainage of three private roads at Putney; Messrs. McLaughlin & Harvey, Ltd., shop, 194, High-street, Clapham South; Mr. J. L. Curtis, two houses, Valley-road, Streatham; Messrs. Humphreys & Allen, additions to Tooting Conservative Club, Ashvale-road, Tooting; Messrs. H. Dakin & Co., house, Castello-avenue, Putney; Mr. R. G. Bare, church hall, 45, West-hill, Southfield; Mr. G. A. Warren, house, Viewfield-road, and house, Melrose-road, Southfield; Messrs. J. Walker & Son, house, Rosedene-avenue, Streatham; Messrs. Chapple & Utting, nineteen houses, Woodbourne-avenue, Streatham; Mr. W. F. Goodchild, garage and workshop, 21, Beechcroft-road, Balham; Mr. W. J Hobbs, two garages, 47 & 49, Seymour-road, Southfield; Messrs. Wood & Co., house, Leigham Court-road, Streatham; Messrs. Thomas & Edge, house, Elms Estate; Messrs. Chapple & Fulford, eight houses, Eardley-road, Streatham; Messrs. G. Hill & Son, Ltd., house, 106, Gleneldon-road, Streatham; Mr. G. Strethill-Smith, additions, Deerhurst Club, 2 & 4, Steerforth-street, Springfield; Mr. F. Davison, house, Abbotsleigh-road, Streatham; Mr. W. H. Taylor, fourteen houses, Rosedene-avenue, Streatham; Mr. A. Soden, two houses with garages, Copley-park, Streatham; Mr. H. Goult, twenty houses, Wimbledon Park-road, Southfield.

YARMOUTH.—Plans passed: House, Barnard-avenue, Messrs. J. Balls & Son; three bungalows, Colomb-road, Gorleston, Messrs. Palmer & Crow; garage, Riverside-road, North Quay, Mr. B. Futter.

FIRES.

ABERTILLERY.—Damage estimated at £3,000 has been done by fire at Williams' garage, in Richmond-road, Six Bells.

BOOTLE.—Atlas Saw Mills, better known as Lamb Bros.' Timber Yard, has been destroyed by fire. The damage amounts to several thousand pounds.

LONDON.—Extensive damage was caused by fire at the premises of Ebonestos Insulators, Ltd., Rollins-street, Canterbury-road, S.E.—A fire has occurred at the premises of Sasieni, Ltd., pipe manufacturers, Windus-road, Stamford Hill.

PORTRUSH.—The garage of Stewart Bros., Dunhill-street, and the Kelly Memorial School have been destroyed by fire.

NEW COMPANIES.

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C. 2, from the documents available at the Companies' Registry.

LIMESTONE PRODUCTS, LTD. (190,155). Registered May 23. Pantyrodin House, Llandebie, Carmarthenshire. Quarry owners, quarrymen, lime makers, colliery owners, merchants and dealers in stone, lime, silica, limestone, &c. Nominal capital, £50,000.

W. H. THOMAS & SONS, LTD. (190,213). Registered May 25. 8, Salop-road, Oswestry, Salop. To acquire and take over as a going concern the business of English and Foreign timber and general builders' merchants, builders and contractors, now carried on under the style of Harold W. Thomas, Ltd., at Oswestry, Salop. Nominal capital, £10,000.

WITCOMBE, HARDING & Co., LTD. (190,216). Registered May 25. 116, Holborn-hill, Aston, Birmingham. Builder and contractor, lately carried on by Harold Goldie Witcombe, at 24, Highfield-road, Moseley, Birmingham, under the style of H. G. Witcombe. Nominal capital, £3,000.

W. E. BENNETT & Co. (BUILDERS), LTD. (190,427). Registered June 4. 58, Parkgate-road, Watford, Herts. Builders and contractors, &c. Nominal capital, £500.

ALFRED ARMITAGE & Co., LTD. (190,395). Registered June 4. 208A, Thwaitegate, Hunslet, Leeds. Joiners, builders and contractors. Nominal capital, £200.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge. £ s. d.

Best Stocks 4 2 0
Second Hard Stocks 3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	2 15 3	Do. Bullnose ..	10 1 6
Do. Bullnose ..	3 8 3	Blue Wire Cuts	7 11 6

Best Stourbridge Fire brick :—
2½ in. ..... 11 3 0 3 in. 13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers ..	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends ..	31 10 0
		Two Sides and one End	32 10 0
		Splays and Squints	30 0 0
Headers	21 10 0		
Quoins. Bullnose and 4½in. Flats	28 10 0		

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

s. d.		s. d.
2 in. per yd. super 2 1	3 in. per yd. super	2 9
2½ in. „ 2 5	4 in. „	3 7

	s. d.		
Thames Ballast	10 6	per yard.	delivered 2 miles radius Paddington.
Pit Sand	14 9	„ „	
Thames Sand	15 6	„ „	
Best Washed Sand	15 6	„ „	
¾ in. Shingle for Ferro-Concrete	14 0	„ „	
½ in. „	15 0	„ „	
¾ in. Broken Brick	10 6	„ „	
Pan Breeze	5 6	„ „	

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6
51/- alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 13 0
Keene's Cement, White	5 8 0
„ „ Pink	5 3 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ „ Fine	5 12 0
Sirapite, Coarse	3 9 6
„ Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube ..... s. d. 2 10

Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube 3 0½

PORTLAND STONE—
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube 4 4½
Do. do. delivered on road wagons at above stations, per ft. cube 4 5½
White basebed, 3d. per ft. cube extra.

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ¼d. beyond 30 ft.

HOPTON-WOOD STONE.
Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides „	27/-
Sawn three or four sides „	32/-

YORK STONE, BLUE—*Robin Hood Quality.*
Delivered at any Goods Station London. s. d.

6 in. sawn two sides landings to sizes (under 30 ft. super.)	Per Ft. Super	5 3
6 in. rubbed two sides, ditto	„	5 9
3 in. sawn two sides slabs (random sizes)	„	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes)	„	1 5½
1½ in. to 2 in. ditto, ditto	„	1 3

HARD YORK—
Delivered at any Goods Station London.

Scappled random blocks	Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.)	Per Ft. Super	5 4½
6 in. rubbed two sides ditto	„	6 0½
4 in. sawn two sides slabs (random sizes)	„	2 10
3 in. ditto. ditto	„	2 5
2 in. self-faced random flags ..	Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads. s. d.

Plain	per ft. cube	6 6
Moulded	„ „	7 9
Cills	„ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	.... £34 0	3 × 6	.... £25 0
4 × 9	.... 34 0	3 × 11	.... 34 0
4 × 8	.... 28 0	2 × 11	.... 34 0
4 × 7	.... 26 0	3 × 9	.... 32 0
3 × 8	.... 26 0	2½ × 9	.... 32 0
3 × 7	.... 25 0	3 × 4½	.... 24 0
2½ × 7	.... 24 10	3 × 4	.... 24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11 .... £38 10 1 × 9 .... £36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	20/-	1½	33/6
¾	23/-	1¾	38/6
⅞	25/6		
1			

TONGUED AND GROOVED FLOORING.		MATCHINGS (BEST).	
Inches.	per sq.	Inches	per sq.
1	25/6	⅝	17/6
1¼	33/6	¾	22/-
1¾	38/6	1	26/-

BATTENS s. d.
Inches
¾ × 2 ..... 2 4 per 100 ft.

SAWN LATHS.
Per bundle 0 2 10

Dry Wainscot Oak, per ft. super, as inch	0 2 0	to	0 2 6
¾ in. do. do.	0 1 6	to	0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9	to	0 2 6
	0 3 6	to	0 4 0
Cuba Mahogany			
Teak (Rangoon, Moulmein or Java), per load	45 0 0	to	50 0 0
American Whitewood planks, per ft. cube ..	0 14 0	to	0 16 0
Best Scotch Glue, per cwt.	4 10 0	to	—
Liquid Glue, per cwt. ..	4 7 0	to	5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

£ s. d.		£ s. d.
24 by 12 ..... 37 12 6	18 by 10	21 2 6
22 by 12 .... 34 0 0	18 by 9	18 12 6
22 by 11 ..... 31 5 0	16 by 10	17 12 6
20 by 12 ..... 29 15 0	16 by 8	13 15 0
20 by 10 ..... 25 12 6		

TILES.

	Per 1,000 f.o.r. London.
	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) { Hand made	0 9 6
{ Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
„ Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅛ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¾	3½d.
4 in.	1/4	1/1¾	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7¾	1/5½	5d.
O.G. GUTTERS.			
3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9¾	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5½	3 3½
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3½	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	14 0 0	to	15 0 0
Staffordshire Crown Bars—good merchant quality	14 10 0	..	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	13 10 0	..	14 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 10 0	..	14 10 0
Hoop iron, basis price	16 10 0	..	17 10 0
Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g...	15 10 0	..	16 10 0
„ „ „ 24 g...	16 10 0	..	17 10 0
„ „ „ 26 g...	18 10 0	..	19 10 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g...	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.....	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g...	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24 10 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker ..	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g. ..	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	21 10 0	..	23 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.		
LEAD—Sheet, English, 4 lb. and up	34 0 0	..	—
Pipe in coils	34 10 0	..	—
Soil Pipe	37 0 0	..	—
Compo pipe	38 0 0	..	—

NOTE—Country delivery, 30s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton	21 10 0	..	—
Do., ex country, carriage forward ..... per ton	22 10 0	..	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	43/6	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
38/-	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES. S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
32/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps ..	33/-	41/-	56/-	101/- per doz
8 lbs. S. traps ..	35/-	45/-	66/-	126/- „

COPPER—	£ s. d.		
Strong Sheet ....per lb.	0 2 3	..	—
Thin „ .... „	0 2 4	..	—
Copper nails .... „	0 2 3	..	—
Copper wire .... „	0 2 4	..	—
TIN—English Ingots „	0 2 0	..	—
SOLDER—Plumbers' „	0 0 11	..	—
Tinmen's ..... „	0 1 1	..	—
Blowpipe ..... „	0 1 3	..	—

PAINTS, &c.

	£ s.
Raw Linseed Oil, in pipes .....per gallon	0 3
„ „ „ in barrels .... „	0 3
„ „ „ in drums .... „	0 4
Boiled „ „ in barrels .... „	0 4
„ „ „ in drums .... „	0 4
Turpentine in barrels ..... „	0 6
„ „ in drums (10 gall.) .. „	0 7
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	55 10

GENUINE WHITE LEAD PAINT—
"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots.....per ton delivered 77 0
Red Lead, Dry (packages extra)....per ton 42 0
Best Linseed Oil Putty.....per cwt. 0 16
Filocol.....per cwt. 0 15
Size, XD Quality.....fkn. 0 3

[*Concluded on next page.*]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths	3½d.	32 oz. fourths.....	8½d.
15 „ thirds	4½d.	32 „ thirds.....	10½d.
21 „ fourths	5d.	Obscured Sheet, 15oz.	4d.
21 „ thirds	6½d.	21 „	5½d.
26 „ fourths	6d.	Fluted 15oz.	6½d. 21oz. 9½d.
26 „ thirds.....	7½d.	En'lled 15 „	5½d., 21 „ 7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4½d.
3/16 Rough rolled	5½d.
¼ Rough rolled	5½d
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white.....	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best ditto.....	ditto	1 12 0
Floor Varnish.....	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal flatting	ditto	1 0 6
Hard drying Oak	ditto	0 18 0
Fine Hard drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size.....		0 12 0
Best Black Japan.....		0 12 0
Oak and Mahogany Stain (water).....		0 12 0
Brunswick Black.....		0 9 0
Berlin Black.....		0 14 0
Knotting (patent)		1 5 0
French and Brush Polish.....		0 17 6
Liquid Dryers in Terebine.....		0 9 0
Cuirass Black Enamel.....		0 7 0

TRADE NEWS.

Mr. W. S. Woolley, who recently resigned his position as managing director of Charles Credland, Ltd., paint, colour and varnish manufacturers, has been appointed manager of the Inland Department of the International Paint and Compositions Co., Ltd. Mr. Woolley's headquarters will be at the London office, 6, Broad-street-place, E.C.2.

Boyle's latest Patent "Air-Pump" Ventilators have been applied to the Refuse Disposal Works, Sheffield. Supplied by Messrs. Robert Boyle & Son, ventilating engineers, Holborn Viaduct, London.

Messrs. Gordon & Alexander, tile merchants, of Grafton House, Golden-square, W.1, have issued a new price list which is available on application.

James Austin & Son, Ltd., of Hoxton-square, N.1, are issuing an attractive pamphlet on plaited cordage and window ventilation.

Farnham U.D.C. (Surveyor, Mr. W. Cass, M.Inst. M. & Cy. E.) has placed the contract for scarifying, resurfacing and kerbing Hungryhill and Alma-lane, between Farnham and Aldershot, in the hands of Messrs. William Shepherd & Sons, Ltd., Milkstone, Rochdale.

Annual Outing.

The annual outing of the employees of Messrs. Jennison, Kett & Co., Ltd., 11, Queen Victoria-street, E.C.4, manufacturers of rolling shutters, iron doors, &c., took place on July 14th. Brighton was the venue, and a portion of the 9.15 a.m. train from London Bridge was reserved for the party, one section joining the other at New Cross. An excellent dinner was provided at the Jesmond Café, and the usual toasts were duly honoured. Mr. Willatt, works foreman, proposed the health and prosperity of the Directors, and of Mr. Pocock, works manager. Mr. Pocock, in reply, regretted the unavoidable absence of Mr. George Kett, the Chairman of the Company, and said it was very satisfactory to see that their number was double that of last year. A vote of thanks was accorded Mr. Willatt for making the arrangements.

NEW BUILDINGS IN SCOTLAND.

Glasgow.—Various.—The Dean of Guild Court has passed the following plans: Cathedral Church of St. Mary and of the Episcopal Church of St. Peter, to erect a hall at St. Peter's Church, Gardner-street; Duncan McKellar, 10, Kingsborough-gardens, Hyndland, to erect dwelling house at Crown-terrace; Corporation Electricity Department, to erect workshops at Dalmarnock Electricity Works, Dalmarnock-road; Galbraith's Stores, Ltd., Back Sneddon-street, Paisley, additions to bakery at Craigton-road, Govan; Civic Press, Ltd., 164, Howard-street, workshop at Brown-street, Port Dundas; James Templeton & Co., William-street, Greenhead, additions to premises at Crownpoint-road, estimated to cost £26,339; The Western Lawn Tennis Co., to erect tennis pavilion in Hyndland-road; Royal Bank of Scotland, alterations and additions to premises at corner of Howard-street and Jamaica-street; John C. McKellar, architect, 45, West Nile-street, to form roadway and sewer, and erect six terrace houses at Great Western-road and Julian-avenue; Corporation Housing Department, to erect dwelling houses at Yorkhill-street and Carfrae-street; Corporation Electricity Department, to erect a sub-station at Virginia-street, at Virginia-place; Archd. J. C. Colquhoun, of Killermont and Garscadden, Knockearn, Crieff, to form a road and sewer off Acre-road, Killermont.

Perth.—Football Enclosure.—The directors of St. Johnstone F.C. have decided to erect a large enclosure at the pavilion end of the ground, with seating accommodation for 1,000 persons.—The T.C. approved of plans prepared by Sir R. Lorimer for the restoration of St. John's Church.—Bacon Factory.—It is stated that a private company, entitled the Scottish Central Bacon Factories, Ltd., has been registered with a capital of £15,000, with a view to the erection of a bacon factory at Perth.—Slum Clearance.—In connection with a slum-clearance scheme the burgh surveyor has been instructed to prepare plans for the new houses to be erected in place of those to be demolished.

Collessie.—Public Hall.—The Cupar District Committee has passed plans for the erection of a public hall at Collessie for the Victoria Hall Committee.

Dundee.—Houses.—At a meeting of the Dundee District Committee of the Forfar County Council it was intimated that the Scottish Board of Health was prepared to subsidise the Committee to the extent of a further lot of six houses. The matter was remitted to the Road Metal Committee.

Aberdeen.—Various.—The Corporation Plans Committee has passed the following plans:—Alterations at 65, Westfield-terrace, for Mr. L. Mackinnon, per A. H. L. Mackinnon; additions to the Royal Mental Hospital, Cornhill-road, for the directors; reconstruction of shop fronts at 105 and 109, Holborn-street, for Mr. Wm. McDonald; additions to calendar winding house at Donside Paper Mills, for the Donside Paper Co., Ltd.; alterations at 159, Crown-street, for Mrs. Brown, 52, Bon-Accord-street, per Brown & Watt; extension to tea-room, 23–25, Union-street, for Mitchell & Muil, Ltd., per Wilson & Walker; a house in Broomhill-road, for Mr. P. Smith, per Sutherland & George; alterations at 7–13, Waverley-place, for Mr. G. A. Stephen, per Mr. G. Watt.

Bridge-of-Allan.—Villa.—Plans have been passed for a villa in Claremount-drive, for Mrs. Galbraith, Minewood, and for a pavilion for the Airthrey Spa Bowling Club.

Edinburgh.—Houses.—The Dean of Guild Court has passed eighteen plans, including several for houses in the suburbs. The Corporation were granted a warrant to erect a transformer house at Portobello Power Station, and Dr. W. H. Fowler to erect laboratories at 21, Walker-street, Edinburgh, for X-ray research.—National Library.—It is stated that Mr. Alexander Grant, of Messrs. McVitie & Price, biscuit manufacturers, has offered £100,000 as a permanent endowment of the proposed Scottish National Library.

Paisley.—Housing Schemes.—The Burgh Engineer submitted a plan at the last meeting of the T.C., showing how the available ground at Whitehaugh might be utilised by the erection of 136 two-apartment houses, eight three-apartment flatted houses, and 12 three-apartment cottages. It was agreed to submit this plan to the Board of Health for their approval immediately.—A letter was read from the Board of Health intimating that they cannot see their way to increase the amount of annual grant of £185 to the local authority in connection with the improvement of insanitary areas. It was agreed to proceed with the scheme, although the deficit payable by the local authority will be considerably more than £185 per annum.

Ayr.—Housing Schemes.—Mr. Cowie, the architect, has submitted a revised scheme to Ayr Corporation for the Woodfield site. It is designed to meet the provisions of the new Housing Bill. The Corporation have already built 40 houses and an additional 40 have been authorised. Mr. Cowie states that under the new Bill 160 houses could be built on the ground already owned by the Corporation, and on ground not yet acquired 72 houses. A committee is to submit a report regarding the finances of the proposals, and the Council will then fix what terms are to be offered to private persons who undertake to erect houses.

Alloa.—Houses.—Plans submitted by John Melvin & Son, architects, for a house in Alexandra-drive, for John Thomson & Son, builders, have been approved by the Dean of Guild Court, and consideration of plans, submitted by the same architects, for a house, shop and workshop in High-street and Drysdale-street, for Mr. J. Simpson, electrical engineer, has been adjourned

Dumfries.—Garage.—Plans have been passed for a large garage in Leafield-road for Dumfries Co-operative Society.

Glenfarg.—Convalescent Home.—The Fife, Kinross and Clackmannan Mine Workers' Association is considering an offer by Mr. John Calder, brewer, the gift of a site at Ardargie, near Glenfarg, for a convalescent home for members of the Association. The Executive will obtain a plan of the estate.

Rothesay.—Lighting Schemes.—In connection with the proposed electric lighting scheme the T.C. will apply for sanction to borrow the following sums:—£4,000 for public street lighting, £7,000 for private lighting and power, and later on £20,000 for the erection of a new generating station.

Office of Works Appointments.

In the House of Commons last week Mr. G. Jones asked the First Commissioner of Works whether his attention had been called to the proposed appointment of four men as assistant architects in the ancient monuments branch of the Office of Works; whether he was aware that two of them were not ex-service men; that applications were not invited from the unestablished staff for these posts, and that one man, if appointed, would receive £500 per annum, and thereby be in a better position than many who were his senior and had given continuous service.

Sir J. Baird said he had given very careful consideration to this question and was satisfied that the four officers referred to were the best qualified for the highly specialised work, and that their appointment was in the best interests of the department. Three of the appointments had already been made, and he regretted that he was unable to suspend the appointments as suggested. Of the total professional, administrative and clerical male staff of the department at present 75 per cent. had served with the Army, Navy or Air Force.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6 ..	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses.....	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails....	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates .....per foot cube		5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers .. "		50	0
Do. to beams .....per ft. sup.		1	0
Centres for arches ..... "		1	6
Gutter boards and bearers ..... "		1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds .....per ft. sup.		1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights ; average size.....	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed .....per ft. sup		2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays.....	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints ..	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do. ..	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	51	0
Do. Do. in flats	"	49	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	10d.	1/6	1/9	3/1	3/10	
Do. service	"	1/5	1/11	2/3	3/6		
Do. soil	"						6/2
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints ..	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	" "	2	6
Do. Do. Keen's	" "	3	6
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1¾
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup	0	6
French polishing	"	1	2
Preparing for and hanging paper	per piece	2/- to 1/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

BARNOLDSWICK.—For construction of a bridge, for the D.C. :—
*J. Winpenny & Co., Linthwaite, Huddersfield.

BIRCHINGTON.—With reference to the tenders for erection of a bungalow and conversion of a house into a shop, given last week, the architect in both cases is Mr. Hugh W. Millar, of Station-road.

BIRMINGHAM.—For erection of girder bridge carrying Pershore-road over the Ree, for the T.C. :—
*Percy Trentham & Son..... £7,392

BLAYDON.—For erection of 16 semi-detached houses at Rowlands Gill :—
*Stoddart & Co., Blaydon.

BOLTON-ON-DEARNE.—For widening of Nicholas-lane, for the U.D.C. :—
*H. Roberts, Doncaster..... £3,356 12 3

BOLTON-ON-DEARNE.—For erection of fencing on Lockwoods Farm housing site, for the U.D.C. :—
*E. E. Dickinson..... £168 10

BRADFORD.—For alterations and erection of a new covered shed at Valley Mills, Bradford :—
Mason—*Saml. Wray & Co.
Joiner—*J. Briggs & Son.
Slater—*G. Wilkinson.
Steelwork—*Hy. Barratt & Son.
Plasterer and Concretor—*Crabtree & Berry.
Asphalter—*Tunstall's Rock Asphalte Co., Ltd., Leeds.
All of Bradford.

BRADFORD.—For erection of a garage at Eccleshill, for Mr. Pickering :—
*John Leach, Undercliffe.

BRYNSIENCYN.—For erection of memorial institute. Mr. D. C. Herbert, Brynsiencyn, Llanfair :—
Long, White Hall, Brynsiencyn..... £714
H. Williams, Brynsiencyn..... 660
*C. Jones, Brynsiencyn..... 584

BURTON-ON-TRENT.—Demolition of houses in Lichfield-street and clearing of site, for the T.C. :—
*T. Lowe & Son..... £358 14 8

BURY.—For painting the interior of the market for the Bury B.C. :—
*Bentley & Pullen, Bury.

BURY.—For children's ward annexe to the Bury Hospital as the town's war memorial. Plans prepared by the Borough Surveyor. Mr. J. A. Settle, A.M.I.C.E., for the War Memorial Committee :—
*Thompson & Brierley, Bury (estimated £42,000).

CHADWELL HEATH.—For the erection of two shops, Burnside-road. Messrs. Meredith & Smith, architects, Green-lane, Chadwell Heath :—
F. P. Romain & Sons £3,723 18
A. W. Fletcher 3,600 0
A. Partridge Bros. 3,450 0
H. Gower 3,350 0
*Baker, Hammond & Laver, Ltd. .. 3,315 0

CHADWELL HEATH.—For the erection of shop premises, Becontree-avenue. Messrs. Meredith & Smith, architects, Green-lane, Chadwell Heath :—
Baker, Hammond & Laver, Ltd. ..£1,238 0
Hammond & Miles, Ltd. 1,206 0
Partridge Bros. 1,011 8
*Romain & Sons 1,002 0

CLAYTON.—New workshop for Messrs. G. Chadwick & Co., dyers and finishers, Clayton-lane :—
*Riley & Son, Bradford.

CREWE.—For erection of 16 houses, for the T.C. Mr. L. St. G. Wilkinson, Municipal Buildings, Crewe :—
Smethurst, Ltd., Oldham £8,605 14
H. Jones, Crewe 7,890 0
Smith & Sons, Crewe 7,624 0
E. Curzon, Winsford 7,306 0
T. Martin, Crewe 7,085 17
*S. Barnett, Crewe 6,615 0
*G. W. Platt, Shavington, Crewe .. 6,552 0
(Eight houses each.)

EAST HAM.—For tar-spraying of 5,120 yards super of carriageways, for the B.C. :—
*Durable Roads, Ltd..... £519 7 11

HECKMONDWIKE.—For rock asphalte paving at the Flush widening scheme, for the U.D.C. :—
*Limmer & Trinidad Lake Asphalte Co., Ltd., Manchester.

HENDON.—For rebuilding the "Load of Hay," Brent-street, Hendon, for Messrs. Truman, Hanbury, Buxton & Co., Ltd., Spitalfields, E. Mr. A. E. Sewell, M.S.A., architect, 91, Brick-lane, Spitalfields, E. Quantities by Mr. Gilbert Burton, F.S.I., 12, New-court, Carey-street, W.C. :—
Courtney & Fairban £7,387
Snewin Bros. 7,237
J. L. Catterall & Sons 7,188
Walter Lawrence & Son 7,152
G. Everitt & Co. 7,145
H. V. Clogg 6,790
Henry Knight & Son 6,758

H.M. OFFICE OF WORKS (accepted during June) :
Building Works : Fenny Stratford Repeater Station—Erection : Arthur Cole, Ltd., Luton. Liverpool Bank Telephone Exchange—Asphalte : The Limmer and Trinidad Lake Asphalte Co., Ltd., London. Glazing : Williams & Watson, Ltd., Liverpool. Mason : E. & C. Smitton, Liverpool. Liverpool Old Swan Telephone Exchange—Asphalte : Engert & Rolfe, Ltd., London. E. Marton Telephone Exchange—Erection : C. F. Mundell & Co., Ltd., Middlesbrough. Maryhill Employment Exchange—Erection : T. Henderson, Glasgow. Mason : John Porter & Sons, Ltd., Glasgow. Painting : The Norfolk Decorators, Glasgow. Plastering : James Cruickshanks & Co., Glasgow. Plumbing : James Anderson & Co., Glasgow. Parkhead Employment Exchange—Extension : Bremner & Co. (Glasgow), Ltd., Glasgow. Painting : The Norfolk Decorators, Glasgow. Plastering : H. Lind, Glasgow. Plumbing : Jas. Anderson & Co., Glasgow. Royal Mint—Joinery : The Central Aircraft Company, London, N.W. York H.P.O.—Alterations : W. Birch & Sons, Ltd., York.—*Engineering Services* : Houses of Parliament—Air Compressors : The Hamworthy Engineering Co., Ltd., London, S.W. Kew Insurance Office—Cooking Apparatus : R. & A. Main, Ltd., London, N. Liverpool Government Offices—Electric Wiring : T. Clarke & Co., Ltd., London, S.W. Boilers and Mains : The Thames Bank (Blackfriars) Iron Co., Ltd., London, S.E.—*Fittings and Furniture* : Card Index Cabinets : Thomas Bradford & Company, Salford. Chairs, Dressing Chests, Wardrobes, &c. : The North of England School Furnishing Co., Ltd., Darlington; Robert Young's Construction Co., Ltd., London, N., Arthur Cole, Ltd., Luton : H. B. Tarleton, Redditch. Presses : H. Morris & Co., Ltd., Glasgow : The Lord Roberts Memorial Workshops, London, S.W. : Thomas Bradford & Co., Salford; The North of England School Furnishing Co., Ltd., Darlington; Geo. M. Hammer & Co., Ltd., London, S.E.

ILKLEY.—For extensions and alterations to Kindergarten School in Bolton Bridge-road, for Mr. Knight :—
*George Smith, Ilkley.

KINGSWOOD.—For erection of 12 houses on the Hanham site, for the U.D.C. :—
*Willmott Bros..... £365 per house

LEEDS.—For erection of new nurses' home for Leeds Guardians, at their Beckett-street Institution. Messrs. G. Fredk. Bowman & Son, architects, Greek-street, Leeds :—
*J. H. Wood & Co., Leeds.

LEEDS.—For erection of telephone exchange at Roundhay :—
Mason and concretor—
*Saml. Flockton, Leeds.
Joiner and carpenter—
*Tricketts, Bramley.

LEEDS.—For erection and completion of 50 houses on the Middleton Housing Estate, for the Corporation :
*Paul Rhodes, Leeds..... £339 each

LEEDS.—For erection of a private residence in Old-lane, Beeston, for Mr. Brearley :—
*John Ferguson & Sons, Ltd., Leeds.

LEEDS.—For erection of a garage in Derwentwater-terrace, Headingley, for North-lane Taxis, Ltd. :—
*Wm. Gott & Sons, Leeds.

LEEDS.—For structural alterations and erection of a garage for the Yorkshire Conservative Newspaper Co., Ltd., at the premises of the *Yorkshire Post*, Basinghall-street, Leeds :—
Mason and joiner—
*Saml. Flockton, Leeds.
Asphalter—
*Tunstall's Rock Asphalte Co., Ltd., Leeds.

LINTHWAITE.—For painting and decorations at Winget-avenue, for the U.D.C. :—
*James Spivey, Milnsbridge.

LONDON.—For painting at non-provided schools for the L.C.C. :—
St. Matthias' (Bethnal Green, S.W.)—
*R. Gregory, Bethnal Green £345 0
St. Michael's and All Angels' (B) (Camberwell, N.W.)—
*J. Garrett & Son, 83, Balham-hill 168 0
Deptford R.C. (Deptford)—
*T. D Leng, Deptford 909 0
St. Peter's (Greenwich)—
*W. Mills & Sons, Westcombe Park 189 0
Triangle R.C. (Hackney, S.)—
*Crawley & Co., Bethnal Green.... 309 10
Ballance-road R.C. (Hackney, S.)—
*J. A. Hunt, Ltd., Highgate-hill.... 467 0
St. Mary's R.C. (Practising) (Hammersmith, S.)—
*R. W. Dunn & Son, Shepherd's Bush 189 10
St. George the Martyr C.E. (B) (Holborn)—
*T. Sobey, Ltd., Lamb's Conduit-street 133 0
St. Etheldreda's R.C. (Holborn)—
*Lister & Co. (Builders), Ltd., 37, Snow-hill 356 0
St. John's (Kennington)—
*W. A. King, Brixton 1,050 0
St. Luke's (Paddington, N.)—
*Prater & Son, Highbury New Park 394 0
St. Luke's C.E. (St. Marylebone)—
*E. D. Winn & Co., Ltd., Lowndes-street 337 0
St. Anne's Brookfield (St. Pancras, N.)—
*Marchant, Hirst & Co., Highgate-road 290 0
Christ Church (St. Pancras, S.W.)—
*E. D. Winn & Co., Ltd., Lowndes-street 670 0
Heygate-street Jewish (Southwark, S.E.)—
*H. D. Harding, Vassall-road 322 0
St. Agnes' (Southwark, S.E.)—
*Crabb & Son, Upper Tulse-hill.... 369 0
English Martyrs' R.C. (Southwark, S.E.)—
*T. Rutter & Son, Peckham 389 0
St. Matthew's C.E. (Abbey, Westminster)—
*F. C. Hoskins & Co., Ltd., Great Peter-street 214 0
St. Peter's C.E. (Battersea, S.)—
*Limpus & Son, Kingston-hill..... 174 0
Aldersgate Ward and Packington (City of London)—
*Chas. C. Welch, Aldersgate-street, E.C.1 ..... 305 0
Hackney Free and Parochial (Hackney, S.)—
*W. Silk & Son, Homerton, E.9.... 395 0
St. Mary's C.E. (Islington, S.)—
*J. Johnson, Canonbury, N.7..... 350 0
Buckle-street Jews (Whitechapel and St. George's)—
*W. Lawrence & Son, Ltd., E.C.2.. 392 0
Jews' Infant, Commercial-street (Whitechapel and St. George's)—
*Charles R. Price, E.C.2. ..... 760 0
St. Joseph's R.C. (Boys') (Battersea, N.)—
*W. J. Barker, Battersea..... 130 0
All Saints' C.E. (Islington, S.)—
*V. J. Wagstaff & Son, Barnsbury, N.1 ..... 398 0
St. Mary's (Lambeth, N.)—
*W. A. King, Brixton, S.W.9..... 398 0
Old Battersea R.C. (Battersea, N.)—
*Hudson Bros. (Builders), Ltd., Clapham Junction..... 224 0
Coleman-street Ward (City of London)—
*Heeps Willard & Co., E.C.2..... 135 0

LOSTOCK (LANCS).—For construction of a new bridge for the L. M. & S. Railway Co. :—
Steelwork—
*J. Booth & Sons, Bolton.
Foundations, &c.—
*Sir Robert McAlpine & Sons, Huddersfield.

MANSFIELD.—The T.C. has accepted tenders for the erection of houses for the following :—
G. Hutchinson & Son, 5 blocks of 6 (30 houses).
Thomas Kemp, 7 pairs (14 houses).
E. Whitehead, 9 pairs (18 houses).

MASBOROUGH.—For constructing additional railway siding accommodation for the L.M. & S. Ry. Co. :—
*Wilson Lovatt & Sons, Wolverhampton.

PAIGNTON.—New banking premises for Lloyds' Bank, Ltd., Messrs. Bridgman & Bridgman F.—A.R.I.B.A., architects and surveyors, Torquay and Paignton. Quantities by Messrs. Harris & Hills, P.A.S.I., of Torquay and Paignton :—
R. Harris & Sons, Paignton..... £5,750
E. P. Dovey & Son, Torquay..... 5,589
R. G. Spiller, Chard..... 5,487
*R. Wilkins & Sons, Torquay..... 4,889

PAIGNTON.—Bungalow for Mr. R. Horsley. Messrs. Bridgman & Bridgman, F.—A.R.I.B.A., architects and surveyors, Torquay and Paignton. Quantities by Messrs. Harris & Hills, P.A.S.I., of Torquay and Paignton :—
T. Vanstone & Sons, Torquay..... £3,113
W. H. Webber, Paignton 2,850
S. Batten, Paignton..... 2,812
E. P. Bovey & Sons, Torquay..... 2,745
R. Wilkins & Sons, Torquay..... 2,682

PEMBROKESHIRE.—For carrying out, for the County Council Public Works Committee, the following at Council Offices, Old County Hospital, Haverfordwest :—
Constructional work—
*Messrs. W. H. Fortune £509 12 9
Decorating work—
*J. Woolcock & Son 198 0 0
Heating—
*Messrs. Musgrove & Co., Cardiff 320 0 0

PORTSMOUTH.—For erection of house, for Mr. A. Flowers. Mr. Henry J. Dyer, architect and surveyor, Southsea. Quantities by architect :—
Frank Corke & Co..... £3,366
Frank Bevis, Ltd..... 3,125
Tanner Bros..... 3,016
H. Jones & Son 2,999
E. & A. Sprigings 2,995
Frank Privett 2,949
Juniper & Coombes 2,942
Jas. Crockerell 2,921
Saml. Salter 2,899
John Lay & Co..... 2,867
‡Light Bros. & Flowers..... 2,837

ROTHWELL.—For rock asphalte macadam paving on the two-coat method, for the U.D.C. Surveyor, Mr. Blackburn :—
*Limmer & Trinidad Lake Asphalte Co., Ltd., Dairycoates, Hull.

SITTINGBOURNE.—For erection of cleft oak park pale fencing around cemetery extension, for the U.D.C. Surveyor, Town Hall, Sittingbourne :—
*The Astolat Co. (C. Debnam), Guildford £460 16 7

SLAITHWAITE.—For (1) painting and decorating of council chamber, and (2) new electric installation, at the Town Hall :—
*(1) T. W. Broadbent, Ltd., Slaithwaite.
*(2) Brown & Thomas, Ltd., Huddersfield.

STRETFORD.—For lock-up shops, garage, and hall for the Dragon Motor & Engineering Co., Chester-road, Old Trafford. Mr. A. McDonald, architect, 71, Meadow-street, Moss Side, Manchester :—
*Mr. F. Thorpe, Chester-road.

SWANSEA.—For tarpaving playground of Dunvart Council School, for the T.C. :—
*C. & F. Gaen £650

TORQUAY.—Alterations and additions at Plainmoor for the Torquay Co-operative Society, Ltd. Messrs. Bridgman & Bridgman, F.—A.R.I.B.A., architects and surveyors, Torquay and Paignton :—

E. P. Bovey & Son, Torquay	£820 0
The Torquay Building Co.	678 0
*T. Guest	589 17

TORQUAY.—Gardener's lodge, St. Katherine's, for Miss Ennor. Messrs. Bridgman & Bridgman, F.—A.R.I.B.A., architects and surveyors, Torquay and Paignton. Quantities by Messrs. Harris & Hills, P.A.S.I., of Torquay and Paignton :—

H. Vanstone & Son, Torquay	£1,928
E. P. Dovey & Son, Torquay	1,759
R. Wilkins & Son, Torquay	1,708
R. E. Narracott, Torquay	1,687
R. F. Yeo & Sons, Torquay	1,286

TORQUAY.—Alterations and additions at "Innisfail," for Mr. W. J. H. Whitta l. Messrs. Bridgman & Bridgman, F.—A.R.I.B.A., architects and surveyors, Torquay and Paignton :—
*R. F. Yeo & Sons, Torquay £1,826

TREDEGAR.—For painting and colouring of schools, for the Schools Managing Committee :—
Earl-street—
*Messrs. S. Jones & Bros. £279
Georgetown—
*T. H. Helliwell, Cardiff 144
Troedrhiwgwair—
*J. Jenkins 73
Argoed—
*J. East, Blackwood 115
Ynysddu—
*G. Pugh & Son, Newport 89

WESTBURY.—For erection of villa, Station-road, for Mr. H. Virgin. Mr. Chas. H. Goater, architect, Trowbridge :—

Culverhouse Bros.	£590
Brewer & Son	500
Holdoway & Son	435
J. T. Parsons	429
*F. R. Parsons	419

WETHERBY.—For erection of extension and alterations to Sicklinghall Grange, near Wetherby, for Mr. J. W. Hinchliffe :—
*W. Birch & Sons, Spen-lane, York.

The Church Building Society.

The Incorporated Church Building Society, at the monthly meeting on July 19, made grants as follow :—Towards building new churches at Leicester, Holy Apostles, £250; Shiney Row, S. Oswald & Co., Durham, £150; and Walthamstow, St. John, £260; towards enlarging or repairing the churches at Abington Pigotts, St. Michael, Cambs, £50; Acton, All Saints, Suffolk, £50; Biggleswade, St. Andrew, £40; Brabourne, St. Mary, Kent, £50; Old Charlton, St. Thomas, Kent, £40; Clerkenwell, St. Peter, £30; Dewsall, St. Michael and All Angels, Hereford, £20; Ewshott, St. Mary, Hants, £10; Furneaux Pelham, St. Mary, Herts, £40; Gosport, Christ Church, £100; Hemsby, St. Mary the Virgin, Norfolk, £50; Kingsdowne, St. Catherine, Kent, £30; Lavender Hill, The Ascension, £70; Moor Lynch, St. Mary, Som, £50; Shotton, St. Ethelwold, Flints, £100; Shrewsbury, St. Mary, £150; Stapleford, St. Helen, £70; Wingham, St. Mary, Kent, £50; and Ninfield, St. Mary, Sussex, £50. Grants of £100 to Cowplain, Hants, and £50 to Linthorpe, St. Martin, York, were also made from the Mission Buildings Fund.

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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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NOBLESSE OBLIGE.

HAVING once set up a standard or code of professional conduct we cannot help thinking it was unwise on the part of the Royal Institute of British Architects to take it away again. We may say at once that we sympathise with those who would ask why. Do we not like our good conduct to be taken for granted and prefer that we earn the character of gentlemen by our life and daily conduct rather than by specific protest of it? On the face of it there seems something almost absurd for a member of a learned profession to make any formal avowal of his intention to lead an honourable life. But it is to be remembered that the code of conduct set up by the Institute is calculated to remove some false impressions which have long gained credence. It is well that it be realised, not only by the architect himself, that his professional fees are his sole payment—that he cannot honourably take commissions of any sort beyond his fees—that if he has any interest in any material, device, or invention in building he must obtain his client's sanction before using it in his building—that he must not compete with another architect by means of a reduction in fees—and that he must not act as a house agent or auctioneer. Besides these there are other conditions of practice which, though they appear obvious enough to an honourable architect, do not perhaps necessarily appear so obvious to a client. Unfortunately our records have shown instances where the architect has fallen below even this moderate standard of professional conduct, and as the number of entrants to the architectural ranks is still increasing and is likely to be varied in character, there is something to be said as to the value of a code for architects themselves. We say this, though we do not subscribe to the full extent of the allegations made. *Noblesse oblige* does not mean the same thing to everyone, as we know only too well, and its significance is certainly not necessarily the same thing to the client as to the architect.

A great deal has been said and written about the status of an architect, about his special difficulties, his aims, and his drawbacks; it is not necessary in these columns to recount them, but the reinstatement in great part of the code of professional conduct by the present Council of the Institute, after it had been disowned by the previous one, has brought the subject forward again; whilst the recent decision to adopt a professional costume for ceremonious occasions appears to indicate a desire to promote a more definitely honourable or distinguished consideration for the profession. To the architect whose great aim is to leave behind him some impress of beauty in his buildings, whilst adding to the convenience and comfort of life, it may seem a rather trivial matter as to what dress he wears or the rules he is asked to subscribe to. We know that some of the great artists in the world have ignored all rules and, sad to say, many of the social obligations which make life pleasant and safe. But if we are to have a stable and secure civilisation, we must set up laws and enforce obedience to them. It has been found that in an equable civilisation everyone is agreed as to this, and, for the benefit of the average individual, architects must fall into line with laws and regulations; the great thing is to frame them wisely enough to make their exaction tolerable.

Because we know that the whole life is greater than the part, that the whole life of man is of more concern than the arts and graces which adorn it, that honour and truth are greater than decorations or visions, however beautiful, we cannot pretend to be unconcerned as to a code of professional conduct, whether it is to be founded and enforced by official regulations or by the voluntary outcome of an innate consciousness of right doing: that the conduct which is so guided is, beyond and above all, the best no one can dispute, but it may perhaps be well that we have somewhere written down the words of a faith which makes *noblesse oblige* a truth in our lives, for we should all like to feel that the practice of architecture is altogether in the hands of those who reverence truth and fair dealing. If the adopted code helps to make this a reality we may well subscribe to it, whether we feel it of any use to ourselves or not. The art of architecture need not be confused with the practice of it. The art will be none the better perhaps for the way in which it is conveyed into bricks and mortar, but for all that our desire for the evolution of fine art should surely be of less importance to us than the true and honourable way in which we carry out our obligations to our clients.

The shorter list of suggestions which should govern the professional conduct and practice of architects which has now been issued has only eleven items as against twenty-three in the former code—and probably covers all that is necessary; and whilst we can hardly believe such suggestions can do any harm, we can well believe that their existence may form a useful reference for the enlightenment of those who have little or no understanding of the conditions under which an architect works. On the whole, we think their adoption is well justified, notwithstanding our firm belief in the finer and better guiding value of *noblesse oblige*.

We are sure the Council of the Institute would not wish to impose a long array of moral obligations on architects such as would suggest a needful guarantee as to proper moral conduct. But the suggestions still remaining in the code can hardly be said to do this, as they are concerned with the usages of professional etiquette as tacitly accepted by all architects of good standing. It has been well said that we cannot make people good by Acts of Parliament, but the only object we see in these suggestions is to show what is the consensus of opinion amongst the leaders of the profession as to the broad general principles which should guide architects in their dealings with each other and the outside world. Taken and adopted in the spirit which has prompted them architects may be well content to accept them as now modified. We all know well enough that such a statement of good faith does not bar the door to unfair or wrongdoing if it is wilfully and determinedly undertaken, but it does place the desirable attitude of a noble profession in such a light that none can in ignorance go wrongfully in opposition to a code of action which is suggested as the right one for all architects to adopt.

NOTES.

The Bank of England.

That there are circumstances growing out of the altered conditions of business in our own time necessitating the reconstruction of buildings which sufficed for an earlier generation, few will care to deny. Whatever may be said of the new Regent-street growing up, changes were clearly inevitable. The question then arises, how far it is possible to retain any of the original features in a new scheme, or whether they must be entirely superseded by new buildings. But in a case where it is desired to retain the original features, we must do more than appear to retain them, and not mistake the semblance of doing so for the reality. For otherwise we embarrass the architect in such a way as to cripple his design, which is neither one thing nor the other; it does not really preserve the original, and dares not, cannot, be itself. This seems to us the defect in the present design for the Bank of England, for the design conveys only the semblance of retaining Sir John Soane's façade, the low horizontality of which is the determining feature. That taken away, the motive for preservation is taken away with it, for one intention is altogether replaced by another. And in such a case we do not really satisfy any of the requirements of authentic preservation, and have only saddled ourselves with an incubus tying our hands architecturally.

The Need of Further Consideration.

It is suggested in a contemporary that we had better become reconciled to the necessary enlargement of Soane's halls and lobbies, "provided that the present exterior remains." But are we not deceiving ourselves in thinking that as the base of a much loftier elevation raised upon it, anything of the original intention will be preserved, and it so, are we not allowing a rather sentimental and unreal influence to hold sway? We are unable to see the reality of a scheme which includes as possible the retaining of the present exterior and at the same time contradicts its whole intention by superimposing a lofty structure on the top of it. After all, the appeal to tradition and ancient buildings is not very strong in this instance, and we feel the whole matter is in need of further consideration in the light of the facts: on the side of the Trustees, because the interference proposed with the original building takes all reality away from the idea of preserving its original character; on the side of the architect, because the "parallel" illustrations he quotes ha so little application, as the engrafting the new on the old has in other ca little in common with the proposal mount one building on the top of other; and on the side of the Govern of the Bank because there is a danger proceeding on such a scheme with having properly thought the matter o

The R.I.B.A. and Country Members.

We are glad to announce decision of the Council of Royal Institute of Brit Architects to arrange in vember next in Londor three-day meeting, which will include so of the annual functions at present held separate dates during the year. The i is an excellent one, and is an indicat that the desires and the convenience country members are to be conside more than they have been in the p If the experiment proves successful is hoped in future to arrange annual "architects' week" in Lon (which will not, we hope, dispense w the annual provincial meeting), in wh will be included the annual dinner, presentation of the Royal Gold Me the President's inaugural address, a perhaps, other functions. Some s arrangement would give country me bers an opportunity of attending the m important functions of the year durin single visit to London.

Standardisation of Buildings.

In the course of the spe made by Mr. Harvey Corb on the occasion of the dis bution of prizes to stude of the Architectural Association we w made aware of the danger of America ing our institutions and of the dwelling in over-standardisation. he tells us—and we are all the happ for thinking so—that "Architectu conditions in America and Britain w difficult to compare owing to the f that, in the former, buildings were m standardised; consequently, there w not so much scope for individuality there was in Britain." This we take to a compliment to British architecture a trust that we shall retain our natio characteristics. For there is danger l under the pressure of commercial intere our buildings should reflect the sal man more than the architect, and do not want to see the former carry out his own building through paid as tants and in the end displacing qualified architect altogether. That are not without symptoms of architect in such a way becoming in pawn to c merce, we must admit, though hop that this levelling down tendency wil resisted. The prospect of the commer house including an architectural dep ment furnished with assistants wit



Eglise du Finisterre, Brussels. From a sketch by Mr. H. T. Rees.



Door in Beguinage, Bruges.
From a sketch by Mr. H. T. Rees.

liberty but to carry out the orders given them, is not so fanciful that we can afford to disregard the danger.

"Levelling Down."

This tendency is the blight of democracy and undermines both the discipline and freedom through which ideals should grow. But we must look further back to understand what has in certain ways disintegrated the strength of architecture, and in its divorce from vital craftsmanship we shall perceive one of the reasons. The lack of corporate strength on the one side has weakened its hold on the other, for we must understand the causes if we are to reach the cure; and there never was a time when a closer corporate unity between the arts was more imperative, for their country is in danger. The neglect of vital craftsmanship in the past foretold to the more thoughtful that its reaction would not stay there, but that the architect would be the next to suffer. For if architecture could exist without this more authentic quality of vital craftsmanship, leaving it to the commercial house to interpret his office drawing in a way more lifeless than itself, might not the commercial house itself decide a little later to absorb the architect as well. Is the architect who standardised his craftsmanship now being standardised himself? We know how fine is the example of some architects in insisting on personal craftsmanship, and the present decision of the R.I.B.A. to include a list of independent craftsmen for reference is a sign of the growing appreciation of this lack. Nor do we say that the evils we suggest are yet paramount, but is not the danger very real that in the pursuit of commercial enterprise the salesman may decide to run a department for his other stores, becoming a salesman of architecture as well?

The Bossom Studentship.

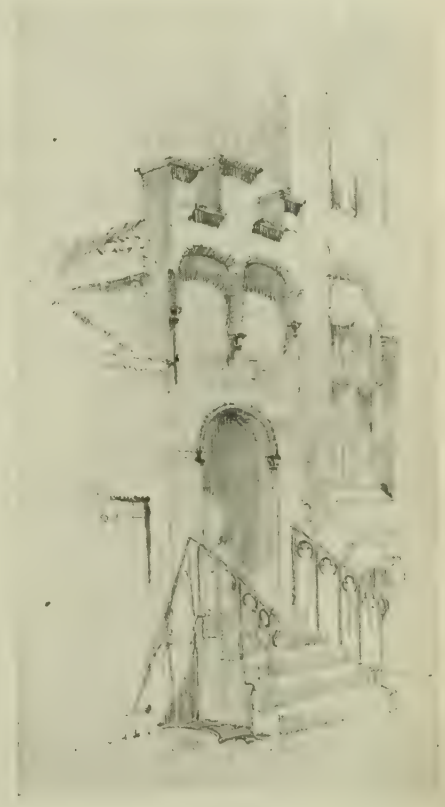
The Travelling Studentship which has been so generously endowed by Mr. Alfred Bossom, of New York, should be of real service in aiding our students to take a wider and more exact view of the possibilities of commercial architecture. The holder of the studentship is to spend six months in the United States in the study of commercial architecture, and as the results are to be made known by means of writing and illustration, we may expect these studies will have a far-reaching influence. The student who shows a good grasp of the subject and the significance of its various aspects will prove his fitness for architectural service as assistant or principal in a very definite way; and it is not perhaps necessary that he should lose the individuality and character which residence in our island home helps to foster.

Qualified Women in Social Work.

We hear so much of what a woman can do as well as a man, that an account of special work which the right woman can do better than the right man is doubly refreshing. Two women surveyors have been appointed to the task of taking over old houses in Cumberland Market, Regent's Park, the leases of which are falling in. Owing to the present shortage the houses cannot now be pulled down and the surveyors' efforts must be used to make the houses as habitable as possible and to ease the overcrowding. Over fifty families, it is stated, are huddled into one room a family! In addition the surveyors are trying to reduce the number of licensed houses on the estate, which consists of 1,700 to 1,800 tenancies. The value of such social ambulance work cannot be over-estimated; it is as useful to social health as more ambitious ideals of reconstruction, and is much nearer to attainment. The familiar difficulty of getting suitable girls for domestic service has its counterpart among highly educated women, and despite the varying opportunities that social work, with all its human intimacy, can offer, it has little attraction for the professional girl. We all know that in the interest of a misnamed "voluntary spirit," social workers have been underpaid for exacting hours, and the work itself has been disparaged as dowdy or interfering. The departure we have cited proves that no qualification can be too high for the service required.

General Housing Memorandum No. 64.

It would be interesting to know the points of difference between the Ministry of Health and the Surveyors' Institution as to the intention of Memorandum No. 31 referred to in this Memorandum No. 64. As it is obvious there were differences, the representatives of the Surveyors' Institution are to be congratulated upon getting, as shown in the information we give on p. 183, a clear statement as to the intentions of the Ministry. The explanations regarding Clauses *d* and *e* seem to us common-sense readings of the original clauses. Possibly exception may be taken to that portion of the explanation of Clause *e* with regard to items of omission taken bodily from the bill of quantities; but as this evidently does not apply to similar items of addition, no reasonable complaint can arise on this reading of the clause. The explanation regarding Clause *f* seems to cover every contingency, but we should have preferred to see the last paragraph of the original memorandum eliminated, as it seems contrary to present-day ideas of justice that one party to an agreement should be the sole judge in the event of any dispute on that agreement.



Doorway in Rue Est de Ghistelles, Bruges.
From a sketch by Mr. H. T. Rees.

GENERAL NEWS.

Professional Announcements.

Mr. W. Scotter Owen, M.A., A.R.I.B.A., P.A.S.I., architect and surveyor, has removed to 9, King's Bench Walk, Temple, E.C. 4. Telephone: City 3434.

Addington Park, Surrey.

The engineering work, including electric lighting and bells, hot and cold water supply and hot-water warming, sanitary arrangements and sewage disposal, at Addington Park, Surrey, illustrated in our issue for July 13, was designed and supervised by Mr. A. S. E. Ackermann, B.Sc., A.C.G.I., A.M.Inst.C.E., of 17, Victoria-street, S.W. 1. Mr. E. Guy Dawber, F.R.I.B.A., is the architect.

"Tudor" Building, Argyll Place, W.

The sub-contractor for the cast-lead pipes, gutters and rain-water heads, for "Tudor" Building, Argyll-place, W., illustrated in our issue for July 27, was Mr. J. L. Emms, of 140, FitzNeal-street, Shepherd's Bush, W. 12. The architects are Messrs. Edwin T. & E. Stanley Hall, F.R.I.B.A.

Institution of Municipal and County Engineers.

A meeting of the Irish District will be held on August 15, at 2.30 p.m., at the Institution of Civil Engineers' Library, 35, Dawson-street, Dublin. The agenda may include: To select a Vice-President; to consider the question of forming a local committee and arrange dates and centres for future meetings, &c.

University College, London.

An Entrance Exhibition fo the value of £40, tenable in the Bartlett School of Architecture for five years, subject to satisfactory progress, will be awarded in September. Full particulars may be obtained on application to the Secretary of University College, London.

Church Plate and Roman Pottery.

The church council of St. Martin-in-the-Fields have placed on permanent loan at the London Museum a collection of twenty-two pieces of ecclesiastical silver plate, mostly gilt, English work of the seventeenth and eighteenth centuries. The vessels include a pair of silver-gilt flagons bearing the London hall-mark, 1634 and 1746 respectively; another pair with the London hall-mark, 1726; a chalice bearing the hall-mark 1649, and another that of 1726, both silver-gilt; and a silver-gilt alms dish with the London hall-mark 1720.

Liverpool Housing.

The Liverpool Corporation has been recommended to accept the lowest tender (that of Messrs. Wm. Hall & Son), at £29,995, for the demolition of 90 buildings and the erection of 60 tenement dwellings on the site.

House of Lords War Memorial.

Lord Curzon, replying to a question from Lord Cawley in the House of Lords, referring to the proposed memorial to be erected within the precincts of the House, said that so far £8,000 was available. It had been suggested that the great marble monument in the Princes' Chamber behind the throne should be removed and that the site should be utilised for the memorial. The King had readily given his assent to the removal of the monument to the head of the great staircase in the Victoria Tower. The Committee which had been appointed in connection with the memorial had authorised him to communicate with Sir Thomas Brock, the sculptor, who undertook to act as adviser and assessor. On Sir Thomas's suggestion four sculptors of eminence sent in sketch models of their designs, but unfortunately not one of them expressed the object the committee had in view. A few months later Sir Thomas Brock died, and he (Lord Curzon) was then authorised by the Committee to approach another eminent sculptor, who accepted the undertaking, and he was hopeful that when the House reassembled in the autumn he would be able to submit the sculptor's model, which would be worthy of the great event it perpetuated. The sculptor had decided in favour of the site in the Prince's Chamber.

COMPETITION NEWS.

Westcliff-on-Sea Crowstone Congregational Church.

In the competition for a church, to cost about £20,000, twelve designs were submitted, and the award of the assessor, Mr. Arthur Keen, F.R.I.B.A., was as follows: First (premium, £100), George Baines & Son, F.R.I.B.A., F.S.Arc., London; second (premium, £52 10s.), J. H. Sellers, Manchester.

Melbourne National War Memorial Competition.

The following are the names of the winning architects and sculptors in the Melbourne National War Memorial Competition:—

First Premium (250 guineas).—Sculptor, Mr. C. Web Gilbert; architects, Messrs. Stephenson & Meldrum, sculptors, of Melbourne.

Second Premium (100 guineas).—Sculptress, Mrs. Jess Lawson Peacey, B.I., A.R.C.A.; architect, Mr. G. Gavan Lawson, of Adelaide.

Third Premium (50 guineas).—Sculptor, Mr. W. L. Bowles; architect, Mr. G. G. Prentice, of Brisbane.

The premiated designs are illustrated in this issue. (See p. 174).

The Royal Society of Arts.

In connection with the competition of students of schools of art, in accordance with the terms of the Owen Jones Trust, the Royal Society of Arts have awarded one-half of the special prize of £20, the Society's medal, and a prize of books to Emma Seel, of the Macclesfield School of Art, for an openwork corner of embroidered table cover, and to S. Griffin, of the School of Art, Nottingham, for a design for an embroidered machine-made lace bedspread with worked portion. The Society's medal and a prize of books went to Norman Dawson, School of Art, Macclesfield (printed silk dress fabric); George Kershaw, School of Art, Macclesfield (woven silk dress brocade); Ethel Mary Bennett, School of Art, Newport, Mon.; Kathleen Goodwin, School of Art, Stoke-on-Trent (pottery statuette, "Will o' the Wisp"), and George Sidwell, School of Art, Technical Institute, Leyton, Essex.

The designs will be on view from August 4 until September 16, from 10 a.m. to 5 p.m., in the Class Room, Department of Textiles (first floor), Victoria and Albert Museum, South Kensington, S.W.



An Old Doorway.

[This ancient doorway is shortly to be demolished. We understand that it may be purchased, and shall be pleased to put those interested in communication with the firm carrying out the demolition. We have also been informed of a thirteenth-century mantelshelf in a Gloucestershire cottage which is in the market.]

Wirrall Union.

For the Guardians.—Design for extensions at the Poor Law Institution, Clatterbridge. Premium, £50. The conditions of this competition are not in accordance with the regulations of the R.I.B.A. and Society of Architects, and members are advised to take no part in it.

Memorials to the Missing.

For the Imperial War Graves Commission.—Designs of memorials to the missing on four battlefields on the Western Front. Sending-in day, January 1, 1924. (See advertisement this week.)

New Wesleyan Church and Sunday School Warrington.

Design for a church and school for the Wesleyan Circuit. Cost between £5,000 and £6,000. Sending-in day, August 8. Further particulars from the Rev. H. Kirby, 2, Palmyra-square, Warrington. Block plan may be seen at *The Builder* offices.

The conditions of this competition are not in accordance with the regulations of the R.I.B.A., and Members and Licentiates are advised to take no part in it.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Singapore College (Jan. 1, 1924; March 30). Greenwich Baths (Aug. 25; May 4). Hull Art Gallery (Nov. 5; May 4). Mint competition for plaques (Sept. 30; May 25). Birmingham Masonic Temple (Sept. 12; June 22). Colour scheme (Sept. 30; June 29). Glasgow Pavilion (June 22).

ARCHITECTS' CRICKET MATCH.

Royal Institute of British Architects *versus* Architectural Association.

Match played at Elstree on July 18. A.A. won by 106 runs.

Scores:—

Architectural Association.

Mr. Pakington, b Jessup	8
Mr. Knott, b Jessup	9
Mr. Saunders, c Pearce, b Jessup	49
Mr. Crickmay, lbw, b Jessup	35
Mr. Lay, b Jessup	2
Mr. Parker, c Bailey, b Brockesby	72
Mr. Napolitano, c Jessup, b Pearce	32
Mr. Backland, lbw, b Brockesby	3
Mr. Bertram, st Wheddon, b Pearce	0
Mr. Fisher, not out	8
Mr. Musgrave, c and b Brockesby	4
Extras	5
Total	227

Bowling—Jessup, 3 for 67; Brockesby 3 for 50; Pearce, 2 for 42.

R.I.B.A.

Mr. Coleridge, b Parker	5
Mr. Allen, b Parker	18
Mr. Wheddon, b Musgrave	41
Mr. Doll, c Lay, b Parker	3
Mr. Brockesby, c Pakington, b Parker	1
Mr. Bailey, c Fisher, b. Musgrave	30
Mr. Howard Baker, b Musgrave	5
Mr. Jessup, c and b Parker	1
Mr. Pearce, not out	2
Mr. Hadfield, c Knott, b Backland	4
Mr. Caulfield, c Lay, b Backland	1
Extras	10
Total	121

Bowling—Parker, 5 for 15; Musgrave, 3 25; Backland, 2 for 1; Saunders, 0 for 39.

CORRESPONDENCE.

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Our Modern War Memorials.

Sir,—Apparently we have as many classic cranks among our architects and sculptors to-day as existed in the early part of the nineteenth century, when Westmacott executed the nude figure of Achilles in Hyde Park to commemorate the Duke ot Wellington. In London I have only seen three representative memorials that do not require an interpreter—they are Miss Cavell, Sir Aston Webb's figure of a British Tommy outside the Royal Exchange, and the Holborn Bars memorial. The largest and most costly in London is a huge block of masonry, a complete copy of a pagan memorial dating from the fifth century B.C. This has not a single detail to distinguish it from a memorial to the late Mr. Socrates.

In a recent tour in South and West Wales I only came across two representative memorials that the ordinary man in the street could appreciate at a glance; they were beautifully modelled figures of British soldiers, one at Llanelly and the other at Lampeter. In the St. George and Dragon type all the figures have the placid expression of an Oxford Undergraduate resting his punting pole on the back of a fearsome beast while he lights his cigarette. In the matter of churchyard crosses we seem to have been more fortunate; one of the most graceful I have seen is at Christ Church, Sunderland. This was designed by Mr. John Hall, the architect.

Edward Vale.

Weston-super-Mare.

The Artist's Security.

Sir,—May I point out, in respect to your argument about "the artist's security" being "best sustained by undivided attention to his work," that this, while a good ideal, is practically out of the question in modern life, when the artist has either to attend to numerous mundane affairs, or starve.

But if the artist's profession was soundly organised, many of these mundane matters would be attended to for him by his organisation, where his views would be represented through any delegate he liked or society in which he took an interest. To attend, say, once a month, a committee; and, say twice a year, a conference, need not take up nearly as much of the artist's time and thought as now has to be frittered on "society" parties, and on publicity stunts, or the efforts to attain these (or else go without commissions).

If the artist took the trouble and the interest to organise his profession he ought to find himself, thereafter, with much more liberty to give freely to his work, as the struggle against the tide, in the present state of things, would not weigh so heavily on him.

Much of the rushing about that an artist nowadays has to do if he wants to be known at all in his life-time, would not be necessary if he was a member of an organised profession.

In the Middle Ages and in the finest periods of art, as everyone knows, the artist was a member of an organised profession. The modern chaos really is comparatively modern!

A. D.

Office of Works Appointments.

Considerable dissatisfaction exists in the Office of Works concerning certain appointments which have been made recently, as was indicated by the question in the House which we quoted in our last issue. More than one Civil Service organisation has protested against them, and among them the Institution of Professional Civil Servants, from which body we have received the following *précis* of the case as it appears from the professional point of view:—

"At the request of the Professional and Technical Association of the Office of Works the Institution wrote in May to the First Commissioner asking that four proposed appointments to the Ancient Monuments Branch should not be made. The grounds for this request were that no notification of the vacancies had been made to the staff, a procedure contrary to that which had been agreed upon on the Departmental Whitley Council, and that there was nothing exceptional about the qualifications of the four men whom it was proposed to appoint. To this letter the First Commissioner took exception. The Institution then wrote a second letter in which further comment was made on the proposals. It was pointed out that though some of the work in the branch was concerned with such relatively modern buildings as Chelsea Hospital, Kensington Palace, &c., a considerable portion of it was concerned with more ancient structures, such as Stonehenge. Only one of the four men whom it was proposed to appoint had had any experience in that section of the branch, and in his case great secrecy had been observed in making the appointment. Further, there had previously been an invitation issued to unestablished officers in the department to apply for posts in the Ancient Monuments Branch, and ten applications had been sent in. Most of the applicants had been in the branch from its inception. Owing to a change of plan, none of the earlier vacancies had been filled. None of the applicants had been interviewed, and when the later appointments had been proposed, none of the original applicants, nine of whom were pre-war men, had been invited to renew their applications. In addition to this, no notification had been made which would enable suitably qualified persons in other branches of the Civil Service to apply for the posts.

"Particular exception was taken to one of the four proposed appointments. The person concerned had never served in the branch. In 1915 he had been engaged in erecting temporary hutting for searchlight and gun stations, and had then been sent to a shell-filling factory until he had resigned from the Government service to go to an oil company. It was then proposed to take him back into a highly specialised branch, and to establish him at a salary well above the maximum of the grade in which he had been serving at the time of his resignation, although many men previously his juniors were still below the salary bar. It was difficult to see how his value to the department could have increased to such an enormous extent by his service with the oil company, especially as there were many assistant architects in the branch who had very adequate qualifications for the posts.

"To this reasoned series of arguments the Office of Works merely replied that it had nothing further to add to its first letter. This case was also taken up by the Association of ex-Service Civil Servants."

Port of London Extensions.

Important new works and improvements are to be undertaken by the Port of London Authority. They include a considerable extension of the Surrey Commercial Docks system, a further development at the Royal Victoria Docks of the facilities for dealing with imported meat, the making of an entirely new dock, lock, and dry dock at Tilbury, and the construction of a much-needed passenger landing stage at Tilbury contiguous to the existing docks. The cost of carrying through these schemes, exclusive of land, will be about £5,000,000.



War Memorial Screen and Lectern at Herne Hill Church.

Mr. Gerald Cogswell, A.R.I.B.A., Architect.

[This screen is 21 ft. 6 in. wide by 12 ft. high, and was executed by Mr. Herbert Read, of Exeter, from the design and full-size cartoon of the architect.]

SUGGESTIONS GOVERNING THE PROFESSIONAL CONDUCT AND PRACTICE OF ARCHITECTS.

The following "Suggestions Governing the Professional Conduct and Practice of Architects" have been adopted by the Council of the Royal Institute of British Architects, and have been ordered to be printed in the "Kalendar" for the guidance of members :—

An Architect in practice, if a Member or Licentiate of the R.I.B.A., is governed by established customs accepted and observed by the architectural profession, and more particularly by the Charter and By-laws of the Royal Institute, which render him liable, in the case of unprofessional conduct, to reprimand, suspension or expulsion, at the discretion of the Council.

The following may be considered to record in a general way the practice of architects and also to indicate a standard of conduct in any special cases not specifically referred to therein :

1.—An Architect is remunerated solely by his professional fees, and is debarred from any other source of remuneration in connection with the works and duties entrusted to him. It is the duty of an Architect to uphold in every way possible the Scale of Professional Charges adopted by the Royal Institute. An Architect must not accept any work which involves the giving or receiving of discounts or commissions, nor must he accept any discount, gift or commission from contractors or tradesmen, whether employed upon his works or not.

2.—If an Architect own, or have a commercial interest in, any material, device, or invention used in building, he must inform his client thereof and must obtain his sanction before permitting it to be used in works executed under his direction.

3.—An Architect must not publicly advertise, nor offer his services by means of circulars. He may, however, publish illustrations or descriptions of his work and exhibit his name on buildings in course of execution (providing it is done in an unostentatious manner), and may sign them when completed.

4.—An Architect must not attempt to supplant another Architect by means of a reduction of fees or by other inducement.

5.—In all cases of dispute between employer and contractor, the Architect must act in an impartial manner. He must interpret the conditions of a contract with entire fairness as between the employer and the contractor.

6.—An Architect must not permit the insertion of any clause in tenders, bills of quantities, or other contract documents, which provides for payment to be made to him by the contractor (except for duplicate copies of drawings or documents), whatever may be the consideration, unless with the full knowledge and approval of his client.

7.—An Architect should not take part in any competition as to which the preliminary warning of the Royal Institute has been issued, and must not take part in any competition as to which the Council of the Royal Institute shall have declared by a Resolution published in the *Journal* of the Royal Institute that Members or Licentiates must not take part because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

8.—An Architect must not act as Architect or joint Architect for a work which is or has been the subject of a competition in which he is or has been engaged as Assessor.

9.—It is desirable that, in cases where the Architect takes out the quantities for his buildings, he should be paid directly by the client and not through the contractor, except with the previous consent of the client.

10.—The businesses of Auctioneering and House Agency are inconsistent with the profession of an Architect.

11.—An Architect must not accept an appointment in any commercial firm in which the extent of his remuneration is affected by the profits of the firm.

THE R.I.B.A. ALFRED BOSSOM TRAVELLING STUDENTSHIP

For the Encouragement of the Study of Commercial Architecture.

1.—The Board of Architectural Education will appoint a Special Jury, consisting of three Architects (including, if possible, the President of the Royal Institute of British Architects), a builder, and a property owner, to control and conduct the competitions for the Award of the Silver Medals, the Gold Medal, and the Studentship. The builder serving on the Jury will guide his colleagues on the estimates of cost, and the property owner on the estimates of revenue.

2.—The competitions will be confined to those Students of the "Recognised" Schools of Architecture which enjoy exemption from the R.I.B.A. Final Examination who, after passing through the School Courses, have attained the Associateship of the R.I.B.A.

3.—On the recommendation of the Board of Architectural Education, other Schools of Architecture at present not "Recognised" for Final Exemption may be admitted to the Competition, so that those of their Students who have passed the R.I.B.A. qualifying Examinations and have attained the Associateship of the R.I.B.A. may take part in the competition.

4.—An additional competition will be arranged by the Jury which will be open to Associates of the Royal Institute who have not passed through one of the "Recognised" Schools or one of the schools mentioned in paragraph 3. A silver medal will be awarded to the winner.

5.—The Jury will set a subject each year and send it to the Schools. Each of the Schools will appoint a local Jury of similar composition to the Jury mentioned above, to conduct the competition and award the Silver Medal for the best design submitted by a graduate of the School. Each design will be accompanied by an approximate estimate of the cost of the building and the financial return from it. The silver medals awarded at the Schools will be known as the "Alfred Bossom silver medals for Commercial Architecture." The silver medals will be handed to the successful competitors at the annual distribution of R.I.B.A. prizes and studentships.

6.—The designs of each of the winners of the silver medals will be forwarded to London, where they will be judged by the Jury.

7.—The Jury will award the "Alfred Bossom Gold Medal" and the "Alfred Bossom Travelling Studentship" to the author of the best design submitted to them. The gold medal will be handed to the successful competitor at the annual distribution of the R.I.B.A. prizes and studentships.

8.—The holder of the Studentship will be required, within a period of not more than six months from the date of the award, to journey to the United States of America and spend not less than six months there in the study of commercial architecture.

9.—On arrival in the United States the student will report himself to the Architectural League of New York, which will, by means of a Special Committee appointed for the purpose, give him advice and guidance on the subject of his studies.

10.—At the conclusion of his stay in the United States the holder of the studentship will be required to submit a detailed and illustrated report on a particular branch of the subject laid down by the jury. This report, when approved by the jury, will be printed and copies will be sent to each of the competing Schools of Architecture and to each student who has taken part in the competition of the year.

11.—The travelling student will be paid the sum of £250 to meet the cost of his journey to and from the United States and his stay of not less than six months in that country.

12.—The complete Roll of Silver Medallists and Gold Medallists will be kept at the Royal Institute of British Architects, and copies of the reports will be preserved in the R.I.B.A. Library.

13.—Mr. Alfred Bossom has generously undertaken to provide funds to meet the cost of the scheme, including the provision of the Medals and the payment of the Travelling Students, for a period of five years.

14.—At the end of five years the Board of Architectural Education will submit a report to Mr. Bossom on the working of the scheme, and will discuss with him any modifications which may be found to be desirable with a view to placing it on a permanent basis.

15.—Mr. Bossom will arrange for the design, costing and supply of gold and silver medals.

[The scheme has been approved by the Board of Architectural Education, who cabled their grateful thanks to Mr. Alfred Bossom, of 680, Fifth-avenue, New York, for his generous gift.]

Notes from the Council Minutes.

Following are notes from the minutes of the Council Meeting held on July 23, 1923 :—

The Future Policy of the R.I.B.A.—The Council instructed the Charter and By-laws Committee to meet forthwith for the purpose of considering the general question of the policy to be pursued during the coming Session, and to report upon it at the first meeting of the Council after the recess.

Gothenburg Town-Planning Conference.—Mr. Raymond Unwin was appointed to represent the R.I.B.A. at the International Town-Planning Conference to be held at Gothenburg from August 3 to 10, 1923.

The R.I.B.A. and Country Members.—Upon the recommendation of the Allied Societies' Conference, it was decided to arrange in November next in London a three-day meeting which will include some of the annual R.I.B.A. functions at present held on separate dates during the year. If the experiment proves successful it is hoped in future to arrange the Annual "Architects' Week" in London in which will be included the Annual Dinner, the presentation of the Royal Gold Medal, and the President's Inaugural Address. and perhaps other functions. In this way it is hoped that country members of the R.I.B.A. will be given an opportunity of attending the most important annual functions of the R.I.B.A. by making a single visit to London only.

Professional Conduct and Practice.—Upon the recommendation of the Practice Standing Committee the Council ordered to be printed in the Journal and in the next and all subsequent issues of the R.I.B.A. Kalendar a revised series of regulations or Professional Conduct and Practice entitled "Suggestions Governing the Professional Conduct and Practice of Architects."

New Allied Society.—The Burma Society of Architects was admitted to alliance with the R.I.B.A. under the provisions of By-Laws 77 and 78.

R.I.B.A. EXAMINATIONS.

The Intermediate Examination, qualifying for registration as Student R.I.B.A., was held in London, Leeds and Birmingham from June 1 to 7. Of the 94 candidates who presented themselves, 33 passed and 61 were relegated. Successful candidates in order of merit :—

A. H. Gardner, Coventry.
G. L. Martin, Seaham Harbour.
C. H. Dann, Norwich.
K. W. F. Harris, Maidstone.
M. H. Powell, Moseley.
H. F. Mason, London.
H. Darsa, Shepherd's Bush.
W. C. Barrett, Birmingham.
R. E. M. Coombes, Llandaff.
R. H. C. Cornford, London.
W. C. Ellis, Mansfield.
E. A. E. Evans, Port Talbot.
A. C. Garwood, Lambeth.
*A. E. Geens, Bournemouth.
F. G. Goodin, Reading.
G. Griffiths, Penarth.
W. H. B. Harris, Bridgwater.
L. S. Jones, Reading.
C. F. Kimber, Evesham.
U. Liverseege, Edgbaston.
C. S. Morley, Bolton.
H. Overnell, Tunbridge Wells.
H. R. Parkin, Leeds.
A. H. Petherbridge, Paignton.
W. J. B. Price, Ilford.
D. J. Rogers, Handsworth.
B. J. A. Smith, Southfield.
H. W. Stokes, Birmingham.
E. B. Tyler, Penarth.
E. J. Whitwell, Handsworth.
C. Wild, Failsworth.
G. Williams, Hull.
F. G. Yorath, Burslem.

The Final and Special Examinations qualifying for candidature as Associate R.I.B.A., were held in London from June 14 to 21. Of the 27 candidates admitted (two of whom took Part I only, having elected, in accordance with the regulations, to take the Examination in two parts), 11 passed, and the remaining 16 were relegated. The successful candidates are :

T. M. Alexander, Liverpool.
S. N. Buchia, London.
R. J. B. Clark, Penzance.
W. Doddington, New Cross.
*A. Hafez, Kensington.
*H. Z. Kassem, Cairo.
A. J. May, Bristol.
*F. Mikhail, Kensington.
R. A. F. Riding, Earl's Court.
W. Ross, Glasgow.
S. Toy, London.

The candidates marked * are not British subjects, but have taken the examinations for the purpose of obtaining certificates to that effect. The following candidate passed the Special Examination held in Bombay, from April 23 to 28 : A. D. Parham, Colombo.

The following six candidates passed the Special War Examination held in Melbourne in December, 1922 : G. A. Beech, A. R. Butler, C. L. Cummings, D. W. Gale, A. S. Hall, S. T. Parkes.

WHY NOT CLEAN FACADES?

A PLEA FOR BRIGHTER STREETS.

By J. HEMBROW, A.R.I.B.A.

We keep our faces, our collars, and our carts washed, our streets scoured, and are even careful of our reputations because of the cost of cleaning them if they get really dirty. Why should we neglect our façades? The writer has advocated in the lay press the desirability of having our buildings freed from the accumulation of soot and worse which in our industrial cities cloaks them and dulls them. Although very few practical objections have been raised (except that of expense), the opponents of the idea are tenacious. One esteemed friend says that he likes to see a building grimy with age.

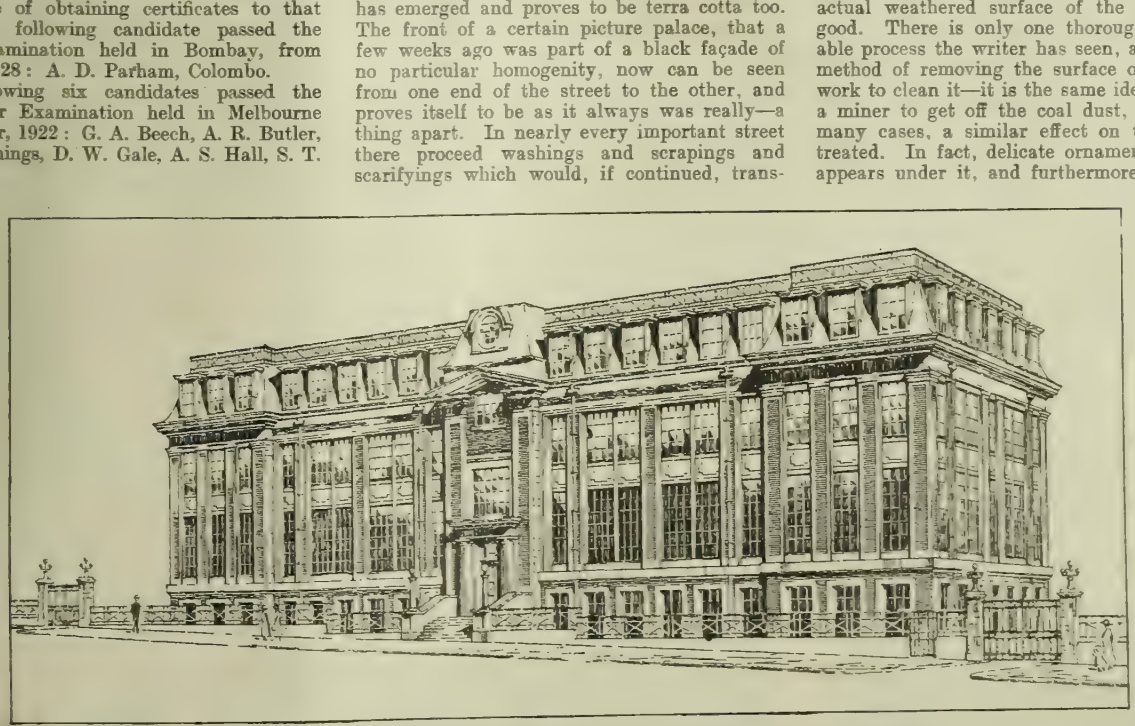
Now, this last idea sounds well, but it is based on a false hypothesis. Age is venerable, but dirt is not, and a building is no more venerable because of its dirt than a nasty old man who has refused to allow nimself to be washed for fifty years. The dirty building, in fact, arouses our pity because it cannot bathe itself and has to stand to be fogged on, smoked on, and splashed on and defiled by all manner of foulness without being able to wink an eyelid! But the idea has a hold on many people and its prevalence is discouraging.

In this frame of mind the writer recently found himself with some hours to spend compulsorily in Manchester (that a Manchester man never stops in Manchester if he can avoid it is well known), and he was almost encouraged to think that somebody had been reading what he had been writing, and this is always exhilarating to a man. The reason for this daring thought was that a lot of buildings in Manchester, to use a Northern phrase, were "getting themselves cleaned." Long dark ravines with soot-obscured fronts suddenly revealed a building that had design and in some cases colour of which nobody knew.

It was a sacred secret which the older inhabitants of Manchester knew (and the better informed rather prided themselves on knowing it) that the Midland Hotel was built mostly of terra cotta with a polished granite base. It is now common knowledge. A building in Cross-street was considered to be in stone—that also has emerged and proves to be terra cotta too. The front of a certain picture palace, that a few weeks ago was part of a black façade of no particular homogenity, now can be seen from one end of the street to the other, and proves itself to be as it always was really—a thing apart. In nearly every important street there proceed washings and scrapings and scarifyings which would, if continued, transform streets which now look like horizontal smoke-flues with the top removed to the thoroughfares with individuality and brightness and in some cases design. Surely people are happier where surroundings are brighter.

In point of fact it is probably merely that common sense being common has lately revealed to people that when they spend time and money in cleaning and polishing motor cars and boots which get dirty as soon as they are used, when they wash down pavements perhaps each day, when a smut on one's immaculate shirt front or flannel "bags" is a disgrace, it cannot be a virtue to keep one of our possessions, *i.e.*, our façades, filthy. I believe it is merely that hitherto no one has thought much about it. Now, why should not the outside of a building be kept within reason as clean as the inside? Which gets dirtier? It is not always the cost. There are already instances of terra-cotta buildings where window-cleaning companies are engaged who clean the windows about once a month—and who have undertaken to wash down the terra-cotta front once in a short period of years for a sum that only adds a percentage to their ordinary work. After all, why should you clean the floor, the front step, the windows, and leave the walls? Why should you paint the dirty woodwork once in five years and leave the stone still so foul and crusted that one dare not even touch it. It is purely habit, and a very dirty habit. It is no more a virtue to let your house exterior get filthy than to let your garden get weedy or your body foul. If the insides of our buildings were allowed to get as foul as the outsides there would be a plague, and what is the good in any case of using materials with taste and discretion when the artist knows that in ten years time none will know whether they are stone or cement. The time will come when people will be asked to keep exteriors clean, as they are required to keep interiors sanitary.

There are already many excellent processes for cleaning suitable to various materials, any one of which, provided it does not disturb the actual weathered surface of the material, is good. There is only one thoroughly undesirable process the writer has seen, and this is a method of removing the surface of the stonework to clean it—it is the same idea as flaying a miner to get off the coal dust, and has, in many cases, a similar effect on the building treated. In fact, delicate ornament often disappears under it, and furthermore it destroys



University of Leeds : New Building for the Department of Agriculture.
Mr. Paul Waterhouse, PP.R.I.B.A., Architect. (*See p.* 168.)

the actual gradations of colour (not dirt) the materials take to themselves with age wherein their true beauty lies. Cleaning does not affect this. A flag or a tile or a marble floor does not suffer in beauty through the cleanly housewife.

One of the reasons for the superiority of the usual appeal of Continental towns is that the towns one visits are in a clean atmosphere and can therefore be seen as their authors intended them. If any town in the "dull industrial" areas of our island could be suddenly freed from its stifling mantle of soot and grime the inhabitants would be very much surprised to find that they lived in a much brighter town than they had ever imagined.

I even believe a lot of the ugliness contrived by the speculative builders and the recent use of ugly bricks in otherwise delightfully laid-out housing schemes could be ameliorated if not entirely remedied by the adroit use of colour wash; anyone who knows Holland or knew pre-war Bruges will remember what a charm these bright colours added to the street.

UNIVERSITY OF LEEDS: THE DEPARTMENT OF AGRICULTURE.

ONE of the most important departments of this University is that which deals with agricultural education, for, while the University is situated in a great industrial city, it is also the centre of the largest agricultural county in England. The unsuitability of the premises occupied by the department has long been recognised, and, but for the war, a new building would have been provided some years ago. The erection of this (see p. 167) building is now about to begin. This is made possible by the generous help received by the University from several sources.

As long ago as 1914 plans were prepared for the intended agricultural building and tenders were actually obtained. But, like other building works of that period, the scheme was necessarily set aside. A definite start is now to be made, and a new tender (from Messrs. Armitage & Hodgson, of Leeds) has been accepted. The architect is Mr. Paul Waterhouse, of London. Originally intended for a site on the Woodhouse-lane frontage of the University land, the building has been allocated to a position on University-road, west of the buildings of the textile (clothworkers) group. A good street alignment is here available, and the building will occupy a plot 190 ft. long by 125 ft. deep. The pavement line here falls sharply eastward, but the slope has been taken into consideration, and will be rather helpful than otherwise to the lighting of, and access to, the large basement, which is an important part of the accommodation. While a great portion of this basement is occupied by stores, it also contains a students' common room, a locker room, bicycle racks, and a large machinery room and workshop. On the ground floor the largest rooms are a big lecture room, measuring 50 ft. by 24 ft., a smaller one measuring 35 ft. by 19 ft. (both of these have the auditorium raised in stages), a museum 50 ft. by 27 ft., a library, secretarial offices and various small professorial or class rooms. The Biological Department begins on the first floor, where are to be found a general laboratory and a research laboratory, a staged lecture room as below, research rooms of moderate size, and advanced laboratory, one or two private rooms, and the necessary preparation, sterilizing, store and other rooms. On the second floor are a large students' laboratory, laboratories for chemical-nutrition research, balance rooms (for staff and students), lecture rooms, large and small, and rooms for microscopy and other special purposes. The roof surface is also adapted for out-of-door and greenhouse work, and the staircase is arranged so as to give the most direct and convenient access from floor to floor. The external materials will be stone and brick; owing to the large window areas, these are sparingly used, and the building will depend for its structural strength on a framework of steel. There will be no irrelevant ornamentation.



Annual Distribution of Prizes.

THE annual distribution of prizes and exhibition of work in connection with the Architectural Association took place at the Architectural Association School of Architecture, Bedford-square, W.C., on Friday last week, in the presence of a large company, presided over by Mr. E. Stanley Hall, M.A., F.R.I.B.A.

The prizes were distributed by Mr. Harvey W. Corbett, F.A.I.A., Diplomé Ecole des Beaux Arts, President of the Architectural League of New York; and among others present were Mr. J. A. Gotch, P.R.I.B.A.; Mr. R. Atkinson, Director of the Architectural School; Mr. Michael Waterhouse, A.R.I.B.A.; Mr. H. V. Lanchester; Mr. Stanley Hamp, P.P.A.A.; Mr. Nunn, Mr. Chalton Bradshaw, Mr. Howard Robertson, Mr. W. T. Ching, and Mr. F. R. Yerbury, Secretary of the Association.

In opening the proceedings the Chairman said that by a happy accident of dates the first official duty of a new President of the Architectural Association was to take the chair at the annual prize-giving. On such an occasion it was usual to review the work of the past year, and he would do that very briefly, because they would find the work hung on the walls of the studios, and he most cordially invited their guests that afternoon to see the drawings for themselves and form their own opinions as to their worth. But, if he might be allowed to, he congratulated the students on their high attainment. He thought they would all agree with him, when they saw the designs, sketches, and the working drawings, that they showed knowledge and skill and an individuality that was refreshing. That was what they liked, for they preferred their students to be buses rather than trams, their aim being not only to indicate the destination but to guide the students *en route*. Might he be allowed to offer just one word of advice? The first-year student saw five long years ahead of him, and often thought he had plenty of time, and that there was no need to work too hard. The fifth-year student saw five long years behind him, his architectural equipment more complete—or less—as he had used those years. At the end of those five years, however, they thought what a very short time it had been. At that stage they were supposed to be equipped to start in architecture, and they then possibly reflected that the lecture they had missed might have helped them a bit more. Punctuality, regular attendance at lectures, and such like, were of great help to the school—the staff as well as the students. He felt sure the students would like him to congratulate the staff. A keener and more loyal staff than Mr. Robertson and his assistants no school ever had, and the Council were very proud of them. They recognised, too, the dominating personality of Mr. Atkinson. For ten years he had trained and guided the school with unerring tact and judgment. How much they owed him they could not tell yet, but it was a great debt." Of Mr. Yerbury, their Secretary, he could pay no greater compliment than to say "the Architectural Association—it is he." They wished their late housemaster, Mr. Ching, the very best of luck in his new venture. His departure from the staff was their great loss; might it be his great gain. In asking Mr. Harvey W. Corbett, F.A.I.A., to present the prizes and give his address, the Chairman said that Mr. Corbett was Chairman of the Architectural League of New York, in whose safe keeping was the architectural excellence of that city. Architects in England sometimes looked with envious eyes on America, where more great projects seemed to be carried out in a year than in a generation here. They were not all lucky enough to visit America, but Mr. Corbett had planted a sample of Americans' work in London. The Bush building at the bottom of Kingsway was his work, and when the two wing blocks were added it would be a notable addition to London's architecture.

Mr. Corbett, after distributing the prizes, addressed those present, and said that those students who had not gained prizes must not feel disgraced, as sometimes they were the ones who gained prizes later in life, and that was a very important time at which to have them. He believed that the most important thing for any of them was education. Building a building would amount to very little if they did not carry on the work of education. Ever since he returned from Paris to New York, about twenty-three years ago, he had felt closely interested in educational work, and that it was the duty of every practising architect to give his time and thought to that subject. They could not afford to let such an important matter be carried out by the schools, and they should remember this particular point—when a student finished his course, whatever it might be, he was really only continuing his education, and a practising architect must take that man and guide him and help him to go on with his educational work. The work that would probably interest them most was that which went on in America on educational lines for architects. Of course, the profession of architecture was a very broad one, when they considered that nearly every human activity went on inside a building, and architects were expected to cope with every requirement. Perhaps they thought he would tell them the thing most needed to equip the student as an architect to-day, but during the twenty years he had been teaching his ideas and views had been constantly changing, and if he told them what he thought that day probably in a month's time he should regret it. But he had decided on one point, one test, about architectural education, which could be applied to any architectural school. That test was—were the students interested, enthusiastic, excited about their work, or were they simply being driven along? Some one had defined education as being something that was done to them, but he thought that real education was something which the student did himself, and that the real function and duty of an educator was to inspire his students and pupils with an enthusiasm for their work, and from what he had learned of that Association, and on looking at the faces of the students, he felt that the Association had passed the test of a perfect scheme of education 100 per cent. With regard to the system of individuality, which their President had referred to, that was difficult to develop and follow in America, where conditions were so different. Owing to the volume of work they found it necessary to standardise in their educational work. But whether the student was trained on individual or standardised lines, if he was ready to work 23 hours out of 24 a day, and sometimes 24 hours, ideal result would surely come to that student later on in life. Another point was that in their education work in America pressure was continually being brought to bear upon them to make their course more practical—to train the students in the sizes of bricks and pipe lines—all of which was an essential part of an architectural education but there was a period in life when the possibility of training was better than other times, and that was between 18 and 25. He urged them to develop their imaginative powers and individuality, which would be needed to meet the situations that would arise later on in life.

years went on the architectural conditions of their thickly-populated cities would require the greatest imaginative genius of architects. In the States they had architectural offices of considerable size. Their President had told him he thought it would be difficult to get several Englishmen into partnership as in the States, because each man would think he knew all about it and would not agree with the others. In their big partnerships in architectural practice in America were not only the principals, but also the draughtsmen, which was necessary, because the volume of work covered so great a field that it was essential to have a tremendous co-operative effort to bring about successful results. The work of the Association was the starting point of an architectural educational system which would in time, he thought, cover Great Britain, and he would like to see all architectural schools brought together in some sort of central organisation on the lines of their work in America. In New York they received and judged the work of students throughout the States, even as far distant as San Francisco, 3,000 miles away. The University students joined in these examinations and the work of each student was judged, not only in competition with his own particular school group, but also with all the students of the country, and he thought this was an additional inspiration to the student to do his best. He suggested that all Great Britain should join in the marvellous work they were doing, and on which he heartily congratulated them.

Mr. R. Atkinson, the Director of the School, in proposing a vote of thanks to Mr. Corbett, said he had the pleasure of meeting him in New York last year, and he admired his work over there. It was possible for them to see a sample of Mr. Corbett's work in Kingsway and get some idea of the class of work an American architect turned out. He had been very interested to hear about the work of architectural education in America, which had been so well organised that the architecture now turned out reached a very high level. The universal high level in designs in American architecture to-day was undoubtedly due to their schools. In England they had three or four schools of architecture, and in America about 26, and in England they turned loose on the public about 50 architects every year. American architecture was now certainly in advance of French architecture. The latter was to a certain extent inferior because it was largely "paper" architecture, and the American schools had gone ahead by teaching the difference between "paper" architecture and "building" architecture. He believed that some of the American cities would later be the centres of pilgrimages as Florence was to-day. He did not see why they should not go to San Francisco and New York and study their architectural designs. He thought there were signs that this movement was already beginning, and if it was any criterion, it was interesting to note that the ambition of every architectural student in England nowadays was to work in America for a few years. He attributed the excellence of architecture in America to-day to the fact that American students of the past had studied at the Ecole des Beaux Arts and on return to the United States had spread their views and ideas and learning. In England they had not as yet got that older generation of well-trained architects such as they had in America, but it would possibly come in time. In a reference to the British Empire Exhibition at Wembley Mr. Atkinson said he did not think that the Association had been given the attention due to it in regard to the buildings at that Exhibition, and he thought this matter ought to be drawn to the notice of the Exhibition authorities, who should be informed that there was a group of young architects at that school willing to do something and who ought to be given a chance. He thought their school was now well upon its feet, and the extension of the period of the course to five years was justified, as five years was not too long in which to try to learn sufficient to enable a student to be able to say he was really becoming something of an architect.

Mr. Gotch, President of the Royal Institute of British Architects, seconding, said he was quite sure, although he had not heard the address, as he arrived late, that it was extremely interesting and admirably rendered.

The Awards.

The awards were as follows :—

Public School Entrance Scholarship (value £63).—Miss Betty Scott (Headington School for Girls, Oxford).

Open Entrance Scholarship (value £63).—Charles W. Sully (Municipal School of Arts and Crafts, Southend-on-Sea).

A.A. Essay Prize (Open to all Students) (value £10 10s.).—No competition.

First Year Course.—First Prize, "Howard Colls" Travelling Studentship (value £15 15s.), W. R. Brinton. Second Prize, Books (£5 5s.), C. Green. Hon. Mention (£5 5s.), B. H. R. Murray. Hon. Mention (£5 5s.), W. V. Trubshawe. Hon. Mention (£5 5s.), J. V. Nisbet. Art Subjects (£3 3s.), J. V. Hamilton. General Progress, Books (£2 2s.), Miss N. Nickalls.

Second Year Course.—First Prize, A.A. Travelling Studentship (£26 5s.), R. C. Erith. Second Prize, Books (£10 10s.), E. T. E. Nash. Art Subjects, Books (£5 5s.), R. C. Erith. General Progress, Books (£3 3s.), D. H. Beaty-Pownall.

Third Year Course.—Holloway Scholarship (£300), E. Wamsley Lewis. Scholarship tenable for one year in Fourth Year Course (£52 10s.), F. E. Bennett. First Prize, "Henry Florence" Travelling Studentship (£50), F. E. Green. Second Prize. Books (£21), F. Roscoe. Third Prize, Books (£15 15s.), J. W. Wood. General Progress, Books (£5 5s.), I. E. Tramcourt. "Alec Stanhope Forbes" Prize for best colour work during the year, Books (£5), N. H. Musgrave.

Fourth and Fifth Year.—*Design*: First Prize (£6 6s.), R. E. Enthoven; Second Prize (£4 4s.), The Hon. H. A. Pakington. *Decoration*: First Prize (£6 6s.), John Grey; Second Prize (£4 4s.), R. E. Enthoven. *Town Planning*: First Prize (£6 6s.), Miss I. M. Chambers; Second Prize (£4 4s.), J. C. Shepherd. *Construction*: First Prize (£6 6s.), A. S. Knott; Second Prize (£4 4s.), H. Braddock.

Architectural Association Diploma (on satisfactory completion of Five Year School Course).—Miss I. M. Chambers, L. S. Slaughter, E. U. Channon, L. J. Williams, C. S. Morley, J. C. Shepherd, C. G. C. Hyslop, G. A. Jellicoe, G. H. Crickmay, D. S. Petrovitch.

Medal presented annually by the Société des Architectes Diplômés par le Gouvernement Français to the best Diploma Student of the year.—J. C. Shepherd.

R.I.B.A. "Henry Jarvis" Scholarship (£50).—A. E. Cameron.

A.A. Design Club Prize (£5 5s.).—J. H. Greenwood.

Architectural Association Design Prize, awarded annually, Royal West of England Academy School of Architecture (£5 5s.).—R. H. Brentnall.

Cardiff Technical College: Department of Architecture and Civic Design.

The following awards have been made as a result of the sessional examinations at the School of Architecture at the Technical College, Cardiff. Mr. Paul Waterhouse, F.R.I.B.A., was the external examiner.

Third Examination for the Certificate awarded at the end of three years Full-time Day Course, exempting from R.I.B.A. Intermediate Examination :—

Certificate (with distinction), B. W. Thomas (1st place in design); certificate (with distinction), L. Monroe (2nd place in design); certificate (with distinction), V. L. Nash (3rd place in design); certificate, Miss E. Atkins; certificate, W. O. Oakley (3rd place in design).

Second Examination :—J. B. Wride (1st place in design), A. V. Banks (2nd place in design), E. B. Byrd, F. W. Harper, H. A. H. Bull.

First Examination :—A. C. Light.

THE ARCHITECTURAL ASSOCIATION.

STUDENTS' WORK.

It is again a pleasurable duty to look over the work of the Architectural Association which has been considered worthy of exhibition in Bedford-square. That much good work is being done, and that it largely results from wise and discriminative guidance there can be no question. We still look for more evidence of spontaneity and freshness of vision. The Pump Room, the Council Chamber, the Country House, and the Theatre are all waiting for a little more freedom from the bands of precedent, when the sober Georgian and the dull Renaissance may give way to something more interesting, and when we shall not have to wonder what a student's idea of a prison would be like when we see what he gives us for an abode of pleasure.

In the upper floor gallery are a number of interesting designs. One of the most noticeable of these is the design for a lift tower by the Hon. H. A. Pakington; this is illustrated by a clever drawing, and shows real appreciation of the architectural possibilities of such a feature. One is inclined to hope the designer may some day be able to put his idea into practical use. Another good design for the subject is by R. E. Enthoven. The town-planning schemes show much praiseworthy work in the designs for an Empire exhibition, seaside resorts, and the Horse Guards parade; the latter plan has some excellent points. Such designs for an exhibition building contiguous to the Marble Arch are sufficient to awaken the imagination as to the wonderful possibilities of London development. Charming little drawings illustrate an open-air bathing establishment, by C. R. Hiscock, well proportioned and well laid out. Two other good designs are shown. The Repertory Theatre is best rendered by G. H. Crickmay, broadly and boldly treated and cleverly planned. Some pleasing drawings of a country house are worth noting. The London Club, by R. E. Enthoven and H. A. Pakington, is well thought out; both in plan and elevations these have distinct merit. There is some stateliness of lay-out in the plan by Leslie Slaughter. The house for Capt. Lyle has called forth a good design by R. E. Enthoven, whose elevations are very pleasingly shown. The Council Chamber for a capital city has given rather disappointing results, but the design by R. E. Enthoven is much above the average. The colour schemes do not appeal to us very strongly, but are best where quiet tones of colour are adopted, such as the reds and greys by T. E. Townend, and the pleasant purples and yellows by H. H. Khan.

In the first floor gallery we should single out for special note the Church and Institute by I. Joanna Macfadyen. Designs of merit are shown by D. A. Trimmins, A. E. Cameron and Leonard J. Young. A Concert Hall and Restaurant is illustrated by excellent coloured elevations and plans of a more than usually good design by F. E. Green. One of the best things in the exhibition is the sketch for a Cliff memorial, by D. A. G. Smith the idea of using a cliff or rampart as the basis for a great outdoor memorial is a good one, and it is here very boldly and effectively set forth. Two or three of the Pump-room designs are good, *i.e.*, by Doris A. Lewis, G. H. Smith, and Leonard J. Young. Amongst the life figure studies one of a woman showing the back outlines is exceptionally good.

The ground floor gallery contains a number of highly creditable Roman and Greek compositions of which that by Colin W. Statham is typical of the best for its breadth of treatment, and one by R. Smith for its picturesque quality. The subject of a garden pavilion has brought forth some good designs by D. H. Beaty-Pownall, W. J. A. Osborne, and R. Smith. Some good essays in iron steps, a tomb at the end of an avenue, entrance doorway to a museum, and a pierrot stage add variety and interest of subject.

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ILLUSTRATIONS.

New Church of St. Columba, Liverpool.

The illustration of this church in this issue is from the drawing now on view in the Architectural Room at the Royal Academy. The interior is impressive with many well-considered features; the key plan on the view shows the spacious arrangement of the building. Mr. Walter Tapper, F.R.I.B.A., of Melina-place, St. John's Wood, N.W., is the architect.

Uppingham School Memorial Hall.

This illustration is from the original designs of the late Ernest Newton, R.A., but all the details have been made subsequently. The Hall is being built of Welldon stone, and Edith Weston walling. The open timber roof is of Douglas fir, and the wrought ironwork is slightly emphasized with colour and gilding. The new Hall forms, with a new class-room block, two sides of the main school quadrangle. The general contractors are Messrs. Benfield & Loxley, Ltd., of Oxford. Heating and electric light are by Messrs. Wenham & Fowler, of Croydon. Glazing is by The Crittall Manufacturing Co., Ltd., Braintree.

Our illustrations are from this year's Royal Academy Exhibition. Messrs. Ernest Newton & Sons are the architects.

British War Memorial Tablet, Amiens Cathedral.

This tablet was designed and executed for H.M. Government to commemorate the officers and men of the British Armies in France who lost their lives during the Great War, with special reference to those who fell in the battles of the Somme, the defence of Amiens, and the final advance to victory.

It forms one of a series, tablets having already been placed in adjoining piers in the south transept of the cathedral in memory of the Canadian, Australian, South African, and Newfoundland dead. There is also a tablet to the memory of U.S.A. troops, and another has quite recently been erected by the New Zealand Government. The tablet itself is in specially hardened "gesso," moulded, coloured, and gilded; the lettering is in relief and coloured blue, with certain lines of the inscription in gold. The frame, or surround, is of polished Hopton Wood stone—selected as the most suitable British material—the supports and fixings are of bronze.

The memorial (which was recently unveiled by H.R.H. the Duke of Connaught and Strathern, K.G.) was designed by Lieut.-Col. H. P. Cart de Lafontaine, O.B.E., F.R.I.B.A., and was executed by Mr. Reginald Hallward, of 20, Florence-road, Ealing Common, W.5.

Brighton War Memorial.

This memorial, illustrated on p. 175, is situated on the northern enclosure of the Old Steyne, and was designed by Mr. John W. Simpson, PP.R.I.B.A. The whole of the north garden of the Old Steyne has been laid out as a formal setting to the memorial. The treatment comprises a quasi-colonnade of square piers carrying an entablature and frieze without cornice. The colonnade is developed at the south-east and south-west ends as two flanking rose pegolas, which repeat the garden *motif*. At the centre is a small domed shrine facing north, containing an altar table. The colonnade is placed at the north end of a lily pond, and the centre is filled with a carved panel bearing battle honours, with the arms of the borough above surmounted by a mural crown. The work is in Portland stone, and was carried out by Mr. C. Kerridge, junr., of Cambridge. The bronze work and engraving are by Mr. H. Cashmore.

House at Puttenham, Surrey.

This house is situated on the south slope of the Hog's Back. The walls are faced with Messrs. Collier's 2-in. silver grey facing bricks with light red dressings. The roof is covered with red sand-faced tiles. The contractors were Messrs. Musselwhite & Sons, Basingstoke; the grates and mantels were supplied by Messrs. Matthews, of New Cavendish-street, W; the main water supply, consisting of a bored well, pump and engine, was carried out by Messrs. Duke & Ockenden, of Littlehampton. The architects are Messrs. Unsworth & Triggs. Our illustration is from the R.A. Exhibition.

"Combend," Gloucestershire.

This house was originally an old manor house, with a large tithe barn and housing accommodation for the visiting priest attached. The buildings have been occupied from time to time by farmers' tenants and have undergone many changes in the way of alterations—not always with the best result. The building has now been rearranged to suit the present owner. Many recent additions have been taken away, and the building restored more to its original condition. An interesting feature of the alterations is that a portion of the old tithe barn has been utilised to form the large entrance hall, with bedroom accommodation over all contained in the original roof. Messrs. Saunders & Sons, Ltd., of Ashcroft, Cirencester, were the general contractors for the alterations and additions, and Messrs. Samuel Elliott & Sons, Ltd., of Reading, carried out the panelling work to the principal rooms. Messrs. Strode & Co. were responsible for the electric lighting and heating. Mr. A. N. Prentice, F.R.I.B.A., is the architect.

Frescoes in the Memorial Hall, Liverpool.

His Royal Highness the Duke of York, K.G., unveiled these frescoes in the Memorial Hall, Liverpool, on July 24 last. They are the work of Mr. Frank O. Salisbury, and comprise some fifteen pictures, of which we illustrate three, representing "Remembrance," "Immortality" and "Infancy," on page 171. The lunettes are the gifts of the citizens.

Exeter War Memorial.

Earl Beatty unveiled this memorial on July 24 at Exeter. It stands in the grounds of Northernhay, and has a picturesque setting amidst some fine elm trees. At the base are four figures representing the sailor, the soldier, the nurse and the prisoner of war. The figure of Victory was exhibited in the Quadrangle of the Royal Academy in 1922, also the bronze figure of the prisoner of war in the galleries. The sculptor is Mr. John Angel, a native of the city. Mr. Angel carried off many prizes while at the Academy Schools, including the travelling studentship for study abroad.

BOOK REVIEWS.

The Law of Property Act, 1922. *How Will Work?* Practical Criticisms of Parts VIII and IX of the Act. By EUSTACE HARVEY, M.A. (London: Sweet & Maxwell, 1923. 7s. 6d. net).

THIS is a highly technical criticism of Parts I, VIII and IX of the recent Act which purports to simplify the conveyance of Land and the Law of Property, and it will be seen by the question asked on the title-page of this work that the author is, to say the least of it, sceptical as to how in practice that question can be answered in the affirmative. It is, as the author says, an Act of almost, if not quite, record length, and it certainly is one of the greatest complexity; and it is for the lawyer to discover whether or not it attains the object with which it was passed.

The law relating to real property is one of ancient and gradual growth and it depends upon many statutes and much "case law," so its intricacies can only be followed by those versed in the subject. It is always a doubtful experiment to deal with a law which has grown up in this manner by any comprehensive statutory measure, for too often the result is to complicate matters by imposing upon a law well understood by tradition the complications involved in a modern statute. Those interested in this question will doubtless find this criticism of the Act by one well versed in this branch of the law helpful in unravelling its complexities. Criticism by itself when an Act has become law would be futile, but in these pages the author in his criticism considers the working of the new Act and to those who have to construe and put the Act in operation the critical consideration given it in this volume may well be of assistance.

The New Law of Property. Fourth edition of "Topham's Real Property" (an introductory explanation of the law relating to land), showing the changes effected by the Law of Property Act, 1922. By ALFRED F. TOPHAM, L.L.M., K.C. (London: Butterworth & Co. 15s. net).

This is a fourth edition of the author's work on real property, but it is addressed to a particular object, which is the explanation of the changes in the law of real property, which will be introduced when the Law of Property Act 1922, comes into active operation on January 1 1925.

There have been continuous efforts made to simplify the law of real property in this country but probably the Act of 1922 is the most ambitious attempt that has hitherto been made. The lawyer, the student, and the layman can never expect to reap the benefit of such improvements immediately (unless in one sense the lawyers may be said to do so) for, until the new law is established, it has to be read with the old, and thus a double degree of knowledge is essential. The author of this work is well qualified to undertake the task of explaining the effect the new law will have on the existing law not only from his great personal experience, but also as a reader in the law of real property and conveyancing to the Council of Legal Education rendering him conversant with the difficulties of students, and from the fact that he was a member of a sub-committee connected with the reforms inaugurated by the new Act.

The changes that will be effected in the law are indicated in the text, as the author states in the preface, by distinctive type and by a vertical line drawn in the margin. We must confess we do not find the type very distinctive in some instances but the marginal line plac the new matter beyond question, and the is an admirably arranged index showing th old and the new law in vertical columns. Th new statute is so voluminous itself that would certainly have increased the volume b the addition of another 200 pages or so to its pr sent 413 pages, if the text had been include Those who have to master the changes contem plated in the law of real property will certain welcome what appears to be a very concis and clearly-stated treatise on the subject.



INFANCY.

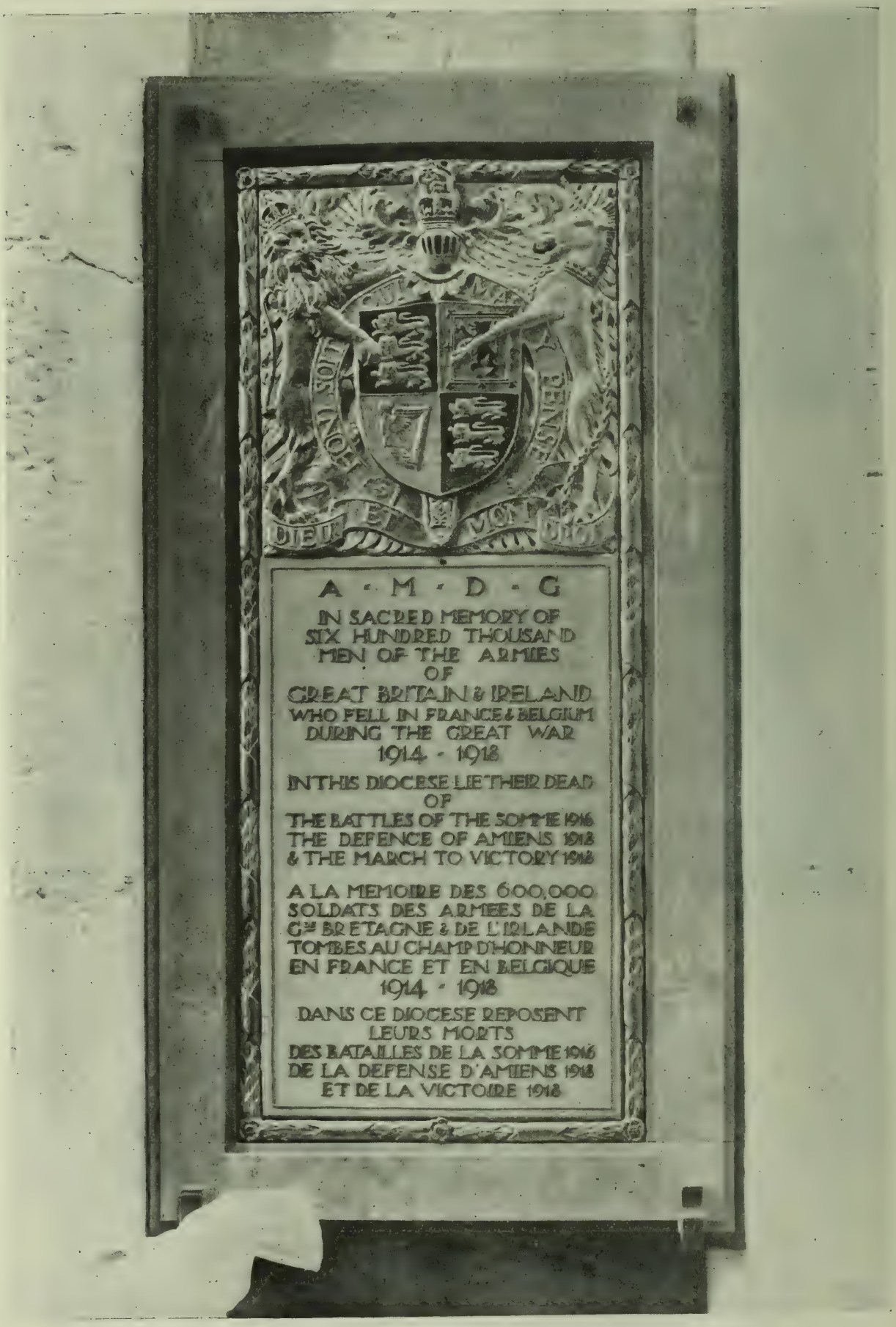


IMMORTALITY.



REMEMBRANCE.

Frescoes in the Memorial Hall, Liverpool. By Mr. Frank O. Salisbury. (*See p.* 170.)

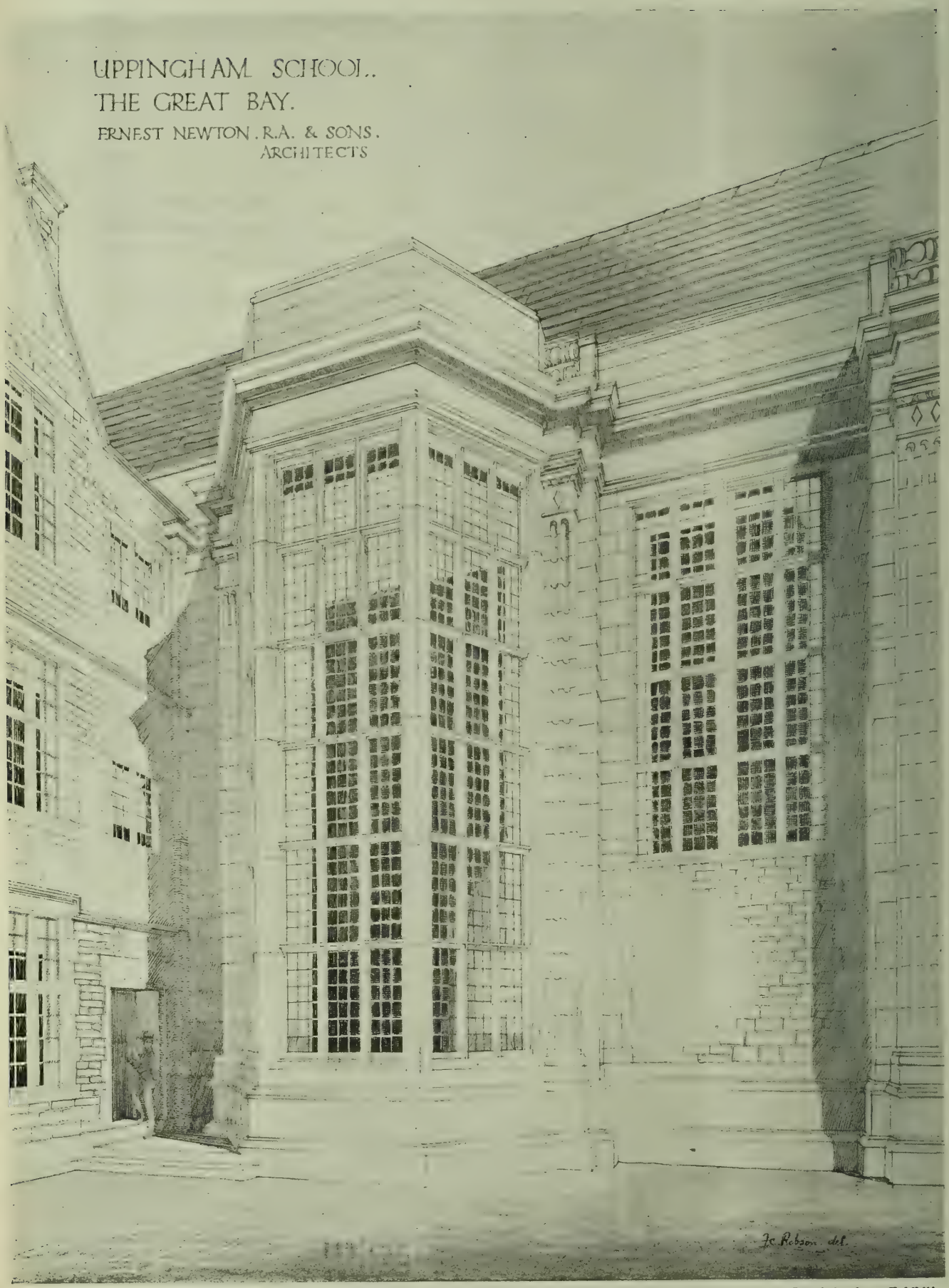


British War Memorial Tablet, Amiens Cathedral, France.

Lieut.-Col. H. P. Cart de Lafontaine, O.B.E., F.R.I.B.A., Architect. Executed by Mr. Reginald Hallward.



Mr. A. N. Prentice, F.R.I.B.A., Architect.



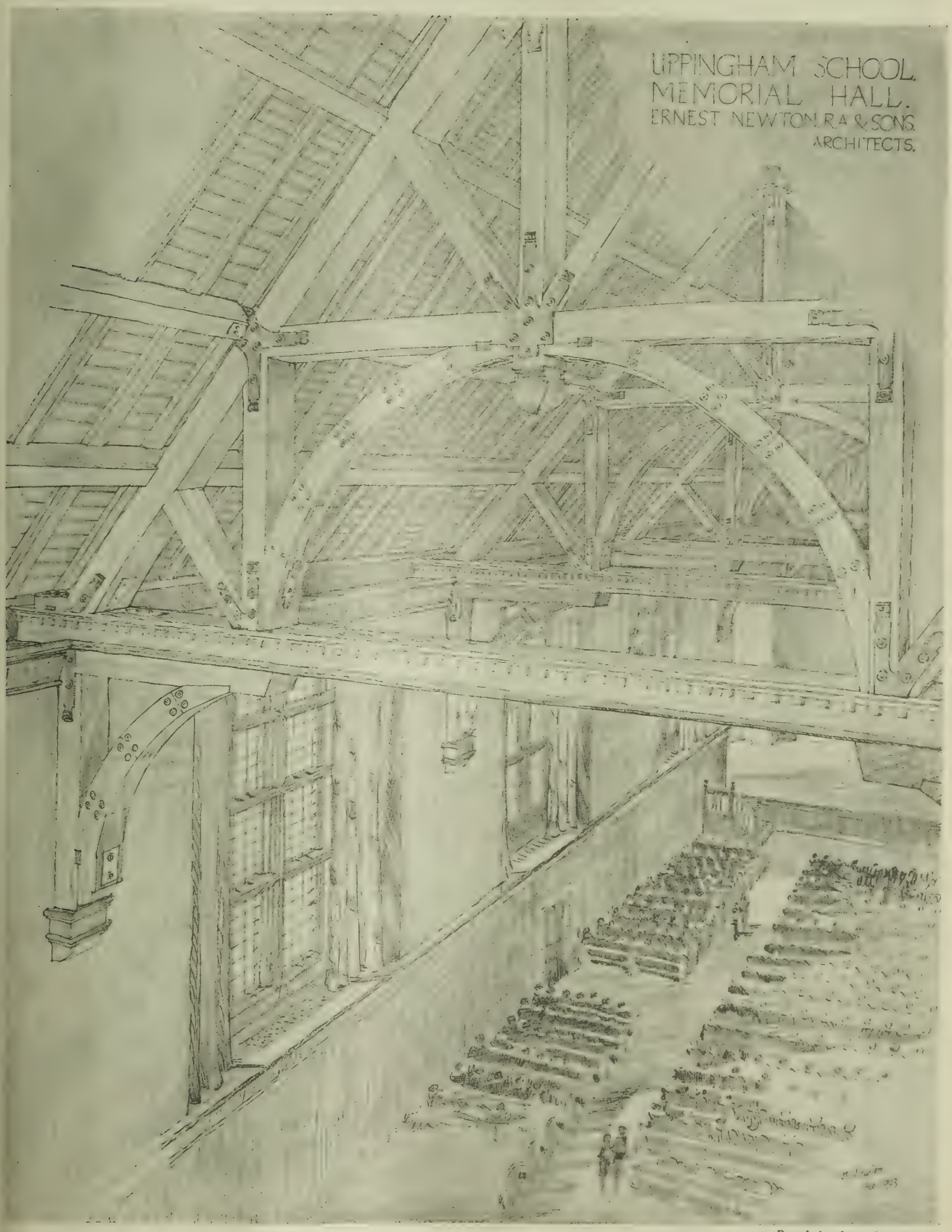
Royal Academy Exhibition

MESSRS. ERNEST NEWTON, R.A., & SONS, Architects.



PROPOSED CHURCH OF ST. COLUMBA, LIVERPOOL

MR. WALTER TAPPIN, F.R.I.B.A., Architect



Royal Academy Exhibition.

Messrs. Ernest Newton, R.A., & Sons, Architects.



Royal Academy Exhibition.

HOUSE AT PUTTENHAM, SURREY.

MESSRS. UNSWORTH & TRIGGS, FF.R.I.B.A., Architects.



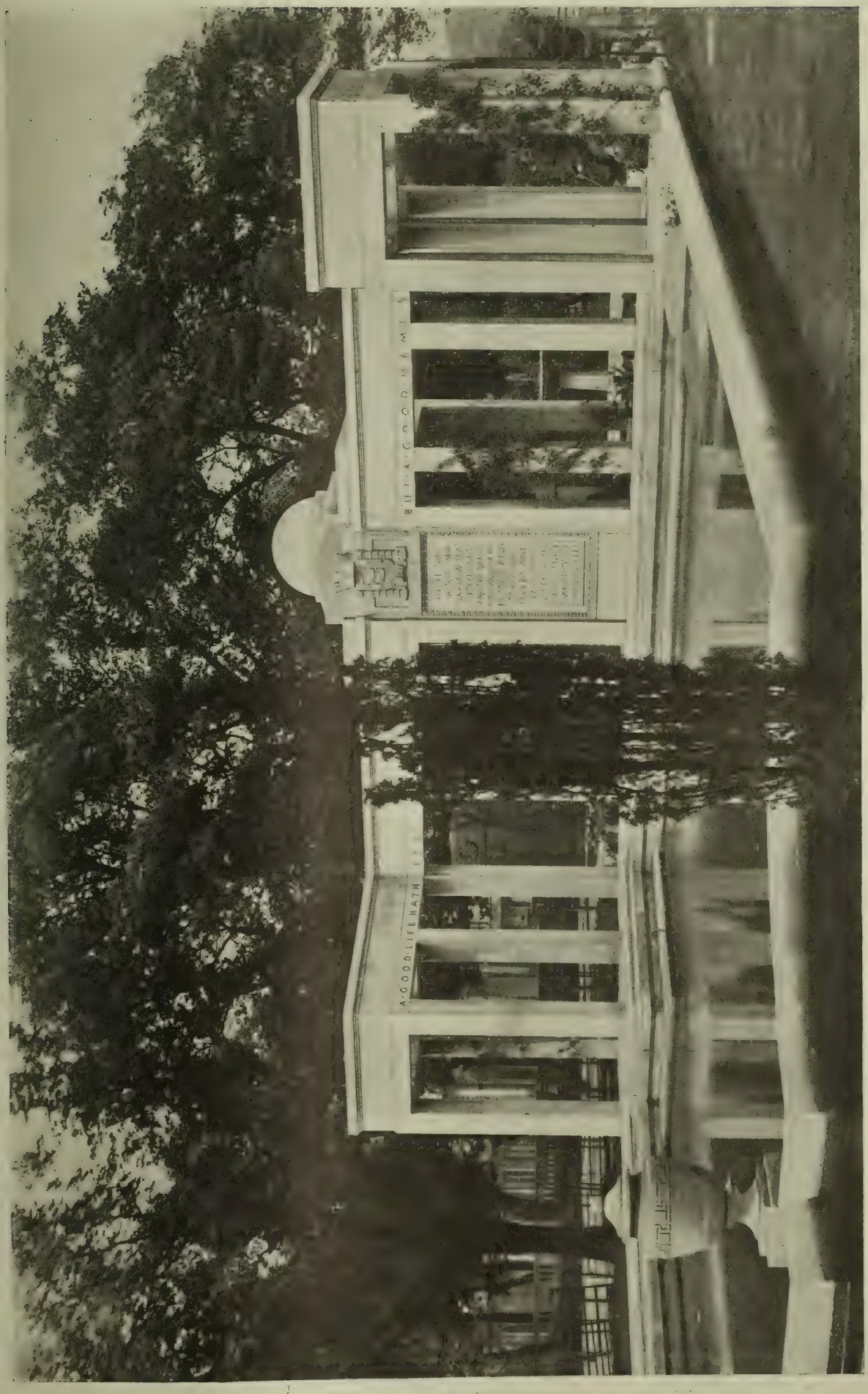
Exeter War Memorial Mr. John Angel, Sculptor. (*See p.* 170.)

THIRD PREMIATED DESIGN (50 GUINEAS).
Mr. G. G. Prentice, Architect; Mr. W. L. Bowles, Sculptor.

FIRST PREMIATED DESIGN (250 GUINEAS).
Messrs. Stephenson & Meldrum, Architects; Mr. C. W. Gilbert, Sculptor.

SECOND PREMIATED DESIGN (100 GUINEAS).
Mr. G. Gavan Lawson, Architect; Mrs. J. L. Peacey, B.I., A.R.C.A., Sculptress.

Melbourne National War Memorial Competition. (*See p.* 164.)



Brighton War Memorial. Mr. John W. Simpson, P.P.R.I.B.A., Architect. (*See p.* 170.)

THE BUILDING ART: THEORIES AND DISCUSSIONS.—VIII.

By W. R. LETHABY.

THE TWO ARCHITECTURES AND EDUCATION FOR BUILDING.

"*Craftsmanship, we say, rather than art, for the selective power which made things beautiful in form and colour was just the result of intuitive feeling, quite other than the self-conscious art by which in later times men sought for effect.*"—Prof. J. J. Findlay, "Children of England."

In my last part I tried to make clear that modern building as now exercised is necessarily of a different nature from ancient work. Ancient architecture was seen as workmanship, ours is clerkship. This cannot be helped, and for a long time I doubt if it can be altered, but it is quite necessary to know the facts clearly and to

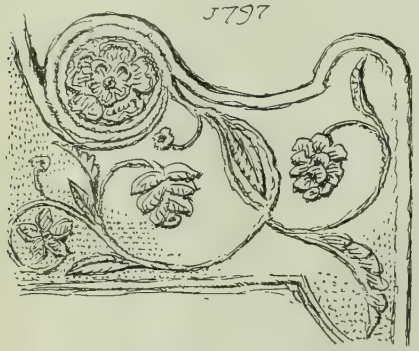


Fig. 1.

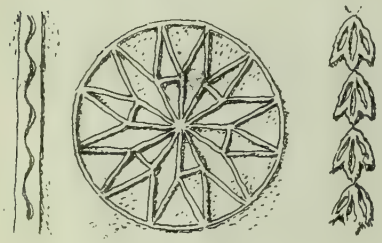


Fig. 2.

arrange accordingly. The things to aim at now are those proper to highly trained expert orderings by middlemen clerks, and our education should be recast to this end. On the point of workmanship art I should like to add one or two sketches to those given in June. After sending off the last part I went to look at the tombs again, and give in Figs. 1 and 2 details of the really delightful "ornamentation" of which I spoke. The relief is very slight, hardly a tenth of an inch, I should think; it is engraving rather than carving—a sort of stone embroidery. The ground is evenly picked all over with a skilful touch, as indicated in patches on the sketch.

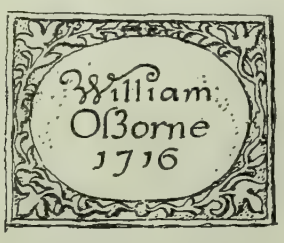


Fig. 3.

Then I passed a wayside cottage, built of local stone, beautifully put together by the customs of masonry, with the traditional mullioned windows, although, as the date shows, it was made in the eighteenth century. The date tablet was just a piece of playful commonsense human work, and may have taken the mason most of a day to do (Fig. 3). Again I went for a little drive to a lovely mediæval church six miles away and found a set of noble nave-arcade capitals. All were different, all rough local workmanship done in much the same way as the later mason's work. In such a place, and wrought in that way, the capital sketched in

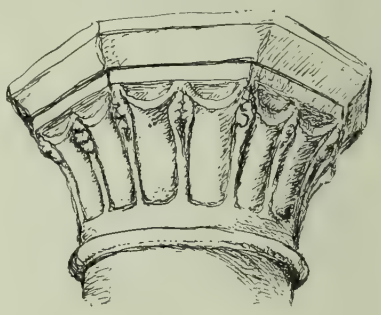


Fig. 4.

Fig. 4 is surely a perfect thing. The mason knew that capitals were done in scallops, but also that that kind were old and rude, and he brightened his up with strong shoots of budding foliage. It belongs to its moment in development and no other. Yet beyond being "Gothic," it is universal, a magnificent example of workmanship art, and it was made in the same way and in much the same spirit as the modern wagons which I talked about before. Art of the old kind may still be seen any day in London in scaffolding. For the most part this is the only art left in city buildings, and it is "removed on completion of the works."

My eye being focussed on the question of workmanship art, I noticed the little old wagonette in which I was driven and I was able to see how very Greek and Gothic it was; that is, it was graceful and natural—not a bit like architects' architecture. It, too, was in the workmanship style, and in its way perfect. You smile, but I looked out over the tail and made a sketch of the cast-iron step to show you (Fig. 5).

First of all it is devised for use; it is light and strong as may possibly be, and the ribbing and dotting of the surface was done for the humble purpose of preventing shoe-soles from slipping. But is it not good; indeed, is it not perfect? Done in this way for service and designed in the material, this again is an example of workmanship art quite akin to the capital wrought seven hundred years ago. So much for my sketches to reinforce the general conception of the two architectures: that of direct workmanship and that of middleman clerkship. I now turn to my American extract.

The day after I had sent off the proof of my last part I received from America a copy of a weekly review (*The New Republic*, June 6, 1923), with an article so nearly akin to what I had been trying to say that it forms quite

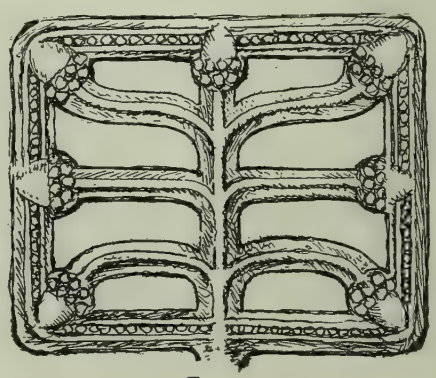


Fig. 5.

a coincidence. Entitled "Beauty and the Industrial Beast," it is written by Mr. Louis Mumford, and I want to make a quotation or two to show what is being thought in America. "If the Victorian designers were mechanical workers by necessity, they were craftsmen in sentiment; they sought to preserve the golden age, even if they could only take a death mask of it in cast iron. This divided purpose keeps even the best products from being clean and logical. *Now the æsthetics of handicraft and of the machine are different things*; and what is a virtue in one department is the opposite in the other. The key to handicraft æsthetics is superfluity. . . . Each worker must elaborate the utilitarian object. The craftsman literally possesses his work. Often elaboration passes the point at which it would give the highest delight to the beholder; nevertheless, the craftsman keeps pouring himself into his job. Carving wood and hacking stone, when it is done with a free spirit and not in servile imitation of some other person's design, is a dignified and enjoyable way of living. . . . A great part of craftsmanship needs no other justification than that it bears the marks of a joyous spirit. When we compare an ideal product of handicraft with an ideal product of mechanical art—say a modern bathroom—the contrasting virtues become plain. The conditions that make possible good machine work are a complete calculation of consequences embodied in a working drawing; to deviate from this calculation is to risk failure. The qualities in good machine-work follow from the instruments—they are precision, economy, finish. Could the workman express anything what would it be but his sense of dulness or his desire to escape? A good pattern in industrialism is one that fulfils the essentials; the 'chairishness' of a chair, the 'washiness' of a basin; and any superfluity is a perversion, and by adding to dull work it defeats the end for which machinery may play a part in society. Craftsmanship emphasises the workers' delight in production. Machine work, on the other hand, stresses the necessities of consumption. In this contrast we have something like a canon of industrial æsthetics; and we can see why it is so futile and perverse to imitate in a mechanical age the objects that were created during the period of handicraft. . . . There is a new kind of beauty to be achieved in and through the machine. In a recent book from Berlin there are photographs of grain elevators, automobiles and office buildings which exemplify the peculiar felicities of machine-work; and if this is exaggeration, it is of a significant fact. A great part of the success of these buildings is the fact that the designer did not model his elevator after a temple or his automobile after a Trojan chariot. Unfortunately, a good part of our machine work is perverted to create fake handicraft and the worker is turned into a servile drudge. We must discriminate handicraft patterns from industrial patterns, and not attempt to carry over into one realm the ideals of another. I do not think handicraft ought to be abolished; on the contrary, it seems to me that if we have driven handicraft out of the city it will return by way of the country and that handicraft may again come into its own, in rotation with agriculture as a seasonal occupation. The consummation of industrial æsthetics will come when our urban apartments, the parlour and the dining-room, are as free from tawdry superfluity as the bedroom and the kitchen. Whether this is a consummation 'devoutly to be wished' depends upon our ability to humanise our mechanical culture."

. . . . .

Students reading these papers may say, "Yes, but after all, when you have to design, how can you do it except by knowing about a 'style' and putting the 'features' together into a 'composition'? That is what we do in our atelier, anyhow." I know that this is so, and all I say is: As much as lieth in you learn about building, as much as you are permitted look at buildings, and as often as you can consider common everyday problems.

When design is approached on paper by the method of the schools you are likely to get such subjects as this: "A prince's palace in

the capital of Ruritania, having an axial approach from the principal 'Place' of the city by a bridge across a river. In front of the palace is a circular colonnade 1,000 feet in diameter, and at the centre is placed a gilt bronze equestrian statue of the founder of the dynasty. Farther on, in front of the great *porte cochère*, are to be four masts, also of bronze and ninety feet high, for flag-waving on occasions of public revelry, which are expected to be continuous. An open *Belvidere* accessible from the *grand suite* of the *Piano nobile* should be provided overlooking the river and in line with the triumphal arch in the centre of the *loggia* on the far side of the *piazza*." I agree at once that such a style-begging problem, set by grave architectural personages for their own listless amusement, can only be played up to by collecting features from books and photographs and making a grand "composition" full of dash and splash, and "going in" for "going to go it." This ideal, however, is purely vulgar; it is of what might be called auctioneers' architecture, and the spirit of it was perfectly echoed in a sale bill I saw the other day and copied: "Magnificently appointed leasehold town mansion, with handsome elevation and carriage drive; rotunda hall with gallery, ballroom, &c., &c. Newly decorated throughout in Period styles. Garage."

Approached from the other end—"the human end"—practical building problems are absolutely different from the airy designing in fairy-land encouraged at architectural schools and societies. In real life solutions are so fully conditioned by data, facts, materials, and economics that the object of true education should be to eliminate visionary whim "designing" altogether, and to substitute demonstration.

If we could know enough of all the facts, and take them in their right order—the requirements, neighbourhood, aspect, materials, labour, cost, and so on—the school view of "design architecture" would be completely pushed out by the thought of making building perfect by being inevitable. In ateliers they not only have to make bricks without straw, they have to design buildings without the bricks; the method is inverted and perverted, and this being so, it is only a mercy that the results are dreary and unreal beyond estimate. But our eyes are holden and we turn the "design" mill faster and faster as hopefully as Tibetan monks spin their prayer wheels.

If we could substitute for this outworn superstition of "architectural design" the discipline of preparing to do work as it should be done, I am sure that the dear old semi-defunct would soon reawake and even move. Seminary and semi-conventual learning about architecture in ateliers, far from the world of building operations, is itself so artificial and dull that it is only made possible by pleasant companionship, talk about Michelangelo, the acceptance of the style myths, the habit of racing the students in competition so that there shall be no time to wonder what it is all about, and periodic fancy dress plays and jazzes. The imperial manner of atelier design, with all the servant-maid talk about *palazzi* and *piazze*, is at most disguised preparation for the kind of fancy-dress show required by department stores and cinemas. The natural way of education in building, as in every other practical art, from farming to sailing ships, is to lead forward in the ways of doing by beginning to do.

Building is a delightful and romantic thing—fresh, vivid, and exciting. In fearless progressive building, both the arrangers and executants would be all the time making discoveries, adopting means to ends, improving, inventing—in a word, living. Moreover, contact would be re-established with the bewildered people, who would soon give sympathy in place of resentment.

In the *Times* the other day was the following enquiry under the heading "City Architecture":—

"Would some eminent architect be so good as to explain why so many buildings in the City have been, and are still being, designed with deep horizontal grooves in the stonework along the front (reaching generally to the first floor) rather than the dignified and smooth-faced buildings which, happily, are a little more in evidence now? Is it to give an idea of strength, or what? These transverse lines detract greatly from the stateliness of the buildings, and divert the eye from taking in the whole structure."

No eminent architect, so far as I saw, enlightened the anxious enquirer, and so I venture to discuss the question here. My answer will sound like irony, but I take it to be just level truth.

1. Parallel sunk grooves in masonry are precisely the very easiest thing a draughtsman with a tee-square can draw. They are also about the most slavish thing a brother man can be ordered to execute, considering the dust, probably worse than picking oakum.
2. Grooves cost a good deal of money.
3. They form recesses to collect soot.
4. The ledges catch the water and make convenient starting places for stone decay.

When tons of stonework have yearly to be removed from the Houses of Parliament it should be obvious that the protection of a building from such decay is a datum of design. "Architecture" should not be associated with stone-rot in either sense of the phrase.

The kind of "architecture" people are waiting to be interested in is suggested by another letter in the *Times*:—

"As one who journeys from town to town to attend meetings, may I suggest that a crusade might begin to improve railway stations? The black dreariness of some of our stations is a thing of marvel to me. Leeds is a notorious example, Leicester a pleasant exception.



Fig. 6.



Fig. 7.

Stations should be an ornament to a town, as so often on the Continent and in America."

While railways are mentioned, I give two illustrations of the noblest piece of modern architecture known to me—the stone-built viaduct at Morlaix in Brittany. This is not a work of taste and style, but one of expert engineering. (Figs. 6 and 7.)

. . . . .

What we need most of all and as a foundation for the details of education is a general conception which will take the place of that mysterious notion—atelier-style-grandeur. I would find this central notion in an idea of perfect structure, the very *spirit of constructiveness*. I spoke before of the mediæval thought of "geometry" as a theory of science of structure and of how this use of the word geometry lasted over the time of Wren. I have lately seen a quotation from Pascal, who was a great mathematician, to the effect that "geometry" was the greatest intellectual study that man might engage in. We require a parallel thought at the present day and we must give a greater content to our thought of building. Building properly is not a mere perfunctory putting things together according to the wordy formulas of out-of-date specifications. *Building* is high activity, experiment, adventure, invention. This desired central idea might be suggested by several phrases: building experiment; structural art; constructive science. We really have to begin to found a developing science of building. That should be the business of architectural societies, but they have been so busy with talking about their likes and "tastes" and opinions, and judging "art" competitions, that the bare notion of modern progressive science of building seems to be offensive to their æsthetic sensibilities. Pre-occupation with style tends to blind us to the solid realities of building, and there is danger that we may cease to see towns and streets and houses and shops, but only paper patterns in pseudo styles. Having found a notion—clear, single and simple—to direct our educational efforts, everything else would easily fall into place, and I need not here try to draw out details and frame time-tables. I may just say that I think an early step would be the joining up with Builders, Engineers, and Craftsmen in the common objective of refounding a human manner of building. What I should really like would be a School of Building common to the lot.

There is even danger that the phrase, "reasonable building," or any other, would be caught up as the denomination of a *style*, and that instead of trying to build *reasonable buildings* we shall set about "designing" in what was *called* "the reasonable style" based on "composing" borrowings from Holland, Germany, and America. We have already made the word modernist mean absurdity, and are quite equal to making reasonable mean imbecility. It is the spirit that matters. The aim to build reasonably, efficiently, durably, even humbly (I am awfully sorry, but everything must begin in humility), has to be put in the place of the superstition of designing vagaries, vanities, and vulgarities, and calling them architecture.

To those who may say that I exaggerate, I have answered: "Look at Oxford Street and Tottenham Court-road; look at Leeds and Bristol." Now, I would add: Look at the country houses in the whim styles now so plentifully pictured in the sale advertisements of the papers. England would have been a richer country if for a century we had practised sound building instead of auctioneers' architecture in the whim and make-believe styles. My notion of architecture is the England of bricks and masonry.



THEORIES AND DISCUSSIONS.

We have received the following from Mr. G. Maxwell Aylwin:—

Sir,—But for your editorial note expressing the hope that "The Building Art" series of articles might provoke profitable discussion, I should not have ventured again to express some of my convictions, which have been a little shocked by these brilliant and consumingly interesting papers. So frequently have I stood out in opposition to Professor Lethaby that I am very loth to give the appearance of a personal vendetta to what is merely a respectful difference of opinion which I retain side by side with gratitude and admiration for his articles.

Of all modern writers upon architecture, there are few who can claim, as a right, such attention as can Professor Lethaby. We have many professors who have added to our knowledge of the past, and he is with them, and no mean comrade. But he is no mere archæologist, for having looked long and thoroughly into the past he has faced about and nows looks ahead with equal patience and thought, thereby gaining a double status of authority. He has written his Pentateuch and now joins the Prophets. He is historian and philosopher, with not only a double status but a dual responsibility. An historian teaching philosophy sets a microscope upon the history he has revealed. An historian teaching philosophy will attract a number of followers on the credentials of his historical knowledge. It is, therefore, of great importance that the philosophy of an historian should be thoroughly examined and freely criticised.

There is a tendency among modern writers to indulge in vague generalities. "Here is the ford," they cry, on the banks of the raging torrent. "Somewhere about here; plunge in and find it." And admiring disciples marvel at such courage, wait to see somebody drown, and, when the time comes for themselves to cross, they seek a bridge. Professor Lethaby is not such a writer. He is not afraid to preach with some definition. Yet for myself (and I am ready to admit that the fault may be within myself) I find many of his points slip through my fingers just when I would grasp them. The apparently clear outline seems, on close inspection, to be a series of dots.

I am reminded of a clever conjurer, who treats us to such witty by-play before discovering a rabbit in the coat pocket of a stout gentleman in the front row. We go home delighted with the entertainment and admiring the skill of the entertainer, but with no false ideas that we have learnt a new way of catching rabbits. I am, in fact, suspicious that some of the rabbits that the professor catches have been brought in specially to be caught. The favourite answers to the pet name of "Style" and is dressed in italics.

Only a few Sundays ago (strange to say the same day upon which I sat down to enjoy "Clerks and Artists") I read in the *Observer* a report of an interview with another professor of architecture who referred to the absence of architectural enthusiasm to-day, citing as a symptom that "There is no battle of the styles." Without echoing the note of regret which appeared to accompany the statement, I cannot help feeling that he is correct in the fact.

Even within my short professional career I can remember when a design that could not be labelled Queen Anne, or Perpendicular, or Louis Seize, &c., was not "respectable," and I am conscious of the gradual disappearance of the "period" design. "Style-tasting" was in fact essentially the sin of the last generation, not of this—and perhaps not so much a sin as an honest groping for pure art after the upheaval of the Gothic Revival—the smashing of tradition. From it is springing the more emancipated work of to-day just as the natural style of the years round about 1800, to which Professor Lethaby refers with approval, sprang from the style-tasting of Wren and Jones and the Adams. Are we to be irritated back into "style consciousness" just when we are losing it?

Now another one—the "free artist." "I would suggest that . . . there can be no decoration which is not vital workmanship, and none should be tolerated which is not by a free artist." Again—"The modern [architecture] is a feat of clerkly organisation—a profession. I have not in mind now anything which I think a fault, but only a question of fact." A fact indeed, and here is another: War was once a thing of spears and shields and muscular blows. Now it is a thing of wireless, and sound ranging, and aeroplanes, and a million other wonders. Battles are now won from G.H.Q. with the help of the courage and obedience of the line. It is not as pretty as the Crusades and does not look so well on the pictures, but it is modern life. The free artist is, in fact, as much out of the scheme of things as the free "Tommy." Discipline allows our millions to live on the land of the mediæval thousands. Wheelbarrows and wagons and old barns and field-gates are the delightful signs of the backwaters of life. But they do not bear us up stream.

What a very few things there are in buildings generally accepted as fine architecture that we could allow ourselves to admire to be consistent with our "free artist" ideas. Perhaps the water-taps, the bath, the radiators, and possibly the doormat, might answer the test of "service, soundness and structure." Of ornament we must have none unless the mason and the joiner can develop the taste for mouldings and decoration. For ten, twenty, a hundred years perhaps, our palaces, our banks, our theatres, our offices must be bare walls with square holes in them—no more. What a heritage for our grandchildren! What a rich page for the architectural history of the twentieth century! Is this really practical politics?

Let us be equally homely in our thoughts upon ornament. I have seen my wife hot-press a transfer upon a dress and from it embroider a pretty spray of flowers. It has, perhaps, just given the right touch of interest to a simple garment. That is ornament. I should be very pleased and proud if she could have designed the spray itself, but should be sorry if, failing the gift, she dressed in sackcloth. Craftsmen have to be craftsmen, even if executing an architect's detail.

Let us try again. Professor Lethaby has a message. To give it driving force he decorates it with very charming language. The words were formed years ago, but from them he can build original sentences. He is the architect, and he uses ready-made words wherewith to build. Is this quite incomprehensible, or does a sentence from President Harding, craftsman of that abomination "normalcy," read better?

My object in so writing is neither a love of argument nor a desire to discourage free thought. It is rather a hint to our professors that the greatest need of our architects to-day is confidence; and the surest source of this priceless quality is encouragement. Tell a man sufficiently often how ill he looks and he will surely take to his bed in time. And conversely there is no tonic so welcome as the assurance that one looks so much better than the last time the speaker saw one.

The unmistakable signs of the birth of the twentieth-century style of architecture, fed by confidence, will bring it into the fulness of life, even in our time, unless it is crushed out of existence by bewildering doubt and misgiving. We have been given a job. It is to compensate for the decay of the free craftsmanship of easier times by a scholarly individuality. It is to compensate for the uniform excellence of the work of many units, by the unity of personal control and direction. The building has to become not so much a gallery of works of art, as in ancient times, as a single work of art to-day. Had we not better get on with the job if we have the opportunity or, failing the latter, give the greatest encouragement mingled with keen criticism to those who are labouring for the very life of our art? It was the pen of Ruskin, as much as any other influence, that perpetuated the confusion from which we are only now emerging.

SIR JOSHUA REYNOLDS' DESIGNS FOR STAINED-GLASS WINDOWS.

By JOHN A. KNOWLES.

Although, according to modern standards of design and craftsmanship we may be allowed totally to disagree with Sir Joshua Reynolds as a designer of glass, his work in this direction must not be forgotten. Sir Joshua's principal work in glass painting was the window he designed for the ante-chapel of New College, Oxford, representing The Nativity and The Christian Virtues. Instead of pursuing the usual method of drawing cartoons on paper, full size oil paintings on canvas were made, and these were copied, not in coloured glass, but on squares of clear glass, painted with enamels by Thomas Jervais, the glass painter, who died in 1801. The work was commenced in 1777, and the first portion of the window, comprising the figures of The Virtues, was completed and publicly exhibited in rooms in Charing Cross two years later, the apartment being darkened so as to show the glass to the best advantage. Walpole quickly saw the futility of this, which he pointed out in a letter to the Rev. William Cole, the Cambridge antiquary. (Walpole's Letters, ed. 1891, vii, 228.) However, in 1783, when the second portion of the window —an adaptation by Sir Joshua of Correggio's "Nativity," in which he introduced portraits of himself and Jervais in modern dress as shepherds—was exhibited in rooms in Pall Mall, even Walpole's judgment became temporarily deranged by the meretricious effect. In May of that year he wrote to Mason: "Jarvis window from Sir Joshua's Nativity is glorious. The room being darkened . . . . the illumination that is supposed to be diffused from the glory has a magic effect." Walpole, however, was quickly disillusioned when he saw the window in place. "Alas," he wrote, "it is just the reverse of the glorious appearance it made in the dark chamber in Pall Mall. I foresaw long ago that Jarvis colours, being many of them not transparent, could not have the effect of old painted glass."

Walpole's opinion, however, was but the voice of Micaiah amongst many more fashionable but false prophets. Chief amongst the latter was Dallaway, who wrote: "In this reign a new style of staining glass has originated, which is the boast and peculiar invention of our own artists. The deviation from the hard outline of the early Florentine or Flemish schools to the correct contour of Michelagnolo (*sic*) or the gorgeous colours of Rubens, is not more decidedly marked than the design and execution of the Van Lings and Prices, and the masterly performances of Jervais." ("Observations on English Architecture," p. 283.)

By such men Walpole's opinion was naturally regarded as heresy, and to maintain their views they, in the manner of the time, fell back on abuse. Even Walpole's love of collecting stained glass, of which he had got together some wonderful examples, was made the subject of attack. One writer said of him: "His mind as well as his house was piled up with Dresden china and illuminated through painted glass"; and Dallaway, stung to the quick at Walpole's criticism of Sir Joshua's Virtues as "washy," wrote an attack in which he stated that Walpole "was so enamoured of his Flemish histories and rich mosaics" (as stained glass executed in the mediæval manner was termed at that period) "that he was blind to the perfection of the new school of glass staining." Courtiers and place seekers were loud in their praises of the new manner. Fanny Burney (Madame D'Arblay), who was evidently an early example of the "lily and poppy" school, whose insincerities and affectations were laughed out of court by W. S. Gilbert in "Patience," and exposed in plays such as "The Colonel," pretended the sight of the window was alone sufficient to ward off an impending fainting fit, brought on by the fatigue of standing at a Court function, though less sensitive souls would no doubt have recommended the use of a smelling-bottle for the purpose. Miss Burney, however, imagined that "the beautiful window of Sir Joshua Reynolds and Mr. Jervis (*sic*) in New College would alone have recovered me, had my fatigue been infinitely more serious." ("Diary and Letters of Madame D'Arblay (Miss Burney)," 1786.) It is extremely doubtful, however, whether Miss Burney ever actually saw the window at all, as she was far too short-sighted.

Thomas Warton, the Poet Laureate, wrote a poem entitled "Verses on Sir Joshua Reynolds' Painted Window in New College," couched in the florid and extravagant language which so frequently at that time passed for poetic inspiration, in which, amongst much of the same sort, the following lines occur:

"Ah! stay thy treacherous hand, forbear to trace
Those faultless forms of elegance and grace!
Ah! cease to spread the bright transparent mass
With Titian's pencil o'er the speaking glass."

Reynolds, however, was a man of too sound judgment and well-ordered mind to be moved by these flattering tales. Neither the insincerities of persons at Court nor Warton's poetical gush could upset the even balance of his mind. Humbug he detested, and persons who affected to admire what they were incapable of understanding would appeal to him but slightly. Condemning those who went into raptures over the works of Raphael, with which, as he was candid enough to admit, he himself was at first disappointed, he said: "I found that those persons only who, from natural imbecility, appeared to be incapable of ever relishing those divine performances, made pretensions of instantaneous raptures on first beholding them." He told Warton flatly that he was not sincere in his professions. "I owe you," he wrote, "great obligations for the sacrifice you have made, or pretended to have made, to modern art; I say pretend, for though it is allowed that you have, like a true poet, feigned marvellously well, and have contrasted the two different styles with the skill of a connoisseur, yet I may be allowed to entertain some doubts of the sincerity of your conversion." As a glass painting the window was a failure, and Reynolds knew it. At a later date he wrote: "I had frequently pleased myself by reflecting, after I had produced what I thought a brilliant effect of light and shadow on my canvas, how greatly that effect would be heightened by the transparency which the painting on glass would be sure to produce. It turned out quite the reverse."

Both Reynolds and Jervais were well paid for their work. For the whole of the upper compartment, representing The Nativity after Correggio, Jervais received £1.100 for the glass painting, and Sir Joshua £231 for the use of the cartoons which remained his property. For the single figures of The Christian Virtues Jervais received £50 each; £70 for the group of Charity, and £8 extra for the lion's head in the figure of Fortitude. The Nativity painting Sir Joshua sold to the Duke of Rutland for £800, and it was subsequently destroyed in a fire at Belvoir Castle. The Duke of Portland had some of the accompaniments bequeathed to him by Sir Joshua, and the Marquis of Thomond the others with the seven single figures. Farington, in his Diary for April 30, 1809, said that Lady Thomond "spoke of selling the Eleven pictures by Sir Joshua Reynolds painted for the New College Window & said she wd not take less than £5,000 for them." They were sold in 1821 and actually fetched over seven thousand pounds, as shown by the following note in a scrap-book now in the possession of the writer, which was compiled by Thomas Wilmshurst, the glass painter, whose window representing The Field of the Cloth of Gold, measuring over 20 ft. square, was destroyed in a fire at 15, Oxford-street, where it was being exhibited in 1832.

"The following are (*sic*) the original Designs for the Compartments of the Window of New College, Oxford:—

Portraits of Sir Jos. Reynolds and Jarvis as Shepherds at the Nativity	Ld. Fitzwilliam	£430 10
A Peasant Girl and Children with a Torch	M. Zachary, Esq.	£420 0
A Shepherd Boy and Dog with a ruined Column in the front ground	Ld. Fitzwilliam	£630 0
Young St. John and the Lamb	Danby	£183 15
Charity	Ld. Normanton	£1,575 0
Faith	,, ,,	£420 0
Hope	,, ,,	£682 10
Temperance	,, ,,	£630 0
Justice	,, ,,	£1,155 0
Fortitude	,, ,,	£735 0
Prudence	,, ,,	£367 10
		£7,229 5

There is a spirited sketch for the group of Charity, slightly different from the one which was subsequently used, in the Ashmolean Museum at Oxford.

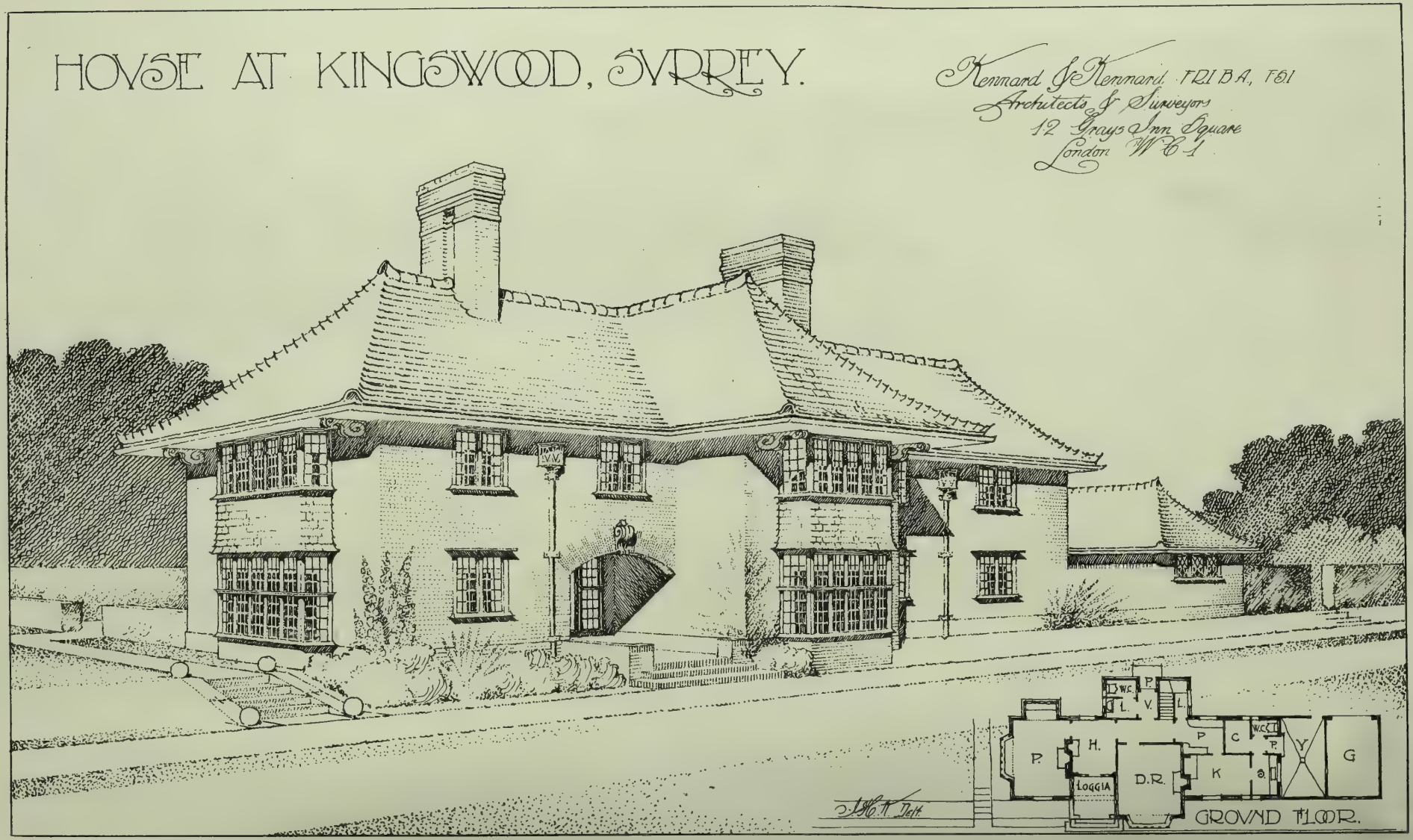
The New College window was not the only work of Sir Joshua in glass. For Salisbury Cathedral he did the Resurrection in the lancets of the Lady Chapel, the painting on the glass being done by Francis Eginton of Birmingham (1737-1805). This window was removed some sixty years or more ago. For Lichfield Cathedral the same artists executed a Resurrection, no doubt a replica of the Salisbury window. Carter, the architect and antiquary, writing to the *Gentleman's Magazine*, tells us that when he visited the Cathedral in 1801 he found that the Dean and Chapter, in order "to give an effect like some exhibition transparency" to Sir Joshua and Eginton's window, "had darkened all the surrounding ones." This window cannot have been in place many years, for in 1802 the eastern windows were filled with the present beautiful glass from Herkenrode Abbey. In Holy Trinity Church, Hull, at the base of the east window, there were three beautiful panels executed about 1835 in a combination of enamels and coloured glasses from Sir Joshua's cartoons of Faith, Hope and Charity, probably by Messrs. Hoadley & Oldfield, glass painters of some note in their day. These panels, very instructive as examples of the return to sounder principles, have unfortunately only recently been removed.

Earl Haig's Appeal for Ex-Service Men.

In an appeal on behalf of ex-service men of all ranks issued from the offices of the British Legion, Earl Haig says: "It is now nine years since the incident of a scrap of paper roused the indignation of all honest-minded men and the Empire went to war. Can we yet claim to have fulfilled the solemn promise to do our duty honestly to those who fought for us? About 5,000 ex-officers are still in search of work, 100,000 wholly or partially disabled ex-service men still forced to look to charity to supplement exiguous pensions, 400,000 men capable of work but unable to obtain it, supply the answer to that question. Cheques should be crossed "Barclay & Co.," and sent to 26, Eccleston-square, London, S.W. 1."

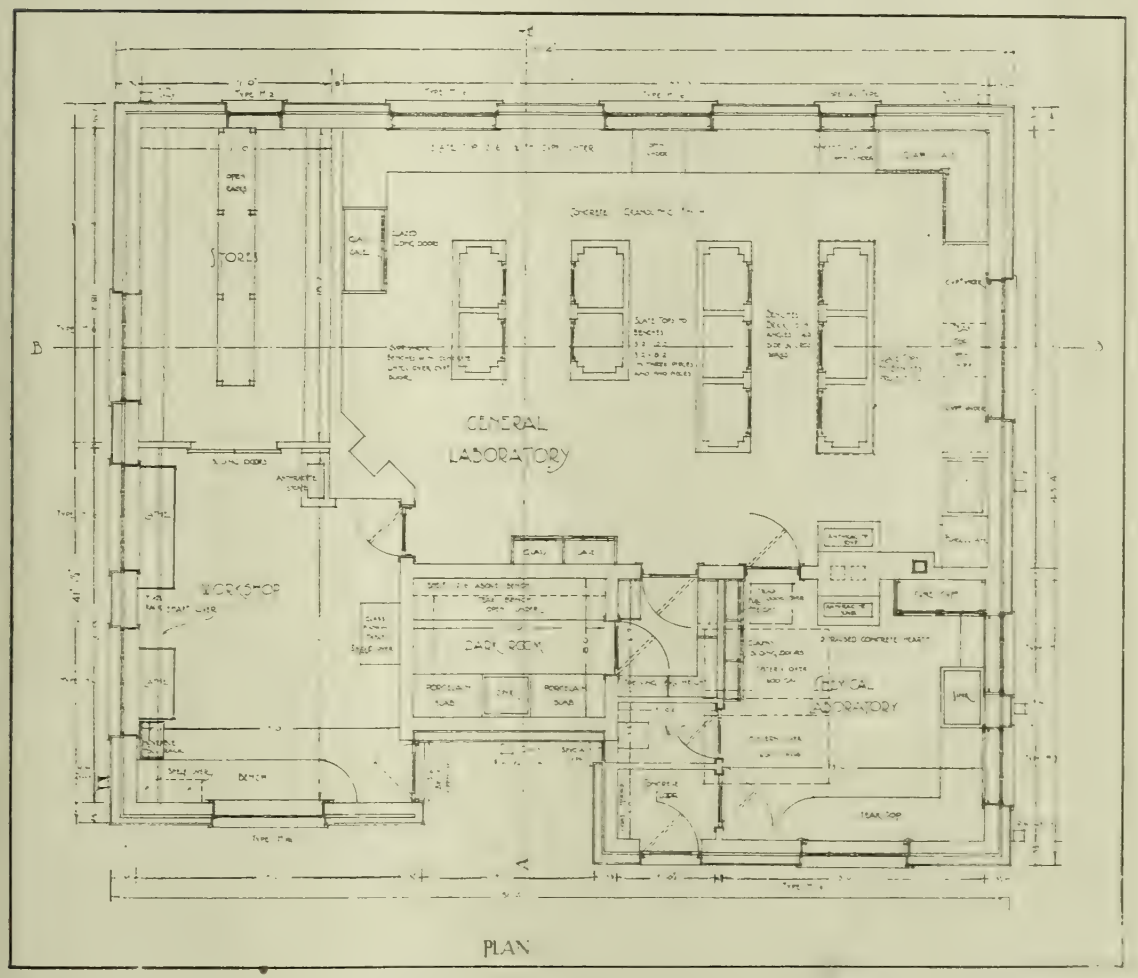
HOUSE AT KINGSWOOD, SURREY.

Kennard & Kennard, FRIBA, FSI
Architects & Surveyors
12 Grays Inn Square
London WC 1



[This house, which is now in course of erection, stands on a site of 1 acre. The accommodation comprises: Ground floor—Hall, dining-room, parlour, pantry, larder, kitchen, scullery and usual offices, and garage. First floor—Five bedrooms, bathroom (hot and cold), and tank and airing cupboard. The builder is Mr. J. E. Whiter, of 89, Newington Butts, S.E.]





Laboratory at Winforton. Mr. M. Waterhouse, A.R.I.B.A., Architect.

[This private laboratory was recently erected at Winforton, Herefordshire, for Mr. T. R. Merton. By the use of "Poilite" pantiles a roof of lighter construction over a large span was secured. The tiles in question look like ordinary pantiles from a distance and give a pleasant appearance.]

THE SURVEYORS' INSTITUTION.

WORK OF THE QUANTITY SURVEYOR.

On the 27th ult., at the Surveyors' Institution, a meeting was held, mainly of teachers in building and allied subjects from all parts of the country, who are visiting London under the auspices of the Board of Education. Mr. Hugh Davis, of the Education Department, was present. There was a good attendance. Mr. Lawrence, the Chairman of the Quantity Surveyors' Committee, presided.

Mr. F. H. A. Hardcastle read a paper on the Standard Method of Measurement and the Work of the Quantity Surveyor. Mr. Hardcastle said the quantity surveyor was little known to the general public, but he played an important part, as was well known to experts, in connection with building matters. His function came in between the preparation by the architect of the drawings and specifications, and the making of a contract with a builder for the work. There had been evolved in regard to the dozen or more trades which made up the building industry a more or less recognised method of measurement of completed work, and a customary form of expressing the result. To this experts were able to affix the prices current at any given time. The whole of the work in any completed building having been measured and thrown into form in a bill, if an agreed complete schedule of rates or prices existed, it was simply a question of arithmetic to ascertain the total cost. That method was from time to time followed, and it had many advantages, one being that the building owner paid exactly for what he received and no more. It had, however, one signal disadvantage, viz., that the amount of the cost was not known until after it had been incurred. In practice, the person financing the erection of a building usually desired to know the probable cost beforehand. A bill of all the work required in the building in question was therefore prepared by the quantity surveyor, but, instead of representing completed work it represented measurements from drawings of contemplated work. That was the difference. It was pretty clear, therefore, what was required of the quantity surveyor, whose office it was to compile the bill. He had to be familiar with every process in every one of the trades concerned in the erection of the building, and in imagination went through all the work involved, from the cutting of the first sod in the virgin earth, down to the application of the last coat of paint. He must, in fact, put himself mentally in the position of the builder asked to give a price for the work, and to convey in his bills, in a recognised form, all the information requisite and available; and that included not only the quantities of labour and materials, but also particulars of conditions of contract, and indeed all matters that affected the price. This done, the bills were printed and sent out to a number of builders, who were invited to tender in competition. Competition was the rule, indeed, he believed, in most cases. Local authorities, for example, were required by law to invite tenders from the whole of the public in what was termed "open competition." Competition had, he knew, been much attacked; indeed, one school of social philosophers affirmed that competition, theft, and war were all in principle the same. Competition, however, had its merits. It tended to tune up enterprise, and to give its legitimate advantage to ability in management. He remembered speaking to the builder of a large public building a few years ago, and congratulating him on the visible growth of the work despite all the talk at the time of the slackness of the workmen. He (the speaker) said: "You have no reason to complain of your bricklayers; how do you manage it?" and the builder replied: "Oh, two or three things. We have eight or ten leading hands distributed amongst them, we have plant that makes them comfortable at their work, and we have four Scotch cranes that keep them amply supplied with material. The moral effect of that last point is great." Was it not natural, was it not right, that the man who handled his work in that manner should reap the advantage of his ability? They would, therefore, have competition. There was, however, much waste of effort in competitive tendering. A varying number of firms, from three or four up to as many as 20, by the expenditure of skilled and costly labour prepared estimates for a piece of work. One got it, or might get it. The labour of all the rest was thrown away. That waste of effort should be minimised. Moreover, estimates were usually prepared with great rapidity. There was no more overworked set of men than builders' estimating clerks. They were sometimes seen pricing a bill of quantities on their lap in the Tube! The whole process of setting on foot a building enterprise, indeed, furnished an example of what they knew in physics as "accelerated velocity." When the solicitors on both sides had finished their leisurely operations and the land was conveyed, the pressure began. The client could not comprehend the delay in the simple matter of completing a few drawings, &c., of what he had settled to have done. The surveyor was urged to use the utmost dispatch in taking out the quantities. Indeed, after a practice of 40 years he could count on the fingers of one hand the occasions when they had not had to work late hours at the office. The lithographer also habitually worked late to get the bills printed, and lastly the builders were commonly allowed four or five days in which to prepare their tenders, when a fortnight's time would not be any too much. The quantity surveyor was paid by a commission on the cost. The inefficient surveyor, and the man who took no pride in his work, but whose one idea was to reap the greatest monetary reward with as little labour as possible, was under great temptation to content himself with a series of sweeping, inclusive items which did not really represent measurement at all. He was once shown a bill of quantities for a country mansion to cost about £35,000. In it was a wainscot oak staircase 4 ft. 6 in. wide and going up two stories. It was given in the bill as "No. 1 staircase," followed by a description of the treads and risers, the strings, the handrail, the balusters and the newels—in point of fact, a page copied from the specification, and ending with the well-worn and useful term "complete." In like manner the dormers in the roof were given as "No. 6 dormers," including casements and frames, glass, leadwork, and plastering, also "complete." In this case the quantities were taken out by the architect for the job, and the top commission of 2½ per cent. was charged. An instance like that, by the way, supplied an additional reason for the employment of an independent surveyor, as was remarked from the bench by the late Lord Russell of Killowen (in Terromé *v.* Scott). No architect would for one moment tolerate from a surveyor such work as that. Another danger was the opposite one of over-elaboration, which was analogous to what was often observable amongst children, a desire to "show off"—to introduce a number of separate and additional measurements of labour, &c., which had hitherto been considered as included in general items. This was also mischievous, though less so than the other method, if method it might be called. There was, too, a constant pressure in that direction from sub-contractors. It was now not an unusual thing to sub-let slating and tiling, constructional steelwork, plastering, glazing, and plumbing. The consequence was that each of those trades regarded its operations as the centre of the universe, and was incessantly busy in urging fresh sub-divisions and fresh labours, on the general principle of getting more money for the same thing by virtue of calling it by a different name. Amongst the most ingenious were the slaters, of whom it had been wittily remarked that they now demanded a lineal item in the measurement for beginning and another for leaving off. In view of the foregoing considerations it was not surprising that the attention of the profession and the trade had of late years been drawn to the necessity for uniformity of method, and a joint committee of surveyors and contractors was constituted to draw up an agreed standard method of measurement of building works, the necessity for which surely needed no arguing. That committee, of which he had the honour to be chairman, had completed its labours, and the resulting volume had been published jointly with the authority of the Surveyors' Institution and the Federation of Building Trades Employers. It had also received the approval of the Royal Institute of British Architects. He felt some pride as a surveyor in noting how little that complete and agreed document differed from what had been the practice of the leading surveyors for many years, a practice built up by the great surveyors of the past—Hunt, Gardiner, Rickman, Steward, Strudwick. It spoke well for the care and the fairness with which they did their work. It was also evidence of something else—the moderation and the common sense of the contractors who sat on the Committee. There had thus now been supplied a standard by which the work of the quantity surveyor might be tested, and in consistently following which the reproach might be removed that the estimator was often left in doubt as to the precise meaning of the items he was called upon to price. It remained to be proved whether there would be found in the trade sufficient solidarity and public spirit to enforce its general application. He was glad of that opportunity of addressing a body of men who were engaged in advanced education, and who took interest in the science of building, a subject which touched them all, and which was one of the chief industries of the country. A considerable number of young men passed through their hands every year who would earn their living in connection with that industry in some capacity. A sound knowledge of the mode in which building work was measured and the result expressed for the purposes of commerce, would do no harm even to the artificer, while to the surveyor or the builder and his estimator such knowledge was essential.

Mr. Hugh Davis warmly thanked the Institution for receiving the visitors, and Mr. Hardcastle for his paper. He quite concurred in the necessity for a standard method of measurement and for all persons concerned in any capacity with building matters being thoroughly familiar withit.

The usual votes of thanks were passed, after which the visitors were entertained to tea, and were taken over the Library, the Forestry Museum, and other interesting parts of the building.

AUCTIONEERS' AND ESTATE AGENTS' CONFERENCE.

At the Conference of the Auctioneers' and Estate Agents' Institute, held in Bristol, the Secretary (Mr. E. H. Blake, C.B.E.) gave an address on the Rent Acts. He said that in the past as many as 95 per cent. of the houses were provided by private enterprise. House property used to be looked upon as a sound form of investment, and money flowed freely towards it. The building of houses was a legitimate business, and was formerly a great industry. Although the position was getting a little easier, the problem would not be solved until full decontrol took place and the confidence of the investor in this class of security was restored. Only then would houses be built in sufficient numbers for houses to compete for tenants, and for the law of supply and demand to operate in the regulation of rents. Mr. Blake said members of that Institute were the usual intermediaries between landlords and tenants, and who often acted as the advisers of those who have in the past been accustomed to invest their money in the development of estates for building purposes. A study of the speeches of the Minister of Health during the passage of the Rent Bill, 1923, showed that the Minister was satisfied that the solution of the problem lay in private enterprise. State subsidies would have no substantial effect in overtaking the shortage. The Rent Bill would become an Act within the next few days, and it was clear that control was to remain for some time to come. It would be well for those intimately concerned in the administration of the Rent Acts to face the facts and note carefully how the law was proposed to be remedied as from the end of this month.

QUANTITY SURVEYORS' FEES UNDER HOUSING SCHEMES.

The following General Housing Memorandum (No. 64) with regard to fees payable to quantity surveyors in private practice for work in connection with the settlement of contractors' accounts for State-Aided Housing Schemes has been issued by the Health Ministry. The terms set out in the memorandum have been settled in agreement with representatives of the Surveyors' Institution, and were confirmed at a special meeting of Quantity Surveying members of the Institution :—

Questions of difficulty have arisen between the Ministry of Health and the Surveyors' Institution regarding the application and interpretation of paragraphs (*d*) (*e*) and (*f*) of Part II of General Housing Memorandum No. 31 in individual cases. After exhaustive discussions between the Department and the Surveyors' Institution, it has been agreed that to obviate arguments and disputes the following statement should be substituted for paragraphs (*d*) (*e*) and (*f*) as representing a reasonable application of those paragraphs as a whole. It must be understood that the terms of this statement are an agreed compromise between the Department and the Institution on the various points of difficulty arising under the three paragraphs rather than an agreed interpretation of individual paragraphs and must be accepted in entirety.

II (*d*) Variations—Measuring and making up account of variations consequent upon alteration in design including foundations :—1½ per cent. upon gross amount of additions . 1 per cent. upon gross amount of omissions.

The charge shall be calculated on all additions and omissions brought into account (except that no charge shall be made in respect of any item of omission which is taken bodily from the Bills of Quantities and does not necessitate reference to dimensions or abstracts). It is assumed, of course, that the Surveyor will adopt the most economical method of arriving at the adjustments.

II (*e*)—Adjustment of contract price consequent upon changes in cost of labour and checking and considering claims in respect thereof.—A fee of 1½ per cent. will be payable upon : (*a*) The difference between the amount of the wages payable at the rates specified in the contract and the amount of the wages paid at a higher rate, and also on (*b*) the difference between the amount of the wages payable at the rates specified in the contract and the amount of the wages paid at a lower rate.

II (*f*)—Adjusting contract price consequent upon changes in cost of materials and checking and considering claims in respect thereof. Where this work is done by the Surveyor, a special fee is to be arranged, not to exceed ½ per cent. in respect of the first 100 houses upon the gross cost of the materials dealt with, and ¼ per cent. in respect of any number of houses beyond the first 100 upon the gross cost of the materials dealt with. In the event of any difference as to the amount to be charged for this work, the difference is to be determined by the Minister of Health, whose decision shall be final. The fee should be taken at ½ per cent. in respect of the first 100 houses and ¼ per cent. in respect of the remainder, and applies to materials purchased in the open market. It can also be regarded as applicable to materials supplied through the Director of Building Materials Supply provided that all the work in connection with claims for those materials has been undertaken by the Surveyor, viz. : (*a*) ascertainment of the amount of goods supplied to the contractor through Director of Building Materials Supply or the Local Authority ; (*b*) ascertainment of value of the goods at nominal (schedule) rates ; (*c*) preparation of statements of accounts of amount due by the Local Authority in respect of materials supplied by Director of Building Materials Supply and of the railway carriage accounts paid by the contractor.

If the above items have been only partially undertaken by the Surveyor the fees should be reduced proportionately. In such case the Local Authority should communicate with the Ministry stating the facts of the case.

OPTIONS TO PURCHASE.

The case Rider *v.* Ford (*Weekly Notes*, March 24) again draws attention to the law relating to options to purchase contained in leases. The plaintiffs in the action were builders, and had entered into an agreement with the defendant to build a house on the terms contained in the following letter, from which we give the material passages : "The whole matter, therefore, stands thus : The house to be built on the plot of land adjoining Mr. Watts in accordance with the plans and specifications prepared by Mr. May (which we had better both sign) and to be completed as nearly as possible by Christmas next. You to take the house for 3, 5, or 7 years at the rent of £147 per annum and to have the option of purchasing either the freehold for £2,900, or a lease of 97 years (ground rent £20) for £2,400. If you will send us a letter accepting these terms it seems to us this will be all that will be necessary." By a letter dated June 12, 1907, to the plaintiffs' firm, the defendant confirmed the above terms.

Under this agreement the defendant went into possession March 25, 1908, and after the expiration of the seven years continued in possession as a tenant from year to year, but on May 26, 1922, the plaintiffs served on the defendant a notice requiring him to give up possession on March 25, 1923. The defendant then claimed to be entitled to exercise the above option as he was still in possession of the premises with the consent of the plaintiffs, who, he said, had never called upon him to elect whether he would exercise the option and he had done nothing to abandon it.

It will be observed that there were here two options : to purchase the freehold, "or a lease of 97 years"—and it is important to notice that the Court construed this latter option not as an option to "purchase" a lease, an expression which it said was inaccurate, but that the meaning was that the defendant was to have an option of obtaining a demise of the premises for a term of 97 years. The Court held an option continues as long as the relationship of landlord and tenant continues in spite of the fact that the original term, as in this case, has expired. Moss *v.* Barton (1866, L.R. 1, Eq. 474) and Buckland *v.* Papillon (1866, L.R. 1, Eq. 477) were the cases cited to support this proposition, but then there was the law against perpetuities also to be considered. As regards the option to purchase the freehold, the Court held that would offend against the rule of perpetuities unless the agreement could be read as giving only an option to the defendant personally or to his assignee conditional on it being exercised in the defendant's lifetime, and the agreement could not be read as so restricted. But a covenant for the renewal of a lease as the Court held was outside the rule against perpetuities, and the Court therefore held that this option could be exercised.

It must, however, be particularly observed that the option in this case contained no limit of time within which it must be exercised. If there is such a time-limit it must be noted the option must be executed within the time prescribed, as was held in the case *in re* Leeds and Batley Breweries and Bradbury's lease (1920, 2 Ch. 548) a case which will be found noted in our columns September 24, 1920, under the title Bradbury *v.* Grimble & Co., Ltd. There, at the expiration of a lease of seven years, the tenants were continuing on from year to year, and had done so for eight years, when they attempted to exercise the option. The option, however, was to be exercised "at any time six months before the expiration of the lease," and it was held it could not be exercised in the above circumstances.

The cases are a little difficult to reconcile, however, for in Bradbury's case part of the reasoning of the Court was that where a tenant holds over, only those conditions of the lease remain operative that are consistent with the tenancy from year to year ; and the option to purchase was not consistent with the yearly tenancy since an exercise of the option would put an end to the tenancy.

The fact, however, that in Bradbury's case the option had to be exercised at a fixed time, i.e., six months before the expiration of the lease, differentiates the case from the present where the option was not restricted in any way ; and in Bradbury's case the finding we have mentioned above would appear hardly necessary, the time being fixed in relation to the lease and not the "tenancy." We may also point out that Bradbury's case was considered by the Court in the case we are now considering, and it was distinguished by the Court very much on the grounds we have indicated—that the time was fixed in relation to the term. We may notice one other observation of the Court in Rider's case. The Court pointed out that in regard to the option to take a fresh lease of the premises on new terms (being the case here), the position of a tenant who held over was in principle the same as that of a similar tenant in regard to an option to obtain a fresh lease on the same terms as the old lease, and there was no reason why the law of perpetuities should not be applied in the same way to either case.

RENT ACT: INCREASE IN RESPECT OF RATES.

A decision has been delivered by a Divisional Court in the recent case, Smith *v.* Lloyd (*Weekly Notes*, June 23), which we find a little difficult to follow in the short report. The action was brought by a tenant to recover rent which he alleged to have been paid contrary to the Rent Act. In May, 1918, and again in May, 1919, the landlord had given notice of increase in rent to meet the increased rates paid by him. Judgment in the Court below had been given for the tenant, but on this appeal the landlord only raised a question as to sums paid from January 2 to July 2, 1920, that is, in respect of a period before the Rent Act 1920 came into force.

Now the Act of 1915, by section 1, subsection (1), paragraph iv, enacted that an increase in rent to meet an increase in rates should "not be deemed an increase of rent for the purpose of this Act," therefore, *prima facie*, it would not be rendered irrecoverable under that Act by the landlord. The Divisional Court, on the authority of Newell *v.* Crayford (*The Builder*, April 28, 1922) and Kerr *v.* Bryde (*The Builder*, January 26, 1923), appear to have held that before this increase in rent could be demanded a notice to determine the tenancy must have been given.

The above cases were decided under the Act of 1920, and the necessity of notice was introduced by section 3, subsection (1), which provided that nothing in that Act shall be taken to authorise an increase in rent except in respect of a period during which but for the Act the landlord would be entitled to obtain possession. The difficulty is that the Divisional Court appears to have held that the sums were irrecoverable by the landlord under the Act of 1915, but perhaps the explanation lies in section 14 of the Act of 1920, which is also referred to by the Court in the note of the case. That section provides "where any sum has, whether before or after the passing of this Act, been paid on account of any rent being a sum which is by virtue of this Act, or any Act repealed by this Act, irrecoverable by the landlord the sum so paid shall be recoverable from the landlord."

Now by the Act of 1920 the sums in question would have been irrecoverable by the landlord as having been made during the subsistence of a tenancy owing to lack of notice and the retrospective effect of this section may account for the finding that the sums were irrecoverable under the Act of 1915, but under the latter Act it was always doubtful whether any permitted increases could not be made without notice to quit, and the matter was only set at rest by section 3, subsection (1) of the Act of 1920, with the result that the Act relating to notices to quit has had to be passed this year. The point raised in this case is difficult, but it is hardly likely now to recur.

THE BUILDING TRADE.

BUILDING EXAMINATIONS.

By W. J. STONE, M.R.S.I.

In *The Builder*, dated July 13, 1923, there is published an epitome of the Institute of Builders' Examinations which bears evidence of immature consideration, and which would appear to have been promulgated without reference to many building institutions and educational bodies whose suggestions might have been of very great value. It is to be hoped that the impression left on the reader—that the scheme does not permit any further appeal from, or amendment by, the builders of the country—is not justified. As it stands, it is certain that the scheme will not tempt the vast majority of technical building workers to take the matter up with any zest.

The Institution of Structural Engineers, so recently as July 5, 1923, issued a draft of its proposed revised syllabus of examinations, and, in a covering letter, points out that the Sub-Committee entrusted with the task of preparing the syllabus "feel that it would be desirable to have the best possible advice on their work . . . and that they would be much obliged for any notes that might be offered for consideration by the Sub-Committee." The Institution of Structural Engineers is to be congratulated on its courteous and business-like procedure, and it is a pity that the Institute of Builders did not seek the assistance of those most intimately acquainted with present technical examinations in building work generally.

The syllabus as laid out is but a poor attempt to adapt the Scheme of Education issued by the Board of Education in Circular 978. There are several well-established Technical School Courses that might well have served for, at least, the Licentiate stage. The scheme, in my opinion, should be properly co-ordinated with the work of existing technical colleges, and so graded to range with their fourth, fifth, and sixth year courses; this would have the considerable advantage of enabling students in different parts of the country to work on parallel lines with definite stage terminals irrespective of the town in which they may be employed for the time being. (This would not necessarily mean that local conditions need be ignored in national examinations.)

Why the important subject of Building Materials is included in the Licentiate examination for candidates of 19 years of age, and omitted from the Associate examination, is extremely difficult to understand, since students of this age cannot have had anything like sufficient experience in so difficult a subject. Further, trade subjects are included in the first and not in the second examination. Has the eminent work of cultured craftsmanship reached so low a level that it can be so easily dismissed? This, I am sure, will generally be admitted to be a serious defect. It is quite impossible, and altogether unfair, to test a craftsman in his craft and expect any degree or standard that will merit appreciation at the early age of nineteen years.

The stability and beauty of British arts and crafts have been the pride of the Empire for ages, and, although I feel there has been a set-back, it is extremely disappointing to find the Institute's standard so low. The urgent need is to re-establish our old standards of craftsmanship and to prevent, to some extent, the outflow of workers to America, where so many of our tradesmen are now going. It must be evident to the Institute that the number of craftsmen in the building trade is seriously reduced. This, unfortunately, is tending to the introduction of numerous substitutes in building work which certainly do not heighten our old standards.

The subject of Geometry, one which is at once fundamental and exquisitely beautiful, is passed over with far too little consideration. It is strange, too, why Shop-Fitting should form a separate subject in the Associate examination. Is it to be assumed that banks, offices, libraries and many other types of buildings require no fittings?

Again, exemption is offered where candidates hold degrees. What degree does the Institute expect a building student of 19 years to hold? If a degree be possible for him at that age, then it is a serious reflection on the work of our universities.

As a whole the syllabus lacks balance, and should be critically analysed to bring it in accord with the sub-divisions of the subject more generally recognised. Throughout the scheme the tenor is that of the system of commercial examinations. It is not a superabundance of expert book-keepers and accountants that is required, but rather the production of builders in the truer sense of art and craftsmanship. In the distant future posterity should be able to look with pleasure and benefit upon the work of our craftsmen; the travellers from other lands will certainly not seek out the financial records or the complexities of employers' liabilities, health and unemployment insurances, etc. Rather will be sought the architect's design and the tool marks of craftsmen: where these are missing, scorn may be the only recognition of our modern contrivances of sand-papering and paint-spraying machines.

The most objectionable feature in the whole scheme is that of the restrictive qualifications for Associates. It is difficult to understand the mentality which produces such a regulation as the following:—"That he has been engaged in business as a master builder, or as a master in some branch of the building industry, or has held what the Council deem to be a suitable position in a building firm for three years: further, that he is himself a member (or any firm or company in which he holds such suitable position is a member) of an Association which, in the opinion of the Council, is a recognised association of building trade employers." These specific limitations would inflict undue hardship upon technical building candidates in the Liverpool district in particular (assuming that the I.O.B. examinations are of importance) as the Liverpool Master Builders' Association seceded from the Federation. Further, they would give the Institute an opportunity of unjust control over large bodies of men who are quite technically capable of passing their examinations.

Why the I.O.B. has set itself up as a Court of Judgment to determine what shall be a proper association of builders, or to determine what position a man shall hold in a builder's business is presumptuous, to say the least of it. It must be obvious that all the workers in the building trades cannot be masters, nor can every worker hold a premier position—but a great many workers have sufficient intelligence and culture to qualify for these higher positions, provided that the regulations are just and reasonable. These restrictions—one cannot call them regulations—of the scheme are a distinct sign of retrogression, and it is to be hoped that they will be seriously reconsidered. Any *bona-fide* worker in the building industry should have the right to sit for such an examination. There is no Institute, in my knowledge, of so surpassing a merit that it can fence itself about so completely, and no other Institute, so far as I know, does so.

I quite agree with the general terms of the leading article that the I.O.B. is to be congratulated in attempting to improve the status of the building industry. My objections are to the methods by which they hope to attain their object.

Book-keeping and Accountancy are no doubt important, but not more so than the efficient training of the craftsman. The financial subjects are over-stressed, and might well, in many cases be left optional. The number of accountants and book-keepers compared with the number of craftsmen is small. A much better title in Group 2 of each examination would be "Organisation for Building Work."

An examination, after all, is merely a classification in the early part of a man's career: a more difficult classification takes place on his entrance into competitive industry where the examination hall is not carpeted, and the examiners all too frequently show little sympathy or sentiment save from that narrow outlook of the percentage balance. In all too many cases the small profit is due to lack of scientific organisation and method.

The time has arrived when all parties interested in the subject of building should be brought together with a view to co-ordinating, simplifying, and reducing the number of examinations. Among those concerned are the Board of Education, associations of architects, engineers, surveyors, builders, etc. The need is all too apparent when one considers the varying standards in structural building work throughout the country. Further, the number of separate examinations in the same subjects, where obviously one standard should suffice, needs attention.

The Board of Education's Circular 978 might well be taken as a foundation on which to build a complete national scheme leading finally to a B.A. or B.Sc. degree course, to be followed by a Master's degree for those intending to become specialists in separate subjects. With a reconstructed syllabus, the main plank of which should be that a candidate should be a bona-fide worker or apprentice, the Institute may achieve that desideratum so long overdue which shall give the builders that merit and appreciation recognised and accorded in other professions.

FAN STANDARDISATION.

In common with other branches of engineering the necessity for standardising the terms used in stating the performance or capacity of fans, and also a standard method of testing fans, has been apparent for some time, both to the users and to the makers. The Council of the Institution of Heating and Ventilating Engineers some time ago appointed a committee, known as The Fan Standardisation Committee, having representatives of both fan manufacturers and users, together with representatives from the Admiralty and H.M. Office of Works. This committee has been holding meetings at regular intervals since the spring of last year.

They find that there are many difficult problems to settle, and that very considerable differences of opinion exist, both amongst the fan makers and also amongst the users, as to the correct terms to use, and as to the best method of testing fans. They hope, however, eventually to clear up all misunderstandings and ambiguities, and to issue a standard list of terms, also to define a standard method of fan testing and a clear method of listing fan performances.

The British Reinforced Concrete Engineering Company's film, showing the latest methods of road-making, transforming marshy lands to reinforced concrete roads, was shown to road makers and road users at La Scala Picture House, Inverness, during Agricultural Show week.

The Clothworkers' Company has offered an annual contribution of £3,000 for five years, to the Imperial College of Science and Technology, South Kensington, to be applied towards the maintenance and development of the City and Guilds (Engineering) College.

FURNISHED HOUSES: WARRANTY OF FITNESS.

The decision in the case, Collins *v.* Hopkins, delivered by Mr. Justice McCardie, is one of extreme importance to the public, as it clearly lays down the duty of those who let furnished houses to see that the house is fit for habitation. In a structural sense this would be readily admitted, but the case raised the point, not of structural or other defects, but in relation to possible infection from disease. The defendant's husband in January, 1922, was attacked by influenza, and in February he showed symptoms of pulmonary consumption. He went to a sanatorium, but in July was again living in the house. He left again in August, but returned to the house at the end of that month and remained there until September 11, when he left for Switzerland where he died. The agreement to let the house furnished was entered into October 14, and the tenancy was to commence October 26, that is, a date about six weeks after the defendant's husband had last left the house, and the Court found that it was left in a state which rendered it a dangerous harbour and asylum for the tubercle baccili. The plaintiff, who had a wife and daughter, a child, discovered the day after he entered that the defendant's husband had suffered from pulmonary consumption, and at once repudiated the agreement and commenced this action to recover the rent he had already paid and damages. The Court found that there was a substantial risk that the house and its contents were infected with tubercle baccili, so as to constitute an actual danger to the plaintiff and his household, and, had it been necessary, was prepared to hold that, in fact, it was so infected, and judgment was given for the plaintiff. The case is reported in the *Times*, June 21.

It is important to consider the judgment from the point of view of the legal warranty that a furnished house is fit for habitation. The learned judge is reported as having said that, not only is the implied warranty one which springs by just and necessary implication from the contract, but it is a warranty which tends to the public good and the preservation of public health, and it is a warranty rather to be extended than restricted. That is a pronouncement that should be made widely known, for persons are far too careless in this matter. When we come to that part of the judgment which relates to the duty of a person who lets a furnished house which has lately been occupied by one suffering from an infectious or contagious disease, however, there is a point which seems to call for attention. The learned judge is reported as saying that it, of course, is not enough for the landlord to say he honestly believed that the house was fit and proper for safe habitation. It must, in fact, be safe and proper. But he proceeded to say, "nor can a tenant, on the other hand, renounce his contract because of mere apprehension of risk or through mere dislike to the premises through the fact, *e.g.*, that a person has died on the premises of smallpox or scarlet fever," he must show more than apprehension and dislike, and the question is: Was there an actual and appreciable risk? But he added, in the case of baccili which may mean illness and death an appreciable measure of actual risk justifies the tenant in renouncing his contract.

This portion of the judgment does not appear to us quite satisfactory, and it may be that legislation is required to strengthen the law. To determine the degree of risk as the Court indicated among the matters to be considered are the nature of the disease, the degree and persistence of infectivity, the date when the sufferer left the house, and the steps taken to prevent risk of infection. But is a person who takes a furnished house to take it in ignorance that there has been infectious or contagious disease in it, and then to find himself involved in all this hornet's nest of questions which must involve litigation? We cannot but regret that the decision does not go further and lay an absolute obligation upon the person letting his house furnished to disclose the fact that there has been some disease in the house. That fact is in his knowledge alone, and on the principle applying to life insurance the basis of the contract should depend upon the true disclosure of facts which from their nature can only be in the knowledge of one of the parties. The tenant is entirely in the hands of the landlord in this matter, for, unless disclosure is made, he does not know of the existence of any risk, and therefore can form no estimate of the steps taken to do away with it. Tuberculosis and cancer are increasing, and prospective tenants of furnished houses should be entitled to the fullest disclosure on such matters.

OBITUARY.

The death took place, at his residence, Gronville Stow Park, Newport (Mon.), on July 28, of Alderman Mark Mordey, J.P., at the age of 74 years. The deceased gentleman was well known throughout building trade circles in South Wales, and was director of Monmouth & South Wales Building Society, and the Newport Builders' Supply Co. He was also known for his association with South Wales shipbuilding companies, and was a director of Swansea Prince of Wales Dock and Port Talbot Graving Dock Companies, and a number of shipping and industrial concerns. He was the "father" of the Newport Council, having been Mayor of the Borough in 1889–90. He was a member of the Monmouthshire County Council, and a magistrate since 1893. He is survived by five children.

The death has taken place, at Ravensworth, Windermere, of Mr. Edwin Burnup, aged 70, who was in practice as an architect and surveyor, at 77, Clayton-street, Newcastle.

HOUSING IN LONDON.

In opening a conference at Spring Gardens of local authorities to consider the new Housing Bill (1923), Colonel Levita, Chairman of the Housing Committee of the L.C.C., said the magnitude of the problem of housing might be gauged from the fact that in June, 1921, the Housing Committee of the London County Council had to close its list of applicants for accommodation with a total of 26,000. Since then applications had continued to pour in. Before the war the London County Council housed 60,000 persons. When the 1919 assisted housing scheme was completed the County Council would have housed a further 63,000. The Council was the biggest landlord in London, with 117,000 tenants and a rent roll of £760,000. He believed the new Housing Bill would prove a useful instalment of legislation towards the solution of the problem. Private enterprise should be encouraged. In the metropolitan police area during 1901-1910 an average of 20,000 houses were built annually. After the Finance Act of 1910 the number fell to 8,000, and then died away to nothing. During the present year the number had risen to 8,600, built by private enterprise without subsidy. Throughout the country, in six months, 15,000 such houses had been built. The great need, continued Colonel Levita, was that of small two- or three-roomed houses. Over 53 per cent. of the persons housed in London were in two-roomed tenements. Over 83 per cent. of the applications received by the London County Council were for two- or three-roomed houses. It was most necessary that the confidence of the investing public should be restored in so far as investment in house property was concerned, in order that the building by private enterprise of houses for letting purposes should recommence. As to building costs, Colonel Levita declared that 80 per cent. of the cost of building a house went in labour.

COMPARISON OF PRICES OF BUILDING MATERIALS BETWEEN AUGUST 4, 1914, AND JULY 31, 1923.

Material.	Aug. 4, 1914. £ s. d.	Nov. 11, 1918. £ s. d.	June 30, 1923. £ s. d.	July 31, 1923. £ s. d.	Rise or Fall during Month. (Per cent.)
Bricks—					
Best Stocks	1 16 6	3 3 6	4 2 0	4 2 0	—
Flettons	1 14 0	2 7 8	2 13 3	2 13 3	—
Glazed	13 0 0	17 17 6	22 0 0	22 0 0	—
Thames Ballast	5 9	17 0	10 6	10 6	—
Thames Sand	7 3	17 0	15 6	15 6	—
Shingle (¾ in.)	—	15 0	14 0	14 0	—
Portland Cement	1 17 0	3 8 0	2 18 0	2 18 0	—
Ground Blue Lias Lime	1 0 0	2 2 6	2 13 6	2 13 6	—
Grey Stone Lime	1 8 0	2 7 0	2 10 9	2 10 9	—
Bath Stone	1 7½	1 7	2 10	2 10	—
Portland Stone	2 4½	2 10½	4 4	4 4½	—
Good Sound Building Timber—					
4 in. × 11 in.	16 10 0	53 0 0	34 0 0	34 0 0	—
3 in. × 7 in.	13 0 0	46 0 0	25 0 0	25 0 0	—
3 in. × 11 in.	15 0 0	50 0 0	34 0 0	34 0 0	—
2 in. × 11 in.	—	51 0 0	34 0 0	34 0 0	—
2 in. × 7 in.	—	46 0 0	24 10 0	24 10 0	—
3 in. × 4 in.	—	—	24 0 0	24 0 0	—
Slates—					
24 in. × 12 in.	—	—	37 12 6	37 12 6	—
22 in. × 12 in.	—	—	34 0 0	34 0 0	—
R. S. Joists	9 10 0	—	13 10 0	13 10 0	—
Iron—					
Common Bars	9 0 0	16 10 0	14 0 0	14 0 0	—
Mild Steel Bars	9 5 0	21 0 0	13 10 0	13 10 0	—
Steel Bars	9 5 0	19 10 0	13 10 0	13 10 0	—
Cut Nails	11 10 0	29 0 0	21 10 0	21 10 0	—
Sheet Lead	22 15 0	40 0 0	34 0 0	34 0 0	—
Glass—					
15 oz. Sheet	2	7	3½	3½	—
21 oz. „	3	8	5	5	—
26 oz. „	3¾	9	6	6	—
Raw Linseed Oil	2 4	8 4	3 11	3 10	—2·13
Turpentine	2 6	11 0	7 4	6 11	—5·68
Ground English White Lead	30 5 0	60 10 0	57 0 0	55 10 0	—2·63
White Lead Paint	—	83 10 0	79 10 0	77 0 0	—3·14
Red Lead	28 10 0	47 0 0	42 0 0	42 0 0	—

BUILDERS' BENEVOLENT INSTITUTION.

The seventy-sixth annual general meeting of the Builders' Benevolent Institution was held on July 24, at No. 48, Bedford-square, London, W.C. 1. The chair was taken by the President, Major R. J. Holliday, M.C., F.I.O.B. (Messrs. Holliday & Greenwood, Ltd.).

The Committee of Management, in its seventy-sixth Annual Report, tendered their thanks to Major R. J. Holliday for his valuable services rendered to the Institution as President during the past year. The result of his appeal at the annual dinner in November last was so successful that the Committee were again able to grant the Christmas gift of £5 to each Pensioner, and were also gratified to find that the funds permitted a similar gift to be made at midsummer. It was felt that the annual subscribers and donors would appreciate that, whilst it was not possible to increase the amounts of the pensions, it was very desirable and in accord with the spirit in which contributions have been made to the Institution, to assist the pensioners in some small degree to meet the high cost of living. The Committee also desire to record their appreciation of Major Holliday's endeavour to interest the London Master Builders in their own charity and are hopeful that good might result therefrom. The thanks of the Committee were also accorded subscribers and donors for their generous contributions, in consequence of which the Committee did not have to reject the application of any eligible candidate, and they earnestly trusted that continued support would allow this satisfactory state of affairs to be maintained. All applications were carefully investigated by members of the Committee, and the pensioners elected during the past twelve months were Mr. E. Larking, Mrs. J. Beckett, Mrs. S. Wheeler, Mrs. M. A. Harmer, Mrs. E. McSwiney, and Mrs. E. Vears. The Committee regret to report that the following pensioners died during the past year:—Mr. T. Beckett, Mr. M. Manley, Mr. W. McSwiney, Mr. W. G. M. Wheeler, Mrs. C. Biscombe, Mrs. E. M. Downe, and Mrs. G. C. Haynes. Attention was directed to an alteration in the method of recording the list of annual subscribers and donors, whereby an additional column had been inserted showing the previous total amounts contributed since 1912 as annual subscriptions. The Committee were pleased to report that Mr. George M. Burt, F.I.O.B. (Messrs. John Mowlem & Co., Ltd.), had kindly consented to act as President for the year 1923–4, and they appealed to all friends of the Institution to support him at the annual dinner in November next.

The report was adopted.

The audited accounts of receipts and expenditure for the year ended July 7, 1923, were received and adopted.

The following officers for the ensuing year were elected:—President, Mr. George M. Burt, F.I.O.B. (Messrs. John Mowlem & Co., Ltd.); treasurer, Mr. Frank May, J.P., F.I.O.B. (Messrs. Holland & Hannen & Cubitts, Ltd.); hon. auditors, Mr. John T. Bolding (Messrs. John Bolding & Sons, Ltd.), Mr. Hubert S. Ward, F.C.A. (Messrs. Robt. J. Ward & Co.).

The following were re-elected members of the Committee of Management:—Sir James Carmichael, K.B.E., J.P., F.I.O.B. (Messrs. James Carmichael (Contractors), Ltd.); Mr. E. J. Hill, F.I.O.B. (Messrs. Higgs & Hill, Ltd.); Major R. J. Holliday, M.C., F.I.O.B. (Messrs. Holliday & Greenwood, Ltd.); Messrs. F. M. May, F.I.O.B. (Messrs. Holland & Hannen & Cubitts, Ltd.); E. S. Rider (Messrs. T. Rider & Son); F. Shingleton, M.V.O., F.I.O.B. (Messrs. Leslie & Co., Ltd.); T. Stirling (Messrs. Stirling & Johnson, Ltd.); Col. G. Haward Trollope, D.L., V.D., F.I.O.B. (Messrs. Trollope & Colls, Ltd.); Mr. H. S. Ward, F.C.A. (Messrs. Robt. J. Ward & Co.).

THE WEEK IN PARLIAMENT.

Westminster, *Wednesday.*

Rent Restriction Bill.

A number of alterations were made to the Rent and Mortgage Interest Restrictions Bill during the Committee Stage in the House of Lords.

The following new clause, moved by Lord Dynevor, was agreed to:—"Where before the passing of this Act the landlord of a dwelling-house to which the principal Act applies has granted to the tenant a valid lease of the dwelling-house for a term ending at some date after June 24, 1923, or has entered into a valid agreement with the tenant for a tenancy for such a term, and the rent thereby reserved is reserved at a rate which after, but not before, such last-mentioned date exceeds the standard rent and the increases permitted under the principal Act or this Act, the landlord may by three months' notice in writing, expiring not earlier than December 21, 1923, and not later than March 31, 1924, determine the said lease or tenancy, provided that if within one month of the receipt of such notice the lessee or tenant shall give to the landlord notice in writing that he elects to abide by the said lease or agreement and the terms thereof, then the said lease or agreement shall remain in full force and effect in every respect, including the amount of the rent thereby expressed to be reserved, unaffected by the principal Act or this Act."

An amendment was agreed to, the effect of which is to amalgamate section 5 of the principal Act with clause 3 of the Bill, in order to avoid reference to the previous Act.

Another new clause, moved on behalf of the Government and agreed to, limits to six months the period in respect of which arrears of rent may be charged by a landlord under a defective notice (amended by the County court) and in respect of which the return of excess of rent may be claimed by a tenant.

The following new clause was agreed to:—

(1) Where a dwelling-house in the occupation of a sitting tenant is subject to a mortgage to which the principal Act applied, the county court may, on the application of the landlord, make an order restraining the mortgagee from calling in his mortgage or taking steps for enforcing his security or for recovering the principal money thereby secured, if it is satisfied that such calling in, enforcement or recovery would cause exceptional hardship to the landlord. The county court may on the application of the mortgagee or landlord rescind or vary any order so made if satisfied that by reason of any material change in circumstances, rescission or variation is necessary or proper.

(2) The restrictions imposed on a mortgagee by an order under this section may be imposed subject to such conditions as regards increase of interest or otherwise, and for such time as appears to the Court to be proper, but so nevertheless that the restrictions shall cease to be operative if at any time after the making of the order:—(*a*) Interest is more than twenty-one days in arrear; or (*b*) any covenant by the mortgagor (other than the covenant for the repayment of the principal money secured) is broken or not performed; or (*c*) the mortgagor fails to keep the property in a proper state of repair or to pay the interest and instalments of principal recoverable under any prior encumbrance; or (*d*) the sitting tenant ceases to be tenant of the dwelling-house.

(3) This section shall not apply to a mortgage where the principal money secured thereby is repayable by means of periodical instalments extending over a term of not less than ten years from the creation of the mortgage.

The Bill was afterwards read the third time.

The Lords amendments were all agreed to by the Commons, and the Bill has now received the Royal Assent.

Building Materials.

Sir Walter de Frece asked the Minister of Health whether his attention had been called to the allegations of profiteering in the building trade; and whether, for the information of the public, he would consider the monthly issue of an official statement showing variations in prices of building materials and also in the payment for labour?

Mr. N. Chamberlain said the reply was in the affirmative. He was sending the hon. member a copy of the first report of the Committee on prices of building materials published on June 27. He expected to receive a further report from the Committee that week, and he understood they proposed to submit monthly schedules of ruling prices which would be published. The *Labour Gazette*, published monthly, contained particulars of changes in the rates of payment of building labour in all parts of the country, but he would consider the suggestion that the relative figures be published along with prices of materials.

For Sale or To Let?

Mr. Ede asked the Minister of Health how many of the houses approved for building under the Housing (No. 2) Bill would be for sale and how many for letting; whether, in any cases, and, if so, in how many, a maximum price for sale or letting had been placed on a house when its erection had been sanctioned; and how many houses were being built by local authorities, and how many by private builders?

Mr. N. Chamberlain said he had no information in regard to the first part of the question. As regarded the last part, 16,868 houses had been approved to date which would rank for assistance under the new Bill, and of these 13,382 would be built by local authorities and 3,486 by private builders. In no case had a condition as to sale or letting value been imposed.

Shortage of Bricks.

Mr. Frank Gray asked the Minister of Health whether he was aware that certain building operations were held up by reason of the shortage of supply of English bricks; whether he had any information as to the reason for this; and whether he could say if there were a number of brickfields, working in 1914, which had not been re-opened since the war?

Mr. N. Chamberlain said he was aware that there was a temporary shortage of bricks in London and the South-Eastern Counties, and was informed that the Committee on Building Materials Prices would deal with this question in their report which would be presented that week. There were, no doubt, some brickfields which, for economic reasons, were not producing at present, but he had no records of the numbers of them.

Housing Progress.

Mr. T. Thomson asked the Minister of Health for the latest information available as to the applications received for the erection of houses under the various schemes permitted by his new Housing Bill, the number sanctioned, and the number he estimated likely to be put in hand before the end of the year?

Mr. N. Chamberlain said that up to date proposals under the Bill had been submitted for the erection of approximately 22,000 houses, and approvals had been given in respect of 16,868 houses. He had no means of estimating the number likely to be put in hand before the end of the year.

Insurance by Industries.

Mr. D. G. Somerville asked the Minister of Labour what was the result of the consideration given, as promised, by his department to the proposal of insurance by industries and to the Watson Report on the insurance scheme as a whole?

Sir M. Barlow said he was awaiting a reply from the National Confederation of Employers' Organisations and the Trade Union Congress

General Council on the question. The Interdepartmental Committee on Health and Unemployment Insurance had made three interim reports. Action had been taken in accordance with the recommendations of the first two Reports. The third Report recommended the abolition of refunds to insured workers at the age of sixty and a modification of the rule limiting covenanted benefit in relation to the number of contributions paid; these recommendations could not be adopted without legislation.

Unemployed Workers.

Sir M. Barlow, Minister of Labour, informed Mr. Adams that the following statement showed for Great Britain the number of insured men engaged in building trade occupations, together with the number of unemployment books lodged at May 21, 1923 :—

Occupation.	Estimated number of insured men employed.	Number of unemployment books lodged at May 21, 1923	Percentage unemployed.
Carpenters ..	123,820 ..	8,795 ..	7·1
Bricklayers	58,540 ..	3,050 ..	5·2
Masons ..	23,010 ..	1,183 ..	5·1
Slaters ..	5,190 ..	552 ..	10·6
Plasterers ..	16,290 ..	1,517 ..	9·3
Painters ..	109,800 ..	8,048 ..	7·4
Plumbers ..	33,090 ..	3,820 ..	11·5
Labourers of above occupations ..	257,180 ..	43,748 ..	17·0
All others ..	88,630 ..	13,981 ..	15·8
Total (Building Trade)	715,550 ..	84,694 ..	11·8

Tender Prices.

Mr. N. Chamberlain informed Mr. T. Thomson that the average tender prices for houses built under the Housing Act, 1919, Assisted Scheme for various months were given in the following table. The tender prices were in most cases subject to adjustment for fluctuations in the cost, labour and materials :—

Date.	Type of house.	Tender price.	Percentage which labour cost bears to that of materials.
September, 1920	A. ..	£881 ..	84 per cent.
,, ,, ..	B. ..	949 ..	82 ,, ,,
October, 1920 ..	A. ..	888 ..	84 ,, ,,
,, ,, ..	B. ..	958 ..	82 ,, ,,
December, 1921 ..	A. ..	514 ..	73 ,, ,,
,, ,, ..	B. ..	566 ..	71 ,, ..
March, 1923 ..	A. ..	363 ..	58 ,, ..
,, ,, ..	B. ..	402 ..	57 .. ..

The following statement gave the highest and lowest average tender prices for A3 and B3 type of houses approved under the Housing Act, 1919, Assisted Scheme :—

Period.	Highest Price A3 type.	Highest Price B3 type.	Lowest Price. A3 type.	Lowest Price. B3 type.
July 31, 1919, to Dec. 31, 1919 ..	£1,002 ..	£1,254 ..	£576 ..	£603
Jan. 1, 1920, to Dec. 31, 1920 ..	1,097 ..	1,258 ..	589 ..	589
Jan. 1, 1921, to Dec. 31, 1921 ..	935 ..	1,080 ..	465 ..	500
Jan. 1, 1922, to Dec. 31, 1922 ..	569 ..	590 ..	297 ..	304
Jan. 1, 1923, to June 30, 1923 ..	446 ..	505 ..	299 ..	329

Housing Loans.

Sir Beddoe Rees asked the Minister of Health whether, in case any society or company, as provided for in Section 3 of the new Housing Bill, should secure from the Public Works Loan Board a loan not exceeding 75 per cent. of the total value for the erection of houses as provided in the Bill, such society or company, to enable them to raise the remaining 25 per cent., would be allowed to capitalise the Government subsidy of £6 per house; whether the Government would arrange accordingly; and, failing that, would such society or company be allowed to make private arrangements for such capitalisation if found possible?

Lord E. Percy said that the normal limit for loans by the Public Works Loan Board was 66⅔ per cent. of the value of the property, but the Board might advance up to 75 per cent. on the provision of such further security as they might think fit. The Housing Bill did not provide for the payment of any capitalised security by the Government. If assistance in this form was desired, application must be made to the appropriate local authority under Clause 2, whose proposals would be considered by the Ministry with all relevant circumstances.

Mr. Emlyn-Jones asked the Minister of Health, whether, in view of the different interpretations which local authorities would place on the term market value in Clause 20 of the Housing Act, he would indicate the principles and methods of valuation to be followed; and whether he would instruct local authorities to have regard to the purchase prices of new houses in their several localities when arriving at the market value of houses in respect of which loans were applied for?

Lord E. Percy said the Minister did not think any difficulty would arise as regarded the method of valuation for the purpose of Clause 22 of the Housing Bill, and he did not propose to issue any special instructions. The valuers appointed by the local authorities would value as for an ordinary mortgage, having regard to the local circumstances and the period of the proposed loan.

Smoke Abatement Bill.

Lord Onslow, in moving the second reading of the Smoke Abatement Bill in the House of Lords, said that the measure extended the Public Health Act, 1875, by providing that not only black smoke, but all smoke should be included in the smoke nuisance, and that the term "smoke" should include soot, ash, grit and gritty particles. Clause 1 enacted that Sec. 334 of the Act of 1875 should have effect as if there were included processes of re-heating, and annealing, hardening, forging, converting and carburising iron and other metals. The Minister of Health might, by provisional Order, at any time after the expiration of five years, exclude from that section any of the processes mentioned. The Government did not think that the Ministry of Health was the proper authority to fix standards for the measurement of black smoke, and the Bill left that duty to the local authorities. Power was taken to extend the list of obnoxious or offensive gases. Clause 4 dealt with new buildings and empowered urban authorities to make by-laws requiring the provision in new buildings, other than private dwelling-houses, of such arrangements for heating as were calculated to prevent or reduce the emission of smoke.

The Bill was read a second time.

Consolidation Acts.

Lord Onslow announced in the House of Lords that it was the intention of the Government later to introduce legislation consolidating the various Housing Acts.

Durability of Building Stones.

Writing to the *Times*, Mr. Alan E. Munby, F.R.I.B.A., referring to the tests in progress at the Geological Survey and Museum with the co-operation of the Royal Institute of British Architects, states that carefully prepared specimens of six common building stones were experimented upon, two samples of each, one facing north and the other south, being exposed under similar conditions on the roof of the museum in Piccadilly for ten years. Full-size photographs of the faces of the blocks (otherwise protected by frames) were taken, and a magnified specific area of each block was also photographed at the beginning and end of the period, and during the interval chemical analyses, microscopic, freezing, absorption, and staining tests were carried out upon other pieces of the stones saved in the preparation of the samples. "Any generalisations from so small a number of samples tested for what is, comparatively, a short period, must be very carefully guarded, but, with this reservation, it may be said that the sandstone (from Dumfriesshire) tested showed the leastdecay, that Portland stone of the best quality showed its superiority over other limestones, while Bath stone of fine grain showed higher resistance than the coarser and more shelly varieties of this stone, and also probably than a typical oolitic stone from the Midlands.

NEW BUILDINGS IN SCOTLAND.

Aberdeen.—Various.—Plans have been passed for new buildings and alterations, estimated value £7,900. One plan is for alterations to premises in Commercial Quay for the North-Eastern Ice Co., at a cost of £3,300, and another is for a bungalow in Royfold-crescent for the Misses J. K. and J. A. Reid, North Silver-street.

Ayr.—New Buildings and Reconstruction.—Plans have been approved for new buildings and for reconstruction of old buildings at the chemical works of D. Wyllie & Co., estimated to cost £5,000; a villa at Springvale Park, Midton-road, for W. Paton & Sons, estimated to cost £1,600; and a piggery at Woodfield House, for Mr. W. F. Kerr, estimated to cost £200.

Ayr.—Houses and Electric Main.—The Lighting Committee has authorised the Engineer to lay a new electric main in Southpark-road, Prestwick, at an estimated cost of £150. Contracts have been placed by the T.C. for the erection of 40 houses at Woodfield. The estimated cost is £18,000.

Dundee.—Houses.—Plans of new buildings have been lodged at the office of the City Engineer as follows :—Blackness-avenue, house and garage for J. M. Morgan, cottage for A. Robertson; Bruce's Entry, warehouse for E. McGregor; Chapel-street, alterations for managers of Albert-square U.F. Church; Duncan-street, Downfield, shop and workshop for J. P. Thoms, Lodgeroom, &c., for the Roineach Mhor Masonic Lodge; Farington-street, garage for Robert R. Smith; Gardner-street and Campbell-street, houses for the T.C.; Glamis-road, house for R. G. Lamb; Hyndford-street, houses for Charles Gray; Kerrington-crescent, garage for John Bell; Loons-road, houses for the T.C.; Lynewood-place, additions for John T. Harris; Park-place, alterations on clubroom for the Seaforth Highlanders' Association; and Tullideph-road, cottages for John Cree.

Dundee.—Street Works.—The City Engineer reported to the Corporation Works Committee that repair of streets would involve considerable expenditure and that it would cost about £70,000 to deal with remaining streets that required paving. He also submitted a list of the macadamised streets requiring resurfacing at an estimated cost of £11,000, while £4,780 would require to be expended on the footways. These figures were arrived at after deducting the Government grant.

Forfar.—Operating Theatre.—The directors of the Forfar Infirmary have requested a special committee to report on the provision of an extended and improved operating theatre and an up-to-date X-ray apparatus.

Perth.—Football Grand Stand.—The directors of St. Johnstone F.C. have adopted plans for the rebuilding of the old grand stand in an improved position; the erection of rows of seats between the two stands; and additional lavatory accommodation throughout the enclosure.

Perth.—Cable Laying and Electricity Extensions.—The Corporation Electricity Committee will submit a cable-laying project to the Unemployment Grants Committee. The Electricity Committee is considering the question of extending the electric lighting system to the Gannochy housing scheme of Arthur Bell & Son, Ltd.

Peterhead.—Various Works.—A committee of the T.C. is considering proceeding with the following works :—The widening of a part of Queen-street to bring it in line with Balmoor-terrace; improving a part of Links-terrace and the foreshore along by the Links; building a bridge across the Ugie; levelling Raemoss Park for recreation purposes; the provision of a dry dock; a new bridge at the harbour; the erection of a town hall, with office accommodation; and the provision of public lavatories.

Stranraer.—Cottages.—The M.H. has sanctioned tenders amounting to £5,528 12s. 2d. for the erection of five blocks of double cottages.

NEW BUILDINGS IN LONDON.

London Docks Extensions. — Important developments, involving the expenditure of £5,000,000, have been decided upon by the Port of London Authority. The work to be undertaken will give employment to thousands of men over an extended period, besides providing facilities whereby large numbers of additional riverside workmen will be required. The work will consist of new warehouses and docks, and probably a new lock at the West India Docks.

Wandsworth.—TECHNICAL INSTITUTE.—The E.C. of the L.C.C. recommends that a new technical institute be provided on the vacant site at the corner of St. Anne's-hill and High-street.

Paddington. — ALTERATIONS. — Structural alterations at the Norland Hotel, Granville-place, W., contractors, Messrs. G. H. Carter, Ltd., of Holloway. No sub-contracts have been let.

Stroud Green.—ALTERATIONS.—Messrs. G. H. Carter, Ltd., of Holloway, N.7, have received the contract for external and internal decorations and installation of electric lighting at Stroud Green Baptist Church.

PATENTS.*

APPLICATIONS PUBLISHED.*

195,324.—A Melville: Spun concrete pipes.

195,326.—J. B. Hilliard: Building and paving blocks and slabs.

195,330.—P. J. Dempsey: Hanging window sashes.

189,760.—Himmelsbach Akt. Ges. Geb.: Posts.

195, 411.—A. V. Shaw: Flushing apparatus for water-closets.

195,427.—A. G. Archer and C. J. Stevens: Contrivances or devices for binding or connecting together scaffold posts, steel tubes or pipes.

195,463.—T. Hughes: Manufacture of pigments or paints.

195,473.—A. Taylor and Mather & Platt, Ltd.: Fireproof doors.

195,485.—Pearson Bros. & Campbell, Ltd., and R. S. Pearson: Concrete or light floors, landings, steps, walls and the like.

195,489.—C. W. C. Needham: Sectional model buildings.

195,497.—J. Y. Johnson (Badische Anilin & Soda-Fabrik): Softening wood.

195,502.—R. H. Annison: Apparatus for supplying or forcing cement, grout, or other materials or mixtures into the interstices of structures or soil.

195,511.—J. J. Dunne: Device for fixing window cords without removal of sashes.

195,542.—B. Taylor-Coopland: Cramps for picture and like frames.

195,545.—W. T. Brassington and E. C. Hodgetts: Combination chair and table.

195,559.—British Thomson-Houston Co., Ltd.: (General Electric Co.): Plastic compositions.

195,565.—E. R. Lancaster: Doors, gates, or shutters.

195,570.—H. A. Leaver: Roads and pavements.

196,956.—F. W. Hodsoll, C. A. M. Hodsoll, F. P. M. Hodsoll, and F. C. Hodsoll: Binding means or cramps for scaffolds, timbers, and the like.

196,957.—H. P. Lancaster: Preparatory piles used in the construction of concrete piles.

196,970.—O. W. Beach: Machines for levelling or excavating land.

197,005.—T. Shields (Corrugated Bar Co., Inc.): Reinforced-concrete columns.

197,016.—Plantation Rubber Manufacturing Co., Ltd. (in liquidation) and M. M. Dessau: Roadways, pavements, and stairways.

197,050.—A. J. Rowleb: Wall coverings.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur :—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Masons' Labourers.	Plasterers Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Bedford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Birkenhead	1/9	1/9	1/9	1/9	1/9	1/10	1/9	1/4½	
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½	
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Cambridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Chatham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Chelmsford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Colchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1 0½	
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0	
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½	
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Great Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0	
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Ipswich	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½	
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4	
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½	
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Luton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Maidstone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Norwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Oxford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½	
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Reading	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Rochester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
St. Albans	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Scarborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	0/11½	
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0	
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Windsor	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
York	1/5½	1/5½	1/5½	1/5½	1/5½	1/6½	1/5½	1/1½	

(For rates of wages in the Building Trade in Scotland, see page 189.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING

August 4.—**Brierley Hill.**—Houses.—Erection of 20 houses, with roads and sewers, for the U.D.C. Mr. John Yorke, Surveyor, Town Hall, Brierley Hill, Staffs. Deposit £2 2s.

August 4.—**Darton.**—Convenience.—Erection of a public urinal at Mapplewell, for the U.D.C. Mr. Wilfred Butterley, Surveyor, Council Offices, Darton.

August 4.—**Darton.**—Mortuary.—Tenders are invited for the erection of a mortuary at Darton, near Barnsley. Mr. W. Butterley, Surveyor, Council Offices, Darton.

August 4.—**Dewsbury.**—Extension.—Extension of the bowling green pavilion at the Dewsbury and Savile Cricket Ground. Messrs. C. H. Marriott, Son & Shaw, Church-street Chambers, Dewsbury.

August 6.—**Dunfermline.**—Various.—The T.C. invite tenders for works in connection with the erection of twenty houses at Townhill, Dunfermline, viz.: Brick and mason, joiner, slater and roughcast, plaster, painter, glazier, plumber. Mr. Andrew Shearer, Town Clerk, City Chambers, Dunfermline.

August 6.—**Embleton.**—Building.—Erection in wood and asbestos tiles of an institute, measuring 75 ft. by 25 ft., at Embleton. Mr. Thos. Martin, Howe Close, Embleton, Cockermouth.

August 6.—**Enniskillen.**—Painting.—For external painting at Town Hall buildings and at four houses, for the U.D.C. Mr. J. Donnelly, Borough Surveyor, Enniskillen.

August 6.—**Talgarth.**—Erection of Shop, &c.—For erecting shop and office building to adjoin the "Bell" Hotel, Talgarth, and for additions and alterations to the hotel. Mr. R. C. Trew Davies, Trevecca, Talgarth.

August 7.—**Kirkcaldy.**—Houses.—Erection of 40 houses of three rooms at Glencraig site, Lochore, for the District Committee. Messrs. William Williamson, F.R.I.B.A., and Geo. B. Deas, Joint Architects, Kirkcaldy. Deposit £1 1s.

August 7.—**London.**—Painting.—For internal painting and cleaning at the Admiralty Buildings, S.W.1. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

August 7.—**Sandwich.**—Houses.—Erection of 16 houses at Boatman's Hill, for the T.C. Mr. R. Saunders, Borough Surveyor, The Barbican, Sandwich. Deposit £3.

August 7.—**Tonbridge.**—Houses.—Erection of houses in pairs, for the U.D.C. Mr. W. L. Bradley, surveyor, Tonbridge.

August 8.—**Barnet.**—Painting.—For cleaning and redecorating the board room at the Institution, for the B.G. Mr. Arthur Wilshire, Clerk, Union Offices, 1, Wellhouse-lane, Barnet.

August 8.—**Basingstoke.**—Cottages.—Erection of six parlour-type cottages at Park Prewett, for the Visiting Committee of the Park Prewett Mental Hospital. Mr. M. A. Turner, Clerk, Hospital. Deposit £1 1s.

August 8.—**Batley.**—Alterations.—For conversion of Cross Bank Reading Room into flat and cottage, for the Batley Co-operative Society. Mr. J. T. Wilman, Secretary, Batley.

August 8.—**Bingley Mornington.**—Floors.—Reboarding floors to class-rooms at Bingley Morningtonroad Council School. Education Department, County Hall, Wakefield.

August 8.—**Inchinnan.**—Houses.—Erection of 12 houses on Brownsfield Farm, Inchinnan, for the Board of Agriculture for Scotland. Chief Surveyor, York Buildings, Queen-street, Edinburgh. Deposit £1 1s.

*August 8.—**Kilburn, N.W. 6.**—Transformer House.—Erection of a transformer house for the use of the Council's Electricity Department, at Hanover-road, Willesden, for the Willesden D.C. Mr. F. Wilkinson, M.Inst.C.E., Engineer to the Council, Town Hall, Dyne-road, Kilburn, N.W. 6.

August 8.—**Radyr (Glam).**—House.—For erecting house at Radyr, for Mr. R. L. Davies. Messrs. Thomas & Morgan & Partners, architects, Pontypridd. Deposit £3 3s.

August 8.—**Warrington.**—Painting.—For painting of Union buildings, for the B.G. Mr. F. J. Barnish, Architect, Golden-square, Warrington. Deposit £1 1s.

August 8.—**Wednesbury.**—Alterations, &c.—Alterations, repairs and painting of the Relief Offices, Hyde's-road, Wednesbury, for the West Bromwich B.G. Mr. A. H. Ward, Clerk, 22, Lombard-street, West Bromwich. Deposit £1 1s.

August 8.—**Yealmpton.**—Alterations, &c.—For alterations to the Sanitary Offices, renovations, &c., at Yealmpton Council School, for the Devon C.C. Architect's Office, 1, Blackall-road, Exeter.

*August 9.—**Essex.**—Wooden Building.—Erection of a temporary wooden building to provide additional accommodation at the Leytonstone County High School for Boys, including laboratory and headmaster's room, for the Essex County Council Education Committee. The County Architect, Old Court, Springfield, Chelmsford, between the hours of 10 a.m. and 4 p.m., except on Saturday, when they may be seen between 9 a.m. and 12 noon. For the convenience of contractors, a set of plans has been deposited with Mr. W. J. Geldart, Town Hall, Leyton, E.10, and will be produced on application.

August 9.—**Pengam (Glam).**—New Library.—For erection of new Cefn Forest Institute and Library, for the Library Committee. Mr. John Jones, architect and surveyor, 80, Bedwellty-road, Pengam. Deposit £4 4s.

August 9.—**Tynemouth.**—Additions.—For alterations and additions to the motor garage at the Tynemouth Union Institution. Mr. Wm. Stockdale, architect, 81, Howard-street, North Shields.

August 10.—**Castle Cary.**—Cottages.—Erection of seven pairs of semi-detached cottages at Castle Cary. Messrs. Woodforde & Drewett, solicitors, Castle Cary. Deposit £2 2s.

August 10.—**Dewsbury.**—Offices.—Erection of offices at Raven Ing Mills. Messrs. Kirk, Sons, & Ridgeway, Market-place, Dewsbury.

August 10.—**France and Belgium.**—Cemeteries.—Tenders for the following contracts: Programme (1923), O, consisting of approximately 23 cemeteries in France; Programme (1923), P, 29 cemeteries in France; construction of Tyne Cot British Cemetery (Belgium); construction of St. Sever Cemetery, Rouen (France); construction of Poelcapelle and Passchendaele British Cemeteries (Belgium). Secretary (Works Department), Imperial War Graves Commission, 82, Baker-street, London, W.1. Deposit £10 10s. per set of documents.

August 10.—**London.**—Painting.—Execution of painting works at Dudley House, Endell-street, W.C. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

August 10.—**Wakefield.**—Houses.—Erection of 50 houses (22 of "B3" type and 28 "A3" type). Mr. Percy Morriss, Architect, Town Hall, Wakefield.

August 10.—**Weymouth.**—Fencing.—For supply and fixing of rustic fencing round St. John's Gardens, for the T.C. Town Clerk, Weymouth.

August 11.—**Barnstaple.**—Cattle Ring.—For erection of cattle ring in market, for the T.C. Borough Surveyor, Barnstaple.

August 11.—**Cilfynydd.**—Painting.—For painting and decorating Bethel C.M. Chapel, Cilfynydd, near Pontypridd. Mr. Thomas Davies, Tea Caddy, Cilfynydd.

*August 11.—**Hayes, Middlesex.**—Houses and Sewers.—Erection of 50 houses, with sewers, at Hayes, Middlesex, for the Great Western (London) Garden Village Society, Ltd., Hayes Estate. Mr. T. Alwyn Lloyd, 6, Cathedral-road, Cardiff. Deposit £3 3s.

August 11.—**Horwich.**—Market Erections.—Erection of stalls, sheds, &c., for the Public Market of the U.D.C. Surveyor, Public Hall, Horwich.

August 11.—**Hull.**—Construction and fixing of new tidal gates, at the main drain outfall, Lime-street, Hull. Particulars from Engineer's Office, 8, Hengate, Beverley, Yorkshire.

August 11.—**Pontypridd.**—Painting.—For painting and colouring of Bethel C.M. Chapel, Cilfynydd, Pontypridd, for the Trustees. Mr. W. O. Morgan, M.S.A., architect, Pentre, Rhondda.

August 11.—**Pudsey.**—Various Works.—For reconstruction of conveniences and improvements to playground at Greenside School, for the T.C. Messrs. Nelson & Birkinshaw, architects, 15, Park-row, Leeds.

August 13.—**Dartford.**—Engine House, &c.—Construction of an engine house, cottage, road and bridge, drainage, and other contingent works at Eynsford, Dartford, for the Metropolitan Water Board. Mr. Henry E. Stilgoe, Chief Engineer, 173, Rosebery-avenue, E.C.1. Deposit £5.

August 13.—**Hereford.**—Dwelling Houses.—Erection and completion of dwelling houses (20, 24, or 28), on the Portfields Estate, Hereford, for the Housing Committee of the Corporation, City of Hereford, proposed housing scheme. Mr. H. E. Bettington, Secretary, The Hereford Associated Architects, Ltd., Palace Chambers, Hereford. Deposit £2 2s.

August 14.—**Bangor.**—Houses.—Erection of eight houses on the Deinfield Estate, for the T.C. City Surveyor, Bangor.

August 14.—**Clayton.**—Painting.—(1) Painting 28 houses, Central Housing Site, Clayton; and (2) 18 houses, Clayton Heights Housing Site, for the T.C. Mr. James Wyld, Surveyor, Council Office, Clayton, near Bradford.

August 14.—**Irlam.**—Houses.—Erection of 24 houses, for the U.D.C. Mr. W. H. Gamble, Surveyor, Council Office, Irlam. Deposit £5 5s.

August 14.—**Llanerfyl.**—Chapel.—Erection of chapel and schoolroom. Mr. R. A. Ford, architect, Llanidloes.

August 14.—**Poplar.**—Oven.—Supply and erection of brick-built bakers' oven at Hospital of Poplar and Stepney Sick Asylum Board. Mr. Sydney G. Wright, Clerk, St. Andrew's Hospital, Devon's-road, Bow, E.3.

August 14.—**Wallasey.**—Houses.—Erection of 30 houses on the Belvidere-road Housing Site, for the T.C. Mr. W. H. Travers, Borough Engineer, Town Hall, Wallasey. Deposit £2 2s.

August 15.—**Barnstaple.**—Painting.—For painting at the Barnstaple and North Devon Dispensary. Mr. J. H. L. Brewer, Hon. Sec., Barnstaple.

August 15.—**London, E.**—Flats.—Erection of a block of flats in Pritchard's-road, Shoreditch, London, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

August 15.—**Solihull.**—Alterations.—For alterations and additions to buildings, &c., in connection with installation of hot water services at the Solihull Institution, for the B.G. Mr. A. E. Currall, Council Offices, Solihull.

August 16.—**Bingley.**—Renovations.—For internal renovations at Bingley Training College: (*a*) Hostel "Ascham"; (*b*) Hostel "Alcuin"; (*c*) College Block. Education Department, County Hall, Wakefield.

August 16.—**Eston.**—Greenhouse.—Erection of greenhouse, for the Eston and Normanby Burial Board. Clerk, Burial Board, Normanby, Eston.

BUILDING TRADE WAGES IN SCOTLAND.*

The following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Plasterers' Labourers.
Aberdeen	1/7	1/8	1/7	1/7	1/8	1/8½	1/4½	1/–	
Airdrie	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/5	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/7	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Fort William	1/7	1/6	1/6	1/6	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 188.

✱AUGUST 18.—**Bristol.**—FLATS.—Erection of two blocks of flats at Lawford's Gate, for the T.C. Housing Department, 51, Prince-street, Bristol. Deposit £2.

AUGUST 20.—**Nenagh.**—HOUSES.—Erection of eight houses, for the U.D.C. Town Clerk, Nenagh. Deposit £2 2s.

AUGUST 20.—**Walthamstow, E.17.**—HOUSES.—Erection of a total number of houses not exceeding 100 at Higham Hill site, Billet-road, Walthamstow. Contractors may tender, for two or more houses, for the Walthamstow U.D.C. Mr. G. W. Holmes, A.M.I.C.E., Engineer and Surveyor to the Council, Town Hall Annexe, Orford-road, Walthamstow, E.17.

AUGUST 20.—**Woolfold.**—PAINTING.—For painting at Wesleyan School. Mr. G. F. Camm, 6, Lamel-street, Tottington.

AUGUST 21.—**Cape Town.**—RESIDENCES, &c.—**For erecting residences for men and women, Principal's house, and other contingent works at the site of the new University buildings, Groote Schuur, for the University Council. High Commissioner for South Africa, Trafalgar-square, London, W.C., and Messrs. Hawke & McKinlay, and C. P. Walgate, The Rhodes Buildings, St. George's-street, Cape Town. Deposit £10.**

AUGUST 21.—**Chelmsford.**—SHELTER, &c.—For the erection of a shelter, convenience, and dressing room for ladies in the Recreation Ground, for the T.C. Borough Engineer, Municipal Offices, Chelmsford.

✱AUGUST 21.—**London, N.**—GARAGE.—Erection of a garage at Studd-street, P.O. Stores, Islington, N., for the Commissioners of H.M. Office of Works. Contracts' Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s. (payable to the Secretary).

✱AUGUST 21.—**Oxford.**—ETENSION.—Extension (for Telephone Exchange) of Oxford Head Post Office, for the Commissioners of H.M. Office of Works. Contracts' Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s (payable to the Secretary).

AUGUST 25.—**Ebbw Vale.**—HOUSE.—Erection of sexton's house at Ebbw Vale Cemetery, for the U.D.C. Mr. P. I. Davies, Surveyor, Ebbw Vale.

AUGUST 25.—**Percy Main.**—HOUSES.—Construction of two dwelling houses at Low Row, Percy Main, for the Tyne Improvement Commissioners. Mr. Richard Aughton, General Manager, Tyne Improvement Commission Offices, Bewick-street, Newcastle-upon-Tyne. Deposit £2 2s.

AUGUST 28.—**Cape Town, South Africa.**—MEDICAL SCHOOL.—**Erection of a new Medical School and other contingent works at Groote Schuur, near Cape Town, for the Council of the University of Cape Town. High Commissioner for the Union of South Africa. Trafalgar-square, London, W.C. Deposit £2.**

✱AUGUST 31.—**Barking, Essex.**—SHEDS.—Completing the erection of two open resting sheds, at their Faircross Elementary School, in their district. One shed is about 90 ft. × 30 ft. in two spans; the other about 55 ft. × 15 ft. in one span, each consisting of cast-iron columns and light fir-framed roofs covered with corrugated asbestone, for the Barking Town U.D.C. Mr. C. J. Dawson, Clock House Chambers, Barking.

SEPTEMBER 1.—**Brentford.**—CONVENIENCE.—Erection of a public urinal at the Recreation Ground, St. Paul's-road, for the U.D.C. Mr. W. J. W. Westlake, Clifden House, Brentford.

SEPTEMBER 4.—**Cardiff.**—PAINTING.—(1) External painting, City Lodge, East; (2) external painting, City Lodge, West, for the B.G. Mr. R. Stephenson, Clerk, Union Offices, 11, Park-place, Cardiff.

✱SEPTEMBER 12.—**Woolwich, S.E.18.**—PAINTING, &c.—Painting works, &c., to the premises Furze Lodge, Plum-lane, Plumstead, for the Guardians of the Woolwich Union. Messrs. Whincop & Channer, architects, 42, William-street, Woolwich.

NO DATE.—**Brownroyd.**—CHURCH.—Erection of proposed Church, Brownroyd, for the Rev. J. McMahon. Messrs. Edwd. Simpson & Son, 12, Cunliffe-terrace, Manningham.

NO DATE.—**Doncaster.**—DEMOLITION.—Demolition and removal of the building material to ground level included in the premises No. 5, Scot-lane. Mr. F. O. Kirby, Borough Surveyor, 2, Priory-place, Doncaster.

NO DATE.—**Dudley Hill.**—CHURCH.—Erection of new Mission Church, New Toftshaw, Dudley Hill. Mr. Arthur T. Verity, architect, Moordeen, Birkenshaw.

NO DATE.—**Dunfermline.**—HOUSES.—Erection of 34 houses at Crossgates site, for the Dunfermline District Committee of the Fife C.C. Mr. H. F. Hodge, District Engineer, County Buildings, Dunfermline.

✱NO DATE.—**Ickenham, Uxbridge.**—BUNGALOWS.—Erection of twelve brick detached bungalows on the Drummond's Estates, Ickenham, Uxbridge. Manager, Ickenham.

NO DATE.—**Leeds.**—HOTEL.—Alterations and additions (full trades only) to the "Morning Star Inn," Kirkstall-road and Lloyd-street. Messrs. Garside & Pennington, architects, Pontefract. Deposit £2 2s.

NO DATE.—**Plymouth.**—VARIOUS WORKS.—(1) Painting at the various schools; (2) alterations to Sanitary arrangements at five schools; (3) alterations to windows at High-street Schools; (4) repairs to roofs at three schools; (5) repointing the exterior of Victoria-road Schools. Mr. T. Peirson Frank, Borough Engineer, Municipal Offices, Plymouth.

NO DATE.—**Staincross.**—ADDITIONS.—For additions and repairs to Wellington Villa, Staincross. Messrs. Fountain & Burnley, Ltd., near Barnsley.

NO DATE.—**Thomer.**—VICTORY HALL.—For all or any of the various works required in the erection of a Victory Hall at Thomer, near Leeds. Messrs. Fred Mitchell & Son, architects, 9, Upper Fountaine-street, Leeds. Deposit £1 1s.

NO DATE.—**Wheatley Hill.**—HOUSE, &c.—Erection of a house and shop at Wheatley Hill, for Mr. C. Haddock. Messrs. Hays & Gray, AA.R.I.B.A., Wingate. Deposit £1 1s.

FURNITURE, MATERIALS, etc.

AUGUST 4.—**Bridlington.**—MACADAM.—Supply of 3,400 tons of tarred slag macadam to the T.C. Borough Engineer, Bridlington.

AUGUST 8.—**Durban.**—MATERIALS.—**Supply of stoneware pipes, bends and junctions to the T.C. Department of Overseas Trade. 35, Old Queen-street, S.W.**

AUGUST 9.—**Greetland.**—GRANITE SETTS.—Supply of 800 tons of granite setts, to the U.D.C. Mr. F. Moore, Surveyor, Public Hall, Greetland.

AUGUST 10.—**London.**—LEAD.—Supply to the Bengal & North-Western Railway Co., of 101 tons red and white lead. Mr. E. A. Neville, Managing Director, 237, Gresham House, Old Broad-street, E.C.2 Charge 10s.

AUGUST 11.—**Bootle.**—ROAD MATERIAL.—Supply of 670 yds. of 6 in. × 12 in. deep granite kerb, and 850 yds. of 12 in. × 6 in. granite channels. Borough Engineer, Bootle.

AUGUST 20.—**Wakefield.**—MATERIALS, &c.—Supply of road materials, tools and implements, to the Highways Committee of the West Riding C.C. West Riding Surveyor, County Hall, Wakefield.

AUGUST 22.—**Belfast.**—MATERIALS.—Supply to the Belfast and County Down Railway Co. of stores for twelve months. Storekeeper, Belfast Terminus.

AUGUST 27.—**Johannesburg.**—PAINT.—Supply of 200 gallons of aluminium paint to the T.C. Department of Overseas Trade, 35, Old Queen-street, S.W.

NO DATE.—**Aberdare.**—SUPPLIES.—For supply for period of six months from October 1 next of following articles to the Powell Duffryn Steam Coal Co., Ltd.:—(1) Bar and other iron; (2) bolts, nuts and rivets; (3) gun-metal fittings; (4) asbestos, indiarubber; (5) colliers' tools; (6) ironmongery; (7) steel girders, channels and rails; (8) nails; (9) oilskin clothing; (10) cast steel tram wheels and axles, &c.; (11) steam and Williams' joint tubes and fittings; (12) brattice cloth, waste and yarn, &c.; (14) chains; (16) timber; (18) hay; (20) wire ropes, &c.; (21) pit wood; (21a) Baltic pit wood; (22) lime and cement; (23) electric cable, accessories, &c. The Stores Manager to the Company, Aberaman Offices, Aberdare.

ENGINEERING, IRON AND STEEL.

AUGUST 4.—**Salford.**—HEATING EXTENSIONS.—For Lancashire boiler, economiser, feed pumps, steam and water pipes, &c., in connection with the laundry, and extensions to the heating and hot-water system at the Union Infirmary. Mr. T. Roland Wollaston, Lord's Chambers, 26, Corporation-street, Manchester. Deposit £2 2s.

AUGUST 6.—**Limerick.**—ROAD MACHINERY.—For supply of traction engine and highways plant to the T.C. Mr. J. J. Peacocke, City Engineer, Town Hall, Limerick.

AUGUST 7.—**Hammersmith.**—COPPER, &c.—(*a*) Steam coppers; (*b*) fuel economiser, for the B.G. Master and Acting Quartermaster of the Hospital, Hammersmith.

AUGUST 7.—**Pontefract.**—ROLLER.—Supply of 12-ton road roller, to the R.D.C. Mr. G. W. Hobman, Clerk, 29, Ropergate, Pontefract.

AUGUST 8.—**Birmingham.**—FUEL ECONOMISERS.—Supply and erection of fuel economisers at the P.O. Telegraph Factory, Birmingham. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

AUGUST 9.—**Birtley.**—ELECTRIC LIGHTING.—For lighting with electricity the streets at housing site, for the P.C. Mr. R. Hobson, Clerk, Birtley.

AUGUST 9.—**Wigan.**—PUMPING PLANT, &c.—Supply and erection of one electrical vertical pumping plant, heating and domestic hot-water supply apparatus, alterations of buildings, additions, and making a well, at the Poor Law Infirmary, Billinge, for the B.G. Mr. H. Gordon Ackerley, Clerk, Victoria Buildings, Kingstreet, Wigan. Deposit £3 3s.

AUGUST 10.—**London.**—CRANE.—Provision of 7-ton steam crane, Lea Bridge, Clapton, N.E., for the Metropolitan Water Board. Chief Engineer, New River Head, 173, Rosebery-avenue, E.C.1

AUGUST 11.—**Barugh.**—HEATING APPARATUS.—Installation of heating apparatus, Primitive Methodist Church, Barugh. Mr. J. Tissington. Barugh Bridge, Barugh.

AUGUST 11.—**Hull.**—TIDAL GATES.—Construction and fixing of new tidal gates at main drainage outfall. Mr. G. T. Bradley, M.I.C.E., Engineer to the Trustees, Drainage Offices, Hengate, Beverley.

✱AUGUST 11.—**Leighton Buzzard.**—HOT WATER INSTALLATION.—Providing and fixing hot water installation and other work in connection with same at the Grove Isolation Hospital, near Leighton Buzzard. Mr. Chas. W. B. Calcott, Clerk, 30, High-street, Leighton Buzzard. Deposit 10s. 6d.

AUGUST 11.—**Warrington.**—PUMPS.—Provision and erection of three electrically-driven centrifugal pumps at pumping stations, for the T.C. Mr. James Gray, Waterworks Engineer, Municipal Offices, Warrington. Deposit £1 1s.

AUGUST 13.—**Enfield.**—BOILER.—Supply of vertical boiler for sewage works, for the U.D.C. Mr. T. W. Scott, Clerk, Public Offices, Enfield.

AUGUST 14.—**Birkenhead.**—HEATING INSTALLATION.—Installation of heating apparatus at the Telephone Exchange, Birkenhead. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

AUGUST 15.—**Edinburgh.**—HEATING.—Installation of heating apparatus at the General Register House, Edinburgh. Engineer, H.M. Office of Works, 4–5, Drumsheugh-gardens, Edinburgh. Deposit £1 1s.

AUGUST 15.—**Solihull.**—HEATING INSTALLATION.—Installation of heating and hot-water services and steam mains, &c., for Solihull Institution. Mr. Chas. H. Cook, Clerk, Union Offices, Solihull. Deposit £3 3s.

AUGUST 17.—**Walsall.**—WEIGHING MACHINE.—Providing and fixing of a weighing machine (8 to 10 tons) at their Institution, of the B.G. Mr. A. H. Lewis, Clerk, 29, Leicester-street, Walsall.

AUGUST 18.—**Chorley.**—ELECTRIC LIGHTING.—Supply and fixing of the necessary wiring and fittings required in connection with the lighting by electricity of a portion of the interior of the Town Hall. Borough Surveyor, Chorley.

AUGUST 25.—**Hamilton.**—GAS HOLDER.—Erection of a spiral guided gasholder and steel tank of approximate capacity of 1¼ million cubic ft., for the T.C. Mr. David Robb, Engineer, Hamiltcn Gas Works.

AUGUST 31.—**Chile.**—HARBOUR WORKS.—**Extension of the mole of the Port of Valparaiso and complementary harbour works, depots, &c., for the Navy. Chilean Legation in London.**

AUGUST 31.—**Sheffield.**—BRIDGE.—Designs and tenders for reinforced concrete bridge over River Don at Leppings-lane, for the T.C. Surveyor, Town Hall, Sheffield. Deposit £5.

AUGUST 31.—**Tottenham, N. 15.**—REFUSE DESTRUCTOR.—Dismantling certain cells, boilers, economiser, &c., and the substitution of a modern refuse destructor plant at the Refuse Destructor Works, Down-lane, Tottenham, N., for the Tottenham District Council. Engineer of the Council, Town Hall, Tottenham, N. 15. Deposit £1 1s.

SEPTEMBER 17.—**London.**—MACHINE TOOLS.—Supply of machine tools, for the Council's Tramway Central Repair Depot, Charlton. General Manager, London County Council Tramways, Victoria-embankment, W.C. 2. Deposit £2.

SEPTEMBER 27.—**Chile.**—PORT IMPROVEMENT.—Improvement of the Harbour of Constitucion, for the Chilean Government. Chilean Legation, 22, Grosvenor-square, W. 1.

NOVEMBER 1.—**Siam.**—BRIDGES.—Supply of superstructures of steel railway bridges to Siam State Railways. Messrs. C. P. Sandberg, 40, Grosvenor-gardens, S.W. 1. Charge 28s.

NOVEMBER 30.—**Sydney.**—BRIDGE.—**Construction of the superstructure and substructure of a cantilever bridge across Sydney Harbour; also an alternative tender for the construction of the superstructure and substructure of an arch bridge across Sydney Harbour. Agent-General for New South Wales, Australia House, Strand, W.C.**

NO DATE.—**Leeds.**—HEATING INSTALLATION.—For the installation of heating apparatus at East Ward Liberal Club, 18, Ellerby-road, Leeds. Secretary at the Club.

ROAD, SANITARY, AND WATER WORKS.

AUGUST 6.—**Basford.**—ROADS.—For asphalting paths at Ruddington Cemetery, for the R.D.C. Mr. S. Maylan, Public Offices, Basford.

AUGUST 7.—**Cranbrook.**—SEWAGE DISPOSAL.—Construction of a main sewer and sewage disposal works at Sandhurst, for the R.D.C. Mr. J. H. Bailey, Sanitary Surveyor, Penryn, Cranbrook.

AUGUST 7.—**Northwich.**—WATERWORKS.—Sinking borehole, supplying 1,200 tons of cast-iron pipes, laying pipes, construction of reservoir, &c. Mr. C. E. Newton, 19, Cooper-street, Manchester.

AUGUST 7.—**Stockton-on-Tees.**—ROADS.—Construction of a new roadway, 60 ft. wide, from Norton-road to South-road, for the T.C. Mr. J. P. Wakeford, Borough Engineer, Victoria Buildings, Stockton-on-Tees. Deposit £2 2s.

AUGUST 8.—**Birmingham.**—SEWERS, &c.—Deepening of a length of about 550 yds. of the Hockley Brook, from Rocky-lane to Whitehouse-street, Aston; construction of a storm overflow culvert and 9 in. stoneware pipe sewers in Chester-street, &c., for the T.C. Mr. Herbert H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

AUGUST 8.—**Crowthorne (Berks).**—DRAINAGE WORKS.—Execution of drainage works at Broadmoor Asylum, Crowthorne, Berks, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s. (payable to the Secretary).

AUGUST 8.—**Doncaster.**—DRAIN.—Construction of a 9 in. surface water drain in Carr House-road and Sandy-lane, for the T.C. Mr. F. O. Kirby, Borough Surveyor, 2, Priory-place, Doncaster. Deposit £1 1s.

AUGUST 8.—**Doncaster.**—SEWER.—Construction of a sewer at the rear of Chequer-road in Elmfield Park, for the T.C. Mr. F. O. Kirby, Borough Surveyor, 2, Priory-place, Doncaster. Deposit £1 1s.

AUGUST 8.—**Sefton.**—ROADS.—Paving with granite setts portions of various highways, for the R.D.C. Mr. F. Pool, Surveyor, 21, Evered-avenue, Rice-lane, Walton, Liverpool.

AUGUST 8.—**York.**—SEWER.—Laying of 300 lin. yds. 12 in. stoneware pipe sewer, manholes, &c., in Stockton-lane, for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £1 1s.

AUGUST 9.—**Greetland.**—ROADS.—For concrete road foundation and granite paving works, for the U.D.C. Mr. F. Moore, Surveyor, Public Hall, Greetland.

AUGUST 9.—**Bebington.**—SEWAGE WORKS.—For construction of sewers in connection with the Bromborough Sewerage Works, for the U.D.C. Messrs. J. Mansergh & Sons, 5, Victoria-street, S.W. Deposit £5.

AUGUST 10.—**Kingsbridge.**—WATER WORKS.—Construction of a collecting tank and the providing and laying of about 1,240 yds. of 3-in. cast-iron mains, &c., for the R.D.C. Mr. T. Burdett, Surveyor, Tacke Wood, Kingsbridge. Deposit £1.

AUGUST 10.—**Leeds.**—ROADS.—Making up portion of the highways in York-road, Meadow-lane, and St Columba-street, for the T.C. Mr. J. B. Hamilton Commercial Manager, 1, Swinegate, Leeds. Deposit £1 1s.

AUGUST 11.—**Campden.**—WATER MAIN.—Laying of cast-iron water main, collecting chamber, &c., at Broad Campden, for the R.D.C. Mr. H. J. White 119, St. Aldates. Oxford. Deposit £2.

AUGUST 11.—**Diss.**—ROADS.—Supply on hire during September of a 8-ton steam roller, to the U.D.C. Mr Alfred Cooper, Surveyor, 9, Market-place, Diss.

August 11.—**Oswestry.**—Sewage Works.—Laying of 2,800 yds. of stoneware sewer, for the T.C. Mr. G. W. Lacey, Borough Engineer, Oswestry. Deposit £2 2s.

August 14.—**Adwick-le-Street.**—Reservoir.—Construction of a concrete reservoir (capacity 500,000 gallons), for the U.D.C. Mr. George Gledhill, Surveyor, Council Offices, Adwick-le-Street, near Doncaster. Deposit £5.

August 17.—**Edeyrnion.**—Reservoir, &c.—Construction of a storage reservoir and the providing and laying of about 1,000 yds. of 6 in. and 3 in. water mains at Corwen, for the R.D.C. Messrs. Berrington, Son & Watney, Prudential Chambers, Wolverhampton. Deposit £5 5s.

August 18.—**Hale.**—Sewers.—For sewering in Hale-road, for the U.D.C. Mr. T. Blagburn, Surveyor, Council Offices, Hale.

August 20.—**Glasgow.**—Roads.—Construction of about 3,000 lin. yds. of main road, including the laying of tramways thereon, forming a diversion of the Renfrew-road, between Maxwell-road, Shieldhall, and Millburn Bridge, Renfrew, with three reinforced concrete bridges, carrying the new road over existing and intended lines of railway, for the Clyde Navigation. Engineer, 16, Robertson-street, Glasgow. Deposit £5 5s.

August 21.—**Baildon.**—Roads.—For making-up part of Bank Crest, for the U.D.C. Surveyor, Council Offices, Baildon. Deposit £2 2s.

August 22.—**Limerick.**—Paving.—For paving about 36,166 sq. yds. of roadways with reinforced concrete 7 in. thick, 5,102 sq. yds. with re-dressed granite setts, and 4,974 sq. yds. with new granite setts, for the T.C. Mr. J. J. Peacocke, City Surveyor, Town Hall, Limerick. Deposit £2.

August 25.—**Southgate.**—Sewer.—Construction of surface water sewer and foul sewer, for the U.D.C. Mr. R. Phillips, Surveyor, Town Hall, Palmers Green, N.

September 1.—**Langton Matravers.**—Roads.—Widening and resurfacing of the "Valley-road," Langton Matravers, about 3¼ miles in length, for the Dorset C.C. Mr. W. T. Fletcher, County Surveyor, County Offices, Dorchester. Deposit £2 2s.

September 3.—**Uckfield.**—Sewage Works.—Construction of sewerage and sewage disposal works at Waldron, for the R.D.C. Mr. J. Taylor, Henley House, Uckfield. Deposit £3 3s.

No Date.—**Rosyth.**—Roads.—For tarmacadam and kerb and channel on two streets, Rosyth. Scot National Housing Co., Ltd., Parkgate, Rosyth, Dunfermline.

Competitions.

(*See Competition News, page* 164)

Auction Sales, Tenders, etc.'

✱August 15.—**London, S.E.5.**—Messrs. Donaldson & Sons will sell, by order of liquidator *re* G. Hardy & Co., Ltd., at 88, Camberwell-road, S.E.5, the lease of the capital business premises 88, Camberwell-road, held for 5½ years at £65 per annum, with vacant possession of two floors, workshop and offices, two large workshops, large yard and shed. The dwelling-house is let off, producing £118 10s. 4d. Immediately following, the builder's stock will be sold. Auctioneers, 252, Queen's-road, Dalston, E.8.

August 21, 22 and 23.—**Eltham.**—Mr. F. H. Clark will sell, without reserve, timbers and materials contained in the Women's Hostels, Well Hall-road, Auctioneer, Railway Wharf, York-road, Wandsworth.

August 23.—**London, E.C.**—Messrs. B. Norman & Son will sell re Chinns, Ltd., in liquidation, by order of the liquidator, removed from 7, Waithman-street, Ludgate-hill, for convenience of sale. Valuable London stock of brasswork, &c., plate-glass showcases, mirrors, office furniture. Auctioneers' Sales Rooms, 5, Little Britain (close to G.P.O.).

Public Appointments.

✱August 20.—**Lambeth, S.W.2.**—Junior Engineering Assistant required in the Borough Engineer's Department by the Metropolitan Borough of Lambeth Council. Mr. Bruce Penny, Town Clerk, Lambeth Town Hall, Brixton Hill, S.W. 2.

✱August 20.—**Stoke-on-Trent.**—Competent Temporary General Architectural Assistant required by the County Borough of Stoke-on-Trent. Mr. A. Burton, Borough Surveyor, Town Hall, Stoke-on-Trent.

✱August 20.—**East Ham, E.6.**—Clerk of Works required to supervise the erection of extension to the Town Hall and Public Offices by the Town Council of the County Borough of East Ham. The Borough Engineer, Town Hall, East Ham, E.6.

The proposal to construct a Mid-Scotland Ship Canal has been dropped.

The foundation-stone of the new War Memorial Hospital at Wrexham, which will cost £70,000, is to be laid by the Prince of Wales next October.

The Board of Trade announce that the British Industries Fair (organised by the Department of Overseas Trade) will be held at the White City, Shepherd's Bush, from April 28 to May 9, 1924.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

Abersoch.—Mr. Frank C. Minoprio, Haulfryn, Abersoch and Liverpool, not being satisfied with the corrugated iron building proposed to be erected as the new infant school at Abersoch, has obtained the permission of the county authority to erect a modern building at his own expense as a gift to the town.

Ardsley.—Plans passed by U.D.C.: Three houses at Jeffrey Field, Bradford-road, for Mr. E. Farrar; house and garage in Jeffrey Field, for Mr. E. Farrar; house in Rein-road, West Ardsley, for the Misses Lassey; bungalow, at Rein-road, West Ardsley, for Messrs Harrison, Spenseley & Sons.

Banbury.—Plans passed by R.D.C.: House at Wardington, for Mrs. French; new wing to Manor House, for Mr. J. B. Pease; alterations and drainage at Manor House, Adderbury East; two houses for Mr. A. Brown; two houses at Bodicote, for Mr. T. L. Dale.

Barnstaple.—Plans passed by T.C.: Alterations to 5, Cross-street, by Mr. J. C. Southcombe, for Messrs. Radford & Yeo; alterations, 104, Boutport-street, for Mr. C. H. Lake; residence, Rose Hill, Rumsam, by Messrs. Oliver & Son, for Mr. T. Dunn.

Barrowford.—The U.D.C. have approved plans for the erection of a pair of semi-detached houses in Wheatley Lane-road, for Messrs. J. R. & H. Pickup.

Bath.—Plans passed by T.C.: Class rooms, convent, Pulteney-road; garage, rear 99, Sydney-place; alterations, 11, Westgate-street; bedrooms, 3 & 4, Devon Cottages, Odd Down; conversion into flats, 45–47, Pulteney-street; workshops, West Central School, Lymore-avenue; garages and sheds, Sydney Wharf; garage, Monmouth-street; bungalow, Wellsway; office extension, Pitmans' Works; bungalow, Villa Fields; lock-up shops, Third-avenue and Shaftesbury-road; conversion into flats, St. Peter's-terrace; kiln and extension of potteries, Victoria Brick-yard; extension of compressor house, Victoria Bridge-road; garage, 14, Combe-park.

Bedwellty.—The U.D.C. has decided to negotiate for land at Pengam for purposes of erecting new Council offices.—The G.W.R. Co. has notified U.D.C. that it is examining proposals for new railway station at Fleur-de-Lis.—The Council has called for report on housing needs, and probable grants, at Aberbargoed.—The Board of Guardians, in conjunction with the Ebbw Vale U.D.C., has submitted to Ministry schemes involving expenditure of £16,000, with grant assistance on basis of unemployment relief application.—The ex-service men and general public have received sanction of U.D.C. to erect war memorial gateway, at estimated cost of £800, at Workmen's Cottage Hospital.—It was reported at meeting of U.D.C. that Powell Duffryn Coal Co. is to expend not less than £12,000 on extension of Aberbargoed Cottage Hospital as memorial to company's employees who fell in the war.

Bingley.—Plans passed by U.D.C.: Garage in Hubert-street, for Mr. A Peace.; garage at Nab Wood, for Mr. Dibb; pair of bungalows at Priestthorpe-lane, for Mr. J. B. Lister; bungalow at Long-lane, Harden, for Mr. H. Thompson; amended plan of gable house at Plevna-terrace, for Messrs. W. & S. Bradley; shed at Stanley Mills, for Messrs. G. Ackroyd & Son; bungalow at Keighley-road, for Mr. J. Lee.

Birkenshaw.—A new mission church is to be erected at Toftshaw-lane. Mr. Arthur Verity, of Birkenshaw, is architect.

Blackburn.—The Board of Management of the Blackburn and East Lancashire Royal Infirmary are considering a scheme, estimated to cost £200,000, to utilise the site to the fullest advantage. The first step will be the erection of a new wing which is intended to be the town's War Memorial, the estimated cost of this portion being £75,000, and the plans have recently been approved by the Extensions Committee. The architects for the scheme are Messrs. Sames & Green, Richmond-terrace, Blackburn.

Blackley.—Mr. F. W. Howarth, wallpaper manufacturer, Central Mills, Blackley, is proposing extensions to his mill premises, and enquiries are being made as to cost.

Blayden.—Plans passed by U.D.C.: Sixteen semi-detached houses, by Messrs. Stoddart & Williamson, at Rowlands Gill.

Bradford.—The E.C. have decided to extend the accommodation at the open-air school at Thackley.

Brampton.—Plans passed by R.D.C.: Farm buildings at Easby Farm, for Mr. Charles Roberts, M.P.; additions to cottage at Little Corby, for Mr. J. G. McKay; two wood bungalows, near Faugh, for Messrs. Graham & Son, Fenton.

Bridgend.—The extension of the Cottage Hospital is agreed upon by Governors, at estimated cost of £8,500, and Glanogwr site is under consideration.—The Ministry of Health has assented to erection of 20 houses at Sam by the Penybont (Bridgend) R.D.C.

Bridlington.—The T.C. has decided to purchase White Lodge Estate, Quay-road, with four acres of land, for the purpose of conversion of the house into municipal offices for £6,500.

Brighton.—A scheme to lay out the aquarium site on the front as ornamental gardens with a shelter hall, swimming bath, and other attractions, has been provisionally adopted by the T.C. It was also agreed to spend £200 to make the roofs of the Aquarium safe.

Bromley.—Plans passed by R.D.C.: Mr. F. Howard, new street, to be known as Longdon Wood-avenue, Keston; Mr. J. Stoneham, detached house, Holwood-avenue, Farnborough; Mr. J. Bleeze, detached house, corner of King's-road and Main-road, Green-Street-Green, Farnborough; Messrs. Page & Overton, alterations and additions of luncheon and tea rooms, and lavatories, at "George and Dragon" P.H., High-street, Farnborough; Dartford Brewery Co., Ltd., additions, New Inn, Farnborough; Mr. T. H. Davis, additions to bungalow, Berrys Green Estate, Cudham; Mr. H. E. Gibbs, bungalow, "Carvoy," King's-road, Cudham; Mr. T. A. Perfitt, bungalow, Moselle-road, Cudham; Mr. William Lockyer, house, Keswick-road, Orpington; Mr. E. Gray, house, St. Kilda-road, Orpington; Mrs. Oliver, house, Irene-road, Orpington; Mr. A. W. Taylor, bungalow, Chislehurst-road, Orpington; Mr. J. M. Barratt, house, Oakfield-road, Orpington; Mrs. A. Bowers, house, Station-hill, Orpington; Miss C. L. Turner, house, Grove Park-road, Mottingham.

Brynmawr.—The U.D.C. has received from Ministry of Health approval of plans for erection of 60 new houses.—It was reported to U.D.C. that Gas Co. would extend supply mains to certain house area, the Council to bear cost.

Burry Port.—The U.D.C. has decided to expend £500 remaining from sewer works loan, and an additional £600 to be borrowed in laying sewer in Church-road and Parryminos-street.—Plans for new central school at Burry Port have been submitted by architect to School Managers.

Cambridge.—Plans passed by T.C.: House, Queen Edith's-way, for J. Heffer; six houses, Richmond-road, for W. E. Lilley; alterations and additions, Petty-cury, for the Master, Fellows and Scholars of Emmanuel College; alterations and additions, St. Andrew's-street, for H. A. Nichols, 36, St. Andrew's-street; house, Long-road, for S. Johnson, "Elm House," Hills-road; house, Clare-road, for H. C. Marshall, Trinity College; addition, Christchurch-street, for R. Franks, 3, Christchurch-street; nine cottages, Oxford-road, for Manning & Bullman, 53, Victoria-road; additions, Luard-road, for W. Webster Watts, Luard Lodge, Luard-road; retort house, Newmarket-road, for the Cambridge University and Town Gas Light Company, Sidney-street; house, Highworth-avenue, for W. C. Piggott, 163, Victoria-road; alterations, Malting House-lane, for L. Archer-Hind, Little Newnham, Malting-lane; additions (block of college rooms), Sidney-street, for the Master and Fellows, Sidney Sussex College; house, Barton-road, for J. W. Landon, 37, Barton-road; rooms, library, &c., Jesus-lane, for the Trustees of the Wesley College, Cambridge; shop, Newmarket-road, for J. H. Cooper, Godesdone-road (Christ's Pieces); 37 houses for the T.C.; alterations and additions, St. Andrew's-street, for H. A. Nichols, 36, St. Andrew's-street; rooms, library, &c., Jesus-lane, for the Trustees of the Wesley College, Cambridge; slaughterhouse, High-street, for G. M. Prior, 52, Chesterton-road; garage, St. Eligius-street, for C. F. Morley, 72, Panton-street; garage, Hobson-street, for R. Glasscock, 31, Hobson-street: alterations and additions, Scotland-road, for G. Runham, 1, Scotland-road; alterations and additions, Coniston-road, for G. R. & H. B. Howe, Cherryhinton-road.

Carmarthenshire.—The Board of Education has notified the County Education Committee that it is of opinion that all interests will be best served by provision of suitable permanent school accommodation in Amman Valley, and architect has, accordingly, been instructed to prepare plans for approval.

Cheadle.—Messrs. Peter Pierce & Son, architects, 30, St. Petersgate, Stockport, are preparing plans for alterations to the offices of the Oil Well Engineering Co., Birdhall-lane, Cheadle.

Chester.—Plans passed: Alterations, 53, Boughton, for Mr. R. Walker; two houses, Stock's-lane, for Mr. J. H. Steen; garage, Northgate-street, for Messrs. Denson; additions to baths and lavatories at the Chester Royal Infirmary.

Cwmamman.—The District Council has asked for estimates of cost of erection of a new building as store-house, &c., from the surveyor.

Darlington.—The Corporation have approved plans for another 14 buildings, bringing the total number of plans passed in the last year up to 140.——The directors of the L. & N.E.R. Co. have decided upon large extensions to their engine building shops. Darlington was chosen in preference to Doncaster.

Edinburgh.—The T.C. has decided to construct a tramway from Seafield-place, Leith, to King's-road, Portobello, at an estimated cost of £40,462.

Frodingham.—The directors of the Frodingham Iron & Steel Co., Ltd., have decided to subscribe £3,000 towards the Ironstone Area Church Extension Fund, which now stands at £17,000.

Glasgow.—Plans for the erection of warehouses, &c., at the corner of Trongate and Stockwell-street were submitted by the Corporation City Improvements Department at the last sitting of the Dean of Guild Court yesterday. The buildings, which are to be erected on sites at present being cleared, are estimated to cost £190,000. Consideration of the plans was continued.——Plans for buildings and alterations estimated to cost in the aggregate £285,000 came before the Court. A considerable number of the applications were for leave to erect garages. Among the linings granted were the following: The Corporation of Glasgow Housing Department, to form streets and sewers at Hamiltonhill; M'Farlane, Lang & Co., 38, Wesleyan-street, additions to biscuit factory,

* See also our List of Contracts, Competitions, etc.

Clydeford-drive, Tollcross, at an estimated cost of about £23,000; Govan Ropework Co., Ltd., Helen-street, Govan, to demolish existing buildings and erect additions to works on the west side of Helen-street; The Rev. William Ogg and others, trustees of Mount Florida United Free Church, to erect church hall at the church, Cathcart-road and Hampden-street; Dallas's, Ltd., Milton House, 160-174, Cowcaddens-street, additions to property at Cowcaddens-street; James Craig (Glasgow), Ltd., 10–38, Woodlands-road, alterations to premises at 123–127, Sauchiehall-street; Brown & Adam, Ltd., Riverbank Works, Pollokshaws, additions to works at Riverford-road, Pollokshaws.

Grantham.—The Board of Guardians has decided that application be made to the Minister of Health for approval of expenditure in connection with the installation of a new heating and hot-water apparatus at the Guardians' Institution, and to the raising of a loan of £5,600 for defraying the expenditure.

Haddington.—It was agreed at a meeting of the East Lothian Western District Committee to reconstruct a section of the Great North-road in Haddington parish, at a cost of £22,000, of which the Ministry of Transport is to give a grant of £16,500.

Halifax.—A new shed is to be erected shortly at Holmfield Mills for Smith, Bulmer & Co. Tenders for the work are being invited by the architects, Glendenning & Hanson, 15, Commercial-street, Halifax.

Heston and Isleworth.—Plans passed by U.D.C.: Messrs. Young & Hall, re-building "The Castle" P.H., Upper-square; Messrs. Thos. Hiscock, Ltd., additions to 104, Hanworth-road; Mr. S. Daws, house, College-road; Mr. W. J. W. Westlake, two houses, Bristow-road; Messrs. P. Chase Gardener & Co., house, Jersey-road; Mr. Geo. F. Simmons, house, Lampton-road; Mr. A. Harris, two houses, Hibernia-road; Mr. J. W. Stanley Burmester, bank premises, London-road; Mr. P. F. E. Carter, two houses, Cambridge-road; Messrs. Power & Goold, twelve houses, Harvard-road; Mr. A. L. Good, bungalow, College-road.

Horncastle.—Plans passed by R.D.C.: Two bungalows for Mr. B. Vinter; bungalow for Mr. A. S. Coppick, Duddles Bridge, New York; house at Roughton, for Mr. and Mrs. J. H. Sharp.

Hornsey.—Plans passed by B.C.: Ten houses, Connaught-gardens, by Fidlers, Chancery-lane; eight houses, Ellington-road, by Mr. Charles East, Muswell Hill; four houses, Middle-lane, by Mr. W. Drinkwater, junr., Winchmore Hill; a block of four maisonnettes, Inderwick-road, by Slatford Bros., Crouch End; conversion of 48, Priory-road into two flats; six houses, Tregaron-avenue, by Mr. A. J. Walker, Crouch End; two houses, Lauradale-road, by Mr. J. W. Symonds, Muswell Hill; houses, Montenotte-road, by F. Cottrell, Ltd., Crouch End; Cranley-gardens, by Mr. W. F. Adams, Muswell Hill; Tregaron-avenue, by Mr. R. Pringle, junr., Crouch End; Cranley-gardens, by Mr. W. J. Lewcock, Hornsey; Sheldon-avenue, by Mr. W. Quennell; alterations, by Messrs. Lyons, Crouch End-broadway.——Plans were also passed for thirty-eight lock-up garages at the rear of Colney Hatch-lane.

Huddersfield.—Plans passed: Two detached houses, for the Board of Guardians, on the Reas Estate.

Ilfracombe.—The U.D.C. has instructed Messrs. Matchem & Co., of London, to prepare plans for a concert hall to accommodate 750 people.

Lancaster.—Plans passed by T.C.: Six houses, Wingate Saul-road, for Mr. W. C. Halliday; bungalow, Hall Park Estate, for Mr. G. M. Easterbrook; two houses, Hall Park Estate, for Messrs. R. Baines & Co.; house, Hall Park Estate, for Mr. F. Cockerill; additions to "Eastcliffe," Borrowdale-road, for Mr. J. S. Woolstencroft; workshop, Spring Garden-street, for Messrs. W. & I. Peill; motor garage, 2, Cork-road, for Mr. Loxam; bungalow, Heaton-road, for Messrs. Thompson & Morris.

Leyton.—Plans passed by U.D.C.: J. Hoare & Sons, outside staircase, 383, High-road, Leyton; W. H. Young, addition, 97, Francis-road; Williams Bros. Direct Supply Stores, Ltd., additions, 736-738, High-road, Leytonstone; Shenstone & Co., Ltd., factory at Grange-road; Smee & Houchin, new mission hall at Ashville-road; Stevenson & Sons, alterations, 842, High-road, Leyton; T. S. Chappel, mission church at Boundary-road; H. J. Hicks, workshop, 105, Goldsmith-road, Leyton.

Llanelly.—The R.D.C. has put forward for grant and approval roads schemes aggregating £14,500.

Merthyr Tydfil.—The T.C. has received estimates showing cost of proposed new Merthyr-Brecon road to be £10,700, and has applied for additional grant to the £4,000 promised.—The Board of Guardians have submitted plans for taking over part of Thomas Town burial ground for work of extending and adding to workhouse.—Plans have been approved for new cinema theatre, for Messrs. Anglo-Cambrian Trust, Ltd., on site of Castle Hotel.—The Council is to demolish stone boundary walls at Galon Uchaf site, and substitute concrete posts and wire fencing to permit the widening of the parish road.

Middlesbrough.—The Corporation Plans Committee have approved 18 sets of plans for houses coming within the subsidy scheme, and six for non-subsidy houses. Numerous alterations to business establishments have also been sanctioned.

Middleton.—The Boarshaw Raising & Finishing Mill, Middleton, are proposing alterations and repairs to their premises.

Newcastle.—The T.C. have accepted tenders for the erection of 395 houses at a cost of £95,000. These are to rehouse the people of the slum area, which is to be destroyed.

Newport (Isle of Wight).—Plans passed: Alterations, Victoria-road, for Mr. G. Adams; shed, 17, Terrace-road, for Mr. G. N. Rogers.

Newport (Mon.).—The erection by T.C. of new building for museum and art gallery so as to leave free for library purposes the central library buildings is being considered.—The T.C. is to be approached by the St. Mellon's R.D.C. to assist in construction of a new sewer from the Borough boundary to Malpas, and on matter of widening Barrack-lane and Risca-roads communications.

Ogmore.—The Ogmore and Garw U.D.C. has applied for approval and grant in respect to schemes for improving the Bettws-Llangeinor-road (estimate £1,400) and the Wyndham-Aber-road (no estimate). The Glamorgan C.C. engineer advises the Ogmore Council to apply in respect to Blackmill-Llangeinor-road (estimate £14,000), but as yet this has not been done.

Oswaldtwistle.—The Oswaldtwistle D.C. have approved plans for two houses in Fielding-lane for Mr. T. Gregson, and for a bungalow in New-lane, for Mr. W. Clegg.

Penybont.—The R.D.C. is informed that the Ministry of Health have sanctioned a further loan of £13,065 for completing the Pencoed and Coychurch Higher Main Drainage and Sewage Disposal Works and the branch sewers for the respective areas. The engineer for the scheme is Major T. J. Moss-Flower, of Westminster and Bristol.

Port of London.—Over £5,000,000 is to be spent in the course of the next five years on schemes of reconstruction and extension of the Port of London. Chief amongst these is the making of an entirely new dock at Tilbury and the building of a passenger landing stage.

Port Talbot.—The B.C. has decided to proceed with widening of Cwmavon-road, several pieces of land necessary having been acquired, and has instructed surveyor "to prepare an extensive scheme."—The Council has considered the surveyor's report on housing needs in the district, and has decided to form a scheme for 100 houses to be erected at Aberavon, Port Talbot, Cwmavon and Margam.—The B.C. has called for estimates of work required for isolation hospital.

Rawtenstall.—The T.C. are proposing to erect 36 additional houses on a site at Crawshawbooth, and 12 houses at Higher Cloughfold, by direct labour or contract.

Rhyl.—Plans passed: First batch of houses under the Council's new scheme.

Rotherham.—The R.D.C. has signed contracts with Messrs. R. Snell & Sons for sixteen houses at Dalton, and the Chester Hill Quarry Co. for eight houses at Thrybergh.

Salford.—Plans passed by T.C.:—Construction of tramway shelter at junction of Cross-lane and Windsor, Salford; alterations to shop, 260, Regent-road, Salford; construction of lavatories, Electricity Mains Depot, Frederick-road, Broughton; garage, Bury New-road, Broughton; sanitary accommodation at works in Athole-street, Pendleton; garage, 125, Lightoaks-road, Pendleton; sanitary accommodation, "Havelock Inn," Allen-street, Pendleton; conversion of dwelling-house into suites of rooms, "Oakwell," Bury Old-road, Broughton; alterations to Empire Cinema, Great Cheetham-street East, Broughton; premises, 339, Regent-road, Salford; additions to "Duke of Sussex" Inn, Sussex-street, Broughton; works, Whit-lane, Pendleton.—Messrs. W. Johnson & Son, architects, 27, Oldham-road, Miles Platting, Manchester, are preparing plans for alterations to the "Royal Oak" Inn, Salford, for the Rochdale Manor Brewery Co., Molesworth-street. The contract is not yet let.

Scarborough.—The Corporation have decided to erect a new public hall, ballroom and other premises on the site of the Olympia Ballroom, on the South Foreshore-road. Lieut.-Col. Harrison bequeathed all his foreign trophies to the Corporation on condition that they were all housed in one building, and there is no available building suitable for the purpose.

Sedgefield.—The R.D.C. have adopted plans for fourteen houses at Ferryhill Station, for Messrs. Dorman, Long & Co., Ltd.

Shaw.—The Fern Cotton Spinning Co. (1920), Ltd., are proposing extensions to the card room of their mill premises.

Smethwick.—For the relief of unemployment during the coming winter a scheme, estimated to cost £124,626, has been submitted by the Council to the Ministry of Health. This amount includes £48,800 for excavations and construction of concrete gas-holder; £39,400 for gas-holder; and £13,500 for construction of 100 railway wagons.

Southgate.—It was reported at the last meeting of the R.D.C. that the Ministry of Health were "favourably inclined to the Council erecting 10 or 20 houses on the Nursery-road site, to qualify for grant under the Housing Bill now before Parliament."

Sowerby Bridge.—The U.D.C. have decided to erect a number of houses on the Albert-road site, at an estimated cost of £494 per house.

Stockton-on-Tees.—The R.D.C. has passed a plan for 12 dwelling-houses in three blocks of four proposed to be erected on the west side of Pinewood-road, Preston, for Mr. G. E. Gray, Eaglescliffe.

Thurstonland.—Plans passed by U.D.C. 22 semi-detached houses at Scar End, Brockholes, for the Brockholes Building Co.

Tredegar.—As a result of recent public inquiry the U.D.C. has now received permission to borrow £4,600 for laying of gas mains and £6,420 for water supply works.—The Council has received notification that C.C. will join with other local authorities in carrying out proposed construction of new Tredegar-Talybont road for which estimates are in course of preparation.

Wallasey.—Plans passed by T.C.: Garage and additions to "The Limes," St. George's-road, for Mr. I. Adamson; vestry at St. Hilary Church, for the Vicar and Wardens of such church; eight houses, Hilbre-avenue, for Mr. Owen Roberts; two houses, Bellfield-grove, for Messrs. Harrocks Bros.; two garages, St. Hilary-drive, for Mr. T. Owen; four houses, Breck-road, for Mr. T. Owen; lavatory, &c., Seacombe Ferry Hotel, for Threlfall's Brewery, Ltd.; alterations and additions to Wellington House, Wellington-road, for Mr. Thomas Craig; conversion of shop and dwelling-house, King-street, for Barclays Bank, Ltd.; film store, offices, &c., Church-road, for Mr. A. R. Rutherford; house, corner of Claremount-road, Mr. G. A. Lindley; motor garages, Broadway-avenue, for Mrs. J. Sharpe; seven houses, Dinmore-road, Hartington-road and Devonshire-road, for Mr. J. McGeoch; ten houses, Thorncliffe-road, for Messrs. Chelmick Bros.; two houses and garages, Marlowe-road, for Mr. W. Stocks; extension to Fairhaven Institute, Seaview-road, for Wallasey Labour Properties Society, Ltd.

Wallsend.—The T.C. are applying for a further loan of £12,000 in connection with their water supply scheme.

Wanstead.—The Essex C.C. has adopted the recommendation of the Higher Education Committee that, subject to the sanction of the Board of Education, the Wanstead rectory and glebe, extending to about 9 acres, be purchased for £4,400 for Secondary School purposes.

Warrington.—The Town Clerk and Borough Surveyor are to report on the feasibility of proceeding with the Market Gate improvement, and also the lay-out of the land in that neighbourhood.

Whitwood.—Mr. Easedale has been appointed consulting surveyor to the U.D.C. in succession to the late Mr. A. Hartley.

Willesden.—Plans passed by U.D.C.: Organ gallery to Pavilion Cinema, Banister-road, Kensal Rise, by Mr. Max Clark, for the London Cinemas, Ltd.; motor garage, 182, Walm-lane, Cricklewood, for Mr. George Alexander; vestry addition to St. Lawrence's Church, Chevening-road, Brondesbury, by Messrs. Miskin & Son, for the Rev. L. G. Pollard; motor garage, 35, Mulgrave-road, Willesden, by Mr. W. E. Sanders, for Mr. F. Cleveland; house, Neasden-lane, Neasden, by Mr. T. H. Hedges, for Dr. F. W. Miller; mortuary chapel, St. Andrew's Hospital, Dollis Hill, by Mr. T. H. B. Scott, for the Rev. M. E. Carton de Wiart; workmen's cottages, St. Andrew's Hospital, Dollis Hill, by Mr. T. H. B. Scott, for the Rev. M. E. Carton de Wiart; addition to shop, 101, High-road, Kilburn, by Mr. F. Thomas, for Messrs. Wheatland & Sons; house, Mount Pleasant-road, Kensal Rise, by Messrs. Trant Brown & Brightiff, for Mr. W. Glanville; motor garage, Waxlow-road, Willesden, by Mr. T. Jay Evans, for the British Luxfer Prism Syndicate, Ltd.; hostel to Maria Grey Training College, Nos. 9 & 11, The Avenue, Brondesbury, by Mr. H. G. Crothall, for the Governors of Maria Grey Training College; motor garage, 96, Hanover-road, Kensal Rise, by Mr. G. A. Sexton, for Mr. F. S. Henwood; four houses North-way, Neasden, for the Unit Construction Co., Ltd.

Wilmslow.—Wilmslow branch of the British Legion are negotiating for the purchase of the old Drill Hall. It is understood that the purchase price will not be a high one, and any money over will be devoted towards alterations and equipment for conversion into club premises.

Wolverhampton.—The E.C. are considering the question of increasing the accommodation of the Secondary School.

Worthing.—Plans passed by T.C.: House, Reigate-road, E. Nutter, for W. J. Golvin; two houses, Pavilion-road, W. A. Tree, for W. G. Tree; house, Goring-road, B. Cheal, for Major Merritt; two houses, Georgia-avenue, E. J. Love, for P. J. Alexander; additions to house, Rowlands-road, A. M. Butler, for Barclays Bank, Ltd.; house, Rowlands-road, H. M. Potter, for W. Weller; house, Chesswood-road, J. E. Lund, for J. Dillistone; house, Broadwater-road, A. Clare, for H. H. Collis; additions to Marine Hotel garage, Marine-parade, Bostel Bros. (Worthing, Ltd.), for Tamplin & Co., Ltd.; house, Mill-road, J. E. Lund, for G. Harwood; reconstruction of garage, Library-place, Clayton & Black, for Southdown Motor Services, Ltd.; two houses, Wordsworth-road, for T. Peters; house, Windsor-road, for A. Crane & Sons; house, St. Valerie-road, B. J. Blaker, for H. Fuente; house, Bath-road, S. C. Phillips, for S. W. Phillips & Co.; two houses, Guildford-road, H. M. Potter, for G. Standing & Sons; garage, "Clavadel," Boundary-road, Patching & Co., for Mrs. Heap; six lock-up garages, Liverpool-road, F. Carwardine, for J. W. Mansfield; house, Reigate-road, T. R. Hyde, for J. Angel; two houses, Navarino-road, for G. W. Still.—The Justices have passed the plans presented by the Kemp Town Brewery for alterations at the "Alexandra" Hotel. The T.C. has sanctioned an estimated expenditure of £16,000 for laying-out the Denton Recreation Ground and Beach House Park. There are to be two bowling-greens, twelve tennis courts, ornamental gardens, a parking place for motors and cycles, two golf putting courses, a sunken garden, and a lily pool.

York.—Plans passed by T.C.:—C. Martin, Ltd., two houses, Curzon-terrace; Cattley, Ernest & Co., alterations, 56, Skeldergate; G. H. Pegg & Son, three houses, St. Clement's-grove; York County Hygienic Laundries, additions, Foss Islands-road; G. Longstaff, house, Moorgate; J. B. Inglis, house, Driffield-terrace; Atkin Bros., four houses, Poppleton-road.

FIRES.

Barry.—Fire has destroyed house and shop at 262, Holton-road, Barry Dock, of Mr. A. R. Green, and damaged adjacent premises.

Galashiels.—A serious outbreak of fire has occurred at Galashiels, where a large section of Hillside Woollen Mill, belonging to Messrs. J. Kemp & Co., was destroyed.

Ipswich.—A fire has occurred at the warehouse of Messrs. Burton, Son, & Sanders, provision merchants, in College-street.

Keighley.—Damage estimated at several thousand pounds was caused by fire at the premises of W. R. Dawson & Co., Russell-street and Sureness-road.

Potter Heigham.—The Decoy Farm, occupied by Mr. R. Long, has been destroyed by fire.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Fletton, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	2 15 3	Do. Bullnose	10 1 6
Do. Bullnose	3 8 3	Blue Wire Cuts	7 11 6
Best Stourbridge Fire brick:—			
2½ in.	11 3 0	3 in.	13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
Quoins. Bull-nose and 4½in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. "	2 5	4 in. "	3 7

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	" "
Thames Sand	15 6	" "
Best Washed Sand	15 6	" "
¾ in. Shingle for Ferro-Concrete	14 0	" "
¼ in. " "	15 0	" "
½ in. Broken Brick	10 6	" "
Pan Breeze	5 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6

51/- alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 13 0
Keene's Cement, White	5 8 0
" " Pink	5 3 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 6
" Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 10
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	3 0½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4½
Do. do. delivered on road wagons at above stations, per ft. cube	4 5½
White basebed, 3d. per ft. cube extra.	
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
HOPTON-WOOD STONE.	
Delivered at any Goods Station, London.	
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over "	17/-
Sawn two sides "	27/-
Sawn three or four sides "	32/-
YORK STONE, BLUE—*Robin Hood Quality.*	
Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5¾
1½ in. to 2 in. ditto, ditto "	1 3
HARD YORK—	
Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto "	6 0½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto. ditto "	2 5
2 in. self-faced random flags Per Yard Super	7 11

ARTIFICIAL STONE.

	s. d.
Delivered in London Area in full van loads.	
Plain per ft. cube	6 6
Moulded " "	7 9
Cills " "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	28 0	2 × 11	34 0
4 × 7	26 0	3 × 9	32 0
3 × 8	26 0	2½ × 9	32 0
3 × 7	25 0	3 × 4½	24 0
2½ × 7	24 10	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅞	20/-	1¼	33/6
⅝	23/-	1½	38/6
1	25/6		

TONGUED AND GROOVED FLOORING. Inches.	per sq.	MATCHINGS (BEST). Inches	per sq.
1	25/6	⅝	17/6
1¼	33 6	¾	22/-
1½	38 6	1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2	0 to	0	2 6
¾ in. do. do.	0	1	6 to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1	9 to	0	2 6
Cuba Mahogany	0	3	6 to	0	4 0
Teak (Rangoon, Moulmein or Java), per load	45	0	0 to	50	0 0
American Whitewood planks, per ft. cube	0	14	0 to	0	16 0
Best Scotch Glue, per cwt.	4	10	0 to	—	
Liquid Glue, per cwt.	4	7	0 to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
" " Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅝ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¾	3¾d.
4 in.	1/4	1/1¾	3¾d.
4½ in.	1/5¼	1/4	4d.
5 in.	1/7¼	1/5¼	5d.

O.G. GUTTERS.

3 in.	1/6¼	1/2¾	3½d.
3½ in.	1/6¼	1/2¾	3¾d.
4 in.	1/7¾	1/4	3¾d.
4½ in.	1/9¼	1/6¼	4d.
5 in.	2/1¼	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7¼	1/1¾	1/8
2½ in. "	1/9¼	1/4	2/0¼
3 in. "	2/1¼	1/8	2/5¾
3½ in. "	2/6¼	1/11¼	2/10¼
4 in. "	2/11¼	2/4¼	3/5¼

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0¾	2 2¾	2 8
2½ in. "	3 6¼	2 5¾	3 3¾
3 in. "	4 2¼	2 8	4 0¼
3½ in. "	4 7	3 3¾	4 8¼
4 in. "	5 1	3 9¾	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	14 0 0	to	15 0 0
affordshire Crown Bars—good merchant quality	14 10 0		15 10 0
Staffordshire "Marked Bars"	17 0 0		18 0 0
Mild Steel Bars	13 10 0		14 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 10 0		14 10 0
Hoop iron, basis price	16 10 0		17 10 0
" Galvanised	31 0 0		32 0 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	15 10 0		16 10 0
" " " 24 g.	16 10 0		17 10 0
" " " 26 g.	18 10 0		19 10 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0		22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0		23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0		26 10 0
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0		22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0		22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0		24 10 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0		24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0		26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0		27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	21 10 0		23 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.		
LEAD—Sheet, English, 4 lb. and up	34 0 0	..	—
Pipe in coils	34 10 0	..	—
Soil Pipe	37 0 0	..	—
Compo pipe	38 0 0	..	—

NOTE—Country delivery, 30s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	21 10 0	..	—
Do., ex country, carriage forward per ton	22 10 0	..	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1¼ in.	2 in	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES. S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps	33/-	41/-	56/-	101/-	per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/-	"

COPPER—	£ s. d.		
Strong Sheet per lb.	0 2 3	..	—
Thin " "	0 2 4	..	—
Copper nails "	0 2 3	..	—
Copper wire "	0 2 4	..	—
TIN—English Ingots "	0 2 0	..	—
SOLDER—Plumbers' "	0 0 11	..	—
Tinmen's "	0 1 1	..	—
Blowpipe "	0 1 3	..	—

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 3 8
" " " in barrels "	0 3 10
" " " in drums "	0 4 1
Boiled " " in barrels "	0 4 2
" " " in drums "	0 4 4
Turpentine in barrels "	0 6 11
" in drums (10 gall.) "	0 7 2
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	55 10 0
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	77 0 0
Red Lead, Dry (packages extra) per ton	42 0 0
Best Linseed Oil Putty per cwt.	0 16 0
Filocot per cwt.	0 15 6
Size, XD Quality fkn.	0 3 6

[*Concluded on next page.*]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft
15 oz. fourths	3½d.	32 oz. fourths.....	8½d.
15 „ thirds	4½d.	32 „ thirds.....	10½d.
21 „ fourths	5d.	Obscured Sheet, 15oz.	4d.
21 „ thirds	6½d.	21 „	5½d.
26 „ fourths	6d.	Fluted 15oz.	6½d. 21oz. 9½d.
26 „ thirds.....	7½d.	En'lled 15 „	5½d., 21 „ 7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4½d.
3/16 Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal flatting	ditto	1 0 6
Hard drying Oak	ditto	0 18 0
Fine Hard drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 0
Knotting (patent)		1 5 0
French and Brush Polish		0 17 6
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

Architects and Builders.

The Pontypool (Mon.) Master Builders' Association has notified the Pontypool U.D.C. that in future members of the Association would not tender for building work unless the plans for same were prepared by a member of either the R.I.B.A. or the Society of Architects. At the meeting of the Council, on July 25, the letter was considered. It was stated that the letter was received as a consequence of architectural work for a neighbouring authority having been done at a reduced rate by someone not a member of the profession. The Council Surveyor, Mr. T. P. Francis, said that he did not quite appreciate what was behind the letter, which he would report to the Surveyors' Institution. The Council resolved to take no action on the letter.

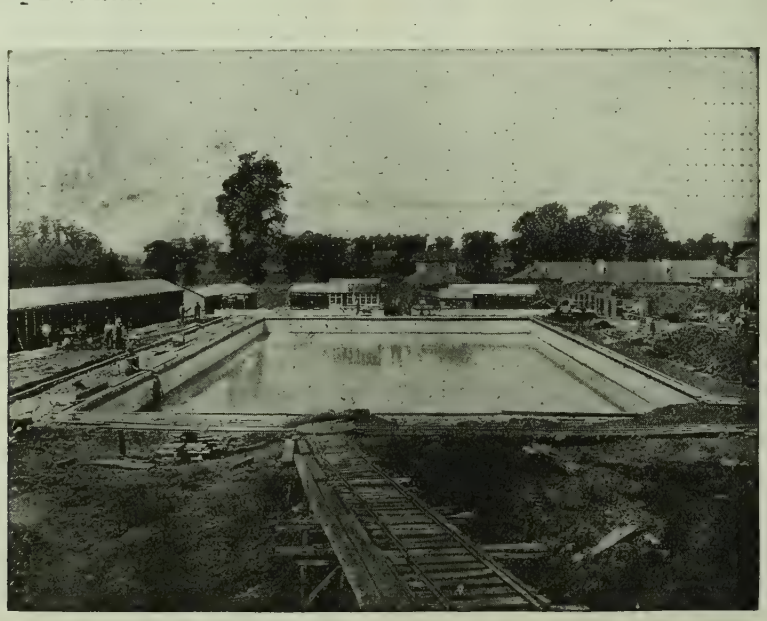
CONCRETE OPEN-AIR SWIMMING BATH AT HARROW.

The new Harrow open-air swimming bath, constructed on land adjoining the Council's housing estate, was opened on July 28. It is situated at the foot of the Hill, and commands a fine view of the old church and the adjacent slopes. The site, which is over 1¼ acres in extent and surrounded by an embankment formed of material excavated from the bath, has been laid out on broad lines. In anticipation of the demand for mixed bathing, ample provision has been made to secure the necessary privacy for the sexes. To this end all dressing cubicles have been separated from the main bath area by grass lawns traversed at frequent intervals by paved footways; ladies being accommodated at one end of the site with their dressing boxes grouped round a sunk turfed lawn divided from the main area by a dwarf retaining wall, and approached by terraces of steps. The bath, which is 165 ft. in length, 75 ft. wide, with a depth of water varying from 3 ft. 6 in. to 7 ft., has been constructed of concrete walls with a backing gauged 1 part Portland cement, 4 parts Thames ballast, and 2 parts sand, and a facing of 4 parts fine gravel screened from Thames ballast varying in size from 1 in. to ¼ in., two parts sand, and 1 part "Ferrocrete" cement to which "Novoid" proofing at the rate of 7 lbs. to each bushel of cement was added to secure a watertight job. The backing and facing to walls were carried up simultaneously, the two skins being separated by 1½ in. mesh expanded metal sheets fixed 6 in. away from the inner face of the wall, and held vertically by wires passed through the meshes of the expanded metal, and a good key with the outside backing secured. As soon as the facing concrete had sufficiently set, the shuttering was removed, and the walls brushed down and thoroughly cleaned with water, then scored with a hard brick and coated with a mixture composed of 1 part white cement, 1 part sand, and 3½ per cent. "Novoid" mixed to a stiff paste, and well worked into the concrete of the wall with a steel float under great pressure, the resultant effect giving a clean, white, uniform face. A buff burmo-ware scum channel and coping surrounds the bath wall, which harmonises well with the face of the walls below.

The floors of the bath are composed of cement concrete 10 in. in thickness, and finished with a layer of fine concrete rendering 2 in. in thickness, composed of 4 parts of fine gravel similar to that used for the facing work of the walls, and 1 part "Ferrocrete" cement to which 7 per cent. "Novoid" was added, trowelled off to a dense, compact mass, and coated with a mixture of Novoided white cement and sand floated to a smooth face.

Ample accommodation has been provided by the erection of 77 cubicles reserved for men, 37 singled and 5 large cubicles for women, with lavatory accommodation, and a combined shower and footbath for each sex. These have been carried out in brickwork, reinforced with "Bricter" in cement, and roofed with "Poilite" roofing tiles. In addition there are two open dressing sheds for boys constructed of timber framework covered with asbestos sheeting, a commodious office of purple brickwork with sand-faced tile roof for administrative purposes, and accommodation for bicycles, &c. It is intended to turf the embankment and approaches and plant trees and shrubs in the autumn, and when these have become established there will be a pleasing contrast which should be very effective.

Mr. J. Percy Bennetts, the Engineer and Surveyor to the Harrow-on-the-Hill U.D.C., and his chief assistant, Mr. F. G. Greenhill, have been responsible for the designing and carrying out of the works, and Mr. Harry Neal, of Northwood, is the contractor. "Novoid," besides making a watertight job, saved the expense in renderings or bituminous coatings for waterproofing, besides the saving of tiles for effective finish.



New Open-Air Bath at Harrow.

TRADE NEWS.

Grange-over-Sands U.D.C. (Surveyor, Mr. Thomas Huddleston, C.E.) has placed the work of resurfacing Main-street, Grange, together with the surface coating of the Windermere-road and Allithwaite-road, in the hands of Messrs. William Shepherd & Sons, Ltd., public works contractors, Milkstone, Rochdale. The surfacing material to be laid is "Asphaltic Slag for Roads," manufactured by the contractors, who are carrying out the work.

Mr. W. H. Cooper, builder and contractor, of 182, Hammersmith-road, W.6, announces that the style and address of the firm have been changed to W. H. Cooper & Son, Latymer Works, 201, Hammersmith-road, W.6. Telephone: Hammersmith 1323.

With reference to our illustration of the 'Victory' Hotel (London) balustrading etc. in the last issue of *The Builder*, we are informed that the marble work was carried out by Percy Webb, Ltd., of Verney-road, Old Kent-road, S.E. The staircase itself is of white Sicilian marble, the stringings bleu Belge, the door architrave red Languedoc marble, while the wall-linings beyond are carried out in bleu Belge and Languedoc marbles.

Boyle's latest patent "Air-Pump" Ventilator has been applied to the Telephone Exchange, Hounslow.

A compact little levelling outfit, which Messrs. C. F. Casella & Co., Ltd., of 50, Parliament-street, S.W.1, have supplied to a good many architects and builders, is described and illustrated in a leaflet just issued by the firm. This level, with the tripod and other accessories, is packed in a very convenient form in an attaché case. The outfit consists of builder's level, telescopic tripod, flexible levelling staff, 50 ft. tape, and a level book.

Cement Prices in Germany.

As from July 17, the maximum prices for cement, per 10,000 kg. without freight and packing, are, for the whole of Germany, 16,773,000 Mks. For retail sales under 10,000 kg., including freight and packing, 15 per cent may be added for sales from works, ship, or wagon, and 30 per cent. from warehouse. The turnover tax is included in the maximum prices.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	„ „	1	0
Add for every additional depth of 6 ft.	„ „	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	„ „	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	25	0
Add if in underpinning in short lengths	„ „	7	6
Add if in floors 6 in. thick	„ „	3	6
Add if in beams	„ „	4	0
Add if aggregate 1 : 2 : 4	„ „	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	„ „	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	„	7	10	0
Add if in Staffordshire blues	„	22	0	0
Add if in Portland cement and sand	„	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	„	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	„ „	0	0	10
Axed in stocks	„ „	0	1	9
Rubbed and gauged jointed in putty camber or segmental	„ „	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	„ „	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks		4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	„ „	9	0
¾ inch on flats in two thicknesses	„ „	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	„ „	1	3

MASON.

York stone templates fixed	per foot cube	12	6	
York stone sills fixed	„ „	21	6	
Bath stone and all labour fixed	„ „	10	6	
Portland stone fixed	„ „	19	6	

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9	
Do. 20 in. × 10 in. Do. Do.	„	80	9	
Do. 24 in. × 12 in. Do. Do.	„	90	0	

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3	
Do. joists	„ „	5	9	
Do. roofs, floors and partitions	„ „	6	3	
Do. trusses	„ „	8	3	

		¾″	1″	1¼″	2″
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	„	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	„	1	6
Gutter boards and bearers	„	1	0

FLOORING.		¾″	1″	1¼″	1½″
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	„		54/-	65/-	72/-
Do. matchings	„	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	„ „	2	1
Add for fitting and fixing	„ „	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights ; average size	„ „	3	9

DOORS.		1½″	1¾″	2″
Two-panel square framed	per ft. sup	2/1	2/4	2/6
Four-panel Do.	„	2/5	2/8	2/11
Two-panel moulded both sides	„	2/8	2/11	3/2
Four-panel Do. Do.	„	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.		1″	1¼″	1½″
Deal wrot moulded and rebated	per foot cube	14	0	
Plain deal jamb linings framed	per ft. sup	1/8	1 9	2/0
Deal shelves and bearers	„	1/5	1/7	1/10
Add if cross tongued	„	2d.	2d.	2d.

STAIRCASES.	1″	1¼″	1½″	2″	2½″
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail ; average 3 in. × 3 in.	„ „	6	0
Add if ramped	„ „	11	10
Add if wreathed	„ „	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	„	20	0
Do. stanchions	„	23	0
In roof work	„	28	0

RAIN-WATER GOODS.

		3″	4″	5″	6″
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	„	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	„	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	„	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	„	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt	51	0
Do. Do. in flats	„	49	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	„ „	1	6
Copper nailing	„ „	0	6

		½″	¾″	1″	1½″	2″	4″
Drawn lead waste	per ft. run	10d.	1/6	1/9	3/1	3/10	
Do. service	„	1/5	1/11	2/3	3/6		
Do. soil	„						6/2
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	„	1/2	1/8	2/1	2/10	3/6	
Red lead joints	„	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	„	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	„				14/7	19/6	
Bib cocks and joints	„	6/4	9/7	15/4	41/-		
Stop cocks and joints	„	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	„ „	2	6
Do. Do. Keen's	„ „	3	6
Add sawn lathing	„ „	1	5
Add metal lathing	„ „	2	3
Portland cement screed	„ „	1	10
Do. plain face	„ „	3	0
Mouldings in plaster	per 1 girth	0	1¼
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	„ „	1	1
Obscured sheet	„ „	1	3
⅛ in. rolled plate	„ „	0	9
¼ in. rough rolled or cast plate	„ „	0	11
¼ in. wired cast plate	„ „	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	„ „	0	7
Plain painting 1 coat	„ „	0	9
Do. 2 coats	„ „	1	2
Do. 3 coats	„ „	1	9
Do. 4 coats	„ „	2	4
Graining	„ „	2	3
Varnishing twice	„ „	1	9
Sizing	„ „	0	3
Flatting	„ „	0	7
Enamel	„ „	1	1
Wax polishing	per foot sup.	0	6
French polishing	„ „	1	2
Preparing for and hanging paper	per piece	2/- to	4/-

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

NEW COMPANIES.

The particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C. 2, from the documents available at the Companies' Registry.

Blockleys, Ltd. (190,503). Registered June 7. The Hadley Tileries, Wellington, Salop. Manufacture of bricks, tiles, quarries, drain pipes, and other clay goods. Nominal capital, £50,000.

Thompson Construction Co., Ltd. (190,484). Registered June 6. Woodthorpe-road, Ashford, Middlesex. Builders, sawyers, decorators, surveyors, &c. Nominal capital, £600.

Arthur H. Inns, Ltd. (190,530). Registered June 8. Builders, painters, decorators, &c. Nominal capital, £100.

R. J. Stokes & Co., Ltd. (190,422). Registered June 4. 44, Cambridge-street, Sheffield. Paint and varnish manufacturers and factors, now carried on at Cambridge-street, Sheffield, Chesterfield, and Wrexham, under the style of R. J. Stokes & Co. Nominal capital, £50,000.

Manufactured Concrete Works, Ltd. (190,417). Registered June 4. 39, Victoria-street, S.W. 1. Concrete or reinforced concrete articles and goods. Nominal capital, £5,000.

Girling's Ferro-Concrete Co., Ltd. (190,823). Registered June 21. New Howley Park, Morley. To acquire and take over as a going concern the business of concrete specialists now carried on under the style of Girling's Ferro-Concrete Co., at New Howley Park, Morley; and also to carry on the business of concrete specialists, builders and contractors, drainage specialists, quarry owners and workers. Nominal capital, £3,000.

Forward & Sons, Ltd. (190,533). Registered June 8. 83, Boleyn-road, Dalston, E. 8. Builders and contractors, now carried on by Christopher John Forward, at 83, Boleyn-road, Dalston, E. 8. Nominal capital, £2,000.

G. W. Sedgwick, Ltd. (190,687). Registered June 15. 22, Globe-road, Water-lane, Leeds. Slaters and tilers, and roof repairers, &c. Nominal capital, £1,200.

Henry Brooke & Co. (Denholme), Ltd. (190,638). Registered June 13. Fireclay Works, Denholme, Bradford. Bricks, tiles, pipes, pottery, &c. Nominal capital, £8,000.

Sydney Jones & Co. (London), Ltd. (190,812). Registered June 20. Manufacturers, builders, steel constructors, and repairers of and dealers in all kinds of buildings, engines, plant, &c. Nominal capital, £1,000.

Taylor & Co. (Ilford), Ltd. (190,769). Registered June 19. Union Chambers, 86, High-road, Ilford, Essex. Builders, public work contractors, &c. Nominal capital, £1,000.

Britannic Constructions, Ltd. (190,868). Registered June 23. 11–12, Salisbury Buildings, Trafford-road, Salford. Builders and constructional engineers now carried on by Edward Beckett, at Salisbury Buildings, Trafford-road, and Hodge-lane Works, Salford, Lancaster, under the style of Britannic Construction Co. Nominal capital, £5,000.

Red Bank Park Estate, Ltd. (190,903). Registered June 25. 49, Deansgate, Manchester. Manufacture, buy and sell bricks, tiles, brick-earth, stone and builders' materials, and requisites of all kinds; to carry on the business of builders, contractors, &c. Nominal capital, £10,000.

A. Clare, Ltd. (190,881). Registered June 25. Builders and general contractors for the erection and repair of houses and buildings of all kinds. Nominal capital, £4,000.

Robert Bailey & Sons (Bridlington), Ltd. (190,959). Registered June 27. 16, Quay-road, Bridlington, York. Builders and builders' merchants, now carried on by Fred Bailey and Herbert Bailey, at 16, Quay-road, Bridlington, York, under the style of Robert Bailey & Sons. Nominal capital, £10,000.

Centrifugal Concrete Products, Ltd. (191,067). Registered July 3. 70, Lower Belgrave-street, S.W. Manufacturers and vendors of reinforced and other concrete articles, &c. Nominal capital, £2,000.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
¶ Denotes *accepted subject to modifications*.

BATH.—For alterations to the banqueting room at the Guildhall, for the T.C. :—

*Erwood & Morris	£291 10

BRADFORD.—Structural alterations at St. George's Hall:—

*W. H. Farnish & Sons, Bradford.	

BRADFORD.—Erection of an electricity transformer sub-station in Town-lane, Idle, for Bradford Electricity Committee :—

*J. & P. Obank, Idle	£835

BRADFORD.—Erection of new works, engine-sheds garages, and offices, for the Bradford Coal Consumers Association, Shearbridge-road, Bradford. Messrs. Ross & Briggs, Architects, Morley-street, Bradford :—

**Mason*—John Moulson & Sons.
**Joiner*—Thompson & Co.
**Slaters*—John Smithies & Son.
**Steelwork*—Hy. Barrett & Sons.
All of Bradford.

BRADFORD.—Erection of the entrance lodge and attendants' house, stable and extension of the dining hall, for the B.G. :—

Excavators', masons' and bricklayers' work—			
*L. & B. Hirst	£1,200	0	0
Carpenters' and joiners'—			
*L. Mitchell & Co.	470	0	0
Plumbers'—			
*David Wiggins	303	0	0
Plasterers'—			
*A. E. & A. F. Rawnsley	246	0	0
Slaters'—			
*H. Wilkinson	237	0	0
Painters'—			
*R. Robinson	63	16	3

CAMBRIDGE.—For the erection of a public convenience on Christ's Pieces, for the T.C. :—

J. Brignall	£470	10	0
Redding & Son	458	0	0
Rooke & Sons	446	0	0
Johnson & Bailey	418	0	0
H. W. Hunt	398	10	0
J. Northfield & Son	395	17	6
Kidman & Sons	390	0	0
*Hard & Dickerson	375	0	0

CHELMSFORD.—For painting and colour washing at Victoria Boys' School. Borough Engineer, Municipal Offices, Chelmsford :—

J. I. Taylor, Chelmsford	£178	10
H. Sheppard, Chelmsford	150	5
T. Belchem & Sons, Kelvedon	139	0
W. Rowland & Son, Chelmsford	115	15
*W. E. Wisbey, Chelmsford	107	0

CHESTER-LE-STREET.—For an additional 250 houses on the U.D.C. building estate :—

*J. T. Lee & Co. (for 98 houses)—		
Type A2, end houses	£360	11
Intermediate houses	343	1
Type A3, end houses	335	0
Intermediate houses	315	0

CHISWICK.—For supply of laundry fittings for baths and washhouses, for the U.D.C. :—

Stitson, White & Co.	£4,897	6
National Heating Co., Ltd.	4,895	0
Central Heating Co., Ltd.	4,885	0
Buckleys, Ltd.	3,750	0
G. & E. Bradley	3,640	0
Tyler, Freeman & Minett	3,558	0
S. Mulliner, Ltd.	3,469	0
J. & F. May	3,450	0
*Thos. Bradford & Co.	3,145	10

CROYDON.—For alterations and additions to Runton House, West Croydon, for the National Deposit Friendly Society. Messrs. Rees & Archer-Betham, Architects, 44, Park-lane, Croydon :—

Bridge & Co.	£1,683	16
H. D. Ebbutts Ltd.	1,500	0
*Lewis Helby & Tanner	1,490	0

DORCHESTER.—For completion of electrical installation at County Offices, for the Dorset Standing Joint Committee :—

*A. J. Dalton, Dorchester	£149

FEATHERSTONE.—Erection of 14 houses on the Brookway site, for the U.D.C. :—

‡Smith & Hawley, Sheffield	£5,530

GELLYGAER.—The U.D.C. has accepted the following for the erection of bridge over railway at Gilfach in completion of Bargoed-Ystradwynach-road scheme :—

*Messrs. Barnes, Chaplin & Co.	£7,513 8

GLASGOW.—For execution of plaster work in connection with erection of houses at Newbank, for the T.C. :—

*H. S. Bathgate	£6,677 9 10

GLASGOW.—For repair of outside stonework at Dixon and Pollokshields Halls, for the T.C. :—

*R. Jones	£118 10s. and £71 10

GLASGOW.—For heating of staircases at Town Hall, for the T.C. :—

*G. N. Harden & Sons	£229

GLASGOW.—For the erection of halls at Granville and Clarendon streets, for the T.C. :—

Excavator, concrete, mason and brick work (redstone from Locharbriggs Quarry to be used)—			
*Brown, Fraser & Co.	£7,281	0	0
Carpenter and joiner work—			
*George Brown	4,810	15	4
Steel beams and steel roof principals—			
*Fleming Bros.	1,096	0	3
Glazier work—			
*Baillie & Telfer, Garnethill	133	0	0
Slater work—			
*P. White & Co.	347	19	6
Plumber work—			
*John Paterson & Co. (Plumbers), Ltd.	1,094	2	2
Tile work—			
*John Youden & Son, Ltd.	1,454	14	10
Painter work—			
*Logan & Gray	170	14	4

GLASGOW.—For electrical installation in connection with Cathcart-road housing scheme, for the T.C. (Tender previously accepted withdrawn) :—

*Munro & Co.	£582 13 9

GLASGOW.—For bookcases and alterations in the junior department of Pollokshields Library, for the T.C. :—

*Jas. Morrison & Sons	£476 16

GLASGOW.—For construction of bowling and tennis pavilion at Queen's Park, for the T.C. :—

Excavator, concrete, brick, &c., works—			
*James G. M'Callum	£574	13	7
Carpenter and joiner works—			
*John M'Donald (Contractors), Ltd.	367	11	4½
Slater work and roughcasting—			
*Charles Wilson	59	2	1
Plaster work—			
*W. Reid & Sons	27	4	0
Plumber work—			
*J. Anderson & Co.	117	0	8

GLASGOW.—For construction of new buildings in Stockwell-street, for the T.C. :—

Excavator, mason and brick work—			
*Jackson, Brown & Co.	£42,063	11	1
Carpenter and joiner work—			
*John M'Donald (Contractors), Ltd.	15,610	0	0
Patent floors and roofs—			
*Melville, Dundas & Whitson	14,353	11	4
Steel work—			
*Redpath, Brown & Co., Ltd.	9,754	3	6
Cast-iron work—			
*P. & W. M'Lellan, Ltd.	4,855	16	10
Plumber work—			
*John Paterson & Co. (Plumbers), Ltd.	4,511	2	7
Rock asphalt work—			
*Limmer & Trinidad Lake Asphalte Co.	1,206	18	4

HALEWOOD.—Provision of baths and hot water services in five farmhouses on estate, for the Lancashire C.C. :—

*G. Cleaton, Widnes	£150 13 6

HANWELL.—For construction of greenhouse at cemetery, for the Westminster C.C. :—

	For 100 ft. house.
Carter & Howard	£701 17
Duncan Tucker	574 0
*James Gray, Ltd.	527 10

HANWELL.—For various works of repair and renewal at the cemetery, for the Westminster C.C. :—

Myring & Son	£261	10	0
G. Holland	198	0	0
E. H. Brooks	190	15	0
*A. Jamieson & Son	177	14	6

HARROGATE.—Erection of new meter house at the gasworks in Ripon-road, for the Harrogate Gas Co. Mr. T. H. Robinson, A.M.I.C.E., Engineer :—

*A. Hymas, Harrogate	£2,100

HAYES (MIDDLESEX).—For the erection of a new primary school for the Education Committee of Middlesex C.C., from plans prepared by Mr. H. G. Crothall, F.R.I.B.A., County Architect :—

The Unit Construction Co., London, W.1	£16,275
G. Bollom, Acton, W.	15,557
Ferris Bros., Acton, W.	14,900
W. J. Dickens, Ealing, W.	14,550
C. J. Newby & Bros., Southgate, N.	14,490
W. Lawrence & Sons, Ltd., Finsbury-square, E.C.	14,249
A. & B. Hanson, Ltd., Southall	14,134
H. Knight & Son, Tottenham, N.	13,992
A. Monk, Lower Edmonton, N.	13,738
G. Godson & Sons, Ltd., Kilburn-lane, W.	13,496
Mattock Bros., Wood Green, N.	13,450
W. Lacey, Hounslow	13,172
*G. Challis, Brentford	13,039

HOLMESWOOD.—Provision of baths and hot water services in eight farmhouses on estate, for the Lancashire C.C. :—

*T. Shelley, Preston	£302 5

HULL.—For underground waterworks at Dursewell, for the T.C. :—

*Potter & Co., Grantham	£175,813

LATHOM.—Erection of two pairs of cottages on West Leeds Farm, for the Lancashire C.C. :—

*G. Holmes & Co., Warrington	£2,115

LEEDS.—Erection and completion of a new telephone exchange at Chapletown :—

*Arthur Mitchell, Ltd., Leeds.	

LEYTON.—For painting roofs of hospital, for the U.D.C. :—

E. A. Russell, Leytonstone	£256
R. Stubbs, Leyton	255
Beard Bros., Leytonstone	249
J. & J. Dean, Leyton	222
Guild of Builders (London), Ltd., W.C.1	190
G. H. Smith, E.C.2	179
*Kind & Co., Leytonstone	150

LEYTON.—For electric light installation at Canterbury-road Boys' School, for the U.D.C. :—

*E. G. T. Davis (Perfecto Electrical Co.), Hammersmith	£140

LEYTON.—For school painting, &c., during the summer vacation, for the U.D.C. :—

*F. J. Coxhead, Leytonstone—Davies-lane (interior)	£865	0
*Stoneley & Co.—Sybourn-street	563	0
*Stoneley & Co., Forest Gate—Kirkdale-road (interior)	536	10
*Cooper Upton, Ltd., E.C.—Church-road, G. & I. (interior)	475	0
Harrow Green (interior)	425	0
*G. H. Miller & Co., E.7—Mayville-road (exterior)	271	10
Goodall-road (exterior)	245	10
Connaught-road (exterior)	145	10

LEYTON.—For hot water installation at Canterbury-road Boys' School, for the U.D.C. :—

*Frank Davies, Leyton	£659

LONDON.—For the preservation of the stonework at the Rosebery-avenue gas-meter testing and weights and measures offices, for the L.C.C. :—

Falkus Bros.	£775	0
Stone Preservation Co., Ltd.	638	0
W. Lawrence & Son, Ltd.	616	0
Bradshaw & Bradshaw	438	0
Whitby's, Ltd.	363	0
Perry & Co. (Bow), Ltd.	279	0
"Renovations"	220	0
*Palmer's Travelling Cradle and Scaffold Co., Ltd. (trading as the Steam Brush Co.)	212	5

LONDON.—For supply of water-softening and oil-extracting plant at Northern Outfall Works, for the L.C.C. :—

Wright's Forge and Engineering Co., Ltd.	£1,480	0
Royle's, Ltd., Irlam	1,402	0
Kennicott Water Softener Co.	1,249	0
United Water Softeners, Ltd.	807	0
Chemical Engineering Co. (Manchester), Ltd.	760	0
Becco Engineering and Chemical Co., Ltd.	750	0
Paterson Engineering Co., Ltd.	735	0
*Wilson & Perrett, Ltd., S.W.	794	5

LONDON.—Supply of penstocks with operating gear, for Hammersmith pumping station, for the L.C.C. :—

William E. Farrer, Ltd.	£5,584	11 6
Sir W. G. Armstrong, Whitworth & Co., Ltd.	3,471	10 0
Glenfield & Kennedy, Ltd.	2,575	0 0
Ashton, Frost & Co., Ltd.	2,532	0 0
Head, Wrightson & Co., Ltd.	2,495	0 0
Heywood & Porteous, Ltd.	2,450	0 0
Ham, Baker & Co., Ltd.	2,245	0 0
The Sheepbridge Coal and Iron Co., Ltd.	2,230	0 0
J. Cochrane (Barrhead), Ltd.	2,195	0 0
J. Blakeborough & Sons, Ltd.	2,195	0 0
J. Stone & Co., Ltd.	2,187	10 0
The Lilleshall Co., Ltd.	2,110	0 0
Frederick Bird & Co., Ltd.	1,981	10 0
Clayton, Goodfellow & Co., Ltd.	1,750	0 0

LONDON.—For alterations and additions to cycle room at Wandsworth Baths, for the Wandsworth B.C. :—

*H. Somerford & Son	£203

LONDON.—Supply of 80 tons of Portland cement to the Wandsworth B.C. :—

*Dawson & Co.—51s. per ton, less 2½ per cent.	

LONDON.—For electrical installation at depot in Ebury Bridge-road, for the Westminster C.C. :—

British Mercedes, Ltd.	£1,039	18 0
W. J. Furse & Co.	1,038	0 0
Edmundson Electricity Corporation	1,013	6 6
*T. W. Heath, Ltd.	980	0 0

LONDON.—For works of repair to disinfecting station at Grosvenor-road, for the Westminster C.C. :—

Walter Lilley & Co.	£359
Burton Bros.	305
*Sims & Russell	299

LONDON.—For repairs and decorative work at Canal Buildings, Grosvenor Canal, for the Westminster C.C. :—

Domart	£290
Wm. Whiteley, Ltd.	265
Burton Bros.	241
Sims & Russell	222
*Townsend & Pearson, Ltd.	215

LONDON.—For repairs to 7, Ebury Bridge-road, for the Westminster C.C. :—

Wm. Whiteley, Ltd.	£162
Burton Bros.	162
Domart	154
Townsend & Pearson, Ltd.	153
*Sims & Russell	149

LONDON.—For alterations to the City Hall, for the Westminster C.C. :—

Perry & Co. (Bow), Ltd.	£29,670
Thomas & Edge	29,580
Trollope & Colls, Ltd.	29,565
Holloway Bros. (London), Ltd.	29,430
Higgs & Hill, Ltd.	29,219
*F. G. Minter	29,206

LONDON.—For repairs to sewer in Great Marlborough-street, for the Westminster C.C. :—

H. Farrow	£1,555	0 0
Alex. Thomson & Co., Ltd.	1,535	17 1
J. Mowlem & Co., Ltd.	1,508	1 4
*D. R. Paterson, Ltd.	1,406	12 0

LONDON.—For redecoration work at Caxton Hall, for the Westminster C.C. :—

Domart	£1,360
Burton Bros.	1,295
Sims & Russell	1,250
Townsend & Pearson, Ltd.	1,185
*Wm. Whiteley, Ltd.	1,098

LONDON.—For making-up Morpeth-terrace, for the Westminster C.C. :—

Limmer & Trinidad Lake Asphalte Co., Ltd.	£2,605	5 2
Highways Construction, Ltd.	2,435	3 1
Constable, Hart & Co.	2,149	10 0
*Alex. Thomson & Co. (London), Ltd.	1,872	6 3

LONDON.—For erection of buildings on site in Pimlico-road, offered by the Duke of Westminster, for the Westminster C.C. :—

Holloway Bros. (London), Ltd., S.W.1	£29,850
Trollope & Collis, Ltd., E.C.2	28,230
G. E. Wallis & Sons, Ltd., Maidstone and Haymarket	27,978
Walter Lawrence & Son, Ltd., E.C.2	27,862
W. H. Gaze & Sons, Ltd., Kingston	26,863
Bovis, Ltd., W.1.	26,467
Holland & Hannen & Cubbitts, Ltd., W.C.1	26,180
W. J. Maddison, Ltd., E.1	25,889
*Higgs & Hill, Ltd., South Lambeth	25,678

LONDON.—Maintenance for one year of carriageway and footways of Blackfriars Bridge, for the City Corporation :—

*G. J. Anderson	£1,500

LONDON.—For covering in Avenues at the Metropolitan Cattle Market, for the City Corporation :—

C. A. & A. W. Haward	£2,850
Humphreys, Ltd.	2,413
*F. Brady & Co., Ltd.	1,820

LONDON.—For erection of verandah along street front of Billingsgate Market, for the City Corporation :—

*M. T. Shaw & Co.	£350

METROPOLITAN ASYLUMS BOARD.—The following tenders have been received by the Board :—

North-Western Hospital—Repairs to roads—

G. P. Tatner & Co., Ltd., Dartford	£858	17 6
Constable, Hart & Co., Ltd., E.C.	830	0 0
T. Adams, N.	790	0 0
T. W. Heath, Ltd., Chelsea	700	0 0
C. Carter, N.W.	629	0 0
*J. Mowlem & Co., Ltd., S.W.	556	17 3

Northern Hospital: Cleaning, painting and repairs—

T. J. Gabb, E.C.	£2,430	17 6
Douglass, Halse & Co., Ltd., Woolwich	2,250	0 0
H. A. Thomas & Son, S.E.	2,011	3 6
‡L. Kazak, Hampstead	1,998	0 0

South-Western Hospital: Cleaning and painting—

J. B. Fair, Stockwell	£5,400	0 0
J. Hocking & Co., Charlton	1,850	0 0
Edwards Construction Co., Ltd., Eltham	1,849	0 0
Douglass, Halse & Co., Ltd., Woolwich	1,786	0 0
H. A. Thomas & Son, S.E.	1,766	0 0
†S. T. Wright, S.E.	1,713	0 0

Brook Hospital: Repairs to tar-paving, roads and asphalt work—

H. Woodham & Sons, Ltd., Catford	£637	0 0
T. Adams, N.	595	0 0
Ragusa Asphalte Paving Co., Ltd., W.	488	2 6
T. Wainwright & Co., N.W.	480	6 3
†A. C. W. Hobman & Co., Ltd., S. Bermondsey	453	9 7

The Downs Hospital: New central kitchen and scullery, alterations to sanitary accommodation, &c.—

A. Phelps & Wilton, Ltd., S.W.	£4,600	0 0
Barnes & Co., Lewisham	4,304	0 0
Perry Bros., Ealing	4,150	0 0
W. Hussey, S.W.	3,500	0 0
Wm. Willett, Ltd., S.W.	3,450	0 0
G. Jennings, Ltd., S.E.	3,316	7 1
R. J. Truscott, Forest Gate, E.	3,213	13 11
Burnand & Pickett, Wallington, Surrey	3,200	0 0
C. H. Boyd & Son, Ltd., W.	2,923	0 0
†T. W. Heath, Ltd., Chelsea	2,685	12 6
R. E. Shaw, Banstead	(Informal)	

Grove Hospital: Adaptation of laundry and temporary buildings as staff accommodation—

A. H. Inns, Ltd., E.C.	£2,296	0 0
C. H. Boyd & Son, Ltd., W.	2,241	0 0
†W. Hussey, S.W.	2,170	0 0

South Wharf: Painting and repairs—

Edwards Construction Co., Ltd., Eltham	£945	0 0
H. A. Thomas & Son	841	0 0
†L. Kazak, Hampstead	785	0 0

North Wharf: Painting and repairs—

H. A. Thomas & Son	£270	5 0
†Edwards Construction Co., Ltd.	265	0 0

Princess Mary's Hospital: Cleaning and painting works and repairs, &c.—

T. J. Gabb, E.C.	£1,295	0 0
J. R. Amos, Margate	1,115	0 0
F. Jones & Son, Margate	1,095	0 0
Rice & Son, Margate	795	0 0
Myall Bros.	742	0 0
J. T. May, Broadstairs	702	0 0
R. Elliott & Co., Margate	693	0 0
A. R. Thurley, Westgate-on-Sea	636	0 0
H. A. Thomas & Son	626	0 0
†C. H. Boyd & Son, Ltd.	571	0 0

Brook Hospital: Cleaning, painting and repairs—

L. Kazak	£1,710	0 0
J. Hocking & Co.	1,689	0 0
J. S. Fenn, Woolwich	1,584	0 0
†Barnes & Co., Lewisham	1,485	0 0

Darenth Training Colony: Painting and repairs, &c.—

W. Lilly & Co.	£11,920	0 0
M. Greenwood & Son, Ltd.	10,083	7 8
J. S. Fenn	9,965	17 8
J. Hocking & Co.	9,663	0 0
D. C. Bowyer, Belvedere	9,159	15 8
*L. Kazak	9,103	11 4

Queen Mary's Hospital: Cleaning, painting and repairs—

W. Lilly & Co.	£1,352	0 0
Burnand & Pickett, Ltd., Wallington	1,277	0 0
†C. H. Boyd & Son, Ltd.	721	0 0

South-Eastern Hospital: Installation of steam pipe peel oven—

T. Hunt & Sons, Battersea	£560	0 0
Benham & Sons, Ltd., W.	559	0 0
J. Baker, Sons, & Perkins, Ltd., Peterborough	556	0 0
A. Hunt, Ltd., Leicester	380	0 0
H. Heaton, Harlow, Essex	362	10 0
†T. Collins & Co., Bristol	338	0 0

Southern Hospital: Installing electric lighting in kitchen block, &c.—

Thornton, Fleming & Fletcher, Portsmouth	£550	0 0
E. Ansell, S.W.	478	2 0
Guild of Engineers (London), Ltd., S.E.	444	0 0
A. Cozens, Sunninghill, Berks	400	0 0
Edmundsons Electricity Corporation, Ltd., S.W.	350	5 0
Johnson & Turner, Ltd., Cheshire	320	0 0
A. Higginbotham & Sons, Bradford	315	0 0
Riddle & Goddard, Ltd., Highgate	313	0 0
Electric Power Installation Co., Finchley	298	10 0
Farndons Electric, Ltd., Stratford, E.	296	2 6
H. A. Neale & Co., W.C.	282	12 0
Higgs & Hill, Ltd., S.W.	267	0 0
Strange & Sons, Ltd., Tunbridge Wells	259	0 0
David Henderson, Glasgow	242	0 0
Symper & Evershed, Harrow	186	8 0
G. H. Turner & Co., Ltd., Wilesden Junc.	180	0 0
The Perfecto Electrical Co., Hammersmith	174	0 0
Harrison Bros., Middlesbrough	167	10 0
†G. H. Neal & Co., Ltd., W.C.	151	10 0

Southwark Casual Ward: Cleaning, painting and repairs—

A. H. Inns, Ltd., E.C.	£263	0 0
B. E. Bates & Son, Peckham	260	19 0
Barnes & Co., Lewisham	242	0 0
J. Bowbrick & Sons, S.E.	207	1 0
H. A. Thomas & Son, S.E.	198	13 0
Douglass, Halse & Co., Ltd., Woolwich	198	0 0
Myall Bros., Ilford	192	6 0
†Edwards Construction Co., Ltd., Eltham	159	0 0

Holborn Casual Ward: Cleaning, painting and repairs—

A. H. Inns, Ltd.	£297	0 0
H. A. Thomas & Son	275	0 0
J. Darch, Ltd., E.C.	260	0 0
Douglass, Halse & Co., Ltd.	259	0 0
J. Hocking & Co., Charlton	233	0 0
J. E. Davies, N.	210	15 0
Myall Bros., Ilford	209	0 0
Barnes & Co., Lewisham	185	0 0
†Edwards Construction Co., Ltd.	180	0 0

Lambeth Casual Ward: Cleaning, painting and repairs—

J. Bowbrick & Sons	£543	7 6
A. H. Inns, Ltd.	437	0 0
H. A. Thomas & Son	432	6 0
B. E. Bates & Son	395	10 0
J. Darch, Ltd.	382	0 0
Douglass, Halse & Co., Ltd.	298	0 0
Edwards Construction Co., Ltd.	269	0 0
†Myall Bros., Ilford	244	10 0

Southern Hospital: Drainage alterations, &c., and cleaning, painting and repairs—

R. J. Truscott, Forest Gate	£3,089	0 0
W. J. Draper & Son, Dartford	2,643	0 0
L. Kazak, Hampstead	2,490	0 0
W. Hussey, S.W.	2,256	0 0
†D. C. Bowyer, Belvedere, Kent	2,244	10 0

Tooting Bec Mental Hospital: Supply and delivery of sanitary fittings—

Tylers (Water & Sanitary), Ltd., N.	£237	8 3
G. Farmiloe & Sons, Ltd., E.C.	212	2 6
Holborn Sanitary Co., W.C.	196	1 0
Shanks & Co., Ltd., W.	188	15 0
†B. Finch & Co., Ltd., Lambeth	179	13 0

MABLETHORPE.—Concrete work in connection with Promenade extensions, for the U.D.C. :—

T. G. Tomlinson	£446 0
H. G. Broomhead	397 5
*A. Hodgson	329 0

PRESTON.—For supply of new removable floor for the main hall at the public hall, for the T.C. :—

*G. Hill & Sons	£182 3 10

PRESTON.—For supply of iron railings for fencing open-air baths at Haslem Park, for the T.C. :—

*T. Blackburn & Sons	£308 18 8

ROMFORD.—For erection of a house at Manor Gardens for Miss W. B. West. Mr. Arthur Bentley, F.R.I.B.A., architect, Dial House, Squirrels Heath, Essex :—

Finch & Son	£2,100 10
Bailey & Goates	2,097 11
*Dowsing & Davis	1,784 0

STANLEY (YORKS).—Construction of receiving tanks, engine house, sedimentation tanks and lagoons, for the U.D.C. :—

*A. Waterman, Leeds	£4,800 2 8

STANLEY (YORKS).—Construction of pipe sewer at Lingwell Gate-lane, for the U.D.C. :—

*G. Bagnall, Stanley	£1,276 4 0

STOKESLEY.—Construction of sewer at Yarm, for the R.D.C. :—

*J. J. Spooner, Stockton	£199 1 0

THURSTONLAND.—Erection of 22 detached houses at Sear End, Brockholes, for the U.D.C. :—

*Brockholes Building Co.

TOTTENHAM.—Erection of (*a*) school in Vale-road, and (*b*) deaf school in Philip-lane, for the U.D.C. :—

*(*a*) J. Guttridge & Son, Peterborough	£7,428
*(*b*) H. Knight & Son, Tottenham	7,340

WALLASEY.—For the erection of 18 houses and 24 houses, for the T.C. :—

*E. M. & A. J. Bellis. £6,793 6s. and £8,541 12s.

WALTON.—Construction of 18 reinforced concrete primary rapid filters, each about 26 ft. by 16 ft. 6 in., wash-water tank, compressor and pump house and stores, 6 concrete secondary filters, each about 220 ft. by 170 ft., clear water suction tank 58 ft. by 52 ft., 4 sedimentation tanks, each about 80 ft. by 50 ft., mud bays, 2 chlorinating and gauge houses, also the laying of inlet and outlet mains and drains, the construction of roads and paths, together with auxiliary works at Walton-on-Thames, for the Metropolitan Water Board :—

	Amount of Tender.
C. Miskin & Sons, Ltd.	£182,913 0 0
Metropolitan Tunnel & Public Works Co., Ltd.	173,442 8 0
D. G. Somerville &Co., Ltd.	170,738 0 0
Hughes & Lancaster, Ltd.	164,503 1 1
Engineer's estimate	156,116 6 8
Thomas & Edge	151,139 19 10
I. G. Richards	145,551 0 2
Walter Jones & Sons, Ltd.	145,444 4 9
Consolidated Construction Co., Ltd.	144,265 3 7
Wilson Lovatt & Sons, Ltd.	144,040 14 11
Grace & Marsh, Ltd.	143,883 0 0
Kinnear, Moodie & Co.	143,817 10 9
Mitchell Bros., Sons, & Co., Ltd.	141,311 18 7
Do. do. (*a*)	141,315 18 1
Simplex Concrete Piles, Ltd.	133,847 4 1
Do. do. (*a*)	133,844 8 3
J. Parkinson & Sons (Blackpool), Ltd. (Incomplete)	126,189 0 0
Do. do. (*a*)	126,176 14 3
*Christiani & Nielsen (Copenhagen & London.)	116,085 11 9
Do. do. (*a*)	116,114 19 2

(*a*) Amount of Tender after correction.

WILLESDEN.—For additions to the Court House, Willesden, for Middlesex C.C., from plans prepared by Mr. H. G. Crothall, F.R.I.B.A., County Architect :—

I. C. Tennant & Co., Willesden Green	£9,499
Ferris Bros., Acton, W.	9,121
C. J. Newby & Bros., Southgate, N.	8,212
H. Knight & Son, Tottenham, N.	7,959
W. Lawrence & Sons, Ltd., Finsbury-square, E.C.	7,924
W. J. Dickens, Ealing, W.	7,920
Mattock Bros., Wood Green, N.	7,890
A. Monk, Lower Edmonton, N.	7,888
Geo. Bollom, Acton, W.	7,717
W. Lacey, Hounslow	7,660
*G. Godson & Sons, Ltd., Kilburn-lane, W.10	7,527

WOOD GREEN.—For provision of additional lavatory accommodation in the pavilion, and erection of store shed at White Hart-lane Recreation Ground, for the U.D.C. Mr. C. H. Croxford, Surveyor, Town Hall, Wood Green, N.22 :—

*R. J. Truscott, Forest Gate	£247

YORK.—For erection of 50 houses on the Tang Hall Estate, for the T.C. :—

*M. J. Gleeson, Sheffield	£18,997

YORK.—For reconstruction of part of Bull-lane, for the T.C. :—

*C. Martin, Ltd.	£1,099 4 5

YORK.—For repairing asphalte surface at play ground of Scarcroft Boys' School, for the T.C. :—

*E. J. Treasure	£308 5



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A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR

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ARCHITECTURE AND COMMERCE.

ON another page we review Mr. Gordon Selfridge's book, "The Romance of Commerce," and we take the opportunity of discussing the subject from an architectural point of view.

At an early age the architectural student forms his impressions of commerce which are generally based upon the acceptance of the ambiguous significance attached to the word "commercial." The commercial outlook, he believes, connotes everything that is worst because it forces architecture to conform to conditions which seem to him to be flagrantly opposed to the accepted canons of academic architecture. In his mind, the sequence of thoughts runs something like this: Commerce, commercialism, trade, industrialism, manufacturers, and petty shopkeepers; but the man who commissions an architect to build his city offices and his residence is a merchant prince, a patron of the arts. It is of interest to ascertain whether a man is termed a business man because he looks at things from a practical or common-sense point of view, and whether these qualities entitle us to classify him under the heading "commercial." If these are the qualities which we associate with the business man, there would appear to be a poor case to be argued for the artist and the idealist.

We remember hearing two architects discussing the relationship of art to commerce. One maintained that the wealth of a country depended upon its commerce which provided the money for the encouragement and development of art, the other maintained that it was the work of the artist which enabled the manufacturer to sell his goods. This is an excellent example of a circular argument upon cause and effect, and shows the danger of discussing a subject without regard to first principles. That a great amount of cant is written upon the subject of commerce and art is certain, and when we read that an artist is of the opinion that the public has no real interest in art we should get a truer insight into what he means if he said that the public was not buying his pictures.

The history of commerce makes it clear that wealth in the sense of money and power is based upon commerce, and that the flourishing country rebuilds its cities and becomes the Mecca of the arts. Few architectural students would have difficulty in explaining that the prosperity of the woollen industry in the Middle Ages led to the great era of church building throughout Gloucestershire and Northamptonshire, and in bringing fortunes to the local "woolmen" it gave us the small towns and villages scattered about the Cotswolds, so full of finely-built and beautiful houses. The statement that the commercial outlook makes a man insensible to art is difficult to accept, when history proves quite the contrary. The munificence of the wealthy merchants is reflected in many fine old buildings and a reference to the title pages of some of the old architectural books will show that they were dedicated by humble servants "to the patrons possessed with Power and Wealth who alone are able to execute the Artist's plans." There remains the argument that we have not produced buildings to equal those fine old houses and hospitals of an earlier generation. But is this entirely the fault of the commercial outlook? The loss of tradition is not made good by many years of book-learning, and if commerce sets the problem it is not certain that the architect has always been equal to it.

If we take for granted the philosophic argument in its order—commerce, wealth and art—we have the feeling that there has been a tendency to confuse two quite distinct phases in the relations of commerce to art. No one will deny that many wealthy men spend their money in encouraging the arts, but it is beyond all question that commerce in many of its processes has had the tendency to neglect some of the decencies of life. Manufacturing—or, to adopt the general term, industrialism—is an essential part of modern commerce and trading, and it will be admitted that many of its results are ugly and harmful. It has heaped up dumping grounds of refuse, built rows and rows of ugly houses with tiny back-yards, and produced its goods in cheerless-looking factories and workshops. In short, apart from the Factory Acts for the protection of the workers, industrialism, with all its claims for the necessity for publicity and fine pictures on hoardings to advertise the quality of its goods, seems to have been blind to the ugliness which it creates around its own doors. There are certain notable exceptions, of course, and we are only expressing the thoughts of many when we say that manufacturers would do a greater service to the community by trying to lessen the malign effects of their factories than by advertising so much the purity of their goods. There is a clear distinction in our minds between commerce at work and commerce buying its art treasures.

But there is a tendency amongst architects to assume that they are, to some extent, self-appointed censors of commercial morality; and that architecture should not be debased by being brought into contact with cheap and petty trading, and by being used as an advertising medium. We confess that we cannot follow this line of reasoning. To begin with, no architect is capable of determining whether any article is dear or cheap; it would not be sold if there were not a demand for it, and it may be, and probably is, good value at the price. If we cannot pay the price for silk apparently we must not have cotton, and architecture is to be allowed to have qualms about the pedigree of the articles for sale and the relative values of baby foods, tobacco or beer! Arguing on these lines we might expect another outcry that the petty traders, whose buildings were of the same class as their cheap goods, might, at least, try to forget their commercial instincts for a little and think of other people when they erect their buildings. One has only to look at the standard of design in some of the London streets during the last ten years to prove that an increasing number of merchants and shopkeepers have realised their civic responsibilities, and architecture has responded nobly. That the standard will improve as time goes on is beyond doubt, if architects are able to forget, as a correspondent puts it, "that there can be such a thing as architectural snobbery."

It is evident that a fine building can act indirectly as an advertisement for the merchant, but to our mind there is a certain amount of frankness about the individual who is willing to pay for a fine building and admits that he hopes he will reap the benefit of it during his lifetime. He is more to be commended than the collector of pictures and first editions whose mind runs in the groove of posthumous values. An architectural masterpiece brings no inflated posthumous value to the owner, nor would we like to encourage a world where the dead stifles the living. We can safely leave posterity to deal with the commercial buildings which we hand down to it, and if the race is decadent (as many seem to think) then we will leave some fine records which will express the measure of our commercial age.

"Architectural snobbery" represents a conventional form of thinking which is fatal alike to the architect and to the true development of any living architecture. The essence of snobbery is that many things must be taken for granted, leading to a false standard of values. For instance, no architectural student would hesitate to set down the various qualities he considers should be expressed in a bank—dignity, solidity, and a sense of prestige. These are the architectural qualities which we expect to see in a bank; but it is bad logic to attach these attributes to a bank and deny them to other buildings. The motor-car has had a more marked effect upon the social life of the country than any other factor we know of. It has already altered the outlook upon architecture and the arts, and its influence on the future will be even greater. If we assume that the influence of the motor-car has not been beneficial to architecture, it is neither a sound excuse for designing an ugly building for a motor company, nor a reason for giving to it the highest form of architectural expression. We believe that commerce has set the problem, and if architecture has not in the past always responded successfully, it is chopped logic to say that commercialism is responsible for the bad architecture. We should like to see our factories, workshops and houses invested with a little more imagination and beauty, and we believe there will be a wider appreciation of architecture in relation to commerce when architects can prove to a critical public the excellence of their general judgment on all matters relating to their profession.

NOTES.

A National Memorial.

It is something in its favour rather than a criticism that we are in the tenth year since the declaration of war without a national war memorial being projected. The Cenotaph will harldy be regarded as a national memorial of the war, being more identified with the day of the Armistice. A contemporary, uneasy at the delay which has taken place, suggests that the object should at least be recognised by the appointment of a Commission to prepare plans. But we are more in favour of a legislative than an administrative body in the first instance, one, not to prepare plans, but to decide what sort of memorial is desirable. It is not because of any lack of enthusiasm for what is called the Charing Cross scheme that we hesitate to regard any such desirable improvement as quite occupying the place for such a war memorial. It appears to us that so solemn a commemoration requires something detached from ulterior objects, and to become an end in itself. If it is to concentrate the thoughts of a nation upon itself, commemorating events so vast and terrible in their consequences, attention should be directly, not indirectly, focussed upon it, and though the Charing Cross scheme might include a direct memorial through statuary or other means, its object of creating a very much needed improvement in the centre of London is not quite the one which should be uppermost in our thoughts. There are some who will hesitate to affirm that the present time favours such a national memorial as we suggest, and it is for this reason that our thoughts should first be centred on the consideration of the nature of such a memorial, and the opportunities for getting it, rather than preparing plans. *Festina lente* may well apply in thinking of such a memorial.

Gilbert's Fountain.

The discussion which has arisen concerning this fountain is evidence of the appreciation of the work of a fine sculptor, whose life has suffered, no less than his work, through want of consideration; and it would be more than a graceful act to secure the nearer realisation of the sculptor's aim, which would be still more mutilated by curtailing the space around his fountain. If traffic necessities compel this, its removal to a site offering better accommodation is clearly desirable. We do not think that London would be any the poorer by the removal of the Shakespeare statue from the garden of Leicester-square, and we are inclined to regard the site as admirably suited for Gilbert's fountain. The water playing amid such surroundings would do no harm if the breezes carried its cooling spray on to the surrounding stones, and it offers the advantage that no traffic considerations intervene to suggest practical objections. Though advocated by Sir H. M. Spielman in a contemporary, the triangular piece still unoccupied in front of St. George's Hospital does offer objections on this account, and a more undisturbed area seems clearly desirable. It would be some repayment of a debt of justice to Alfred Gilbert long overdue, one which his brother sculptors should feel most deeply, if they were consulted on the matter, for an artist who has done such fine work for his country should receive the consideration which is due to such service. Too faithful and sensitive for this rough world, we may say of him, as Dr. Johnson thundered back to one who criticised Goldsmith, "Let not his faults be remembered, for he was a very great man."

Canterbury Cathedral.

The controversy that has arisen between the Society for the Protection of Ancient Buildings and Canon Mason, representing the Cathedral authorities, suggests some excess of zeal on the part of the former. It would be a pity if there were failure to recognise the very much greater appreciation prevailing of the need for preserving ancient fabrics, or to direct our criticism indiscriminately. The Secretary of the S.P.A.B. would have been better advised to acknowledge his mistake in mixing up modern masonry with old, as in the case of the northernmost of the western towers, instead of going off on a number of generalisations. Nor can we accept as axiomatic that in the case of worn mediæval work we are never to make good in the sense of renewing. It appears to us that each case has to be settled on its merits, and on practical acquaintance with the conditions prevailing, and that rather worn-out phrases about "spiritless imitation," "puerile efforts," &c., are not very helpful in themselves. To talk of "the dignified making of history in our own times" is not a little self-conscious, and knowing the excellent work done by the Society in the past, if their practical efforts were superseded by a body of "superior" persons, who took more note



Helsingfors Railway Station. Eliel Saarinen, Architect. (*See p.* 204.)



Exeter War Memorial: "The Nurse." MR. JOHN ANGEL, Sculptor.

of theories and phrases than the more useful and practical service they are established to bestow, it would be very disappointing. We are so entirely on the side of the Society in its aims that it is only our desire to see it keep in touch with life that actuates us in the desire that it should avoid any appearance of "intellectual superiority."

Architecture as a Profession.

THE following quotation from Ruskin (which forms the title page to Mr. Gordon Selfridge's book, which we review on page 206) is of academic interest to architects, who no doubt feel that the omission of architecture from the hierarchy of intellectual professions is because Ruskin considered it to be an art:—"Five great intellectual professions . . . have hitherto existed . . . in every civilised nation: The soldiers to defend it; the merchants to provide for it; the pastors to teach it; the physicians to keep it in health; the lawyers to enforce justice in it; and the duty of all these men is, on due occasion, to die for it."

Old Masters.

IT is both curious and interesting to note the changing values of pictures at the recent sales at Christie's. It is difficult to think of old masters without associating them with appreciating posthumous values, but apparently fashions change in pictures as in everything else, otherwise it is difficult to account for the prices obtained for some of them being considerably lower than the prices paid twenty years ago. No one, we suppose, is foolish enough to believe that prices have any relation to art values, and a fall in prices is an excellent corrective to those who have hazy ideas about art and art collectors. It seems difficult to reconcile the high prices obtained for old masters with the general view that money is scarce, but the explanation is simple if we realise that if the stakes are high, so are the profits, as a rule. We may find it a fortunate thing for architecture that it cannot be collected, even if we miss the art jargon of the collector and erroneously assume that the absence of it indicates a lack of interest on the part of the public. When we can dissociate art from humbug it will come as no surprise to us to learn that good prices were obtained for the furniture and china which were formerly the treasured art objects of Bramall Hall, but that the Hall itself has been awaiting a purchaser for eighteen months. Dealers and collectors can only live upon art that can be carried about conveniently, but let us not mistake a form of artistic criticism which embraces both an industry and the joy of the highest bidder. It is difficult to visualise a state of civilisation where architecture became more valuable as it became older, provided the signature was genuine. The hopeless state of civilisation confined to obsolete buildings, the creation of artificial scarcity values, the stifling of modern art, and the position of architecture as a useful art, suggest an ironical treatment which would have appealed to the author of "Erewhon."



Exeter War Memorial: "The Sailor." MR. JOHN ANGEL, Sculptor.
[This memorial was illustrated in our last issue.]

GENERAL NEWS.

Archæological Discovery.

At Catterick Bridge Hotel, near Richmond, Yorkshire, where excavations are being made by Sir Henry Lawson with the object of extending the hotel, the remains of a chantry chapel have been discovered.

Women Surveyors.

Two women surveyors are now working under H.M. Office of Woods on that part of the Crown estates which has been for many years under the receivership of Miss H. M. Jeffery, whose offices are in the neighbourhood of Cumberland Market, Regent's Park.

Glasgow Housing and Health Exhibition.

Many new features will be introduced in the forthcoming Housing and Health Exhibition which the Corporation of Glasgow have arranged to take place in the Industrial Hall, Kelvin Hall, from October 1 to 20. This will be the fifth show of the kind promoted by Glasgow Corporation, and already it promises to be a great success. Applications for space so far have been exceedingly good. Outstanding sections include building materials, sanitary appliances, lighting and heating, decoration and furnishings. The display of goods in all these departments will be such as to warrant a large attendance of the general public. A year ago the Exhibition was visited by many thousands of spectators, and the forthcoming show, in view of its additional attractions, is sure to be much more largely attended.

The Shepway Cross at Lympne.

The Shepway Cross, which has been erected at Lympne, overlooking Romney Marsh, was unveiled and dedicated on Saturday at a Grand Court of Shepway, specially summoned by the Lord Warden of the Cinque Ports (Lord Beauchamp), who has had the cross erected. The cross is on the lines of an old English wayside cross. It consists of a tall shaft let into a base block, which is decorated with the arms of the Archbishop of Canterbury, Lord Beauchamp, the family of Lygon, and the Cinque Ports. The cross bears the crucifix, with figures of Our Lady and St. John, and on the back are the Virgin and Child. It is of Portland stone, and was designed by Mr. F. E. Howard, the work being carried out by the Warham Guild.

Incorporation of Architects in Scotland.

At the first annual prize adjudication, held last week in Edinburgh, under the new prize scheme of the Incorporation of Architects in Scotland, the jury announced their award as follows: The Rutland Prize (certificate and £50) for the study of materials and construction, to Mr. David J. A. Ross, A.R.I.B.A., 25, Richmond-terrace, Aberdeen. The Incorporation of Architects' Maintenance Scholarship of £50 per annum for three years, to Mr. Frederick R. Wylie, 2, St. Mary's-place, Glasgow. The Rowand Anderson Travelling Studentship (silver medal and £100) has not been awarded, none of the designs submitted being considered to be of sufficient merit.

Brighton War Memorial.

With reference to the description of Brighton war memorial in last week's issue, we are informed that the bronze work and engraving were executed by Messrs. Cashmore, Bowman & Co., Ltd.

Working-Class Housing Scheme.

Lord Bolton, of Hackwood Park, Basingstoke, has initiated a scheme to relieve the housing difficulty. To facilitate the building of working-class houses he has allotted frontages on four of the main roads leading out of Basingstoke, and convenient to the centre of the town. Each of the sites covers about a quarter of an acre, and all are on roads which are already sewered, and have water, gas, and electricity services. The sites will be allotted to working men.

Memorial to Welsh Shepherd Poet.

The memorial being erected at Trawsfynydd, to Hedd Wyn, the young Welsh shepherd poet, who fell at Pilkem Ridge, and whose poem to "The Hero" won the choir prize at the Birkenhead National Eisteddfod in 1917, six weeks after his death, is nearing completion. It is a life-size bronze statue of the poet, who is depicted in his working clothes, by Mr. L. S. Merrifield, whose "Williams, Pantycelyn," at Cardiff is already well known, and whose war memorial for the Merthyr Tydvil scholars was shown this year at the Royal Academy. The unveiling ceremony is fixed for to-morrow (Saturday).

Obituary.

The death has occurred of Mr. Robert Alexander, R.S.A., of Edinburgh.

Building Trade Wages.

A meeting of the London Master Builders' Association was held to discuss the request from the Operatives' Federation for the re-classification of the London area, the effect of which would increase the rate of pay in the metropolis. At the close of the proceedings, which were private, the following official statement was issued by the London Master Builders' Association: "With regard to the application which has been made by the National Federation of Building Trade Operatives (London District Council) for the upgrading of the London district, it was unanimously decided at a special general meeting of the London Master Builders Association that no support could be given to the operatives' request for a departure from the arbitrators' award of May 15, 1923."

A delegate meeting of the London Regional Council of the operatives' federation has been convened for this (Friday) evening to consider the reply.

COMPETITION NEWS.

Pavilion, Tunbridge Wells.

Mr. E. Guy Dawber, F.R.I.B.A., has made the following award in this competition:—

First premium, £150, Mr. E. Vincent Harris, F.R.I.B.A., of St. James'-square, S.W.;

Second premium, £100, Mr. Septimus Warwick of 13, Somers-road, Hyde Park, S.W.; and

Third premium, £50, Messrs. Franklin & Deacon, of Luton. These designs are illustrated in this issue.

Halifax.

For the Corporation.—Plans and reports for lay-out of Bull Green site and part of centre of the town adjoining. Premium, £50. Sending in day, October 1.

The conditions of this competition are not in accordance with the regulations, and members of the R.I.B.A. and Society of Architects are advised to take no part in it.

Ellesmere-street Wesleyan New Church and Schools, Warrington.

The Committee has extended the date of delivery of plans in this competition from August 8 to August 15. It is their intention to award prizes to the successful competitors.

Members and Licentiates of the R.I.B.A. are advised not to take part in this competition because the conditions are not in accordance with the regulations of the Institute.

Memorials to the Missing.

For the Imperial War Graves Commission.—Designs of memorials to the missing on four battlefields on the Western Front. Sending-in day, January 1, 1924. (See our issue for August 3.)

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Singapore College (Jan. 1, 1924; March 30). Greenwich Baths (Aug. 25; May 4). Hull Art Gallery (Nov. 5; May 4). Mint competition for plaques (Sept. 30; May 25). Birmingham Masonic Temple (Sept. 12; June 22). Colour scheme (Sept. 30; June 29). Glasgow Pavilion (June 22).



Tunbridge Wells Pavilion Competition. (*See p.* 205.)

CORRESPONDENCE.

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Architectural Competitions.

Sir,—I have been interested in reading the recent correspondence in your columns on the subject of architectural competitions. It appears to me that there can be no question of doubt as to the necessity of reorganising our present system, and hope that the recent election of a progressive Committee at the Institute will provide the opportunity. In the past it has been the prerogative of the President to appoint assessors, and on many occasions when I have been a member of the Competitions Committee the suggestion that a jury of three should be appointed has been turned down by the then occupant of the chair. It would be a popular move on the part of the new President to turn over to the Competitions Committee this out-of-date and autocratic perquisite.

If it is a question of the jury system costing more for fees than the old system, surely it would not be impossible for those architects of eminence who are honoured by being appointed assessors acting in special cases without fees. I think this financial aspect is only an excuse for the retention of an out-of-date system, and I am quite sure that the often illogical and unsatisfactory results obtained in public competitions would be largely eliminated by the adoption of the jury system.

Robert Atkinson,
Director of Education,
Architectural Association.

Sir,—I think the time has come when, in the interest of the profession, a drastic revision should be made in the conduct of architectural competitions. The present system depends for its success upon the assumption that the professional assessor is infallible, and I, as a member of the profession, would be the last to dispute the truth of the assumption! But I am also a member of the general public, and as such can take a wider outlook than as a member of my profession.

The point is, can occasional errors of judgment be further arrested, and can better methods of assessing competitions be devised that will ensure increased confidence in, and be more attractive to, the promoter? I am aware, both from particular and general knowledge, that at the present time there exists amongst promoters or prospective promoters of competitions considerable hesitancy in entrusting the settlement of competitions entirely to a single member of our profession. There is a general feeling that he who pays the piper should at least have a slight interest in the calling of the tune. It is my opinion that the time has come when a system more like the American system might be adopted. Incidentally, I understand that the American system provides for the direct representation of promoters on the board of assessors at important stages in the procedure of the competition. I think that the profession would gain everthing and lose nothing if it were to adopt the panel system of professional assessors, to whom I would add at least two representatives from the promoters. Incidentally, I feel that the selection of professional assessors, which has always been the especial privilege and duty of the President, ought to stand. It is one of his most responsible duties, and, on the whole, he has in the past chosen well. There have been from time to time well-supported recommendations to adopt the panel system, as in France, and the objections are, I suppose, that a panel will not carry out their work in the same responsible way as does the single assessor. It is also advanced that the fees would be excessive. These arguments appear to me to be fallacious. At the worst there will always be found amongst the panel at least one member who will attach that importance to his responsibilities which the case deserves; and as to the smaller fee, surely the honour is, as in France, the chief reward.

The question of representation from the promoters is more controversial. I would suggest that the architects should always outnumber the laymen by at least three to two. The chief objection to their inclusion would then be that very often they might be personally interested in particular schemes; or that their limited knowledge of technicalities would incline them to support the showy and superficial rather than the skilful scheme. It is my view that in practice they will be beyond suspicion as regards a friendly scheme, and that the professional members will easily convince them as to the superficial values of mere draughtsmanship and bad architecture.

The real and important advantage to be gained in allowing the promoters to have a voice in the selection would be that they would at least ensure that the most obvious requirements were met. They would obviate the making of awards mainly on theoretic and remote questions of style and personal feeling as regards architecture; and, most important of all, they would be allowed to feel that at least they had had a share in the selection.

London. S. D. Adshead.

Sir,—Mr. Robertson's article on the above subject is particularly opportune. It would ill become me, as a worker in Cardiff, to suggest that the prevailing method of assessing public competitions has invariably led to bad results, for some of our best buildings owe their existence to that method.

It has been said, however, that there is some good in the worst of us, and, as with men, so with systems. The existing method has doubtless resulted well on many occasions, and certainly any defect caused by it in the work of either assessor or competitor has in the main been effected unconsciously—for all would agree that our assessors have worked the system as well as it could be worked. The fault was not one of individuals, but was inherent in the method. It has left its mark on the history of English architecture, for the future historian will doubtless have to refer to the "competition architecture" of recent times.

And just as there is, no doubt, something less good in the best of us, there will be weak points in the best method of running competitions—for it may well be impossible to devise a perfect scheme. It is even possible that competitions in themselves are inherently wrong, but this possibility is vastly outweighed by the great importance of the competition as an opportunity for less well-known men, and, what is more important, for the development of architecture.

And the jury system certainly seems to eliminate the main defects of the method normal in this country. For, under the jury system, competitors are far more likely to tackle the problem before them from their own point of view, and the promoters of competitions will doubtless prefer to leave the task of settling a design to a jury (on which, in some cases, there might well arise the necessity for appointing experts other than architects), rather than to a single assessor.

In the interests of our profession, I feel, however, that the main advantage of the jury system is the undoubted increase of opportunity which it gives for development in an art which can only take its proper place in life when given the fullest possible freedom for serving the community under changing conditions.

Cardiff. W. S. Purchon.

Our Modern War Memorials.

Sir,—Would Mr. Vale be so kind as to enlighten your readers on the following points raised in his letter? Which is the "largest and most costly memorial" in London, and of what "pagan memorial dating from the fifth century B.C." is it a "complete copy"? Also, what is the meaning of "this has not a single detail to distinguish it from a memorial to the late Mr. Socrates"?

London, W.C. H. C. B.

A Mid-Metropolitan Artery.

Sir,—With reference to my communication in your issue of September 22 last on the above subject, might I point out that at least one of the sections is worthy of consideration whilst the question of work for "unemployment" is under review? One only requires to drive in the vicinity of the Green Park to find out the awkwardness of the cross-communication there. For certain classes of traffic there is actually no access to Birdcage-walk and Victoria-street from Piccadilly and *vice versa* between Whitehall and Hyde Park Corner, and for other traffic the only route is St. James's-street and *via* the Mall. In the proposition above referred to the southern end of the new main artery northwards would be constructed as a sunken road in the Green Park, joining up the Mall, and affording communication with Piccadilly. It might be continued *under* the Mall, and thus afford direct communication with Birdcage-walk for *all* classes of traffic in a north to south direction.

London, W. "O.B.I.T."

HOUSE & HOME BUILDING IN SOUTH AFRICA.

Housing shortage after the great war affected some parts of South Africa very much as it is affecting England. Soldiers who had left home as youths, dependent upon their parents, returned as men requiring homes of their own. Little building had been done in the meantime, and prices had risen with the increased cost of materials and labour. Temporary shacks and huts were erected to meet the requirements of individuals, but this makeshift accommodation was found to be no more suitable there than here. Various forms of steel huts, almost uninhabitable in a hot climate, were experimented with, and their discomfort mitigated by an internal lining of sun-dried bricks.

This serves as a partial protection against the heat, and while it is not in itself a sufficient defence against heavy rain, is sometimes used under the protection of heavily projecting eaves for the exterior walls of one-story buildings.

On the land native and Dutch colonial tradition in building maintains itself side by side with the imported tin hut, and the suitability of the local style generally appeals to the good sense of the intending house builder.

The lucky accident which introduced Dutch and Portuguese settlers to South Africa established a fashion in building forms essentially appropriate in a hot and sunny climate. Familiar with a flat wall style of design in their own lands, they avoided the creation of ribby and spiky structures in the new colonies. Even to this day the skilful management of surface planes characterises the best of South African architecture. The coat of plaster with which it was necessary to clothe walls built of mud or sun-dried brick, and the light colours which proved useful in refracting the sun's rays and keeping interiors cool, were utilitarian elements of design which have proved of the utmost advantage to architecture in preserving breadth and simplicity which have been sympathetically interpreted in the works of Mr. Herbert Baker and his partners. In a town-planning scheme at East London these qualities are developed in comparatively inexpensive houses designed by Mr. Clifford B. Stocks.

Ten houses have been sold to the occupiers at something like their cost price of £1,100—£1,200, others are let at £8 per month. The houses are detached and stand in small gardens, and the accommodation consists of a living-room, sitting-room, kitchen and three bedrooms, with bath-room and offices. A verandah or stoep shelters the hot north side of the house, and supplies that play of shadow, shade, and reflected light required to build up the artistic character of an elevation suited to a brilliant climate.

ELIEL SAARINEN.

By CAROLUS LINDBERG.

In judging Finland's part in cosmopolitan achievements in the sphere of art and culture, Eliel Saarinen must be mentioned amongst the foremost in the ranks of creative artists. It is not only because he has gained victories both at home and abroad in very close architectural competitions that we are obliged to pause at his name, but also because of the esteem due to a strong artistic personality, whose capabilities, when keeping the broadness of his creations in mind, must be measured by wider standards than is ordinarily the case.

The artistic development of Eliel Saarinen is, briefly, as follows :—During the last years of the last century a group of young and spirited architects, animated by a boundless enthusiasm for their work and a firm confidence in themselves, rose in order to combat the architectural style of the preceding decades, a style lacking in independence and a slave to given forms. The spirit of the age and the enthusiasm received from lands possessing an older culture stimulated the reformers to seek the origin of their creations in their own country, and thus, during the first years of our century, the so-called "new style" based on romantic foundations, took form in Finland as elsewhere.

The name of Eliel Saarinen is intimately linked with the events of this period of architectural development. Together with his nearest friends and fellow-workers, amongst whom Armas Lindgren and Herman Gesellius should be particularly mentioned, he started an architectural office, to which rather important works were soon entrusted, and these were executed and fulfilled according to the principles born on the waves of this new style of architecture. Amongst their works may be mentioned the small, but, in respect to the development of style, quite significant exhibition-pavilion at the World's Exposition of Paris in 1900; certain private and business houses in Helsingfors; the chief mansion on the Suur-Merijoki estate, executed even in the smallest detail according to the spirit of the age; and the artists' home on the shore of Lake Hvittrask, near Helsingfors, in a solitary place of virgin beauty, where the architect now lives with his family. Very typical, although more subdued, is the National Museum in Helsingfors, also a creation of this office.

The frame within which this in many respects fruitful, and in Finland's architectural history very curious and significant, tendency created its product was, nevertheless, for an artistic nature like Eliel Saarinen's, despite its elasticity, too narrow by reason of its limited choice of motives and its style without a foothold in the present time. On account of circumstances, and also because of his own innate force, Saarinen soon withdrew from the narrow proportions and form-scale of the romantic style at home in his struggle for a broader, more personal, independent style, free from traditions; a struggle for cosmopolitan art values, the characteristics of which are a severe systematical grandeur, tranquil monumental lines and an abstract choice of motives for the decorative details. Already in the Hague competition for the Palace of Peace, in which Eliel Saarinen had been invited to take part, he created designs, whose monumental composition attracted attention as compared with many tedious designs, based on former historical styles. In the creation for which he gained the first prize in the competition for Finland's Parliament House, to be situated on Observatory Hill, he further developed the personal tendency of his style, founded almost entirely on the impressions of severe, straight-lined proportions, the monumental effect of which is enhanced by the concentrated result of decorative motives, which is characteristic of Saarinen. The town halls of Joensuu and Lahti, and particularly the large railway station block in Helsingfors, further illustrate this later tendency of Eliel Saarinen, which has sometimes been so severely and trivially criticised.

Typical of this artist is his many-sidedness.



Eliel Saarinen.

Amongst other art interests he has been successful as a portrait painter, and has also devoted himself to the art of town planning and town building. It is also quite natural that a man of his type should be inspired with enthusiasm for creative work on a large scale, where the aim is not limited to the designing of individual houses but where the specialist is offered the direction of the development of entire communities, with their practical as well as artistic organisation. In a couple of excellent plans Saarinen has explained and forecast the development of Finland's capital, Helsingfors, from an artistic point of view, as to town building. The scientifically-appropriate, and at the same time artistically-luxurious, plan for regulating the large building estate of Munksnäs-Haga suburbs and the later-composed general plan of Greater Helsingfors, have an incontestable place amongst the best artistic town plannings of this century.

Through its individuality—free from local influences—its standard and its character Eliel Saarinen's art in Finland represents the architectural tendency according to the measure of cosmopolitan proportions. Many an inter-



The Large Hall, Villa Keirkwer. Eliel Saarinen, Architect.

national competition where his building or planning designs have been victorious in a close competition, or where his expertness has been called upon, have raised his name to the rank of the most prominent architectural artists. He gained a prize in the competition for the new capital of Australia, and he was recently placed second in the competition for the skyscraper for the *Chicago Tribune*. The future will prove the significance of the creative work which he is now pursuing in America. Even at present it may be asserted that he has found surroundings suitable to the measure of his capacity as to the character and scope of his tasks.

TUNBRIDGE WELLS PAVILION COMPETITION

Following quickly on the result of the Bournemouth Pavilion competition, we have that of the Tunbridge Wells Pavilion, and again find illustration of our modern architects' lack of sympathy or imagination adequate to the occasion. In both places it seems to us that a building of a heavy monumental type was undesirable, but more especially is this the case at Tunbridge Wells, where the site lies in a somewhat narrow valley surrounded by trees (see p. 202). Such a building as is proposed is, we believe, hardly expected to pay its way, but a good deal is possible in the way of making it attractive and pleasant, and one would have been inclined, to think that its exterior might with advantage have been largely an affair of loggias and balconies with possibly ground floor accommodation for teas. One may assume it would have considerable attraction as a place for concerts, lectures, meetings and dances in the winter, and to get the most out of it the two-fold aspect of winter and summer use must be well considered. Even a place with such natural advantages as Tunbridge Wells cannot afford to stand still, and a beautiful little valley like that in the Calverley Gardens suggests much greater possibilities than the mere dumping down of a solid square building in the middle.

The problems to be solved by the competitors were as follows :—

Levels.—The site is a valley running uphill, and consequently all surrounding views of the pavilion were to be obtained from higher ground, necessitating a simple outline for the building.

Tea Room.—This had to be readily accessible from both the pavilion and the grounds.

The Bandstand.—This had to be placed on the north side of the hall so that it could be used for either an internal or external audience.

Cost.—A sum of £25,000 to provide for a building containing 2,000 people exclusive of the tea room, &c., necessitated very strict economy of plan throughout, and precluded the treatment throughout from being anything but of a very simple character.

We regret that the rejected designs were so quickly on their way back to their owners, and, that we were, therefore, unable to form any opinion about them, but we are told there was no one amongst them with any marked outstanding advantages over the selected design. The three premiated designs are illustrated this week. The design placed first is a well-thought out scheme which can, the assessor states, be carried out for the sum specified.

There were several difficulties to face in this competition, and the apparent inadequacy of the suggested expenditure was a grave one if a good building was to be obtained on an open site, which is not only to be viewed all round, but very largely from higher levels than the main floor; in the latter regard parapet walls are not very pleasing, and some sort of roof garden or open-air restaurant would have been more agreeable as a crowning feature. In its more lightsome treatment it must be admitted that the design placed second rather scores over the others. One of the conditions suggests that a considerable portion of the northern and southern sides of the hall should be thrown open in the summer months and in this respect also the second premiated design stands more favourably. The level plateau round the building is an essentially good point in the first placed design, though some corrective to this is obtained in both the other premiated designs.

The conditions called for a concert hall to accommodate at least 2,000 with commodious entrance hall, a bandstand on the northern front to be available for an inside or outside audience, a stage for 60 to 80, dressing rooms, green room, music store, office, chair storage, a refreshment room for about 150, and cooking arrangements for tea and light refreshments, lavatories and cloak rooms. The cost was limited to £25,000, to include everything except furniture. There seemed to be no provision for compensation to the selected architect if the work is not begun within twelve months, but if the tendering comes out at more than 10 per cent. above the architect's estimate it is provided that he may receive no payment beyond the premium.

It may occur to some of our readers who know Tunbridge Wells that a competition with more elastic conditions might have suggested a more attractive scheme. As we see it, such a site as the Calverley Gardens has great possibilities, and though a really good comprehensive scheme need not have been carried out at once, something finer and better might have been elicited had the imagination of competitors been left free to evolve what such a beautiful site suggests.

The following is from the report of the assessor, Mr. E. Guy Dawber :—

"I have visited the site and made a thorough inspection of the ground, especially with a view to the various aspects, levels and position generally, and the author of the design placed first submits a well-thought out and straightforward scheme, and I consider it the best solution of the problem. The plan is economical and well-arranged, and there is no wasted space. The tea-room can be entered from the main hall and also from the grounds, and the gallery, approached through the main hall, has ample entrances and exits. The elevations have been broadly treated, are simple and dignified, though perhaps slightly austere, for an open-air pavilion and restaurant. In execution it might be advisable to increase the size of the upper windows lighting the hall, but these are mere details that do not affect the scheme. My quantity surveyors have checked the cubicle contents of this design, which they find correct and, in my opinion, this is the only one of the three selected designs that could be executed to-day within the stipulated amount of £25,000.



Plan for Suburb of Helsingfors. Eliel Saarinen, Architect.

BOOK REVIEWS.

The Romance of Commerce. By H. Gordon Selfridge. (London: The Bodley Head. New and Revised Edition. Pp. 422. 10s. 6d. net.)

Mr. Selfridge has chosen an excellent title for his book, for it is evident that he loves his calling, and that he spells Romance with a capital R. The first chapter—Concerning Commerce—is exceedingly interesting in that it reveals the author's views upon commerce in general. He tells us that from the beginning of time all men have been merchants in some form or other, that commerce creates wealth and is the foundation of the great State. In saying that we are all merchants he points out that though we give this title exclusively to the man who buys and sells merchandise, the artist sells his pictures, the writer his books and ideas, the teacher his knowledge, the doctor his intimate knowledge of the human body and his experience, and the lawyer his legal knowledge. "The preacher, the lecturer, the actor, the estate agent, the farmer, the employé, all, all are merchants, all have something to dispose of at a profit to themselves, and the dignity of the business is decided by the manner in which they conduct the sale." This is a frank statement which everyone would do well to consider.

Mr. Selfridge deals faithfully with the snobbery of those who consider commerce to be undignified and mean. The absurdity of this social convention is exposed, and if the list of kings, princes, and parliaments who were wise enough to encourage trade is not considered sufficient, the chapter on Trade and the English Aristocracy may be helpful to those who have a more intimate knowledge of Debrett than of the fundamental principles of political economy. "It is not Commerce which often makes the individual merchant narrow, mean, and dishonest. It is the man himself who undignifies Commerce to the extent of his influence. It is not the law which makes the little, tricky, unscrupulous lawyer, it is the man himself, and it is generally he who makes men so hate that profession." To our mind the social gradation of snobs amongst themselves signifies nothing, so long as we can be assured that the way is left clear for better men to do the work. Up to this point snobbery as a social convention automatically eliminates those who are almost bound to be unsatisfactory, and commerce gains to this extent. The difficulty, as it appears to us, is that commerce must of necessity come into contact with professionalism, and if absurd notions (they cannot be defined as principles) are allowed to come into the question it is certain that the whole conception and expression of commerce is mutilated.

Mr. Selfridge traces the history of commerce through the ancient civilisations of China, Phœnicia, Assyria, Babylonia, and Greece. By about 500 B.C. the commerce of Greece had reached considerable dimensions, and we read that her wealth came to her almost entirely through the medium of trade. Trade and trade alone, we are told, raised Venice to her high position as the capital of a proud republic, mistress of the world's commerce, and the centre of art and architecture. It is interesting to read that in the days of Doge Delpino (1356-1361) a decree was passed which forbade "any Venetian noble to embark on commercial pursuits." Evidently the leaven of snobbery was beginning to work, and it is significant that doges and senators were drawn from the ranks of merchant princes, that the aristocracy was an aristocracy of trade, and that gradually trade and with it the prosperity of Venice declined. Mr. Selfridge describes the romance of commerce in its relation to the development of countries, cities, and the arts, and the romantic history of famous families and individuals who rose to fame as merchants and traders. He clearly establishes his contention that the prosperity of a country depended upon its commerce, and that the guardian of trade became the guardian of the arts. "Where wealth is greatest, everything else being fairly equal, arts thrive the most."

It is interesting to read that in early days merchants were their own bankers, and that the so-called banks up to the end of the seventeenth century were really pawnbrokers. The inauguration of the Bank of England in 1694 is thus an important landmark when we bear in mind the enormous importance assumed by the banks of to-day. If modern commerce could not exist without the banks, it is equally true to say that the banks could not exist without commerce. The circle is quite limited, yet cause and effect have become so obscured that the majority of people never consider whether trading conditions are controlled by the banks or *vice versa*.

It may be a surprise to many to read that the early years of British trading "were burdened with an overweight of unsatisfactory dealing"; that there was cheating in buying and selling corn, shoes, and clothing; that traders sold short measure and used illegal weights; and that petty tricks were the common practice of the thirteenth century. It is certain that no great and lasting commercial success has ever been built on dishonesty, and it is evident that honesty had not come to be regarded as a policy in the early days of British commerce. Mr. Selfridge comments on this: "The absence of permanency, or of the desire to build a business for the future made it easier to get as much as possible from each customer."

We should have liked to see a chapter in this book dealing with the growth of limited liability companies, and the tendency towards the formation of large combines. There is a doubt whether combines are in the best interests of the country, and we have the impression that the collective and, in a sense, soulless outlook of a combine has a more deadening effect upon architecture than the individualism of the merchant. Mr. Selfridge tells us that the early merchants were—amongst other things—manufacturers, miners, and shipowners, and it would have been interesting to read his comments upon the development of what is now commonly termed industrialism. We have in mind the fact that industralism has, in the past at least, given little or no consideration to the amenities of life. It is to Mr. Selfridge's lasting credit that he has given us a building which fully expresses the fine ideals which he holds upon commerce.

It is ungenerous on our part to ask for more in a book which is already large and represents a vast amount of research and interesting information. It is evident that it has been a labour of love for the author.

Back to Prosperity. By Henry Lowenfield and Margaret Lowenfield. (London: Effingham Wilson. Price 5s. net.)

The financial disturbance due to the Great War has resulted in the publication of many books suggesting a number of reasons and remedies. It is natural, we suppose, to look for remedies when health is bad; it is a totally different matter accepting the rules for maintaining good health. The trouble with most of the books we have read upon economics is that we are presented with a bewildering number of contradictory remedies which create a suspicious feeling that cause and effect are becoming thoroughly mixed. The one thing which is clearly evident from past experience is that the remedy—if there is one—must either be difficult to isolate or complicated in its application to this industrial world. Otherwise it is difficult to account for the position we are in to-day. The title of this book is alluring, but we doubt if it will help us far on the way by itself. Nevertheless, the book is original whether we agree with it or not, and we welcome this further sign that the subject is receiving wide attention, and hope that some useful light will be thrown on the problem.

Modern Organ Building. By W. & T. Lewis. (London: William Reeves. Price 15s. 6d. net.)

This volume is a highly technical treatise on organ building, profusely illustrated with diagrams showing structural and mechanical details. It contains an account of the effects of harmonics and material on tone quality, goes fully into the questions of tuning, voicing, and blowing, and includes a description of the various stops. The architect would probably like also to see some figured plans, sections, and elevations of typical church organs, and to be given some hints as to fixing and as to the best positions for an organ from the acoustical point of view; but the book is essentially intended for the student of organ building proper, and it does not touch the wider questions involved in the arrangement of church interiors or other buildings designed to receive organs. Musicians are agreed that the orchestra is unduly weak in the bass, a weakness from which the organ is free; the organ builder always appears to err in abusing this freedom, and to provide notes so deep that they cease to be heard as sounds at all and degenerate into mere pulsations. Such pulsations are "notes" only on paper, and one is constantly at a loss to understand why the organ builder goes to the trouble and expense of producing them, since they are, to the writer at least, highly distracting and unpleasant. We find the authors referring to a 32 foot stop, the four lowest notes of which are said to have cost £800, and these notes must all have been well below any note to be found on the piano, and yet one would have thought that the compass of the latter instrument was amply sufficient. The book is well indexed, and the diagrams throughout are prepared in a careful and workmanlike way, giving evidence that trouble has not been spared in their preparation.

The Law and Practice of Rating and Assessment. By Clarence A. Webb, F.S.I. (London: Crosby Lockwood & Son. 1923. Price 15s. net.)

This volume is described on the title page as a handbook for overseers, members of assessment committees, surveyors, valuers, and others, and, as the author explains in his preface, the work is also designed to be of assistance to occupiers and owners of rateable property as well as to officers of public companies, students, &c. The first edition appeared in 1910, and we then expressed the opinion that it would prove a valuable addition to the libraries of those it was intended to assist, and but for the war we imagine a second edition would have been called for before this. However that may be, this edition appears at a most opportune time for, as the author says in his preface, it is generally recognised that the present is a particularly difficult time for general reassessment owing to the operation of the Rent Act, yet it is generally felt, owing to the lapse of time in most districts since a revision was made and the changes that have taken place, that new lists must be prepared.

One of the features of this work is the table of cases with reference to the reports in which they appear, as this is often omitted in other than text books by lawyers, and there is also an index so copious that we congratulate ourselves on discovering any omission, but the Increase of Rent Act does not appear in the Index, although it is dealt with in the Preface and referred to at page 204 in the text. The subject is presented in a clear and attractive form, and this edition of a most useful handbook brought thoroughly up to date will be welcomed.

Books Received.

Catalogue of English Furniture and Woodwork, Victoria & Albert Museum. By H. Clifford Smith. (London: H. M. Stationery Office). Price 2s. 6d.

The Beautiful Necessity. By Claude Gragdon. (London: George Routledge & Sons, Ltd.). Price 8s. 6d. net.

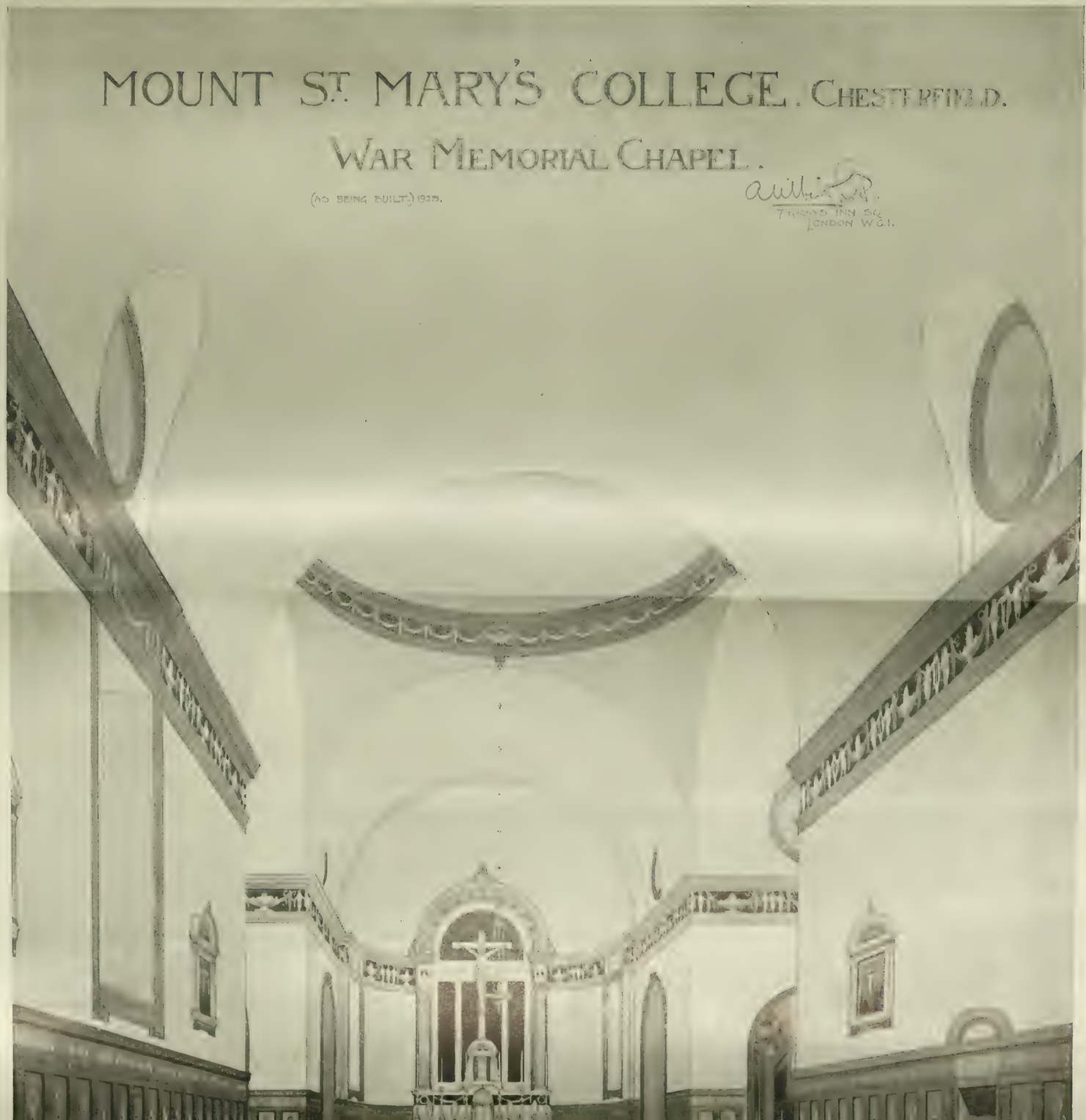
London of the Future. By Thomas Edward Collcutt. (London: Leonard Parsons). Price 2s. 6d. net.

MOUNT ST. MARY'S COLLEGE, CHESTERFIELD.

WAR MEMORIAL CHAPEL.

(AS BEING BUILT) 1923.

A. Wilkinson R.A.
7 Gray's Inn Sq.
London W.C.1.



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ILLUSTRATIONS.

Tunbridge Wells Pavilion Competition.

We illustrate this week the three premiated designs in the Tunbridge Wells Pavilion Competition (of which Mr. E. Guy Dawber, F.R.I.B.A., was the assessor), by Mr. E. Vincent Harris, F.R.I.B.A., Mr. Septimus Warwick, F.R.I.B.A., and Messrs. Franklin & Deacon respectively. A review of the designs submitted in the competition is given on p. 205.

Memorial Chapel, Mount St. Mary's College, Chesterfield.

The design for this chapel was influenced by the fact that it was desired to incorporate an existing two-storied wing of the college, consisting of the present chapel with a large dormitory above. This wing has been gutted internally and converted into the new nave; while the dome, transepts and sanctuary, &c., are being added at the east end, and also an ante-chapel, with choir and organ gallery over, at the west end to complete the scheme.

The exterior is being faced with silver-grey bricks and Portland stone dressings, with roofing of specially-made Italian tiles, while the outer dome and lantern will be covered in copper. Both inner and outer domes, with the lantern, are being constructed of reinforced concrete.

The internal stonework is of brown Hornton stone, which will show dark against the plaster and emphasize the early Italian character of the work. The decorative frieze will be in Della Robbia ware in subdued colours; while the altar and reredos will be of marble, together with the sanctuary paving.

The general contractors are Messrs. Geo. Longden & Son, Ltd. (Neepsend, Sheffield). The silver-grey bricks are being supplied by Mr. J. C. Edwards (Ruabon), and the Portland stone by the Bath and Portland Stone Firms, while the brown Hornton stone is from Messrs. J. F. Booth & Son (Banbury). The Italian tiles for the roof are from Messrs. Ames & Finnis (37 and 38, Strand, W.C.2); and Messrs. Ewart & Sons, Ltd. (Euston-road, N.W.) are responsible for the copper roofing for the outer dome and lantern. The marble paving in the sanctuary will be the work of Messrs. John Stubbs & Sons (Liverpool).

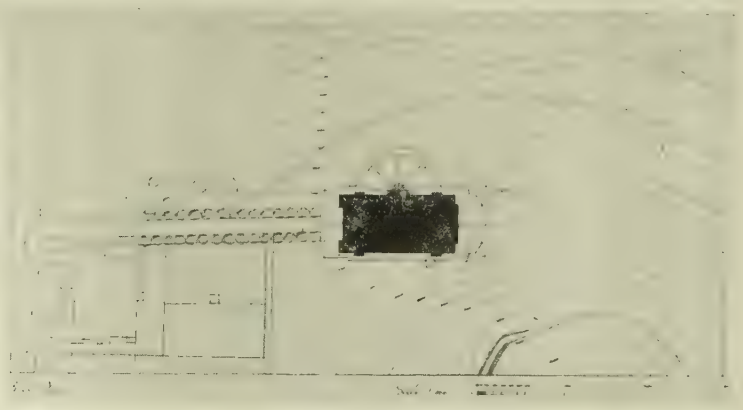
Nos. 210 to 216, Old-street, Finsbury, E.C.

The premises illustrated on p. 212 have been erected for Messrs. Charles Churchill & Co., Ltd., of 15, Leonard-street, E.C., machine tool factors and manufacturers. They comprise a working floor area of 24,000 super ft., and in addition a large superficial area forming the roof flat. The floors are very lofty; the basement, which is exceptionally well-lighted, being 15 ft., and the ground floor 18 ft. in height.

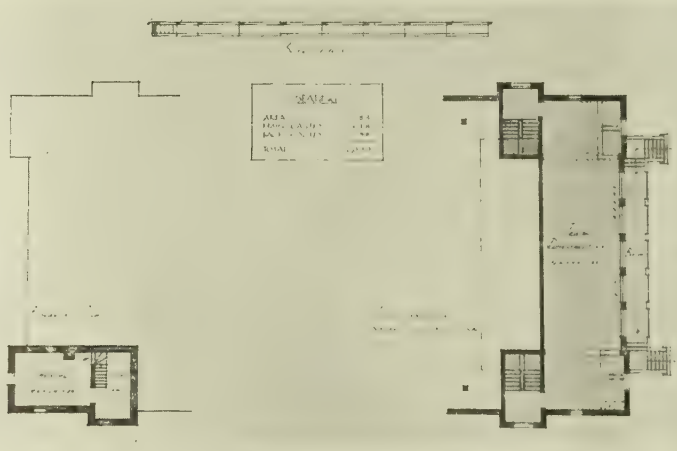
Two lifts are installed, one externally, serving all floors and roof flat, carrying a 1-ton load; and a small goods hoist internally; provision has also been made for a passenger lift in the well of the main staircase. There are two staircases. The floors and roof are of fireproof construction, and the elevations are faced with artificial Portland stone. The tower at the angle encloses the main staircase from the third floor to the roof flat. The estimated cost of the building is £70,000.

The following contractors and sub-contractors were employed, viz.: General contractors Messrs. Holland & Hannen & Cubitts, Ltd.; stonework, &c., The Patent Impervious Stone Co.; steelwork, Powers & Deane Ransomes; lighting and glazing, T. & W. Ide; asphalte, International Asphalte Co.; heating and sanitary work, Davis Bennett & Co.; lighting, Duncan Watson & Co.; wrot.-iron work, Joseph Stone.

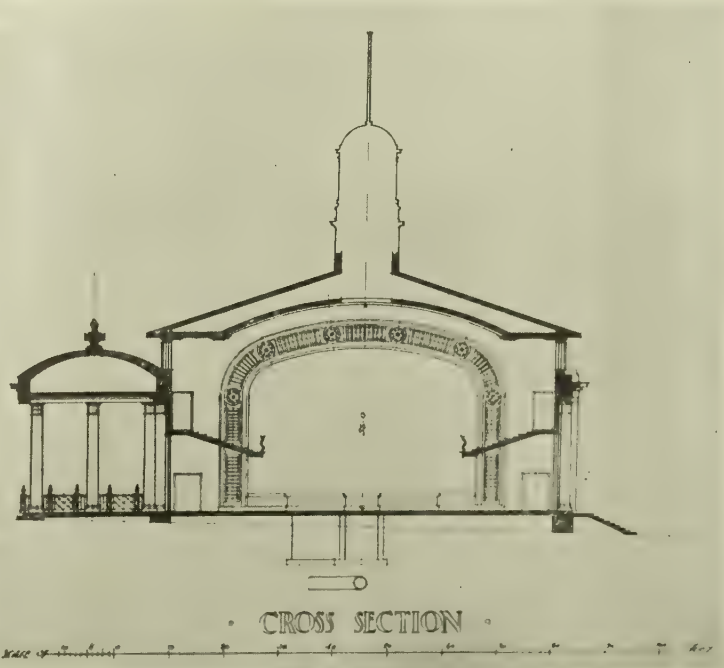
The architect is Mr. F. Lindus Forge.



Block Plan.

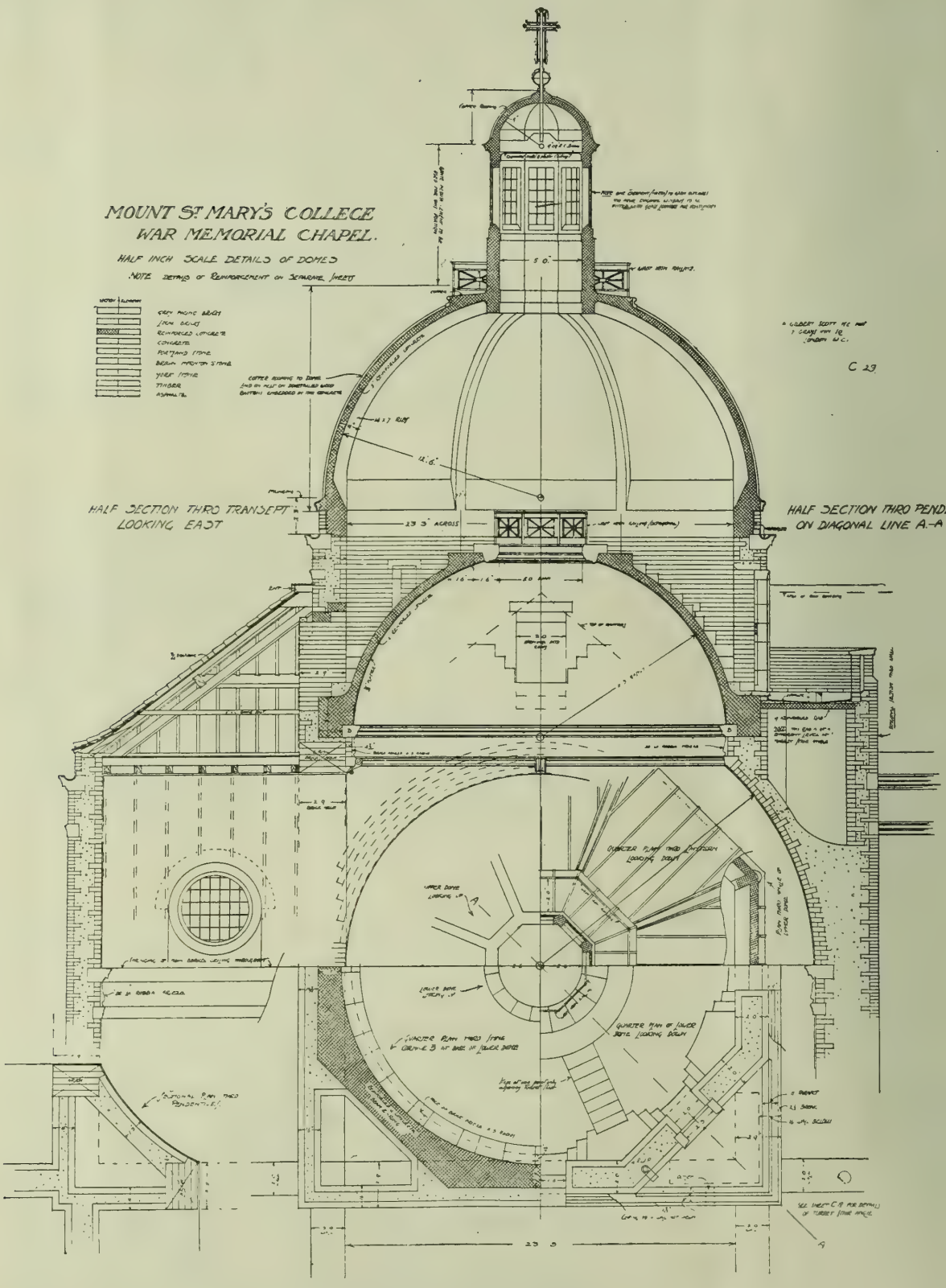


First Premiated Design, by Mr. E. Vincent Harris, F.R.I.B.A.



Second Premiated Design, by Mr. Septimus Warwick, F.R.I.B.A.

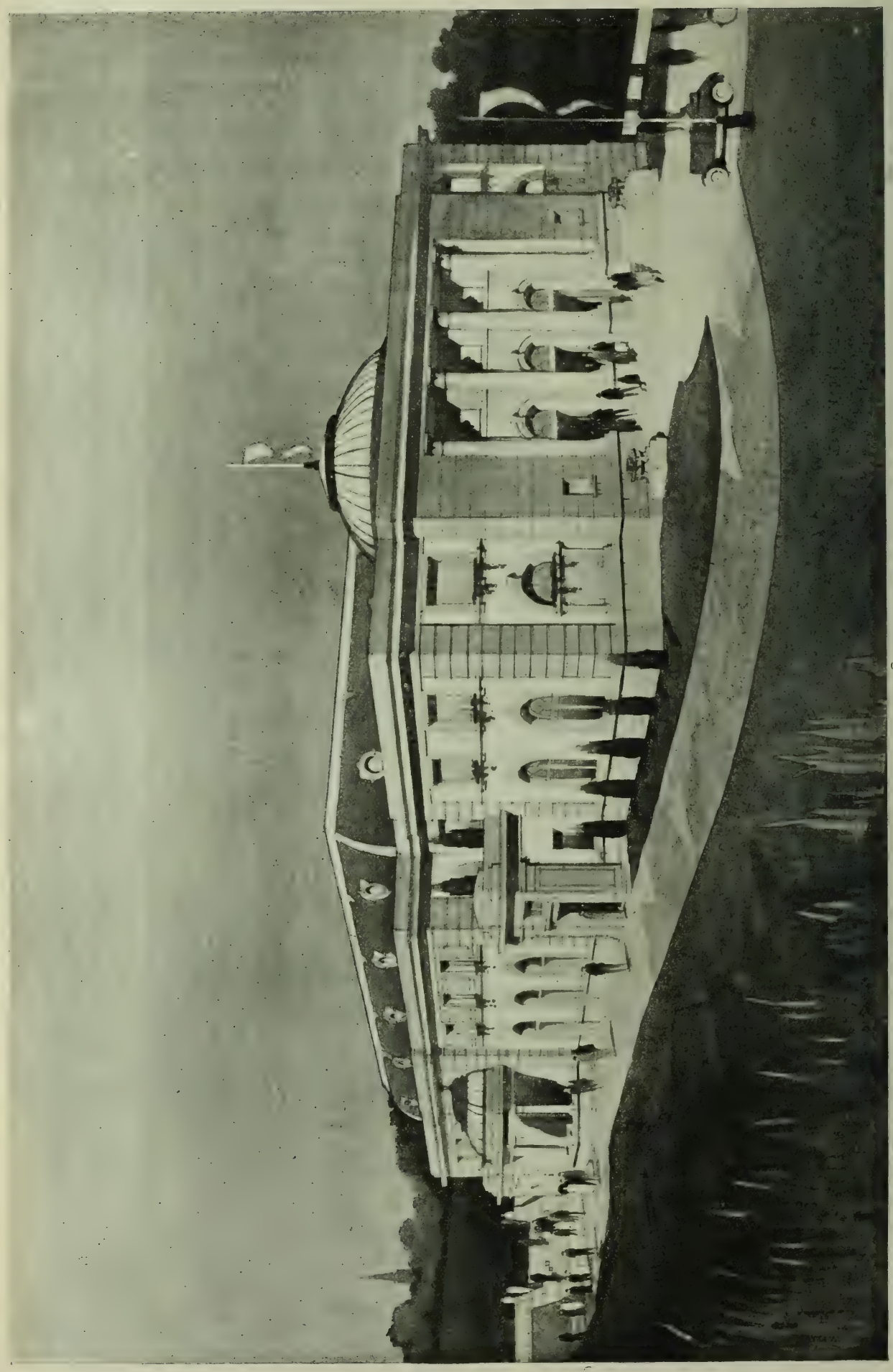
Tunbridge Wells Pavilion Competition.



Mr. Adrian Gilbert Scott, Architect. (*See p.* 207.)

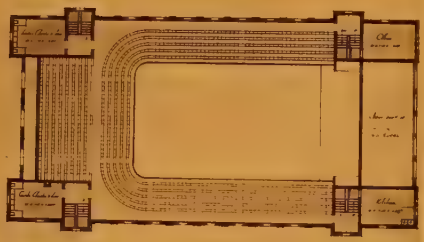


Sketch for the House of the Finnish Parliament. Eliel Saarinen, Architect. (*See p.* 204.)

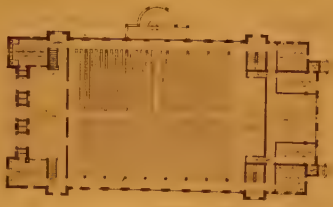


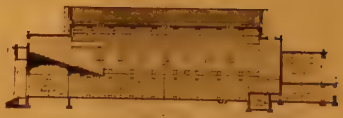
Tunbridge Wells Pavilion Competition.
Third Premiated Design: By Messrs. Franklin & Deacon









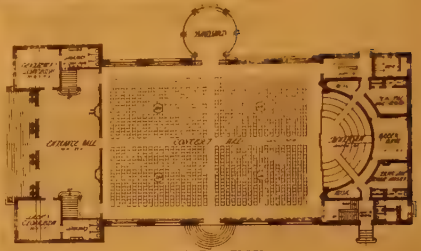




TUNBRIDGE WELLS PAVILION COMPETITION. First Premiated Design, by Mr. E. Vincent Harris, F.R.I.B.A.







GROUND PLAN

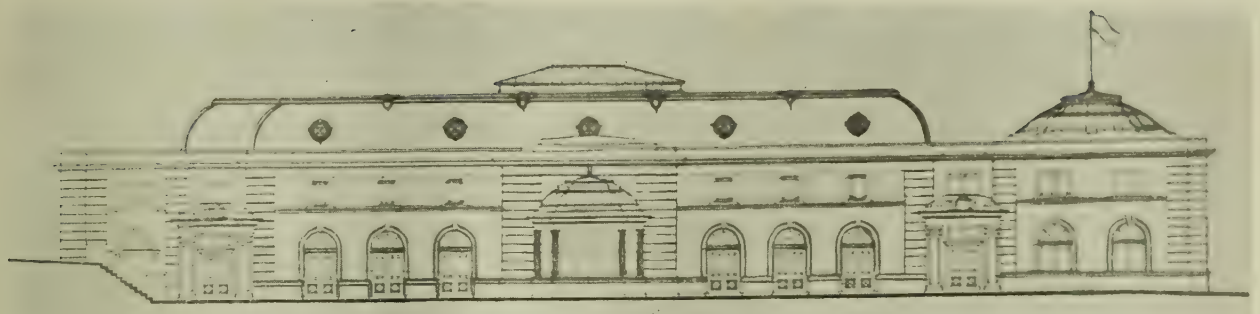




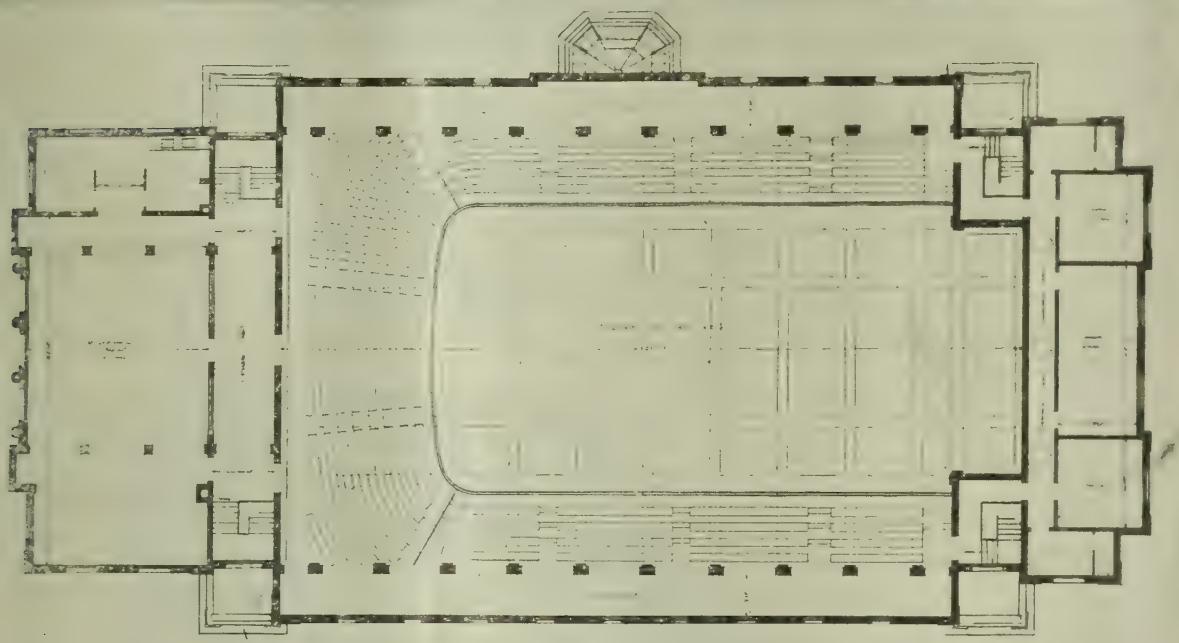
GALLERY



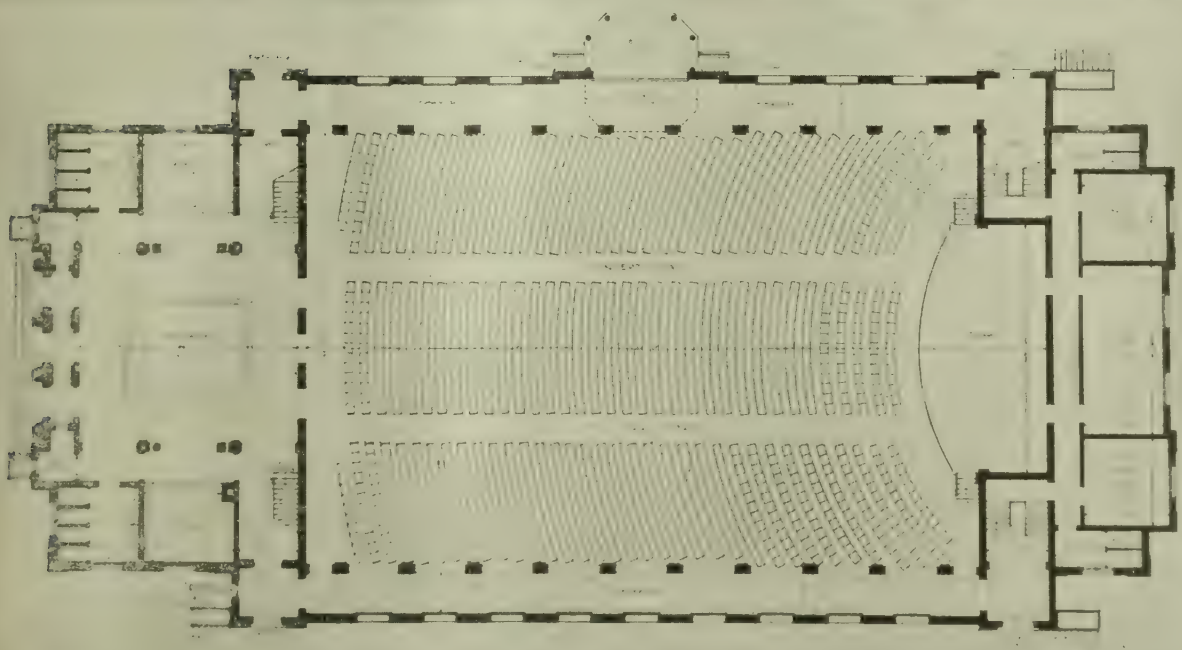




NORTH ELEVATION



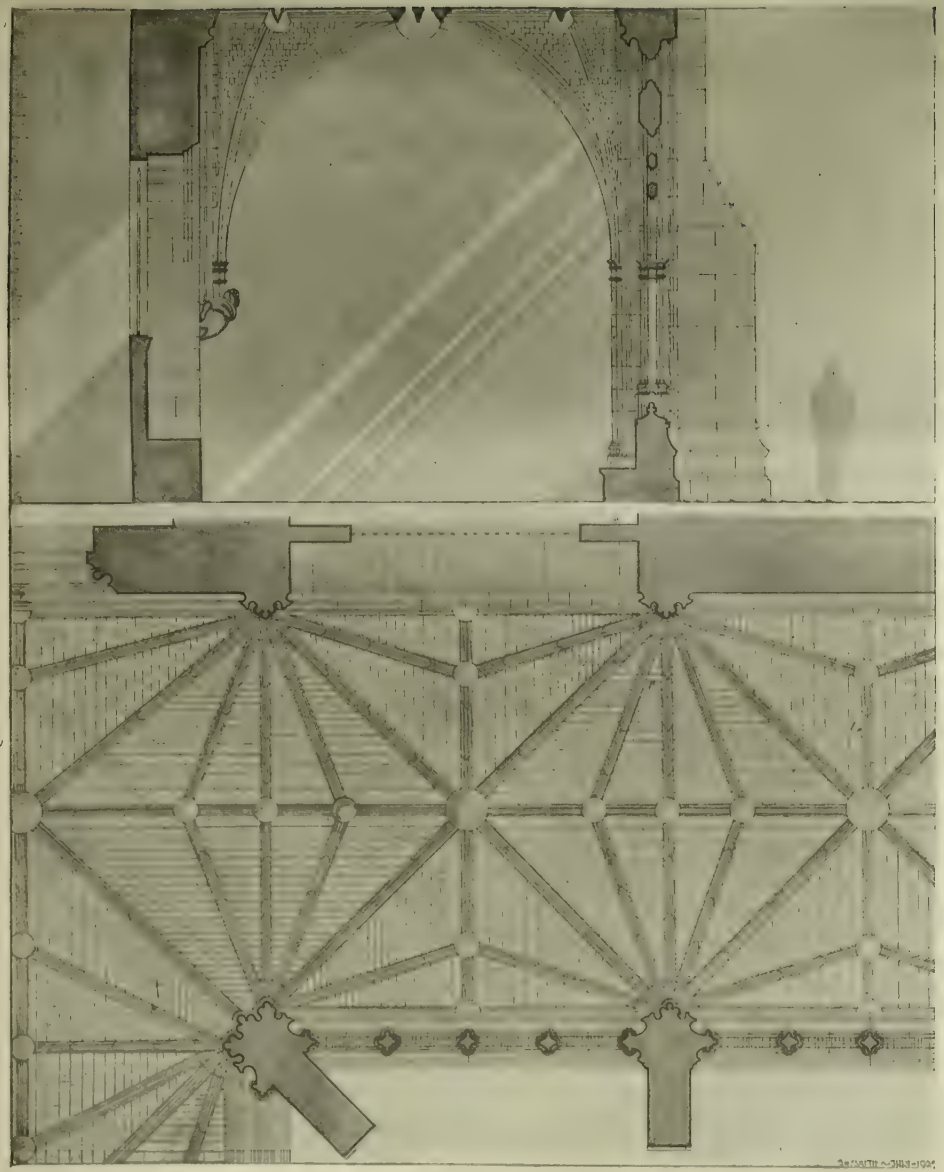
FIRST FLOOR PLAN



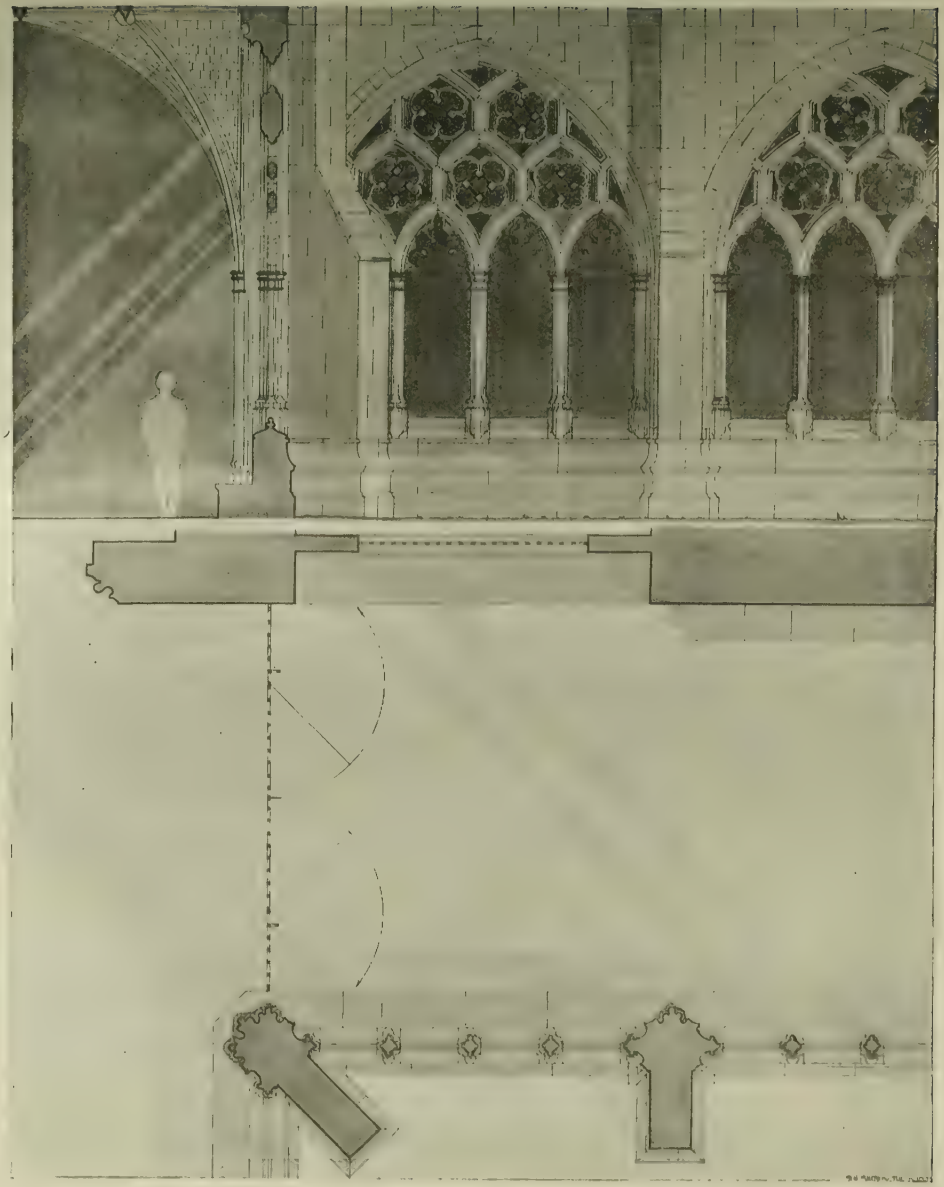
GROUND FLOOR PLAN

Tunbridge Wells Pavilion Competition.
Third Premiated Design: By MESSRS. FRANKLIN & DEACON.

Nos. 210-216, Old Street, Finsbury, E.C. Mr. F. Lindus Forge, Architect. (See p. 207.)



Section and Plan.



External Elevation and Plan.

Measured Drawings of Cloisters, Westminster Abbey.

Northern Polytechnic School of Architecture: William Woodward Travelling Studentship, 1923. First Prize Design, by Mr. S. Smith (First-Year Student).

BRITISH ARCHÆOLOGICAL ASSOCIATION CONGRESS AT YORK.

By REV. P. H. DITCHFIELD, M.A. F.S.A., Hon. A.R.I.B.A.

The British Archæological Association, which is entitled to call itself "Venerable," held its 80th Annual Congress from July 2-8 in the city of York, under favourable auspices. Founded in 1843, it has contrived, sometimes with difficulty, as during the years of war, to hold its Congress every year without intermission. There can be no more attractive field for archæological research than the great capital of the North. It has played a prominent part in the history of the country in all ages. It contains antiquarian remains of every period. It was known to the Romans as Eboracum, a small city, rectangular in shape, only 540 yds. by 480, surrounded by stone walls erected by the Emperor Trajan. To-day we can see parts of those Roman walls, the lower parts of the multangular tower, memorial slabs, statuary, monuments, pottery, stone coffins, tiled and brick graves and much else that bears witness to Roman occupation. Saxon, Dane and Norman have all left traces of their presence, and Professor Freeman asserted that Eboracum holds a place unique in the history of Britain, shared only by one other city north of the Alpes, namely, Treves.

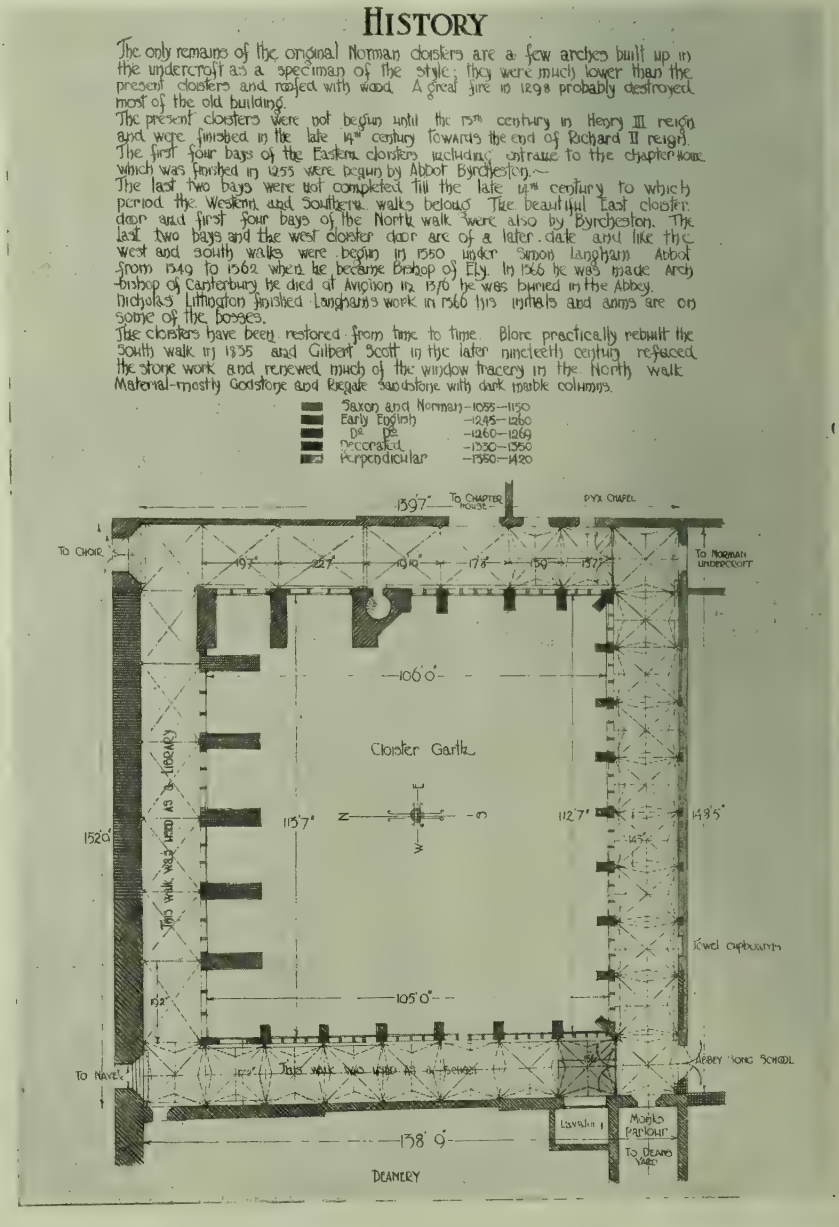
In the wide area covered by the excursions there is a great wealth of antiquarian treasure, fine examples of simple Norman churches, some of the most famous Abbeys in the Kingdom, Fountains, Rievaulx, Byland, Selby, Ripon Cathedral, Beverley Minster, which is worthy of being a cathedral.

Again we were fortunate in our officials. The Association is favoured by having a "perpetual" President, Mr. Charles E. Keyser, who for 17 years has acted in that capacity, and to whom the Association owes so much for his kindliness, generosity, and tact. We were also fortunate in our local secretaries, the Rev. Alfred Hunt and Dr. W. E. Collinge, D.Sc. The headquarters were established at The Royal Station Hotel, York, and the Yorkshire Philosophical Society readily placed its rooms at the disposal of the Association.

The Congress opened after luncheon on July 2 with a visit to York Minster, which has been so often described that it is unnecessary to tell its story here. The well-known ruins of St. Mary's Abbey, York, were visited, which was the first Abbey founded in York after the Conquest. Close to the Hospitium, Dr. Collinge pointed out the watergate which gave access to the staith or landing. The remains of St. Leonard's Hospital were noticed nigh the entrance to the grounds of the Philosophical Society, and the Multangular tower also was noticed, the lower part being Roman, the upper Mediæval. After dinner the members were invited to a reception at the Mansion by the Lord Mayor and Lady Mayoress, Alderman and Mrs. J. B. Inglis.

An early start was made, and the members enjoyed a tour rich in interest to the archæologist, probably the richest in the county of Yorkshire—that lying between the city and the beautiful ruined Cistercian Abbey of Fountains. Nun-Monkton Church was the first stopping place. The singular design of the west front, considered by architects to be a gem of architectural construction, was described by Mr. P. M. Johnston, F.S.A., and the interior by the Rev. E. Clopton Illingworth, vicar. The west front is well known by all students of architecture, and was built between the years 1190 and 1200, the upper part being Early English and the lower part Norman. It presents some remarkable features. The doorway is perfect, and one can notice anticipations of the ball-flower ornament in the cone-shaped ball. Above the door is a trefoiled niche, and there is much rich ornamentation, enriched zig-zag ornament, and capitals adorned with some peculiar and local ornamentation differing from what one finds ordinarily. The three Early English lancet windows above the doors are enriched by dog-tooth, and were inserted about 1210 A.D. This west front is figured in Parker's "Glossary," and described as "of very singular design, perhaps unique, remarkably elegant." There is a gabled pediment. The tower windows are square-headed and trefoiled, and there is a curious corbel table above them. On either side of the doorway are round-headed niches, in one of which remains a mutilated figure. On the south side are three doorways, the westernmost, called the Nuns' Doorway, is rich Transition-Norman. The central is walled up, probably the door of the Prioress; the easternmost or priest's door has been restored. These doors probably opened into a cloister.

The journey was then continued to Knaresborough. We admired the beautiful situation of the town perched upon a rock overlooking the fair valley of the Nidd. It is a "castle-town," owing its origin to the once proud castle, the remains of which few of the party saw. The Church, dedicated to St. John the Baptist, was described by Mr. Arthur Gibson, A.R.I.B.A. It has nothing very remarkable, and is mainly an Early English building with later additions. The lower part of the tower was built in the thirteenth century, the upper is later. There have been three eras of building, first in Norman times, then in the thirteenth century, and lastly in the Perpendicular period, when in 1450 the nave, consisting of four bays, was erected. It was restored in 1872. There is a record of a consecration in 1343. The east window was inserted in 1320, but the chancel is Early English, and on either side is a chantry of the same period. In 1230 it was created a prebend of York Cathedral. In the chantry chapel on the north side are the monuments



Plan of Cloisters, Westminster Abbey.

Northern Polytechnic School of Architecture: William Woodward Travelling Studentship, 1923. First Prize Design, by Mr. S. Smith (First Year Student).

of the Slingsby family of Scriven, one of the great Cavalier families of Yorkshire. We noticed two monuments of the Roundell family in the south chantry, and the Perpendicular font with its Jacobean cover. Two notable events occurred in the history of the town, the two Scottish raids. One took place in 1318, when the Northern freebooters plundered the town, and when the inhabitants fled to the tower of the church for refuge, and piled up timber around it in order to drive them out. It is said that the red-tinged stone on the west front is a mark of this attack.

After Knaresborough came Ripley, a very interesting church in a charming little town. The church is rather puzzling. According to the published guide the present church was built by Thomas Ingilby, grandson of Sir Thomas Ingilby, the Judge, about A.D. 1400. Mr. Johnston considers that it was built in 1195-1200. In Murray's Guide it is described as decorated with later additions. It consists of nave, choir, and two aisles. The door is interesting, a good example of rough carpentry, and it has curious wrought-iron C hinges. The chancel was rebuilt in the fifteenth century, and this may account for the statement that the whole church was erected in 1400. The groove for the boarding of the rood is discerned, and in the south aisle there is an early screen. A hagioscope or squint exists in the south wall of the chancel. In 1567 we are told that the walls of the nave were raised and five clerestory windows inserted on each side. A considerable restoration took place in 1862, when new roofs and windows were added, square pews, and much else. The screen and choir stalls were put in in 1885.

The most notable object in the church is the tomb of Sir Thomas de Ingilby and his wife. The Knight is represented in armour, head resting on the crest of his arms, the boar's head and neck couped, his shield bearing the star and a lion at his feet. His wife wears the dress of the period (1369). Round the sides are shields bearing various coats of arms, and "weepers," representing the children of Sir Thomas and his wife. The curious thing is that their names are given, William, John, Thomas, Henry, Alicia, besides a priest and a monk. This Sir Thomas was Judge of Assize in 1351 and one of the Justices of Common Pleas in 1361. The Ingilby family have held the manor for 600 years. Oliver Cromwell stabled his horses in the church after the battle of Marston Moor, doing great damage to this tomb, upon which he caused to be carved:

"No Pompe nor pride—
Let God be honoured."

In the churchyard is a curious weeping or kneeling cross. The pedestal only remains, and round the lower block are eight deeply cut niches, intended for persons to kneel. This cross is very rare, and is supposed to be about seven hundred years old.

On the east wall are bullet holes caused by Cromwell's soldiers when they executed some Royalist prisoners after the battle of Marston Moor.

The drive was resumed and we passed on to Ripon Minster and Cathedral, which was described by Mr. Johnston. Ripon did not become a Cathedral until 1836, when the diocese was carved out of that of York. Though not a Cathedral of the first magnitude or splendour, yet it is a stately structure and greatly superior to many of our ecclesiastical structures. This, in very brief, is the story of the building. Mr. Johnston pointed out the work of several periods, which may be thus summarised:—

Saxon: Crypt.

Norman (1070-1100): Portions of chapter house, vestry, and crypt below.

Transition (1154-1181): Three bays of north side of choir, portions of nave, piers adjoining west and central tower, transepts.

Early English (1215-1255): West front and west tower, vaulting of chapter house and windows.

Early Decorated: Two eastern bays of choir and east window.

Perpendicular: South and east sides of central tower, east side of wall of south transept, two bays of south side of choir, nave (except the west bays adjoining the towers).

After luncheon at the Spa Hotel the party proceeded to

Fountains Abbey,

where Canon Garrod, of Ripon, gave an exposition of the ruin. He said that the Abbey was founded in 1132 by thirteen monks from York, who passed two years in great poverty. In 1135 they were joined by Hugh, a wealthy Dean of York, who enabled them to begin the first building of the Abbey. The remaining portions of this are the nave and transepts of the church, the west wall of the cloister, and the sub-vault of the monks' dormitory. A great misfortune befell the rising Abbey, as some knights of York came and burned it in 1147. However, the Cistercians were very persistent and persevering, and three years later began building again. The chapter house and parlour and the eastern guest house were completed in 1160; and during the next ten years the northern half of the cellarium and the western guest house, and after 1170 the warming house, frater, and kitchen, and lay brothers' infirmary. During 1203 to 1220 the presbytery was built by John of York, who was also the builder of the nine altars and cloister arcading (now wholly destroyed) and monks' infirmary. The monks seem always to have been adding to their beautiful home. In the late thirteenth century they built the infirmary chapel and malthouse; in the fourteenth the infirmary kitchen, conduit house, abbot's lodging, and in the fifteenth century Abbot Durnworks inserted Perpendicular windows in the west and east ends, also the nine altars, while his successor, Abbot Horby, placed north and south windows in the nine altars, and erected the tower. Almost to the end the monks were building and improving their house, but the end came in 1539, when it was suppressed, and sold to Sir Richard Gresham, and pillaging and ruin followed. Such is the story of the Cistercian Abbey, one of the finest in the kingdom.

We wandered through the Norman nave and admired its beauties. A blocked doorway led to the lay brothers' quarters, which were screened from the monks in the Minster. The rood screen stood by the seventh pillar, and the retro-choir was for infirm monks. The central tower fell and was rebuilt just before the Dissolution by Abbot Horby. Some earthern pots were discovered where the stalls stood. Many conjectures have been made about their use, but it is certain now that they were for resonance or acoustic purposes. The doorway in the south transept led to the monks' dormitory, and there were two chapels in this transept. The nine altars were the gem of the Abbey, as at Durham. Each one had its own piscina and drain, and were divided by stone walls, afterwards by wooden partitions. The lancets were original, but Perpendicular windows were inserted later, and the windows of the abbot's pew were seen on the south. The nine altars was a favourite burial place for the abbots, 19 of whom were buried there.

We continued our peregrinations to the calefactory, the only room in the Abbey which was heated, and then into the refectory, which was a large room, the vault being supported by two rows of pillars. A crucifix hung at one end, and the pulpitum whence the reader read at meals, the book-closet, serving-hatch, and the holes from the calefactory, whence some heat passed into the chamber, were pointed out.

Hence we drove to Aldborough Manor House, where we were hospitably received by Sir Thomas and Lady Lawson Tancred, who entertained us to tea in their charming home. In the absence of the President, Mr. Ditchfield expressed the thanks of the members. Aldborough is the Roman Isurium, the most interesting Roman station in Yorkshire, and has been pronounced to be "one of the most important in the kingdom." In the grounds of the Manor House many relics have been found which are stored in a museum in the garden. Several cottages and the inn have museums of their own, and for a small charge their owners exhibit Roman pavements and other relics. The time did not permit of any close inspection. In the garden of the Manor House Sir Thomas pointed out the fragments of a stone cross which he had rescued from destruction.

Boroughbridge.

A visit was paid to the three remarkable "menhirs" or standing stones known as the "Devil's arrows," for which Boroughbridge is famous. Mr. William Dale, F.S.A., gave a brief address on these monuments of antiquity, which he said were not the work of the Druids, the Romans, or the Saxons, but were of a type well known in many parts of the world, and were megalithic monuments of the Neolithic or Newer Stone Age, and must be put back to a period two or three millenniums before the Christian era. The last place visited was

Kirk-Hammerton Church,

a complete Saxon fabric with later additions, where not only the nave but the chancel retain their original dimensions and with few alterations, their original masonry. In 1891 a new nave, chancel, and north aisle were added to the Saxon fabric. This, with its western tower, forms the south aisle and chapel of the new church. The plan is of the simplest character, and the structure appears to be all of one date. The masonry in the lowest courses of the south wall of the nave is composed of extremely large blocks of stone. It is probable that the fabric is of later Saxon origin on account of the recessing of the chancel arch.

WEDNESDAY, JULY 4.

The company started out again at 9 a.m. The first stopping place was

Sheriff Hatton Castle,

a high-towering formidable ruin, once the stronghold of the powerful family of the Nevilles. The present building is the remains of an Edwardian castle, though a Norman fortress stood here, erected by Bertram de Bulmar, Sheriff of Yorkshire, in 1140, from whom the place received its name. The present castle was built by Ralph Neville, first Earl of Westmorland, about 1410, and Leland wrote that "no house in the north so like a princely lodging." We then passed on to

Kirkham Priory Ruins.

It was founded in 1121 for Augustinian Canons. The founder was Walter de l'Espee, who endowed the Priory with lands and privileges. The principal feature is the fine gate-house, which was originally Transition-Norman, and the small rooms on either side are of that date. The archway was rebuilt in the Early Decorated period by William de Ros, and bears several shields—Clare of England, Plantagenet, three arms of Ros and Vaux. The niches formerly held figures, but only two remain, and one alone can be identified—that of St. Bartholomew—and the other is probably St. Philip. We noticed also a sculpture of St. George and two figures fighting, which are variously interpreted to be either David and Goliath or a Ros fighting a Scot. Of the Priory Church the only remains are the base of the south wall and the nave and a single lancet of the choir with shafts and capitals. The cloister court remains, indications of the chapter house, which was small and of which little is left, the gable of the refectory, and the north wall with a Transition-Norman door-

way, a lavatory of later date of excellent design, and the wall of the dormitory on west of the cloister. The ruins were excavated in 1886. They are very little known, and few visitors ever come to see the place. It has always been a very lonely country, and the nuns of a neighbouring nunnery used to keep wolf-hounds to guard against robbers and outlaws. Thence the company drove to

Old Malton,

a Priory founded in 1150 for the rare Order of Gilbertian Monks. Here we were met by the Vicar, the Rev. W. Ingram, who gave an excellent account of his church. He said it was a fragment of a once glorious Minster. The Gilbertian Order stood alone, and was a purely English Order, founded by St. Gilbert. He was a man of apostolic zeal, and led a severe and rigid life. The order consisted of monks and nuns, the former following the rule of St Augustine, the latter of St. Benedict. It has been supposed that he was buried here, but the real place of his sepulchre was Sempringham. The Order spread rapidly and at its suppression it had twenty-six houses. Old Malton was founded by Eustace FitzJohn in 1150, who also gave to the Order the church at Wintringham, the village of Linton, the church at Brimpton, and other endowments.

Mr. Johnston remarked on the beauty of the church and its extraordinarily interesting history, and pointed out the triforium, consisting of alternating quatrefoils, like Hexham. There was a survival of Norman detail in the scallop form of the capital, an elaboration of the cushion capital, somewhat similar to the Kirkstall corbel. He remarked on the Early English corbels adorned with flowers, the Perpendicular style of the north side, the octagonal piers with a series of niches, the beauty of the plain mouldings on the arches, resembling those at Ripon, and the late Norman west doorway. The next stopping-place was

Pickering,

a very ancient place, which boasts of a castle and great Lancastrian stronghold, still belonging to the Duchy of Lancaster. In the year 1851 some wall paintings were accidentally discovered during some repairs. The whole wall was then stripped of its covering, and careful copies made in colour of the subjects. They were then covered up again until 1879-89, when Mr. Jewett completed the task of removing the coating of yellow wash. Their treatment in 1851, and the affixing of monuments had damaged the lower part of St. George's body, the representation of Herod's feast, the lowest scene of St. Catherine's life; the death and the Assumption of the Blessed Virgin Mary, and in these cases restoration on the old lines, where possible, was necessary. The paintings originally done in tempera have in some parts been retouched in oil. The party then journeyed to



Bainton Church.

Lastingham,

with its memories of Early Northern Christianity. As Iona is associated with St. Columba, and Lindisfarn with St. Chad, this is connected with St. Cedd, Bishop of the East Angles. The crypt is the most interesting part of the church. It is untouched and unrestored, and although some have associated it with St. Cedd, it is doubtless the work of the Benedictines in 1088. The President discussed the question, and came to the conclusion that the cushion capitals were erected between the years 1068 and 1088. There are small circular-headed windows, with deep internal splays. Two small stone crosses with interlaced carving and a portion of a larger one—all Saxon—with a portable altar, are preserved here, and some carved woodwork. We drove on to

St. Gregory's Minster, Kirkdale,

where we were received by the vicar, the Rev. F. W. Powell, who has written a well-illustrated guide to his church, which is doubtless in the hands of most of the members. He first pointed out the famous sundial, now placed over the doorway; it tells the story of the church in early times: "Orm Gamel's son bought S. Gregory's Minster when it was all broken and fallen and he let it be made anew from the ground to Christ and S. Gregory in Edward's days the King in Tosti's days the Earl."

The central panel has on the dial:

"This is day's Sun marker at every time";

and at the foot:

"And Hawark me wrought and Brand priests."

From this we learn that the Minster was built in the seventh century and was destroyed by the Danes. Orm was Lord of Kirkdale, and Tosti was brother of Harold, who was slain at the Battle of Hastings. The church was rebuilt between 1055 and 1064. Mr. Powell then showed another monument of great antiquity—the coffin lid of Ethelwald, King of Deira 642. The inscription is in runes, but these are so obliterated that it is almost impossible to decipher them. Another stone with interlaced sculpture is said to be the coffin lid of Bishop Cedd. The church was until recently much disfigured by square pews and other unsightly accessories. Kirkdale is one of the latest survivals of distinctively Saxon art in the North of England. The north aisle was added at the end of the twelfth century. The tower is new, but the Saxon arch leading to it from the church remains. In the tower walls are some Saxon grave covers.

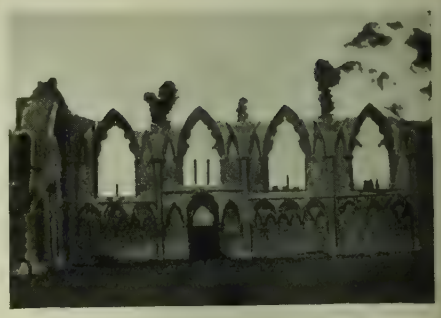
Helmsly church and castle time compelled us to pass, and at length we found ourselves at

Rievaulx Abbey,

the first Cistercian Abbey in Yorks and one of the most beautiful ruins. It is unnecessary in these notes to recount its history. We were much struck by the great work that is being done by the Office of Works. Much excavation has been done, under the charge of Mr. Peers, the Inspector of Ancient Monuments, and disclosed several chapels in the nave, the chapter house, and much else. The work is in progress, and most important discoveries are being made. (For a description and illustrations of the work see *The Builder* of July 13 last.)

Byland Abbey

was also visited, and we greatly admired the appearance of the immense rose window and other architectural beauties. It is the property of the nation, and is being restored by the Office of Works, under the guidance of Mr. Peers. Some beautiful tiles have been unearthed, and excellent examples of curious stonework. They are particularly clean, and Mr. Johnston suggested that they had been treated with stone pickle.



St. Mary's Abbey, York.

THURSDAY, JULY 5.

This day was devoted to the study of York itself, where many days might have been spent in examining its antiquities. The first building visited was

The Merchant Adventurers' Hall,

where we were received by Dr. Maud Sellers, who by birth bears the proud title of "Merchant Adventurer" and is a Fellow of Newnham College and Historical Lecturer at Sheffield University. This learned lady has a great affection for the Hall, a fourteenth-century structure, has studied deeply the history of the Company, and accomplished wonders in rescuing the building from decay and neglect. After inspecting some of the city churches, under the guidance of Mr. George Benson, A.R.I.B.A., we returned to the cathedral to examine the

Stained Glass of the Minster,

under the able guidance of the Rev. F. Harrison, one of the Vicar's Choral or Minor Canons, who has made a most careful study of the glass, which is being restored at a cost of £28,000. Mr. Harrison then conducted us to the curious and sad-looking Bederne Chapel, dedicated to the Holy Trinity. Mr. Hunt tells us in his programme that the name is derived from "bede," to pray, and "erne," a detached dwelling. It is the chapel of the College of Vicars Choral of the Minster. The College was founded in 1252, and the vicars worshipped therein and had a common dining-hall. There were thirty-six vicars, and the chapel had a chantry founded by Thomas Ottley. Some of the glass dated back to the fourteenth century, and £1,400 was paid to five priests. In 1868 the Ecclesiastical Commissioners took charge of the property, and the last service was held in this chapel. Since then it has fallen into decay. In 1919 it was not safe to enter it. £1,000 is needed to restore it.

The afternoon was spent in visiting the York churches and in attending evensong at the Minster; after which the party were entertained to tea at the Mansion House, by the kind invitation of the Lord Mayor and Lady Mayoress. After dinner the President delivered a well-illustrated lecture on "Beverley, Selby, and other places to be visited by the Association."

FRIDAY, JULY 6.

There is so much to see and to report on in this "county of broad acres" that it is necessary that the rest of this chronicle should be brief. Our programme on this day was considerably altered, and we first found ourselves at the church of

Kirby Underdale,

a small structure of early date on the slope of the dale. Indeed, there is a pre-Christian stone representing a Roman soldier, which connects the village with Roman times. The original church was pre-Conquest, consisting of a nave, tower, and apse, and no aisles. The walls have been stripped of plaster, a very undesirable proceeding, against which war should be continually waged. However,

this has revealed some herring-bone work which may be evidence of Saxon work. In the twelfth century aisles were added. The chancel is new, and the church was restored by Street in 1870, at the cost of Lord Halifax and the rector, the Rev. T. J. Monson. It was pointed out to me that the old font is in the churchyard and used as a drain-head. Can such desecration be possible? I hope I was deceived.

Passing on to

Kirkburne,

we found one of the most interesting churches in Yorkshire, which would require a long description. I must content myself with remarking that its architecture is Late Norman, much enriched. The chancel has been rebuilt. The font has been supposed to be Saxon, but it is really Early Norman. It has two series of sculptures, divided by a twisted band of ornament. In the upper row is depicted the Ascension, the Baptism of Our Lord, the presentation of the keys to St. Peter—twelve figures in all, some of which cannot be identified. In the lower there is the Agnus Dei, St. John Baptist, and quaint figures of animals which cannot be interpreted. There is a man carrying an axe, and another with a club. The church was described by the vicar, the Rev. A. J. Parkes.

Bainton Church,

the next stopping-place, is a good late fourteenth-century structure with Norman font. It has some Jacobean screenwork, and one of the finest brasses in Yorkshire—that of Sir Roger Godeale, rector in 1382. He has a chalice and wears amice, alb, apparel, stole, maniple, and chasuble. There is also the remarkable effigy of Sir Edmund de Manley, who died in 1314. He has a tonsured head, and was excommunicated for shedding blood in a church. He fought in the Battle of Bannockburn, and was drowned in the retreat after the battle.

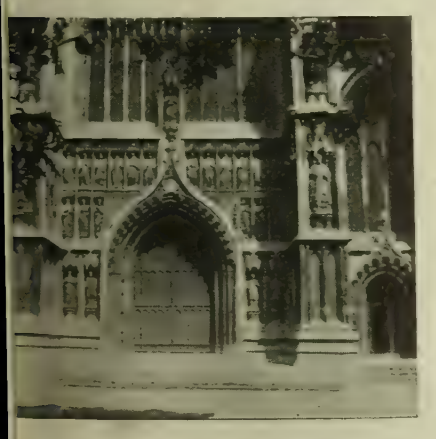
We then visited

Beverley,

and saw first the wonderful church of St. Mary, and then the still more beautiful Minster. These have been so often described by architects and are so well known that any account of them is unnecessary. We next journeyed to the very remarkable Late Norman church of

North Newbald,

in the middle of the Wolds, consisting of nave, central tower, transepts, and chancel, but no aisles. The chancel has been rebuilt. There is much evidence of zigzag ornament. Perpendicular tracery has been inserted in the east transept windows, but most of the windows are pure Norman of the date 1120. It is evident that the same gild of masons was employed in building the fine series of Norman churches in this part of Yorks.



Beverley Minster: West Front.

Goodmanham

was the scene recorded by Bede of the conversion of King Edwin and Corfi, the pagan priest, by Paulinus. The church is Early Norman, with a depressed chancel arch on which are traces of colour, the capitals being of unusual design. The font is said to have been that in which Edwin was baptised, but that is not so. It is Early Norman, and Edwin was baptised at York. There are two low side windows, which are rare in Yorkshire, and a squint. The mounds of the Saxon hall, the scene of Edwin's conversion, are still seen. We had a glimpse of the church at Londesborough, with its interesting Norman doorway, sundial, Early English font and tombs of the Cliffords and Boyles with armour hanging in north aisle; and then passed on to

Nunburnholme,

which has a Norman church much reconstructed. The old chancel arch has been removed to the west end. The chief object of interest is the Scandinavian cross in the churchyard, which was described by the Rev. F. C. M. Morris, son of the Rev. F. O. Morris, author of the "History of British Birds." Professor Collingwood pronounces it to be of the date the first quarter of the eleventh century, but it is probably much earlier. Want of space forbids a description. Returning to York, after dinner we heard a very interesting lecture by Mr. J. A. Knowles on "Stained Glass Windows."

The present writer was unable to accompany the last day's excursion on Saturday, July 7, which included visits to Stillingfleet, St. Helens, Cawood, Riccall, Skipwith, and Selby Abbey, and the length of this article prevents any further description of these places. The Congress may be pronounced to have been one of the most successful in recent years, and those who were fortunate enough to take part in it will retain many pleasant recollections of their wanderings in Yorkshire.

LAND FOR ROAD WIDENING.

Mr. Howard Martin, Official Arbitrator, sitting at Plymouth, heard a claim by Alfred Yeo, Evelina Yeo and James Biscombe against the Mayor, Aldermen and Burgesses of the Borough of Plymouth, concerning the compulsory acquisition by the latter of a piece of land containing 32,768 square feet, situated on the Tavistock-road, Plymouth, forming part of the Hartley Estate, together with lodge and premises erected thereon. The land has been acquired for road widening purposes at Hartley-hill.

The Official Arbitrator's award is as follows:—"That the Acquiring Authority is to pay the claimants the sum of £2,572 as compensation, including the sum of £315 agreed to be paid by the Acquiring Authority to the claimants in respect of works to fencing and gateways rendered necessary by the widening; it being further agreed that the Acquiring Authority in forming the slope of the cutting for the widening is also to form retaining walls to sustain the slope where necessary and to maintain the same at its own expense for two years from the completion of the slope and retaining walls, and I order the Acquiring Authority to pay the stamp duty and each party to pay its own costs."

A Decorators' Exhibition.

The Decorators' Exhibition, which is to open at the Holland Park Hall on October 17, is not a commercial venture, but is being organised by the master decorators themselves, through their National Federation, to stimulate interest in their craft and its doings.



Beverley Minster.

THE WEEK IN PARLIAMENT.

Westminster, *Wednesday.*

Housing Bill.

The Royal Assent has been given to the Housing (No. 2) Bill.

No Restrictions for New Houses.

Mr. Ede asked the Minister of Health what restrictions he intended to place on the price, whether for sale or letting, that might be charged by persons building houses with the assistance of public money under the Housing (No. 2) Bill.

Mr. N. Chamberlain said it was decided that no such conditions should be included in the Bill, and he did not propose to require the adoption of such conditions by local authorities.

Shortage of Bricklayers.

Sir W. Davison asked the Minister whether he was aware of the great shortage of bricklayers and plasterers throughout the country, whereby building operations were hampered and in some cases stopped and unemployment caused; and what steps were being taken to increase the number of bricklayers and plasterers and secure increased facilities for the training of apprentices.

Mr. N. Chamberlain said he was aware that there was some evidence of a scarcity of bricklayers and plasterers, although this hardly amounted to a "great shortage." The question of the provision of a sufficient supply of skilled workers in the building trade was one in the first place for the employers' and workers' organisations to consider, and he had no doubt that those organisations had the matter in mind.

New Houses Sanctioned.

Mr. N. Chamberlain said that approvals had been given to date in respect of 21,052 houses. As local authorities were not required to submit plans and full details when an application for subsidy was made, it was not possible to state the number of each type of house at the date of approval. Monthly returns of progress would, however, be obtained from local authorities and these would show the numbers of non-parlour and parlour houses being erected under approved schemes.

Tree Planting.

Mr. D. G. Somerville asked the Minister of Health whether he would urge on local authorities the desirability of tree planting on an extensive scale this winter, not only because of the value to the health of the community of this policy, but also to help existing unemployment.

Mr. N. Chamberlain said that local authorities had no general powers to undertake tree planting, except as incidental to the making of parks and roads and other works which they were authorised to undertake.

Summer Adjournment.

Parliament rose on Thursday, August 2, and will reassemble on Tuesday, November 13.

TOWN PLANNING: MODEL CLAUSES.*

MODEL clauses have recently been issued by the Ministry of Health for the guidance of local authorities in respect to town-planning schemes entered upon under the Housing, Town-Planning, &c., Acts, 1909 and 1919. Some salient features are given in these pages, but while these may help to indicate the general scope of the schemes, we recommend those interested to study the clauses in full. Broadly speaking, the new town-planning schemes are designed to remove the growth and development of towns and suburbs from the vagaries of chance and to allow of co-ordination and ordered expansion by bringing the area concerned within the jurisdiction of its local authority, and by allowing the relaxation of obstructive and antiquated by-laws, provision being made for appeal to the Minister of Health in the event of disagreement between owners and local councils. That these model clauses would, when adequately filled in, enable local authorities to exercise a wise control in almost every direction admits of no doubt. Powers are given to fix zones and densities suitable for residential, industrial, and other purposes; to establish building lines of sufficient elasticity to avoid monotony and to meet special circumstances; to combat the evils of smoke and noise; to restrict offensive advertising; to preserve existing trees, and to provide for reasonable parks and recreation grounds. We wish the Ministry had made definite recommendations in many cases where they have merely left blanks, for it must not be forgotten that the problems presented in preparing a town-planning scheme are new to many of our smaller authorities, and without experience to guide them they may find themselves in difficulties when it comes to making definite stipulations. It is, however, of supreme importance that expert advice should be sought in the preparation of schemes, and the Ministry no doubt had this in mind in preparing the skeleton model.

The clauses are to be regarded as subject to periodical revision, where experience dictates, and they are drafted on the basis of a scheme for an area wholly within the district of the local authority preparing the scheme, and will need adaptation to cases where the area is partly outside the district of the preparing authority, and more than one authority is concerned, or to other special features of a scheme. It will, of course, in practice almost always be necessary for a number of adjoining authorities to act in consultation, since, however well one district may be planned, it cannot function properly if treated as an entity not joined up in harmony with its neighbours. Local authorities have never been confronted with so heavy a responsibility as in the preparation of their town-planning schemes, and we feel confident that the large majority will spare neither time nor trouble in bringing them into efficient service.

It will be through the administration of these schemes that the English principle of decentralised local government will justify itself or stand condemned. Local Bumbledom can be quite as obstructive and reactionary as centralised bureaucracy, and it is essential that all ratepayers should learn to realise the importance of local elections. The habit of letting things slide and automatically leaving in office the same people year after year is too common and spells death to initiative and progress. While we are aware that our local authorities, taken as a whole, are fully alive to their opportunities, at the same time, in certain smaller towns, where the authorities and citizens are supine and indifferent, we can but be apprehensive of the fate of town-planning schemes, unless considerable pressure is brought to bear by the central authority.

The following are extracts from the model clauses:—

Restrictions upon Street Sites.—(9) No building shall be erected or other work done upon any land coloured pink on the map which, for the purpose of enabling street works to be executed, would require to be removed, pulled down or altered, except with the consent of the Council, and upon such terms and conditions with regard to such removal, pulling down or alteration, or otherwise as the Council may require.

Submission of Schemes of Development of Estates.—(1) Whenever a plan for a new street is submitted to the Council for approval, they shall by written notice request the owner of any land within that part of the area, the development of which will, in their opinion, be affected by the construction of the street to furnish them with plans and particulars showing generally a scheme for the development or laying out of the land. (2) Before approving the plan for the new street the Council shall take into consideration any plans and particulars which are furnished to them by any such owner within a reasonable time to be specified in the notice, being not less than one month from the date of the notice.

Relaxation of By-laws.—(1) Notwithstanding any provisions of the by-laws and local acts to the contrary, the Council may permit the construction of a new street—(*a*) of any one of the types described in the first schedule to this scheme; or (*b*) of such other type as the Minister may from time to time authorise the Council to permit: Provided that permission to construct a street of any one of the types described in the said Schedule shall be given only if, in the opinion of the Council, the street is not likely to be required for through traffic, and it shall be a condition of such permission that—(i) no buildings other than dwelling-houses or such public buildings (as respectively defined in clause 17) as the Council may approve shall be erected in the street; (ii) any portion of the surface of the street not constructed as carriage-way or footway shall be planted with grass, trees, or shrubs or treated in some other suitable manner to the reasonable satisfaction of the Council; (iii) any turning space which is required by the conditions set out in the schedule shall be of such dimensions that a circle with a diameter of 30 feet could be inscribed within the carriage-way of the street. (2) In the case of any street proposed to be constructed upon any land coloured pink on the map, the Council may, if they think it desirable that a part of such street should be constructed in advance of the remainder of the street, themselves construct such part, or may permit such part to be constructed, of a less width than is required by the by-laws and local acts. (3) In determining appeals made to him under Clause 10 the Minister shall have the same power of granting permission as the Council under this Clause.

Grass Margins, &c.—(1) The Council may lay out as a garden, any part of a street repairable by the inhabitants at large, or may plant any part of such street with grass, trees, or shrubs and erect guards therefor, and may maintain, alter or renew the part of the street so laid out or planted. (2) The Council may from time to time, rearrange the carriage-way, footway, and other parts of the street. (3) Where the Council execute street works upon any street declared under clause 6 of this part of the scheme, the Council shall plant with grass, trees or shrubs, or treat in other suitable manner any part of the street not constructed as carriage-way or footway, and shall provide convenient access from the carriage-ways and footways to any premises abutting on the street, and shall execute any works necessary for fencing off the street from the adjoining lands or for replacing any fences removed.

Adjustment of Boundaries of Streets.—For the purpose of adjusting the boundary of any street, the Council may make an exchange of land forming part of the street for other land, with or without paying or receiving any money for equality of exchange.

Buildings and Building Lines.

Interpretation.—In this part of the scheme, unless the context otherwise requires, the following expressions have the respectiv meanings hereby assigned to them:—"Dwel ing-house" means a house designed for use a a dwelling for a single family, together with suc outbuildings as are ordinarily required to b used therewith; "Residential building" mean any building, other than a dwelling-hous designed for use for human habitation, togethe with such outbuildings as are ordinarily require to be used therewith, and includes a hotel an a residential club; "Shop" means a buildin designed for the purpose of carrying on reta trade; "Industrial building" means a buildin designed for use as a factory or a worksho within the meaning of the Factory and Work shops Acts, 1901 and 1907, and includes a war house, and a "building for noxious industry means an industrial building designed for th purpose of carrying on any industry mentione in the third schedule to this scheme; "Busines premises" means a building designed for use a an office or for other business purposes, not bein a shop or industrial building; "Place assembly" means a building designed for use a a town hall, theatre, concert room, lecture hal place of public worship, or other place of publi assembly whether used for purposes of gain not, and includes a non-residential club "School" means a building designed for use a a college or school; "Institution" means building designed for use as a hospital, work house, asylum, or other public or charitabl institution, other than a place of assembly a school; "Public building" means a place assembly, institution or school; "Specia building" means a building designed for any us other than one of the uses for which the building hereinbefore defined are designed; "Zone means a portion of the area shown on the map b distinctive colouring, hatching or edging for th purpose of indicating the density or character buildings prescribed therefor, and the term "density zone" and "character zone" mea zones indicating restrictions as to density an character of buildings respectively. A "lan unit" means a portion of land to be determine by the Council in accordance with the provision of this Part of the Scheme for the purpose limiting the number of building units [as calcu lated in accordance with Clause 18 (3)], whic may be erected thereon.

The erection of a building includes:—(i) Th re-erection, wholly or partially, of any buildin of which an outer wall is pulled down to within ten feet of the surface of the groun adjoining the lowest story of the building, an of any frame building so far pulled down as t leave only the framework of the lowest story (ii) The conversion of a building of any of th types hereinbefore defined into a building any other of such types. The curtilage of building includes the site of the building.

Combined Buildings and Building Units.—(1) Where a proposed building is designed fo use both as a shop and as a dwelling for a singl family, it shall be treated, for the purposes o this part of the scheme, as if it were a shop (2) Subject as aforesaid, where a proposed build ing is designed for more than one use, th Council may decide for which of the uses th building shall be deemed to be designed for th purposes of this part of the scheme, and th Council may decide that the building shall b deemed to be designed for different uses fo different purposes of this part of the scheme (3) For the purposes of this part of the scheme a dwelling-house shall be reckoned as on building unit, and a building other than dwelling-house as such number of building unit as the Council may decide. (4) The owner o any building or of the site of any propose building who feels aggrieved by a decision o the Council under this clause in respect of th building or proposed building may appeal to th Minister.

Primary Zoning.

Density of Buildings—Erection of Dwelling houses and Residential Buildings.—No dwelling house or residential building shall be erecte upon land not included in a land unit.

Declaration of Land Units.—(1) Subject to th following provisions the Council shall, upo

* "Town Planning—Model Clauses." (London: H.M. Stationery Office, Imperial House, Kingsway. 1923. Price 1s. 6d. net.)

application being made to them by any owner of land or jointly by two or more owners of adjoining land, declare that the land in respect of which the application is made or such part thereof as they think fit shall form one or more land units. For this purpose the submission by an owner of a building plan shall be deemed to be an application for the declaration of a land unit in respect of the land included in the plan. (2) The Council may include in a land unit land belonging to the applicant other than that to which the application relates, but shall not, except with the consent of the applicant, so include the curtilage of a building commenced before . The Council may also include in the unit any land given by or acquired from the applicant for the purpose of a public open space or allotments after. . (3) The Council may require the applicant to submit a plan showing the whole of his land which is not already included in a land unit or such part thereof as they think fit. (4) Every land unit shall be contained wholly within one density zone. (5) No land unit shall exceed seven acres in extent. (6) The half of the width of any road dedicated to the public upon which any land proposed to be included in a land unit abuts shall be included in the land unit.

Calculation of Number of Building Units which may be erected.—(1) In the case of a land unit in respect of which a plot plan is not submitted to and approved by the Council under the next succeeding clause, the number of building units on the land unit shall not at any time exceed the number which will give the average per acre specified in the table below. For this purpose all buildings included in the land unit by consent of the owner under clause 20 (2), shall be taken into account.

Zone.	Average number of building units per acre over a land unit not to exceed
Zone A, coloured on the map	
Zone B, coloured on the map	
Zone C, coloured on the map	

(2) Where it appears to the Council upon representation being made by any owner of land that it would be unreasonable to require compliance with the provisions of this clause owing to difficulty in developing the land in accordance with those provisions on account of: (i) The lay out of any street on or adjoining the land constructed before; (ii) the small amount of land in the possession of the owner on , the Council may authorise a reasonable increase in the number of building units permitted to be erected on the land affected.

Plot Plans.—(1) Any owner of land within a land unit may, for the purpose of having the number of building units permitted to be erected on that land determined prior to sale or for any other reason, submit for the approval of the Council a plot plan showing the plots within the unit upon which it is proposed to build and the number of building units proposed to be erected on each plot. (2) The Council shall not approve a plot plan submitted to them under this clause unless the following conditions are complied with—(*a*) The curtilage of every building existing or commenced upon the land unit at the date of submission of the plot plan must be included in one or more of the plots; (*b*) The average number of building units shown on the plot plan as proposed to be erected per acre over the land unit must not exceed the average per acre permitted under the last preceding clause.

Erection of Buildings upon Land for which a Plot Plan has been Approved.—Where a plot plan for a land unit has been submitted to and approved by the Council under the last preceding clause—(1) No building shall be erected on any land within the land unit not included in a plot. (2) There shall not be erected upon any plot a greater number of building units than would give (together with the equivalent in building units of any buildings existing or commenced upon the plot at the date of submission of the plot plan) the number marked on the plot on the plot plan.

Character of Zones.—In giving their consent to the erection of a building the Council may impose such conditions as they think fit. In the case of any building proposed to be erected in zone which may be erected only with the consent of the Council, the Council, in giving or withholding their consent or imposing any conditions, shall have regard to the likelihood of the use for which the building is designed injuring the amenity of the zone, including, in the case of an industrial building, the likelihood of any injury due to the emission of smoke or fumes, or to dust, noise or smell, or other cause.

Supplementary Zoning.

Density and Character.—(1) If at any time the Council are of opinion that—(*a*) the buildings to be erected in any part of a character zone ought to be limited to one or more of the classes of buildings which are permitted under clause 28 to be erected in that zone; or (*b*) any class or classes of buildings which, under the provisions of clause 28 may only be erected in any zone with the consent of the Council can, consistently with the predominant use of the zone, be permitted to be erected in any part of the zone without such consent; or (*c*) the average number of building units permitted under clause 21 to be erected per acre ought to be varied over the whole or any part of density zones—the Council may make an order limiting the class or classes of buildings whose erection is permitted or giving a general consent to the erection of any class or classes of buildings in such part of the zone as aforesaid or varying the average number of building units permitted to be erected per acre in density zones , as the case may be, and may submit the order to the Minister for approval: provided that no order shall be made which would allow the average number of building units permitted to be erected per acre in zones to be increased to more than .

Height of Buildings. Limitation of Height of Buildings.—(1) (*a*) No building (not being an industrial building erected in character zones) shall be so erected or altered that:—(*a*) the highest point of the building, measured from the mean level of the ground immediately surrounding the building, exceeds feet in height; (*b*) any part of the building projects above any line drawn from the centre of the street in front of the building at an angle of ° (or if the street is of any one of the types described in the first Schedule to this scheme, °) with the horizontal: provided that—(i) For the purpose of the foregoing provisions account shall be taken of parapets but not of chimneys, ornamental towers, turrets or any other such architectural features; (ii) In the case of a building erected at the corner of two or more intersecting streets the height of the building shall be determined by reference to the wider or widest street; (iii) In the case of a place of assembly the Council may permit either or both of the limits imposed by this clause to be exceeded to such extent as they may think fit. (2) No dwelling-house erected in the zone edged on the map shall contain more than two storeys, exclusive of any storey constructed wholly or partly in the roof and exclusive of any storey the floor of which is more than 6 feet below the mean level of the centre of the street in front of the building: provided that, if in the case of a group of contiguous dwelling-houses not exceeding six in number it is desired to maintain the height of all the dwelling-houses forming the group at the same level, not more than four of the dwelling-houses may, where the slope of the street in front thereof renders it necessary, contain three storeys, exclusive of any storey constructed wholly or partly in the roof.

Space about Buildings.—Space within Curtilage of Buildings which may be covered by Buildings.—In the case of a building whose erection is commenced after the proportion of land within its curtilage which may be occupied by buildings shall not exceed the proportion indicated. In the case of a building whose erection in commenced before no alteration shall be made thereto such that the area of the ground covered by the building on that date would be increased by more than 20 per cent. if the proportion of land occupied by buildings within the curtilage of the building as altered would exceed the proportion indicated: provided that—(*a*) The Council may permit the proportion to be increased in the case of a building erected before , or where, owing to a building abutting on two or more streets, or by reason of any other exceptional circumstances, they think fit so to do; and (*b*) in the case of a dwelling-house which (i) is, in the opinion of the Council, adjacent to the junction of two or more streets, or (ii) is situated within the zone edged on the map, the proportion of land within the curtilage thereof which may be occupied by buildings, may exceed the proportion indicated in the Table, but shall not exceed ; (*c*) the provisions of this clause shall not preclude the erection of a building proposed to be erected by virtue of an exemption granted under clause 21 (2).

Breaks in Building.—(1) Not more than dwelling-houses or residential buildings shall be erected in one continuous block, and no detached dwelling-house or residential building or block of dwelling-houses or residential buildings shall be erected nearer to a building or block of any of those types than feet or nearer to any other building than feet. No building shall be erected nearer to the owner's boundary, or to a building or block of any of the aforesaid types, than feet.

Power to Permit Buildings in Advance of Building Line.—Notwithstanding the foregoing provisions of this clause, the Council may, if they think fit, permit—(*a*) the projection in front of the building line of any bay window, porch or other projecting portion of a building; (*b*) in the case of industrial buildings, the erection of the building at such distance, not being less than feet from the boundary of any street, as the Council may specify; (*c*) the erection of groups of shops and business premises at such distance, not being less than feet from the boundary of any street, as the Council may specify; (*d*) the erection in front of the building line of any building where, by reason of the levels of the site or of any adjoining land, or by reason of any other exceptional circumstances, or for purposes of architectural effect, such permission is, in the opinion of the Council, advisable; (*e*) the erection in front of the building line of a lodge or other building to be used in connection with a dwelling-house, provided that the lodge or building shall not exceed two storeys in height and shall not be nearer than ten feet to the boundary of the street.

General Convenience and Amenity.

Safety of Traffic.—(1) If at any time the Council are of opinion that, for the purpose of securing the safety of traffic, the height of close fences and walls, the growth of hedges, trees and shrubs, and the erection of other obstructions upon any land adjoining any street or the site of any proposed street ought to be regulated, the Council may prescribe a line upon the land, and shall thereupon give notice of the line prescribed to the owner and occupier of the land; provided that where a building line is shown on the map or has been fixed by the Council under this scheme in respect of the street or proposed street, any line prescribed under this clause shall be between that building line and the boundary of the street. (2) Where a line is prescribed by the Council under this clause, no wall, fence, hedge, tree or shrub or other obstruction (other than temporary structures erected in connection with building operations), shall be erected or be permitted to grow between that line and the boundary of the street or proposed street so as to cause danger to traffic by obscuring the view. (3) The

Council may, from time to time, vary any line so prescribed, and shall give notice of the variation to the owner and occupier of the land. (4) No proceedings in respect of any contravention of this clause shall be taken until fourteen days after notice has been given to the person in default.

Preservation of Trees.—(1) If at any time the Council, having regard to the amenity of any part of the area, are of opinion that any growing tree of a height of more than ft., or having a trunk of a girth of more than ft. at a height of ft. above the ground, or any group of such trees, ought to be preserved, the Council may register the tree or group of trees, and shall thereupon notify the owner and occupier of the land upon which the tree or group of trees is growing that the tree or group of trees has been registered, and the register of trees so made shall be open to inspection by persons interested at all reasonable times. (2) No person shall cut down or wilfully destroy any tree registered by the Council under this clause, except with the consent of the Council or upon an order of a Court of Summary Jurisdiction under subclause (3) of this clause, or where the tree has become dangerous: provided that if the Council do not notify their refusal to consent to the cutting down or destruction of any registered tree within one month from the date of an application for consent, their consent shall be deemed to have been given.

Advertisements.—(1) Subject as hereinafter provided no advertisement shall be displayed in such a position or manner as to injure the amenity of any part of the area. (2) (*a*) Any person may apply to the Council for their consent to the display of an advertisement, and consent shall be deemed to have been given if the Council do not notify their refusal to consent within one month from the date of the application. (*b*) Where, on any such application, the Council refuse their consent, the applicant may, within twenty-one days from the date of notification of refusal, appeal to a Court of Summary Jurisdiction, and the Court may, if they think just, make an order permitting the display of the advertisement to which the application relates, and may direct by whom and in what manner the costs of the appeal shall be paid.

Maintenance of Private Gardens.—If any private garden or private open space (as defined in Part IV. of this scheme) is in such a condition that it injures the amenity of the neighbourhood, the Council may serve a notice on the occupier, or, if there is no occupier, on the owner of the garden or open space, requiring him within a reasonable time to be specified in such notice to take such action as is necessary to secure the amenity, and in default of compliance with such notice the Council may themselves do anything required to be done for that purpose, and may recover the cost from the person or persons served with the notice or from any one or more of them.

Town-Planning Institute Conference.

The fifth annual country meeting of the Town-Planning Institute will be held at York from October 5 to 7. Members will travel down on Thursday evening, October 4.

The York Corporation has invited the Institute to hold its meetings at the Guildhall, and there will be a reception in the State Room at the Mansion House. The City Engineer will describe the town-planning proposals of the City of York, and the winning design of the Town-Planning Competition, held just prior to the war, will be on view. Messrs. Rowntree have invited the members to visit the Earswick Garden Village, and its plan and method will be explained. Mr. F. C. Mears (member) will read a paper entitled: "The Planning of Mediæval Cities," illustrated by lantern slides. The meeting is not confined to men or members of the Institute only; friends are invited.

THE ROYAL SANITARY INSTITUTE.

ANNUAL CONGRESS—1.

That the pleasure of a visit to Folkestone or Bournemouth in the summer was not responsible for the success which attended the annual congresses of the Royal Sanitary Institute in 1921 and 1922 is indicated by the record attendance at this year's congress, which was held at Hull last week. Though Hull does not claim to have the attractions of a popular South Coast holiday resort, its congested districts, its docks, and its industrial areas proved to be a source of great interest to those concerned with questions affecting the well-being and health of the population.

The congress was officially opened on Monday, July 30, by the President, the Right Hon. T. R. Ferens, P.C., High Steward of Hull, who expressed his appreciation of the selection of Hull as the meeting place of the thirty-fourth annual congress of the Institute, and extended a warm Yorkshire welcome to the members and delegates present. In the course of his address he deprecated the policy now being adopted by some towns of postponing improvement schemes on the ground of economy. In referring to Hull as a port, he mentioned that the imports of foodstuffs alone reached a total value of £60,000,000 in 1921, which figure was surpassed only by London and Liverpool. Dealing with the housing problem, he estimated that at the present time Hull required 6,000 more houses. "It is," he said, "no use attempting to instil the precepts of hygiene into people who live in the many dilapidated and insanitary dwellings which to-day exist in the slum areas of all our towns and cities, or into those who have to live crowded in lodging-houses in the most unsavoury parts of our towns. . . . I would go so far as to say that the amelioration of most of our national social and economic evils depends first upon the dissipation of the housing stress which now prevails."

The meetings of the various sections were held in the mornings, and the afternoons were devoted to visits to works and places of interest in the neighbourhood.

Although most of our readers will be more interested in the proceedings of the Section on Engineering and Architecture (reported on the next page), many useful and suggestive passages occurred in some of the papers read before the other sections.

The Slum Problem.

In the course of a paper entitled "Slum Areas: Their Treatment and Cure," read before the Section of Engineers and Surveyors, Mr. A. Horsburgh Campbell, M.Inst.C.E., City Engineer and Director of Housing of Edinburgh, put forward the suggestion that it would be a wise and prudent act of public policy if local authorities would proceed to acquire the whole of the slum property within their administrative areas, even although they were unable at once to demolish and to re-house the population on other sites. Not, of course, to hold *sine die*, but at once to ameliorate slumdom in its existing physical state of decay by the execution of temporary repairs, by cleansing, and by bettering its sanitary arrangement and equipment. That was advocated as a temporising work pending the time when the housing needs of the country were less straitened, and the building of new houses for the slum-dweller had become an accomplished fact. Till then he urged them not to remain passive and inactive, nor leave the slum-dweller to exist in his present state. Favoured by the tide of public sentiment on the question, they should go forward now with at least some real proof and evidence of immediate constructive effort to improve the housing conditions of those who were unable to help themselves, and whose domestic conditions cried out most for help. The alternative, he said, was to do nothing with slums until new houses could first be provided. But with the prevailing housing famine, the shortage of man-power and materials to build, and the immensity of the slum-problem of the nation, the re-housing of the poorest part of the community was a work which must take at least a generation to accomplish. Hence, then, the case and the plea for the initiation of an immediate constructive step which would temporarily ameliorate the conditions of the slum-dweller, and so carry him over that period that must elapse before the slums could be altogether wiped out and a new creation arise in their place.

The Manufacture of Portland Cement.

"Portland Cement: Its Manufacture and Uses," was the title of a paper by Mr. G. V. Maxted, M.Inst.C.E. In the course of a very complete description of the manufacture of Portland cement, he said the manufacture of that material had during the last few decades become a highly-specialised engineering and chemical industry, in which the best engineering and chemical knowledge was made use of in practically all the cement factories throughout the world. In recent years, since the advent of the rotary kiln and the British Standard Specification, together with the rapid advance of technical knowledge, the quality of Portland cement produced by most makers was not only thoroughly reliable, and of high tensile and compressive strength, but the knowledge of those engineers who used the material had advanced with equally rapid celerity, so that nowadays it was a most unusual thing to learn that the quality of the cement used had let down engineers employed in designing important public works and buildings in which it was so successfully used.

Economies in Swimming Bath Upkeep.

At the conclusion of a paper describing the installation of continuous filtration plant at three public swimming baths in Hull, Mr. T. Thomas, Deputy City Engineer, summarised his experience of the working of the plant as follows:—(1) Bath water during a period of six months' filtration has been shown by bacteriological examination to be maintained at a standard of purity which is equal to, or little below, the accepted standards for drinking water. (2) The standard of purity is higher than fresh water in the swimming bath after its use by 50 or 60 persons. (3) The water is clear, odourless, and tasteless to the bather, and no complaint has been received as to the condition of the water. (4) There is a very appreciable saving in water, coal, and attendance, and the total cost of a filtration plant, including the necessary buildings, can be paid off in 12 to 15 years from the savings effected. (5) The water is maintained at nearly the same standard of purity, and the baths are more regularly used by bathers who formerly only visited the baths on fresh-water days.

Domestic Labour-Saving.

The necessity for designing houses so that they will be economical of labour was emphasised by Miss S. M. Bushell, Honorary Secretary of the Women's Section of the Garden Cities and Town-Planning Association, in a paper on "Hygiene and the Labour-Saving House," in which the following points were put forward:—Houses should be built with surfaces which will not collect dust. The walls and floors should be smooth, with no roughnesses or cracks, so that when they are cleaned no dust will be left behind; besides this there should be no crevices or ledges, and mouldings should be of the plainest description. Corners should not be permitted. Where two surfaces join, such as two walls, the corner is not difficult to clean, but where three surfaces meet, such as two walls and the floor, it is impossible. Every room in the house should get the sunshine at some hour of the day. Windows should be of good size and reach to within a few inches of the ceiling in order that

the light may penetrate to the far side of the room. In kitchens and sculleries two lights, one over the sink and the other over the stove, will save eye-strain as well as labour. A bathroom is a real necessity, and a constant supply of hot water laid on to sink, bath, and washbasin is about the most labour-saving thing one can have. Each bathroom should have a washbasin. A boiler for the weekly wash should always be provided in small houses. The problems of hot water supply and of rubbish burning can both be settled by installing a small independent boiler; it is the cheapest and most efficient method of heating water, and has the additional advantage of daily burning the rubbish without betraying the fact with a smell. The larder is a most important part of the house, both from the health and from the labour-saving standpoint; it is essential that it be ventilated and fly-proof; a cool aspect, preferably north, is needed, and it is important that it be easily accessible. In addition to the larder there should be a store for spare crockery, jam, &c., and there should also be a place for the pram.

The Supply of Small Houses.

Speaking before the Sanitary Inspectors' Section, on "Difficulties and Problems Confronting Sanitary Inspectors and Property Owners," Alderman M. Cheverton-Brown (Secretary of the National Federation of Property Owners and Ratepayers) said to-day, by reason of the adverse legislation of the past twelve or fifteen years, small houses had ceased to be produced and there were for this type of property more sellers than buyers. Until that state of things was changed, until all restrictions were removed and freedom of contract became once more operative, small houses would not again be regarded favourably as an investment, and consequently they would not be produced. Production by the State or by municipalities on uneconomic lines had already hung a millstone of expense and obligations round the neck of the taxpayer and ratepayer, which further schemes on similar lines could and would but increase and perpetuate. Subsidies in any form would never, in his opinion, produce the 80,000 houses needed every year in this country to meet normal requirements at economic rents, to say nothing of the shortage of half a million houses or so already existing. The remedy, and the only remedy in the opinion of those who really understood the question, was the removal of restrictions, the restoration of confidence amongst investors, and the encouragement of private enterprise.

ENGINEERING AND ARCHITECTURE SECTION.

Presidential Address.

In his Presidential Address to the Section of Engineering and Architecture, Alderman W. C. Fenton, F.R.I.B.A., J.P. (Lord Mayor of Sheffield), said the past ten years had seen a remarkable advance in engineering as applied to sanitary matters. Architecture and engineering went hand-in-hand to a very large extent. One method of construction in which he had taken great interest was the ferro-concrete construction of buildings, which he had found most useful for ordinary buildings as well as for engineering structures. He had had the opportunity of using it for quite large buildings—combined with brick and stone for ornamentation—and he had shortly to put in hand a large block of offices and warehouses constructed entirely of ferro-concrete. There was no doubt whether fine or refined mouldings could easily be worked in this method, but bold striking mouldings and general decorative effect could be well accomplished in this method of construction. It was eminently a sanitary form of building. There were no hollow spaces for vermin, and it was far more weather-proof than ordinary brick or stone walling. He felt certain that that form of construction had great possibilities before it, and that its use would become more general.

Referring to building by-laws, he said it was satisfactory to note that the Ministry of Health was requiring old and obsolete building by-laws to be amended to provide for more modern modes of construction, and particularly to enable houses to be built at a less cost. There had, in the past, been too much stress laid on the fire insurance point of view in those by-laws, and, in his opinion, the insurance companies were well able to look after themselves. Of course, public authorities must take, or insist upon, all reasonable precautions to prevent fire, but having done that anything more became a deterrent to building and was a curse rather than a blessing. He had had experience of an entirely wooden-built village erected by a large corporation for the men engaged upon the construction of waterworks, and that had been built 10 years without a single fire. But if it had been proposed to erect it in any ordinary town, or under ordinary by-laws, it would not have been allowed. It was another proof that even wooden buildings could be used with safety, and incidentally last a number of years. Those houses would pay for themselves long before their life was exhausted, and were not only comfortable in their appointments but had been highly praised by all who had visited them as well as by the occupiers. The general shortage of houses had provided architects with splendid opportunities of showing their skill in designing houses for the working classes as well as for those of slightly more ample means, and he thought they had justified their profession in a remarkable manner.

The first two papers, namely, "Reinforced Concrete in Municipal Engineering Works," by Mr. G. W. Palethorpe, A.M.Inst.C.E., and "Some Modern Materials and Methods of Construction for Use in Buildings," by Mr. H. D. Searles-Wood, F.R.I.B.A., were taken as read, and discussed together.

CONCRETE IN MUNICIPAL WORKS.

In his paper, Mr. Palethorpe pointed out that during the last few years reinforced concrete had made rapid strides, and had undoubtedly been the means of effecting great saving in initial outlay and annual maintenance, with a considerable reduction of risk of destruction by fire. From quite an early date reinforced concrete had been much used in municipal work, and there was probably no branch of engineering that had employed it to better advantage. There were very few works in which the construction did not commend itself very favourably, and the advantages of reinforced concrete would be admitted by all in the construction of foundations, bridges, reservoirs, retaining walls, and various other works.

Some of the advantages of the use of reinforced concrete were as follows:—

(1) The bulk of the work was carried out by unskilled or semi-skilled labour; the only tradesmen required were the joiners for the formwork and blacksmiths for bending the steel, but with the aid of bending machines the rods could be bent cold and the smith's work brought to a minimum.

(2) Reinforced concrete increased very much in strength with age, and might be considered practically indestructible. No painting or maintenance was required as in the case of steel and wood, and it was quite easy to repair any part of a structure which might accidentally become damaged.

(3) A building of reinforced concrete was practically fireproof. In most cases a cover of one inch of concrete was sufficient to protect the steel from fire, though an aggregate that would splinter with heat, such as limestone, should be avoided. Experiment and actual experience showed that the smaller the aggregate the less the injury.

(4) Structures in reinforced concrete, being monolithic, offered great resistance to vibration, which made them invaluable in the case of engine houses, mills and factories.

(5) A great advantage in favour of reinforced concrete from the point of view of the designer, was that owing to the monolithic construction most of the beams and slabs might be considered as being either fixed or partially fixed, with a considerable reduction of the bending moments.

(6) In construction reinforced concrete allowed more adaptability than any other material. It not infrequently happened that owing to a soft place in the ground foundations had to be altered, or owing to unforeseeen circumstances the spacing of columns, &c., had to be amended. Everyone with experience of steel construction knew the delay caused by any alteration, whereas reinforced concrete was comparatively easy to alter, but in all cases the designer must be consulted before any deviation from the plans were made.

(7) In most cases reinforced concrete would compare favourably in cost with average brick or steel construction, and where local conditions were advantageous the saving in first cost might be as much as 30 per cent.

(8) The material had great possibilities for architectural treatment, though successful instances were still rare.

(9) A very great advantage at the present time from a municipal point of view was that the work could be used for unemployment relief works, and grants could be obtained from the Government for that purpose. Many bridges had been constructed recently by the aid of grants that would probably have had to wait for ten years or more, and with the great increase of motor traffic in recent years, and the very weak condition of many highway bridges all over the country, a great saving had been effected for the ratepayers. There was no other material which could be used for building purposes that could be carried out by unemployed labour.

There were a few disadvantages in the use of reinforced concrete, but for certain structures, if both sides were carefully weighed up, the advantages completely outweighed the disadvantages.

Municipal Concrete Buildings in Hull.

To instance the various uses that reinforced concrete can be put to, he gave a few details of works that had been constructed by the Hull Corporation.

Bridges.—There were at present 12 bridges of spans up to 40 ft., either erected or in course of erection; they were of arch, or beam and slab, construction. The bridge in Cleveland-street over the Fordyke Stream, built in 1902, was the first reinforced concrete highway bridge constructed in this country.

Sewage Pumping Stations.—Owing to the extreme flatness of the district, the drainage of the outlying parts of the city had to be pumped to the high level sewers by means of sub-stations. There were five of these stations, all built of reinforced concrete. The pump chambers were 8 ft. 6 in. sq. by 20 ft. deep, with reinforced concrete walls 10 in. thick.

Stores for Tramway Department.—Built in 1912 this building consisted of reinforced concrete framework, floors, and roof trusses. The walls were of 9 in. brickwork throughout, each floor carrying its own wall. That was a good instance of the economy of reinforced concrete, as if the walls had been of ordinary brick construction the thickness at the base would have been 27 in.

Workshop and Garage.—This building, built in 1921, was 52 ft. by 38 ft., and consisted of reinforced concrete framework with 2 in. panelled walls, reinforced with steel lathing.

Electricity Sub-station.—This structure, at St. Andrew's Dock, was built in 1912, and was 30 ft. by 20 ft., and consisted of reinforced concrete framework with 4 in. walls.

Sewer Syphons.—There were four inverted syphons carrying sewage under large agricultural drains, at present in course of construction; they were of 36 in. diameter reinforced concrete tubes of Stanton-Hume manufacture, each 4 ft. long, surrounded by concrete. Previous syphons had been of cast iron. The price of the concrete tubes was 50s. 3d. per yd., and the approximate price of cast iron pipes was 99s. per yd. It was anticipated that there would be a considerable saving in cost of laying owing to the more easy handling of the short pipes.

Concrete Sewers.—The Corporation had constructed several concrete sewers, 5 ft. by 3 ft. 4 in. elliptical, and 4 ft. by 2 ft. 8 in. and 3 ft. 6 in. by 2 ft. 4 in. egg-shaped, the sides being from 7 in. to 9 in. thick, according to their position. Several of those sewers had been made recently as unemployment relief works. The-

price of a 3 ft. 6 in. by 2 ft. 4 in. sewer 10 ft. deep, carried out by that labour, cost £4 10s. per yd. complete. Briefly, the construction was as follows :—When the excavation was completed, 6 in. of concrete was put in the bottom, and on this pre-cast concrete invert blocks were laid to correct falls. The wood formwork was made in two portions, each 6 ft. long, the lower part being collapsible to facilitate removal; 6 bottoms and 12 tops were used on each job. The bottom formwork was placed on the blocks and strutted off the sides of the trench, and concrete placed around and well rammed. The top centres were supported from the invert blocks and the concreting completed. The bottoms could be stripped after 24 hours, whereas the tops required at least two days. The concrete was usually 8 to 1, and the aggregate a mixture of sand and shingle.

Electricity Works.—In 1915 a new turbine house, 65 ft. by 105 ft., and a boiler house, 95 ft. by 94 ft., with overhead coal bunkers having a capacity of 2,000 tons, were built of reinforced concrete, the walls being 6 in. thick. In 1922 a further turbine house, 83 ft. by 67 ft., of similar construction, was built for a 10,000 K.W. set.

Swimming Baths.—In 1909 and 1912 swimming baths were erected at Madeley-street, the men's bath being 35 ft. by 90 ft., and the boys' bath 30 ft. by 84 ft. The tanks and galleries were of reinforced concrete faced with mosaic.

There were also a cattle and pig market, workshops for Tramway Department, blacksmith's shop, basement for filtration plant for swimming baths, and floor for open-air swimming baths, where reinforced concrete had been largely used.

After the war, owing to the high prices and the great difficulty of obtaining fireclay street gullies, the Corporation commenced making them of reinforced concrete. They were 14 in. by 14 in. by 2 ft. 7½ in. inside measurements, and the cost worked out at 25s. each, whereas a quotation for fireclay gullies was 56s. each. The output was two to three per day, which, of course, could be increased if desired by making more form boxes.

The Corporation also made fence posts, gate posts, landings for manholes, and landings for vaults in reinforced concrete, and curbing and channelling in ordinary concrete,

Hints on Concrete Construction.

In the course of some notes on the construction of reinforced concrete, he said the first consideration was to have a good, live foreman or clerk of works, who would conscientiously perform his duties and see that all the details of the work were carried out.

All steel should have an ultimate tensile strength of 28 to 33 tons per sq. in., and comply with the British Standard Specification for structural steel for bridges. Steel should not be oiled, tarred, or painted, but all loose scale or rust must be removed before the reinforcement was placed in position.

The most important and, generally speaking, the most difficult work in connection with the erection of reinforced concrete structures was the accurate placing of the steel, which must be fixed in exactly the position shown on the plans. Foremen or clerks of works must check all rods before any concrete was placed.

A difficulty generally met with was to support beam rods in such a manner that the cover at the bottom would be as shown on the plans. That was often done by packing up the steel from the shielding by means of blocks of wood of the requisite thickness, and withdrawing them as the concrete was placed. After the formwork had been stripped it was frequently found that packings had been left in by accident, which had to be cut out and the concrete patched up again. A very neat method of supporting rods from the bottom of the shielding was to use small pre-cast cubes of concrete, which could remain in the work without any disadvantage.

If pre-cast beams were to be used, the top side must be distinctly marked to avoid the risk of putting in beams upside down. Formwork must be substantially and accurately constructed, well fixed, and supported to take the weights it was required to carry. Long beams should be framed with a camber of about 1-350 span. Column boxes should be built up on three sides, and the fourth side should be gradually built up as the concrete was placed.

All formwork for beams should be held in position by means of wedges so that any movement could be taken up, and on completion the shielding could be removed without risk of jarring the concrete. The sides of beam boxes should be secured to the bottom in such a manner that they could be stripped without disturbing the bottom timber, and so allow the air to get to the concrete to assist the hardening before the beam was finally stripped. It should be remembered that the formwork was the most expensive part of the work and must be used over and over again.

Immediately before placing the concrete, the formwork should be carefully cleaned out, trued up, and coated with soft soap, form oil, whitewash, or some other suitable preparation to facilitate removal.

The aggregate might be of almost any hard, clean material, such as granite, shingle, stone, gravel, or broken brick, but for reinforced concrete work granite or shingle were the best. Concrete should always be proportioned so that the sand and cement were respectively in excess of the voids in the aggregate and sand. The percentage of voids in the aggregate was usually about 40 to 50, in sand about 35; 4–2–1 concrete would generally give the best mixture.

The aggregate should vary in size from ¼ to ¾ in., and the sand up to ¼ in., and 75 per cent. of the sand should pass through ⅛ in. square mesh.

The amount of water to be used in the mixing was a matter of great importance: the mixture should neither be too dry nor too wet, but should quake slightly when rammed. It was better to err on the side of a slight excess of water than to use a concrete which was too dry. The wet mixture would only yield about two-thirds of the combined volumes of the dry materials, as the sand and cement went to fill up the voids in the aggregate.

The cement should be slow setting, and comply with the specification of the British Engineering Standards Committee, and each new batch should be tested before use.

Concrete must be well mixed, and, if possible, a mixing machine used. It should be laid quickly in small quantities, and well rammed round all the rods and thoroughly consolidated.

Each section of concreting should, as far as possible, be done in one operation. When work was resumed upon any concrete that had set the face should be roughened, washed clean, and covered with a layer of cement mortar. The new concrete should then be rammed against the old, as hard as possible without injuring it.

Care must be taken to avoid disturbing the set of concrete until sufficient time had elapsed for the setting to take place; no load, such as walking over it or laying planks upon it, should be allowed.

The reinforcement rods must not be moved in ramming, and steel must not be fixed in the vicinity of new concrete where vibration of the steel might destroy the set of the concrete. Concrete must be kept moist and covered in hot weather, and protected against frost.

No hard and fast rule could be made for the time to be allowed before stripping the formwork, all depending upon the weather and the size of the work, but the period should be approximately 14 to 28 days. The time must be left to the judgment of the person in charge.

In many reinforced concrete works it was necessary that the walls should be waterproof. There were a few waterproofing compounds at present on the market that admirably served their purpose, but it had been shown by experiments carried out in America and in this country that many would cause a loss of strength. There was no doubt that carefully graded concrete with sufficient cement to fill the voids with an excess of 5 per cent. would give a perfectly impervious concrete under moderate heads.

[The discussion on this paper, together with Mr. Searles-Wood's paper, will be given next week.—Ed.]

HEALTH EXHIBITION.

The practical side of the Congress was enhanced in interest by a Health Exhibition at Wenlock Barracks, Anlaby-road, in which many of the appliances and methods discussed at the meetings were exhibited and demonstrated.

Some excellent examples of modern paint work were shown by the Keystone Varnish Co., Ltd., of 14, Scott-street, Hull; Plaster Paint, Ltd., of 17, Percy-street, London, W.C. 1; and Messrs. Blundell, Spence & Co., Ltd., of Beverley-road, Hull. A representative selection of "Rawlplugs" was exhibited by Messrs. Rawlplugs, Ltd., Cromwell-road, London, S.W.7, and the ease with which they can be fixed to hard walls and ceilings was demonstrated.

The Dominion Machinery Co., Ltd., of Halifax, showed in operation one of their latest type ball-bearing "Elliot" woodworking machines, for ripping, cross-cutting, boring, trenching, mitreing, tenoning, surfacing, &c.; this stand also exhibited the "Dominion" ball-bearing spindle moulder and the "Dominion" scroll saw and moulder.

The "Lewbart" automatic disinfector and deodoriser was shown on the stand of the Lewbart Manufacturing Co., Ltd., of 2 and 3, Norfolk-street, Strand, W.C. 2; this is a small instrument, 3½ in. diameter, 8 in. long, clipped on the flush pipe of the lavatory, without severing the pipe or using solder, making a water-tight joint by the means of a small rubber pad. A small square hole (⅝ in. square) is made in the pipe to allow the trigger to be inserted and a small hole (⅛ in. diameter) to take the discharge of the disinfectant. The action is automatic and fool-proof. The disinfectant enters the pan only after the flush has taken place. The mixture is not further diluted with the water in the pan, but merely floats on the top, and, therefore, forms a protective barrier. The containers hold sufficient disinfectant for 1,400 pulls of the chain.

Messrs. Sidney Flavel & Co., Ltd., of Leamington, exhibited an extensive range of their well-known heating and cooking apparatus for coal and gas; the gas cookers manufactured by this firm are all fitted with "Flavel" burners, which effect a considerable economy in gas consumption.

An interesting new invention was shown by Mr. A. B. Burleigh, of 69, The Mount, York, in the form of a double socket rest bend for the outgoing pipe from a water closet where the permanence and stability of interior joints is essential. In these days of high vibration from heavy motor traffic the importance of a safe conduit for sewage from the interior of a house to the exterior cannot be too strongly emphasised, and it is claimed that this rest bend is better than an ordinary bend (with its joint in the wall) surrounded and bedded in concrete. The wall is first built, and a cavity left, covered by a cement flag, so that no weight is transmitted on to the bend itself, but comes upon the solid lugs at either side; then, as soon as any slight settlement has taken place, the spigot pipe is brought forward to 2 in. within the outer face. The bend is then passed from the inside to the outside, the drain jointed up, and collared with cement on the outside of the wall. A 2-in. fall is allowed, and if the conditions are bad both ends of the spigot are Stanford jointed; this, however, is not necessary in the ordinary way.

The awards of the jury appointed by the Royal Sanitary Institute included the following:

Silver Medals.—Blundell, Spence & Co., Ltd., Hull: Paints, varnishes, and dry colours. Dominion Machinery Co., Ltd., Halifax: "Elliot" woodworker. Sidney Flavel & Co. Ltd., Leamington: "Leamington" 1923 gas cooker.

Bronze Medals.—The Keystone Varnish Co., Ltd., Hull: "Keystona." Meldrums, Ltd. Timperley, Manchester: "Meldrums" steel cased refuse destructors for hospital use, and "Sack" type portable steam disinfector. The Rawlplug Co., Ltd., London, S.W. 7: Recess screws and outfits, and "Rawlplug" aluminium fittings and bathroom sets.

THE BUILDING TRADE.

ESTIMATING FOR SMALL BUILDERS—IV.

By J. H. BARNS, F.I.O.B.

One of the difficulties in dealing with the cost of manufacture of joinery is the great range of qualities of material and differing standards of labour or degrees of excellence in finish. It is possible to purchase a deal door of average size for 15s., whilst a similar deal door, but of superior quality wood and workmanship, would cost 45s. or over. In both cases all you have is a door. If your customer will be satisfied with the 15s. article, it is useless to quote in keen competition work for a door costing 45s. In round figures, 15s. per door would equal 5s. per ft. cube labour and materials for the finished article, equal to about the cost of materials only for third quality deal of some good brand. In other words, the small builder can buy cheap ready-made joinery at lower prices than he can purchase good materials only.

Exactly the same can be said of a number of articles used in houses. The small builder is not always able to avail himself of the low prices for ready-made joinery, as sometimes the article required has to be made to some special or awkward size which cannot be obtained from stock. He must then either start his general utility carpenter upon the job or arrange for its manufacture by some firm of joinery specialists who cannot carry out small orders for special work at keen cut rates.

With regard to the degrees of excellence in finish, what often happens is that consciously or unconsciously a builder sets up for himself a standard and endeavours to produce either the 15s. or the 45s. door before mentioned, or some grade in between, and the temptation when competition is unduly severe is to reduce the amount of labour expended on the door and instead of supplying the 45s. one he may have wished to provide, he produces an article at 35s.

The methods of manufacture of joinery have so completely changed with the introduction of machinery that many old "Constants of Labour" relating to building work in general and joinery in particular, do not apply. Many of them were based on hand sawing of timber, when top sawyers were a reality, and not mainly a figure of speech. When planing and glass papering had to be done by hand, it was dispensed with where not actually required. New men and new methods are to-day producing an article very similar in appearance to those supplied a hundred years ago. Then why not standardise sizes of ordinary joinery to reduce costs? This would be an interesting conundrum.

As can be seen from the tabular list of prices of deal given in the previous article, the cost of wood 9 in. wide is much greater than that 8 in. wide, it is therefore cheaper to use the latter size where possible. Say use 8 in. rails for doors in lieu of 9 in. Ready-made joinery is usually produced from batten sizes. For window boards, shelves, jamb linings, &c., batten sizes can often be used even when of sufficient width to need joining up.

Example :—

— Squares sup. 1 in. wrought yellow batten flooring, laid with splayed heading joints and cleaning off at completion.

1 square 1″ imported flooring ..	£1	10	0
Waste, say 10 per cent.		3	0
Nails, 5 lbs.		1	8
Labour		6	6
	£2	1	2
Add 15 per cent. profit and on-costs..		6	3
	£2	7	5

The cost of flooring boards will depend upon the quality and width of the wood. The prices are given per square of 100 ft. super. Before the war the number of feet per square varied with the width of the flooring, which is now altered, and all sizes are sold per 100 ft. super.

The following will give some idea of the variation in price of flooring :—

	Per Square. 1″×7″	1″×6″	1″×5½″	1″×5″
1st quality of some good brand ..	29/–	28/–	26/6	26/–
2nd do. do.	27/–	26/–	25/–	24/6
3rd do. do.	25/6	24/6	24/6	23/6

The item of 10 per cent. included for waste is the approximate loss consequent upon planing and cutting to lengths.

Before the war the piecework price for laying 1 in. flooring varied from 1s. 9d. to 12s. 6d. per square. Laying flooring is rather an uncomfortable job and the cost of cleaning off (by planing) the joints varies considerably.

Example :—

— Squares sup. 1 in. wrought yellow batten tongued and grooved flooring laid with splayed heading joints and cleaning off at completion.

1 square 1″ imported T. & G. flooring	£1	10	0
Waste, say 15 per cent.		4	6
Nails		1	8
Labour		7	6
	£2	3	8
Add 15 per cent. profit and on-costs		6	7
Cost per square	£2	10	3

The item for waste includes an amount for loss in measurement due to tonguing and grooving the boards.

The cost of tongued and grooved flooring boards is about the same as square edge flooring.

Yellow Deal Tongued, Grooved and Beaded Matching.

Quality.	Per Square. 1″×7″	1″×6″	1″×5″
1st quality of some good mark ..	30/–	28/6	27/6
2nd quality do.	28/–	27/–	26/–
3rd quality do.	26/–	26/–	25/–

	¾″×7″	¾″×6″	¾″×5″
1st quality of some good mark ..	24/–	22/–	20/–
2nd quality do.	22/–	20/6	18/6

	⅝″×7″	⅝″×6″	⅝″×5″
1st quality as before..	17/6	17/3	17/–
2nd quality do.	16/3	16/–	15/9

	½″×7″	½″×6″	½″×5″
1st quality as before..	15/–	14/9	14/9
2nd quality do.	14/–	14/–	14/–

The above prices are for goods in docks to which must be added cost of delivery, probably 1s. per square.

T. G. and V. jointed matching is usually the same price as T. G. and B. White matching is usually cheaper than yellow.

Example :—

— Squares ¾ in. yellow tongued, grooved and beaded matching in batten widths and fixing to studding.

1 square matching, say	£1	5	0
Waste, 15 per cent.		3	9
Nails		1	0
Labour, say		5	6
	£1	15	3
Add profit and on-costs, 15 per cent.		5	3
Cost per square	£2	0	6

It is not advisable to use matchboarding of less than ¾ in. nominal thickness, as after about 3-16 in. is allowed for planing and preparation the board is too thin to handle without damaging the tongues, &c.

The remarks in Part III relating to price and quality of deals and planed boards, also apply to rates just quoted for planed goods.

Example :—

— Ft. run 7 in. by 1 in. moulded skirting and grounds.

1 ft. run 7″ × 1″ imported moulded skirting			5d.
1′ 3″—2″ × ⅝″ deal ground			1d.
Labour, nails, &c.			4½d.
			10½d.
Add profit and on-costs			1½d.
			1s. 0d.

The length of "ground" given should be sufficient for the horizontal ground and "soldier." If a good job is required, the skirting must be carefully glass-papered or otherwise smoothed over, which would add considerably to the cost. Mitres are usually priced at some proportion of the cost per ft. of skirting. For an elaborate kind it may be worth as much as a foot run of skirting, and for a plainer type less, say quarter or half of a foot run.

Example :—

— Ft. super. 2 in. deal square framed doors.

As an illustration of the method of analysing cost of a 3 ft. by 7 ft. door will be taken. Space prevents the material being set out in detail. It would need :—

	£	s.	d.
13 ft. sup. 2″ deal, at 6/– ft. cub. ..		13	0
11 ft. sup. ⅞″ panels, at 4d. ft. sup. ..		3	8
Waste, 10 per cent.		1	8
Glue, glasspaper			3
Labour (21 ft. at 1/6)	1	11	6
	£2	10	1
Add profit and on-costs		7	6
Total cost of door	£2	17	7

Cost per ft. super, say 2s. 9d.

For further considerations of cost, see remarks above.

It is worth about 15 per cent. of labour cost for taking size and setting out a door. If there are many doors of the same size and description the cost of setting out can be spread over the whole quantity, otherwise it should be specially allowed for in the cost. It is hardly possible to analyse cost of labour involved in manufacture of door as the method of production and the amount of machine work may vary with each firm. If the door has to be prepared to receive a mortice lock it is cheaper to do this during manufacture. A hole can be bored near the end of the middle rail so that the end grain of the wood can be easily mortised. (See Fig. 1.)

The labour of hanging door is included in cost of door and not added to the cost of fixing hinges which are usually billed in the "ironmonger." Prices for other kinds of doors can be prepared

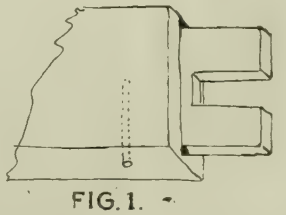


FIG. 1.

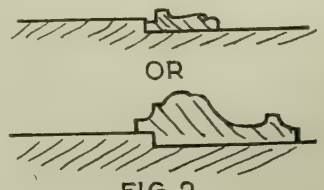


FIG. 2.

on similar lines. It would be worth about 2d. per ft. super per side additional if the door were moulded or bead butt. It is impossible to generalise on the subject as the kind and size of mouldings differ and panels may be of a greater thickness.

A bolection moulded door is one on which the panel moulding projects in advance of the framing, and may be of two kinds. (See Fig. 2.)

Price will depend on the size and description of moulding. Where joinery is required to finish the specified sizes about ⅛ in. should be added for each wrot face. Therefore a door specified to finish 2 in. must come out of at least 2¼ in. deal, and as this size is not imported a larger size must be used and the allowance for waste consequently increased.

Example :—

— Ft. run 4 in. by 3 in. wrot deal rebated and beaded door frame.

This to-day is worth about 15s. per ft. cube, and this by the inch by inch method before mentioned would equal 1s. 3d. ft. run. Labour cost will depend upon whether the frame is prepared in a machine working all four sides at once or by some more costly and more exact method. Other sizes can be worked out on the same basis.

Example :—

— Ft. run 3 in. by 1 in. deal moulded architrave.

1 ft. run imported moulding	1½d.
Waste 5 per cent., and nails .. say	¼d.
Labour	4d.
	5¾d.
Add profit and on-costs	¾d.
	6½d.

Limitations of space will prevent giving examples of prices of different kinds of mouldings. In a large bill of quantities a few dozen sizes of moulding may be stated. The easiest way of pricing them is to rate them out on the basis of some price per ft. cube. The small sizes will cost more than the larger ones. Some method as follows can be used :—

Mouldings up to 3″ square end section per ft. cub.	24/–
Mouldings up to 6″ square end section per ft. cub.	20/–
Mouldings up to 9″ square end section per ft cub...	18/–

	s.	d.
Thus 3″×1″ moulding would cost ..		6
„ 6″×1″ „ „ „ ..		10
„ 9″×1″ „ „ „ ..	1	1½

Mitres as for skirting.

A builder in a small way of business cannot be expected to be sufficiently in touch with prices to be able to go into the small differences which would be necessary in pricing a large bill. In small jobs the cost of labour is very uncertain, as time may have to be added going to and from the job in addition to ordinary costs. As a further instance, the cost of transport for one door if delivered separately is much more than one-twelfth the cost of transporting twelve doors. The cost of the general operations of a small job is about the same as those of works of twice the magnitude. Therefore, meticulous differences in rates are absurd. The best way is to adopt or arrive at some simple method for fixing covering rates for unimportant jobs. For larger works the matter should be more carefully gone into.

From the consideration of a large number of joinery prices it will be seen that the work would fall naturally into three or four categories. The *first*, flooring, matchings, &c.; *second*, mouldings; *third*, doors and frames; *fourth*, windows; and it would be possible to arrive at some general figure for each of these items so as to be able to remember the price, and when the time comes for pricing the estimate this figure could be used with a small addition for any divergence from the hypothetical standard taken.

NOTES ON CONCRETE.

THE EXPANSION AND CONTRACTION OF CONCRETE.

The cracking that sometimes occurs on concrete or cement plaster surfaces and in pipe-joints is due to shrinkage, although it is frequently attributed erroneously to expansion of the cement. In order to make a workable paste, either of neat cement or cement mortar or cement concrete, it is necessary to add more water than can be taken up by the cement during setting, and consequently when the mortar or concrete becomes dry some or all of the excess water which was essential for making a paste has been lost by evaporation. In common with many other materials this drying out and loss of water from concrete are accompanied by contraction, and when the material has not developed a great strength and is not free to move as a whole, the contraction leads to cracking.

Consider the case of the wearing surface of a concrete floor consisting of, say, two and a half parts of granite chippings to one part of cement, which has been laid on a foundation of leaner concrete, probably a mixture of one part cement, two parts sand, and four parts broken stone. The upper surface, being rich in cement, will require more water for mixing than the lower layer, and will consequently lose more water on drying out. Moreover, the upper surface, being exposed to the air, will dry out more rapidly than the protected lower surface. The net result is that the upper layer will shrink more than the lower layer of concrete, and as the two layers under proper conditions will adhere, the upper layer becomes stretched. If the shrinkage takes place within a day or two of laying the concrete it is probable that cracks will occur on the surface.

Means of prevention are: (1) to use no more water in the concrete than is necessary, so that the loss of water on drying and consequent contraction are reduced to a minimum; (2) to protect the concrete surface from rapid drying by keeping it damp for at least fourteen days, so that the shrinkage does not take place until the concrete is strong enough to resist the tendency to crack.

The causes of cracking and the means of prevention are similar in the case of cement plastering, except that in this case there is the additional danger of the brickwork (or other material to which the plaster is applied) being porous, and unless this porosity is corrected by thorough and complete soaking with water, some of the water in the plaster will be absorbed by the brickwork, and the tendency to crack will be greater.

In the case of pipe jointing, if neat cement be used the risk of cracking through contraction is considerable, because of the greater proportion of water that disappears when neat cement is used. But when care is taken to prevent too rapid drying, neat cement can be used for pipe jointing with perfect success. There is, however, no need to use neat cement for this work, because a mixture of one part of cement to one part of clean, fine sand will make a watertight joint at less expense and with less tendency to crack, because the contraction will be less than with neat cement. The covering of each joint during setting is, however, always desirable.

If the ends of the pipes to be jointed are not perfectly glazed they will probably be porous, and should be soaked with water before jointing is done. Referring to the mistaken idea, sometimes expressed when a range of pipes fails under the pressure test, that the cause is the unsoundness or expansion of the cement, it should hardly need pointing out that an expansive cement would burst the collars of the pipes, whereas what happens in 99 out of 100 pipe-joint failures is the leakage of water through cracks in the cement jointing.

In concrete work, where a porous aggregate such as broken brick is used, it is important to soak this thoroughly with water, otherwise contraction cracks are liable to occur, because water is absorbed from the setting cement by the porous aggregate.

The measure of contraction that occurs after cement has set has been accurately investigated, and when a bar of neat cement is kept in the dry atmosphere of a warm room it may contract up to about 0.2 per cent. in length, such contraction usually occurring in the first week and not increasing thereafter. A bar made of mortar or concrete will contract under the same conditions up to about 0.06 per cent., or at the rate of ¾ in. in a length of 100 ft. It will be obvious that a span of 100 ft. of concrete cannot contract three-quarters of an inch without cracking, and this is why concrete roads are laid with joints at intervals. By this device the unsightly, irregular cracks that would occur in a large concrete surface are prevented, and in their place are straight and regularly spaced joints.

On the other hand, if a concrete is kept damp immediately after setting, or if a dried concrete of any age is wetted, there is a slight expansion, amounting to about 0.01 per cent., or ⅛ in. in 100 ft.

It is possible for concrete and mortar to expand to a considerable degree, but only under two conditions, viz., when an unsound cement is used, or when an unsuitable aggregate is used. Unsound cements of British manufacture are rare nowadays, and the risk from this condition is remote, especially where a guarantee of compliance with the British Standard Specification is obtained. The unsuitable concrete aggregates that may give rise to expansion are those containing unburnt or partly consumed coal, a high proportion of sulphur in a certain chemical state and a high proportion of lime. A concrete floor made with an aggregate, such as boiler ashes containing coal, can expand to such an extent as to force out the walls between which the floor is laid, and there have been many examples of this occurring. The precise reason why coal should behave in this manner has not yet been satisfactorily explained, and it is particularly unfortunate that a cheap material like boiler ashes should be practically useless as a concrete aggregate on this account. An aggregate with a high proportion of sulphur is occasionally met with in the form of broken bricks where the bricks have been made from clay containing pyrites.

OBITUARY.

Sir Henry Holloway.

We regret to announce that Sir Henry Holloway, J.P., governing director of the well-known firm of builders and contractors, Holloway Bros. (London), Ltd., died at his London house, Draxmont, Wimbledon Hill, on Monday.

Born on August 5, 1857, the fourth son of the late Thomas Holloway, of Lavington, he founded the business which bears the family name in conjunction with his brother, the late Thomas Holloway, J.P., in 1882. Sir Henry Holloway—he was knighted in 1917—was also a member of the boards of several other prominent companies, and was a past President of the Institute of Builders and of the London Master Builders' Association.

Housing Subsidy.

A subsidy of £100 per house is being granted by Rhondda Council to encourage building by private local enterprise, on condition that it will be applied to reduce cost of the house, to enable it to be sold or let economically.

The Lyceum Theatre.

Messrs. Hooper & Hooper are cleaning and redecorating the auditorium of the Lyceum Theatre. The suspended and other scaffolding has been erected by Messrs. Palmer's Travelling Cradle & Scaffolding Co., Ltd., and the paint used is Messrs. Berger's "Matone."

BUILDING EDUCATION

A CORRESPONDENT writes :—

It is a regrettable fact that organisation in the building trades, so far as it applies to the instruction and training of lads and apprentices, has not been developed to the extent that it has in some other industries, notably, that of engineering. Whatever may have been the underlying reasons for this state of affairs, the industry as a whole is awaking to the fact that if our future builders are to carry out their work with efficiency and economy, and to uphold the worthy traditions of the past, more attention will have to be given to thorough courses of technical instruction.

For various reasons it is becoming increasingly difficult to obtain such instruction in the workshop, and technical institutions throughout the country are having to deal with the problem to an increasing degree. In order to further this work over 60 teachers of building subjects, from all parts of the country, have recently been in attendance at a course in London, organised by the Board of Education, for the dual purpose of taking "refresher" courses of lectures in certain subjects by well-known specialists and of conferring together on matters affecting their teaching work. The course, which is the fifth of its kind and is held annually, has extended over a fortnight, and its benefits to the teachers and through them, it is hoped, to a much wider circle can hardly be over-estimated. The courses of lectures have comprised "The Design of Buildings," by Mr. T. P. Bennett, F.R.I.B.A.; "Mechanics and Structures," by Mr. F. E. Drury, M.I.Struct.E., F.I.S.E.; and "General Building Science and Laboratory Work," by Mr. A. Everett, B.Sc. (Hons. Lond.). Separate lectures were also given by Sir Frank Baines, C.B.E., M.V.O., on the "Restoration of the Roof of Westminster Hall"; by Mr. C. G. Dobson, P.A.S.I., on "Building Accountancy"; by Dr. R. E. Stradling, M.C., Ph.D., A.M.Inst.C.E., on "Materials of Construction"; and by Mr. A. S. Barnes, H.M.I., on "The Evolution of Hand Tools." In addition there have been visits to places of technical interest such as the new buildings in Oxford-street for Messrs. Selfridge and Messrs. Peter Robinson, the research laboratories of the Building Research Board at Acton, the Royal Institute of British Architects, the Architectural Association Schools, and various museums.

One of the most important parts of the course has been the holding of two official conferences; one at the invitation of the Institute of Builders, to consider the recently devised scheme of examinations for admission to the Institute, and the other at the invitation of the Surveyors' Institution, to discuss the new standard form of quantities for building work. In both cases there is reason to hope that the frank interchange of views which took place will prove of permanent benefit to the industry as a whole, particularly as the teachers present represented the provinces to an extent which is usually difficult to obtain in London.

There can be no doubt as to the benefit of the course to teachers themselves; particularly to those who "plough a lonely furrow" in remote and thinly-populated districts. The sense of comradeship and solidarity and the broadening of views which resulted will be a help and inspiration to all who took part.

To Mr. Hugh Davies, H.M.I., who organised the course, to his colleague, Mr. J. L. Manson, H.M.I., who assisted him, and to the authorities of the Westminster Training College, who provided such excellent facilities for the course, the thanks of all concerned are due. It is to be hoped that the work of this course will, if possible, be extended in the future and that all who are interested in the provision of technical education in the building industry will appreciate the value of the work done.

Five firms of solicitors were concerned in the transfer of a piece of land, costing £135, at Ivinghoe (Bucks).

ENGLISH PLASTIC DECORATION.

AT the Department of Architecture, Surveying and Building, Northern Polytechnic Institute, recently, Mr. E. F. Jackson, of Messrs. G. Jackson & Sons, Ltd., Rathbone-place, London, gave a lecture on "English Plastic Decoration."

Dealing with the materials used in the past and at the present time, he said he would first of all deal with the stucco duro of the Italians (carbonate of lime) which was selected limestone, thoroughly well burnt and slaked for many years, well thumped together, beaten and chopped, and so toughened that it became quite flexible and very malleable; it was mixed with very finely ground Carrara marble dust, fine sand and various materials for fattening the stucco, for retarding the setting and regulating shrinkage and cracking, such as rye, dough, gluten of rice, plaster of Paris (sulphate of lime), fig juice, sugar or molasses. He now used dextrine, which was a sugary material to harden lime or plaster of Paris. To come to modern times, the Italians were the principal workers in stucco duro. A band of artists were trained by Raphael and carried out much stucco work in Italy and France, which could be seen to-day in the Vatican at Rome, many of the Italian palaces, and in many of the old palaces, châteaux and houses in France.

Almost the first stucco duro work in England was executed at Nonsuch Palace, and then at Longleat and Hardwicke Hall, by an English plasterer named Charles Williams, who had worked under the Italians, but owing to the difficulty of obtaining the marble dust and other ingredients, the use of stucco duro died out and the use of parge plaster became general in England in the late sixteenth and early seventeenth century. This was composed of very old lime, sharp sand, powdered tiles, cowdung, and ox-hair. It was very tenacious, tough and weatherproof, and with it the early timber-frame buildings of England were covered externally and internally.

The plasterers' work in England gradually developed, ceilings and friezes and cornices became richer and heavier in design, and the simple plain moulded ceiling rib widened into an enriched band with modelling between the containing mouldings. Those mouldings were run on the ceiling in stucco and later on in plaster of Paris, and the ornament was bedded in between the mouldings, shields, cartouches, sprays of flowers, &c., being inserted in the panels so formed by these bands. Then the ceilings and friezes of many well-known country houses were covered all over with a modelled entwining, a spiral growth of stem work of the vine, rose, laurel, and other forms of foliage, or else with grotesque figures, shields, flowers, or heraldic emblems. During the Elizabethan and Jacobean period the character of the modelled plaster work improved.

They now came to the time, after visits to Italy by Inigo Jones and visits to France by Christopher Wren, when plaster decoration became far more elaborate and much bolder in detail and altogether different in character. A great deal of work at that period was done by Italians assisted by English plasterers, and the use of Italian stucco duro was revived. Cornices were heavily moulded with leaf, and egg and tongue mouldings and modillion blocks. Friezes were executed with swags or laurel or oak leaves, and the ceilings were covered with wide bands and mouldings, forming ovals, circles, or square and oblong panels. Those bands were ornamented with elaborate fruits and flowers and leaves with entwining stems.

The use of the old stucco duro did not long survive, as it was found difficult and expensive to get the proper materials, and gradually ordinary stucco, viz., lime and hair and sand and plaster of Paris were again used, although the result was not so good, as it was impossible to obtain the same effect in this softer and less plastic material, or the same degree of hardness and durability and sharpness of edge on the leaf or flowers and thinness of substance which stucco duro was capable of taking and retaining. Following that elaborate phase of ornament a severer style of plaster work, but based on the same form of ornament, became general, fostered by Vanbrugh, Archer, Chambers, Hawksmore, Kent, Gibbs, &c. That work was more architectural in design and the ornamental work was not so free or undercut.

After referring to the period when the French work of the time of Louis XIV was badly copied in England, the lecturer said, stucco work had now fallen to its lowest ebb and practically came to an end, giving way to the rising school of the brothers Adam. That work was very delicate in design and was based on the antique. The material used by the brothers Adam for their ceilings, friezes and wall ornaments was a mixture of gypsum and fibre with a glutinous compound known as liardets preparation. Much work based on the antique and the Adam school was done in the following years by or under the direction of Paine, Richardson, Morris, Taylor and Holland and others; the details of the ornaments were perhaps not so delicate or refined, but much of the decorative work on the ceilings and panel mouldings was very good, and was being largely used and copied in the scheme of decoration at the present time. During the early Victorian period plaster work was very bad and consisted of nondescript details, mixed up with Greek ornament in the cornices, panel mouldings and ceilings. Plaster of Paris was much employed for casting these ornaments, but after the middle of the nineteenth century, the quality of the work commenced to improve and towards the end of the nineteenth century was again far more artistic, good work being done by many well-known plaster firms. That revival was principally owing to the introduction of fibrous plaster and gelatine moulds into England by the firm he was connected with.

The lecture was followed by a brief discussion. Mr. T. P. Bennett, F.R.I.B.A., thanked the lecturer.

The lecture was illustrated by some excellent cinematograph views of the manufacture of fibrous plaster, the films being taken in Mr. Jackson's works at Rathbone-place.

The Prince of Wales's Visit to Stone Quarries.

On the occasion of the recent tour of the West Country by the Prince of Wales, His Royal Highness visited the famous Ham Hill Stone Quarries in Somerset. Some typical examples of the finished product of the hill were displayed, noteworthy exhibits being some stonework for the new buildings of King's School, Sherborne, where extensions are being made to the school under the direction of the architect, Sir Reginald Blomfield, R.A. The Ham Hill stone is an oolite which derives its beautiful yellow colour from the iron it contains. This stone has been used in the building of practically all West country churches and mansions. At the entrance to the quarry the Prince was received by Colonel C. J. Trask, T.D., a director of the Ham Hill and Doulting Stone Co., who was presented to the Prince, as also was Mr. W. Trask (chairman of the directors) and Colonel F. N. Quantock-Shuldham. The Prince passed between machinery in motion and great blocks of stone, either finished or in the process of completion. His Royal Highness was escorted to a spot overlooking the quarry, which is of considerable depth. The Prince watched the men busy at work beneath him, while away on the far side a great crane was hoisting a huge block of stone to the surface. The Prince was greatly interested in all he saw and in the description which Colonel Trask gave him of the principal features of the stone. His Royal Highness asked many questions of those accompanying him—how long the particular quarry below him had been working, and the nature of the work done by the men.

THE RENT ACT: STATUTORY TENANTS.

THE case Felce *v.* Hill, which we noted in our issue for May 11 last, has been carried to the Court of Appeal, where the decision of the Court below has been affirmed. It raises a point we have frequently drawn attention to—the position of landlord and tenant under the Rent Act where the tenant holds over as a statutory tenant and the landlord continues to receive rent. The defendant in this case had been a tenant of the plaintiff under a three-years' agreement, which ended March 25, 1918. At the expiration of this term nothing had been said by either party, and the tenant remained in possession, paying the rent as before. On July 12, 1920, however, the landlord served upon her a notice of increase of rent, and this increase was duly paid. But on June 12, 1921, the landlord served a notice of further increase and as the tenant did not pay the first quarter's rent as increased, the landlord brought this action to recover it. In the action the tenant set up the defence that, after the expiration of the original term, she had become a tenant from year to year, and was entitled to six months' notice to determine this yearly tenancy, and, as no such notice had been given, she claimed to set off the amounts she had paid as increased rent since July 12, 1920. The plaintiff contended she was a statutory tenant under the Rent Act.

Now, apart from the Rent Act, if a tenant at the expiration of a term holds on with the landlord's consent, tacit or expressed, he holds on as a yearly tenant, and the inference may be drawn from the conduct of the parties that such a new agreement has been entered into, but the Court of Appeal held that the operation of the Rent Act prevented that inference from being drawn, for the tenant at the expiration of the original term became a statutory tenant, and was bound to pay the rent and could not be given notice. Therefore at the expiration of the term of three years she became a tenant on sufferance, or at most at will, and the landlord but for the Rent Act would have been entitled to obtain possession without giving any notice to quit. The judgment given for the plaintiffs in the County Court and Divisional Court was, therefore, affirmed.

The case is at present shortly reported as a head-note, and we notice the Court held that really the point was covered by the authority of Shuter *v.* Hersh (1922 1 K.B. 438; *The Builder*, July 28, 1922), and Newell *v.* Crayford Cottage Society (1922 1 K.B. 656; *The Builder*, April 28, 1922). As regards this latter case we shall have to see how the Court dealt with it when the case is fully reported, for, apart from dicta in the case, the decision was that in the case of a weekly tenancy an increase can only be demanded after notice to quit has been given, but Shuter *v.* Hersh decided that the receipt of rent from a statutory tenant does not waive a notice to quit or create a new tenancy.

So recently as July 20 we drew attention to the fact that Section 16 subsection (3) of the Act, which enacts that acceptance of rent by the landlord for a period not exceeding three months from the expiration of the notice to quit shall not be deemed to prejudice any right to possession, had not been applied in Shuter *v.* Hersh or any subsequent case, and it appears not to have been dealt with by the Court of Appeal in this case so far as the report at present shows. As we have explained before, this subsection was passed when the law was different from what it has since been decided to be, for at the time it was recommended by the Rent Commission it was then the law that receipt of rent even from a statutory tenant created a waiver (see Hartell *v.* Blackler, *The Builder*, July 20, 1920), but in the following year it was decided in Davies *v.* Bristow (*The Builder*, August 26, 1921) that receipt of rent from a statutory tenant could not be deemed to create a waiver and, since this latter decision, the subsection, instead of assisting landlords, has tended to cut down the effect of the latter decision and created difficulty.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick-layers.	Car-penters, Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Brick-Masons' Labourers.	Plas-terers' Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Bedford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4	
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½	
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Cambridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Chatham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Chelmsford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Colchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½	
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0	
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½	
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Great Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0	
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Ipswich	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½	
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4	
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½	
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Luton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Maidstone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Norwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Oxford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½	
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Reading	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Rochester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
St. Albans	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Scarborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	0/11½	
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0	
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Windsor	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/6½	1/5½	1/1½	
York	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	

(For rates of wages in the Building Trade in Scotland, see page 227.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk advertised in this number. Certain conditions beyond those given in the following information imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any der; that a fair wages clause shall be observed; that no allowance will be made for tenders; and t deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names hose willing to submit tenders, may be sent in; the name and address at the end is the person from whom blace where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING

UGUST 11.—**Barnstaple.**—CATTLE RING.—For tion of cattle ring in market, for the T.C. Borough veyor, Barnstaple.

UGUST 11.—**Cilfynydd.**—PAINTING.—For painting decorating Bethel C.M. Chapel, Cilfynydd, near typridd. Mr. Thomas Davies, Tea Caddy, ynydd.

UGUST 11.—**Hayes, Middlesex.**—HOUSES AND ERS.—Erection of 50 houses, with sewers, at es, Middlesex, for the Great Western (London) den Village Society, Ltd., Hayes Estate. Mr. lwyn Lloyd, 6, Cathedral-road, Cardiff. Deposit 3s.

UGUST 11.—**Horwich.**—MARKET ERECTIONS.—tion of stalls, sheds, &c., for the Public Market he U.D.C. Surveyor, Public Hall, Horwich.

UGUST 11.—**Hull.**—Construction and fixing of tidal gates, at the main drain outfall, Lime-street, . Particulars from Engineer's Office, 8, Hengate, erley, Yorkshire.

UGUST 11.—**Pudsey.**—VARIOUS WORKS.—For recon-tion of conveniences and improvements to play-nd at Greenside School, for the T.C. Messrs. on & Birkinshaw, architects, 15, Park-row, Leeds.

UGUST 13.—**Dartford.**—ENGINE HOUSE, &C.—struction of an engine house, cottage, road and ge, drainage, and other contingent works at sford, Dartford, for the Metropolitan Water Board. Henry E. Stilgoe, Chief Engineer, 173, Rosebery-ue, E.C. 1. Deposit £5.

UGUST 13.—**Glasgow.**—PAINTING.—For the painter k at the Fruit Market, Candleriggs, Bell-street and on-street, for the T.C. Office of Public Works, Cochrane-street, Glasgow.

UGUST 13.—**Hereford.**—DWELLING HOUSES.—tion and completion of dwelling houses (20, 24, 8), on the Portfields Estate, Hereford, for the sing Committee of the Corporation, City of Here- proposed housing scheme. Mr. H. E. Bettington, etary, The Hereford Associated Architects, Ltd., ce Chambers, Hereford. Deposit £2 2s.

UGUST 13.—**Keighley.**—MASONS' WORK.—For ons' work required in connection with erection ar memorial. Borough Engineer, Town Hall, ley.

UGUST 14.—**Bangor.**—HOUSES.—Erection of houses on the Deanfield Estate, for the T.C. Surveyor, Bangor.

UGUST 14.—**Clayton.**—PAINTING.—(1) Painting 28 es, Central Housing Site, Clayton; and (2) 18 es, Clayton Heights Housing Site, for the T.C. James Wyld, Surveyor, Council Office, Clayton, Bradford.

UGUST 14.—**Dorchester.**—ADDITIONS.—For addi-, alterations, &c., at the Dorset County Hospital, hester. Mr. F. T. Maltby, architect, Dorchester.

UGUST 14.—**Glasgow.**—SHOPS.—Erection of three and four double shops at Drumoyne, for the Mr. J. Lindsay, Town Clerk, City Chambers, ow.

UGUST 14.—**Irlam.**—HOUSES.—Erection of 24 es for the U.D.C. Mr. W. H. Gamble, Surveyor, cil Office, Irlam. Deposit £5 5s.

UGUST 14.—**Llanerfyl.**—CHAPEL.—Erection of el and shoolroom. Mr. R. A. Ford, architect, illoes.

UGUST 14.—**Newbridge.**—PAINTING.—For painting girder bridge over the River Dee, for the Denbigh-C.C. Mr. E. W. Jones, County Offices, Denbigh.

UGUST 14.—**Poplar.**—OVEN.—Supply and erection ick-built bakers' oven at Hospital of Poplar and ey Sick Asylum Board. Mr. Sydney G. Wright, St. Andrew's Hospital, Devon's-road, Bow, E. 3.

UGUST 14.—**Wallasey.**—HOUSES.—Erection of 30 s on the Belvidere-road Housing Site, for the T.C. W. H. Travers, Borough Engineer, Town Hall, sey. Deposit £2 2s.

UGUST 15.—**Barnstaple.**—PAINTING.—For painting he Barnstaple and North Devon Dispensary. J. H. L. Brewer, Hon. Sec., Barnstaple.

UGUST 15.—**Birmingham.**—EXTENSIONS.—For ex-ns to the Union Offices, Edmund-street, for the l of Guardians. Mr. James Curtis, Clerk, Union s, Edmund-street, Birmingham. Deposit £5.

UGUST 15.—**Grampound-road.**—HOUSE.—Erection idence. Mr. A. J. Cornelius, architect, Truro.

UGUST 15.—**Houghton-le-Spring.**—HOUSES.—Erec-of six aged miners' homes at Houghton-le-Spring. A. Emery, Hetton-road, Houghton-le-Spring.

UGUST 15.—**Leeds.**—POINTING.—For pointing por-of the stonework at the Town Hall. Mr. W. T. shire, City Engineer, Municipal Buildings, Leeds.

UGUST 15.—**London, E.**—FLATS.—Erection of a of flats in Pritchard's-road, Shoreditch, London, e Commissioners of H.M. Office of Works. Con-Branch, H.M. Office of Works, King Charles-, London, S.W. 1. Deposit £1 1s. (payable to ecretary).

UGUST 15.—**Pontardawe.**—REPAIRS.—Repair of and buildings at Cefn Celfi, near Rhos, Cilybebyll, rdawe, for the C.C. Agricultural Committee. . Mansel Franklen, Clerk, Glamorgan County Cardiff.

AUGUST 16.—**Bingley.**—RENOVATIONS.—For internal renovations at Bingley Training College: (*a*) Hostel "Ascham"; (*b*) Hostel "Alcuin"; (*c*) College Block. Education Department, County Hall, Wakefield.

AUGUST 16.—**Eston.**—GREENHOUSE.—Erection of greenhouse, for the Eston and Normanby Burial Board. Clerk, Burial Board, Normanby, Eston.

✱AUGUST 16.—**Middlesbrough.**—HOUSES.—Erection of 180 houses on Garden Colony Estate, for the T.C. Mr. S. E. Burgess, Borough Engineer, Middlesbrough.

AUGUST 17.—**Whitley and Monkseaton.**—HOUSES.—Erection of one pair of houses, divided into four flats, one block of six Type "A" (living room) houses. Mr. A. J. Rousell, Surveyor, Council Offices, Whitley Bay. Deposit £2 2s.

AUGUST 18.—**Bristol.**—FLATS.—Erection of two blocks of flats at Lawford's Gate, for the T.C. Housing Department, 51, Prince-street, Bristol. Deposit £2.

AUGUST 18.—**Newcastle-on-Tyne.**—NURSES' HOME.—Erection of a large nurses' home on the Dunholme Site, Westgate-road, for the Board of Guardians. Mr. Gladstone Walker, Clerk, 127, Pilgrim-street, Newcastle-upon-Tyne. Deposit £10.

AUGUST 18.—**Southend-on-Sea.**—CLUB.—Erection of club premises for Southend Labour Institute Society. Mr. N. Evans, architect, 27, County Chambers, Weston-road, Southend. Deposit £3 3s.

AUGUST 18.—**Willington.**—HOUSES.—Erection of 30 houses on the Willington Dene Housing Site. Messrs. Hays & Gray, AA.R.I.B.A., Wingate, Co. Durham.

AUGUST 20.—**Dover.**—PAINTING.—For painting and incidental work at the Isolation Hospitals, Tower Hamlets, and Poulton, for the T.C. Mr. Wm. Boulton Smith, Borough Engineer, Maison Dieu House, Dover.

AUGUST 20.—**East Ham.**—CONVERSION.—For the conversion of open-air swimming baths in Central Park into dressing rooms, &c. Mr. J. Birch, Borough Engineer, Town Hall, East Ham, E.6. Deposit £1.

✱AUGUST 20.—**Islington, N.19.**—ALTERATIONS AND ADDITIONS TO LAUNDRY BUILDINGS AND PLANT.—(*a*) Alterations and additions to the laundry buildings; (*b*) alterations and additions to the plant and machinery, &c., in the laundry at the Infirmary, Highgate Hill, N., for the Guardians of the Poor of the Parish of St. Mary, Islington, in the County of London. Mr. Edmund J. Harrison, Lic.R.I.B.A., 23, Berkeley-road, Crouch End. N.8. Deposit £2.

AUGUST 20.—**Leeds.**—HOUSE.—Erection of a house on the Weetwood Estate, Headingley, for Mr. G. D. Lumb. Messrs. Jones & Stocks, architects, 56, Prudential Buildings, Park-row, Leeds.

AUGUST 20.—**Nenagh.**—HOUSES.—Erection of eight houses, for the U.D.C. Town Clerk, Nenagh. Deposit £2 2s.

AUGUST 20.—**Middleton-in-Wharfedale.**—VARIOUS WORKS.—(1) Painting, (2) road-making, and (3) boundary wall, gates, &c., at Sanatorium, for the West Riding C.C. Health Committee. West Riding Architect, County Hall, Wakefield.

AUGUST 20.—**Penistone.**—VARIOUS WORKS.—Works at Penistone Grammar School: (1) New floor in cookery room; (2) conversion of gymnasium into class-room and class-room into gymnasium. Education Department, County Hall, Wakefield.

AUGUST 20.—**Walthamstow, E.17.**—HOUSES.—Erection of a total number of houses not exceeding 100 at Higham Hill site, Billet-road, Walthamstow. Contractors may tender, for two or more houses, for the Walthamstow U.D.C. Mr. G. W. Holmes, A.M.I.C.E., Engineer and Surveyor to the Council, Town Hall Annexe, Orford-road, Walthamstow, E.17.

AUGUST 20.—**Woolfold.**—PAINTING.—For painting at Wesleyan School. Mr. G. F. Camm, 6, Lamel-street, Tottington.

AUGUST 21.—**Cape Town.**—RESIDENCES, &C.—For erecting residences for men and women, Principal's house, and other contingent works at the site of the new University buildings, Groote Schuur, for the University Council. High Commissioner for South Africa, Trafalgar-square, London, W.C., and Messrs. Hawke & McKinlay, and C. P. Walgate, The Rhodes Buildings, St. George's-street, Cape Town. Deposit £10.

AUGUST 21.—**Chelmsford.**—SHELTER, &C.—For the erection of a shelter, convenience, and dressing room for ladies in the Recreation Ground, for the T.C. Borough Engineer, Municipal Offices, Chelmsford.

AUGUST 21.—**Islington.**—GARAGE.—Erection of a garage at Studd-street, P.O. Stores, Islington, N., for H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit, £1 1s.

✱AUGUST 21.—**London.**—PAINTING WORKS.—For the execution of painting works at the South-Western District Post Office, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

AUGUST 21.—**Oxford.**—EXTENSION.—Extension (for Telephone Exchange) of Oxford Head Post Office, for the Commissioners of H.M. Office of Works. Contracts' Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s. (payable to the Secretary).

AUGUST 21.—**Walsingham.**—PAINTING.—For external painting of 12 houses, for the R.D.C. Mr. W. O. Humphrey, Surveyor, Fakenham.

✱AUGUST 23.—**London, E.1.**—RENOVATING AND REDECORATING.—Renovating and redecorating at the Schools, at Green-street, Upton Park, E.7, for the Guardians of the Parish of St. George in the East. Mr. R. M. Lochner, Clerk, Guardians' Offices, Raine-street, Old Gravel-lane, E.1, on receipt of stamped (postage 6½d.) addressed, large size envelope.

AUGUST 23.—**St. George-in-the-East.**—DECORATIONS.—Renovations and redecorations at the Schools, at Green-street, Upton Park, E. 7, for the Board of Guardians. Mr. R. M. Lochner, Clerk, Offices, Raine-street, Old Gravel-lane, E. 1.

AUGUST 23.—**Swansea.**—HOUSES.—Erection of 14 houses on Llanerch Estate, for the T.C. Mr. E. E. Morgan, Borough Architect, 3, Prospect-place, Swansea.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick-layers.	Car-penters, Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Masons'	Brick-layers'	Plas-terers' Labourers.
Aberdeen	1/7	1/8	1/7	1/7	1/8	1/8½	1/4½	1/-		
Airdrie	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½		
Alexandria	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2		
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1		
Ayr	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½		
Bathgate	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/1 to 1/2		
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—		
Bo'ness	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2		
Coatbridge	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½		
Dumbarton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2		
Dumfries	1/5	1/5	1/5	1/5	1/5	1/6	1/5	1/1 to 1/2		
Dundee	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½		
Dunfermline	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½		
Edinburgh	1/7	1/7	1/7	1/7	1/8	1/7	1/6½	1/2½		
Falkirk	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½		
Fort William	1/7	1/6	1/6	1/6	1/6	1/6	1/6½	1/1½		
Galashiels	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/1		
Glasgow	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½		
Greenock	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/1 to 1/2½		
Hamilton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½		
Hawick	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/1½		
Helensburgh	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½		
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2		
Kilmarnock	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½		
Kirkcaldy	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½		
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-		
Lanark	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½		
Leith	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½		
Motherwell	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½		
Perth	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½		
Stirling	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½		
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½		
Wishaw	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½		

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 226.

AUGUST 25.—**Ebbw Vale.**—HOUSE.—Erection of sexton's house at Ebbw Vale Cemetery, for the U.D.C. Mr. P. I. Davies, Surveyor, Ebbw Vale.

AUGUST 25.—**Percy Main.**—HOUSES.—Construction of two dwelling houses at Low Row, Percy Main, for the Tyne Improvement Commissioners. Mr. Richard Aughton, General Manager, Tyne Improvement Commission Offices, Bewick-street, Newcastle-upon-Tyne. Deposit £2 2s.

AUGUST 25.—**Portrush.**—HALL.—Erection of Masonic hall. Mr. A. J. Clarke, architect, 11, Kerr-street, Portrush.

AUGUST 28.—**Cape Town, South Africa.**—MEDICAL SCHOOL.—Erection of a new Medical School and other contingent works at Groote Schuur, near Cape Town, for the Council of the University of Cape Town. High Commissioner for the Union of South Africa, Trafalgar-square, London, W.C. Deposit £2.

AUGUST 29.—**Blyth.**—HOUSES.—Erection of 50 houses, for the T.C. Borough Engineer, Municipal Buildings, Blyth.

AUGUST 31.—**Barking, Essex.**—SHEDS.—Completing the erection of two open resting sheds, at their Faircross Elementary School, in their district. One shed is about 90 ft. × 30 ft. in two spans; the other about 55 ft. × 15 ft. in one span, each consisting of cast-iron columns and light fir-framed roofs covered with corrugated asbestone, for the Barking Town U.D.C. Mr. C. J. Dawson, Clock House Chambers, Barking.

✱AUGUST 31.—**Barking, Essex.**—BUILDING.—Erection of a Centre for Domestic Instruction, about 43,000 cub. ft., at the site of the Westbury School in this district. Quantities, &c., on and after August 21, at the office of the Council's Architect, Mr. C. J. Dawson, F.R.I.B.A., Clock House Chambers, Barking. Deposit £22s.

✱AUGUST 31.—**Sutton-in-Ashfield.**—BATHS.—Erection of public swimming baths, for the Sutton-in-Ashfield Miners' Welfare Committee. Mr. L. Dodsley, architect, Bainbridge Chambers, Brook-street, Sutton-in-Ashfield. Deposit £2 2s.

SEPTEMBER 1.—**Brentford.**—CONVENIENCE.—Erection of a public urinal at the Recreation Ground, St. Paul's-road, for the U.D.C. Mr. W. J. W. Westlake, Clifden House, Brentford.

SEPTEMBER 1.—**Royston, near Barnsley.**—HOUSES.—Tenders are invited for the erection of 12 houses, for the U.D.C.; also the roadmaking and laying of sewer. Messrs. Dyson, Cawthorne & Coles, 10, Regent-street, Barnsley.

✱SEPTEMBER 3.—**Dartford.**—HOUSES.—Erection of 24 houses at Ship-lane, Sutton-at-Hone, for the R.D.C. Mr. Eustace J. Hobbs, Clerk, Council Offices, West Hill, Dartford. Deposit £2 2s.

✱SEPTEMBER 3.—**Norwood, S.E.**—EXTENSION.—For an extension of the playroom at The Children's Home, "Cumberlow," Goat House Bridge, Norwood, S.E., for the Guardians of the Poor of the Lewisham Union. Guardians' Offices, 394, High-street, Lewisham, S.E. Deposit £1 1s.

SEPTEMBER 4.—**Cardiff.**—PAINTING.—(1) External painting, City Lodge, East; (2) external painting, City Lodge, West, for the B.G. Mr. R. Stephenson, Clerk, Union Offices, 1½, Park-place, Cardiff.

✱SEPTEMBER 4.—**Hampton, Middlesex.**—HOUSES.—Erection of 24 houses on the Priory-road site, Hampton, for the Urban District Council. Mr. Sidney H. Chambers, Surveyor to the Council, Public Offices, Hampton, Middlesex. Deposit £2 2s.

SEPTEMBER 12.—**Woolwich, S.E.18.**—PAINTING, &c.—Painting works, &c., to the premises Furze Lodge, Plum-lane, Plumstead, for the Guardians of the Woolwich Union. Messrs. Whincop & Channer, architects, 42, William-street, Woolwich.

✱NO DATE.—**Gosport.**—ALTERATIONS AND ADDITIONS.—Alterations and additions to the premises 127, High-street, Gosport. Messrs. Timothy White & Co., Ltd. (Construction Dept.), 30, Chandos-street, Portsmouth.

NO DATE.—**Leeds.**—HOUSES.—Erection of two houses and shops, Crossgates-road. Messrs. Fred. Mitchell & Sons, architects, 9, Upper Fountaine-street, Albion-street, Leeds.

NO DATE.—**Northallerton.**—TURBINE HOUSE.—Erection of new turbine house, for Messrs. Miles Sykes & Co., Ltd. Messrs. Glendinning & Hanson, architects, 15, Commercial-street, Halifax.

✱NO DATE.—**Lancashire.**—HOUSES.—Erection of houses for Messrs. Pilkington Bros., Ltd. Messrs. Abercrombie & Johnson, Architects, 20, Priory-place, Doncaster.

FURNITURE, MATERIALS, etc.

AUGUST 11.—**Bootle.**—ROAD MATERIAL.—Supply of 670 yds. of 6 in. × 12 in. deep granite kerb, and 850 yds. of 12 in. × 6 in. granite channels. Borough Engineer, Bootle.

AUGUST 13.—**Bristol.**—STORES.—Supply of stores to the Port Authority. Chief Engineer, Avonmouth Docks.

AUGUST 20.—**Wakefield.**—MATERIALS, &C.—Supply of road materials, tools and implements, to the Highways Committee of the West Riding C.C. West Riding Surveyor, County Hall, Wakefield.

AUGUST 22.—**Belfast.**—MATERIALS.—Supply to the Belfast and County Down Railway Co. of stores for twelve months. Storekeeper, Belfast Terminus.

AUGUST 27.—**Bermondsey.**—MATERIALS.—Supply of various materials to the B.C. Mr. Fredk. Ryall, Town Clerk, Town Hall, Spa-road, S.E.

AUGUST 27.—**Chatham.**—KERB.—Supply of granite kerb and setts to the T.C. Mr. R. L. Honey, Borough Engineer, Town Hall, Chatham.

AUGUST 27.—**Johannesburg.**—PAINT.—Supply of 200 gallons of aluminium paint to the T.C. Department of Overseas Trade, 35, Old Queen-street, S.W.

NO DATE.—**Aberdare.**—SUPPLIES.—For supply for period of six months from October 1 next of following articles to the Powell Duffryn Steam Coal Co., Ltd.:—(1) Bar and other iron; (2) bolts, nuts and rivets; (3) gun-metal fittings; (4) asbestos, indiarubber; (5) colliers' tools; (6) ironmongery; (7) steel girders, channels and rails; (8) nails; (9) oilskin clothing; (10) cast steel tram wheels and axles, &c.; (11) steam and Williams' joint tubes and fittings; (12) brattice cloth, waste and yarn, &c.; (14) chains; (16) timber, (18) hay; (20) wire ropes, &c.; (21) pit wood; (21a) Baltic pit wood; (22) lime and cement; (23) electric cable, accessories, &c. The Stores Manager to the Company, Aberaman Offices, Aberdare.

ENGINEERING, IRON AND STEEL.

AUGUST 11.—**Barugh.**—HEATING APPARATUS.—Installation of heating apparatus, **Primitive Methodist Church, Barugh.** Mr. J. Tissington. Barugh Bridge, Barugh.

AUGUST 11.—**Hull.**—TIDAL GATES.—Construction and fixing of new tidal gates at main drainage outfall. Mr. G. T. Bradley, M.I.C.E., Engineer to the Trustees, Drainage Offices, Hengate, Beverley.

AUGUST 11.—**Leighton Buzzard.**—HOT WATER INSTALLATION.—Providing and fixing hot water installation and other work in connection with same at the Grove Isolation Hospital, near Leighton Buzzard. Mr. Chas. W. B. Calcott, Clerk, 30, High-street, Leighton Buzzard. Deposit 10s. 6d.

AUGUST 11.—**Warrington.**—PUMPS.—Provision and erection of three electrically-driven centrifugal pumps at pumping stations, for the T.C. Mr. James Gray, Waterworks Engineer, Municipal Offices, Warrington. Deposit £1 1s.

AUGUST 13.—**Enfield.**—BOILER.—Supply of vertical boiler for sewage works, for the U.D.C. Mr. T. W. Scott, Clerk, Public Offices, Enfield.

AUGUST 13.—**Greenock.**—FENCING.—Erection of the iron boundary fences at the Upper Cornhaddock Housing Scheme, for the T.C. Office of Public Works, Municipal Buildings, Greenock. Deposit, 10s. 6d.

AUGUST 14.—**Birkenhead.**—HEATING INSTALLATION.—Installation of heating apparatus at the Telephone Exchange, Birkenhead. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

AUGUST 15.—**Edinburgh.**—HEATING.—Installation of heating apparatus at the General Register House, Edinburgh. Engineer, H.M. Office of Works, 4–5, Drumsheugh-gardens, Edinburgh. Deposit £1 1s.

AUGUST 15.—**Manchester.**—ELECTRIC LIGHTING.—For supplying and fixing electric service mains to the Nurses' Home, at the Booth Hall Infirmary, for the Board of Guardians. Mr. Hargreaves, Superintendent of Works, Union Offices, All Saints, Manchester.

AUGUST 18.—**Selby.**—ELECTRIC LIGHTING.—For the installation of electric lighting in the Selby Wesleyan Chapel. Mr. W. T. Blackburn, Brayton-road, Selby.

AUGUST 15.—**Solihull.**—HEATING INSTALLATION.—Installation of heating and hot-water services and steam mains, &c., for Solihull Institution. Mr. Chas. H. Cook, Clerk, Union Offices, Solihull. Deposit £3 3s.

AUGUST 17.—**Walsall.**—WEIGHING MACHINE.—Providing and fixing of a weighing machine (8 to 10 tons) at their Institution, of the B.G. Mr. A. H. Lewis, Clerk, 29, Leicester-street, Walsall.

AUGUST 18.—**Chorley.**—ELECTRIC LIGHTING.—Supply and fixing of the necessary wiring and fittings required in connection with the lighting by electricity of a portion of the interior of the Town Hall. Borough Surveyor, Chorley.

AUGUST 21.—**London.**—ELECTRICAL INSTALLATION.—For electric wiring installation at Somerset House, for H.M. Commissioners of Works. Contracts Branch, King Charles-street, S.W. Deposit, £1 1s.

AUGUST 21.—**Manchester.**—STEELWORK.—For constructional steelwork required for the provision and erection of a new sub-station in Gorton. Mr. F. E. Hughes, Secretary, Electricity Department, Town Hall, Manchester. Deposit £1 1s.

AUGUST 25.—**Hamilton.**—GAS HOLDER.—Erection of a spiral guided gasholder and steel tank of approximate capacity of 1¼ million cubic ft., for the T.C. Mr. David Robb, Engineer, Hamilton Gas Works.

AUGUST 29.—**London.**—WEIGHBRIDGES.—For providing and fixing a new 20-ton weighbridge at each of the following institutions: Northern Fever Hospital, Winchmore Hill; Queen Mary's Hospital, Carshalton; Darenth Training Colony, Dartford; Tooting Bec Mental Hospital Extension, Tooting, S.W., for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit, £1.

AUGUST 31.—Chile.—HARBOUR WORKS.—Extension of the mole of the Port of Valparaiso and complementary harbour works, depots, &c., for the Navy. Chilean Legation in London.

AUGUST 31.—**Sheffield.**—BRIDGE.—Designs and tenders for reinforced concrete bridge over River Don at Leppings-lane, for the T.C. Surveyor, Town Hall, Sheffield. Deposit £5.

AUGUST 31.—**Tottenham, N. 15.**—REFUSE DESTRUCTOR.—Dismantling certain cells, boilers, economiser, &c., and the substitution of a modern refuse destructor plant at the Refuse Destructor Works, Down-lane, Tottenham, N., for the Tottenham District Council. Engineer of the Council, Town Hall, Tottenham, N. 15. Deposit £1 1s.

SEPTEMBER 3.—**Dundee.**—BRIDGE.—Erection of plate girder railway bridge over Kingsway, for the T.C. Mr. G. Baxter, City Engineer, Dundee. Deposit £5.

SEPTEMBER 17.—**London.**—MACHINE TOOLS.—Supply of machine tools, for the Council's Tramway Central Repair Depot, Charlton. General Manager, London County Council Tramways, Victoria-embankment, W.C. 2. Deposit £2.

SEPTEMBER 27.—**Chile.**—PORT IMPROVEMENT.—Improvement of the Harbour of Constitucion, for the Chilean Government. Chilean Legation, 22, Grosvenor-square, W. 1.

NOVEMBER 1.—**Siam.**—BRIDGES.—Supply of superstructures of steel railway bridges to Siam State Railways. Messrs. C. P. Sandberg, 40, Grosvenor-gardens, S.W. 1. Charge 28s.

NOVEMBER 30.—**Sydney.**—BRIDGE.—Construction of the superstructure and substructure of a cantilever bridge across Sydney Harbour; also an alternative tender for the construction of the superstructure and substructure of an arch bridge across Sydney Harbour. Agent-General for New South Wales, Australia House, Strand, W.C.

NO DATE.—**Carmarthen.**—HEATING, &C.—For heating and electric lighting Peniel Congregational Chapel. Mr. J. Howard Morgan, architect, 24, King-street, Carmarthen.

NO DATE.—**Rotherham.**—BRIDGE.—Reconstruction of Bow Bridge across the River Rother, in ferro-concrete, on the Hennebique system, for the T.C. Borough Engineer, Town Hall, Rotherham. Deposit £10.

ROAD, SANITARY, AND WATER WORKS.

AUGUST 11.—**Campden.**—WATER MAIN.—Laying of cast-iron water main, collecting chamber, &c., at Broad Campden, for the R.D.C. Mr. H. J. White, 119, St. Aldates, Oxford. Deposit £2.

AUGUST 11.—**Diss.**—ROADS.—Supply on hire during September of a 8-ton steam roller, to the U.D.C. Mr. Alfred Cooper, Surveyor, 9, Market-place, Diss.

AUGUST 11.—**Oswestry.**—SEWAGE WORKS.—Laying of 2,800 yds. of stoneware sewer, for the T.C. Mr. G. W. Lacey, Borough Engineer, Oswestry. Deposit £2 2s.

AUGUST 13.—**Market Harborough.**—ROADS.—For resurfacing about 11,500 yards of road with 3 in. bituminous macadam, for the R.D.C. Mr. F. C. Salmon, surveyor, Kibworth, Leicester.

AUGUST 13.—**Worsborough.**—ROADS.—(1) Excavation, concrete foundations and concrete kerb in situ (2) granite sett paving, for the U.D.C. Mr. T. Shield, surveyor, Saville House, Worsborough Bridge, near Barnsley. Deposit £3 3s.

AUGUST 13.—**Worsborough.**—SEWER.—Construction of 9 in. and 6 in. pipe sewers, from Blackburn-street to Kingwell and Cutting End, for the U.D.C. Mr. T. Shield, surveyor, Saville House, Worsborough Bridge. Deposit £1 1s.

AUGUST 14.—**Adwick-le-Street.**—RESERVOIR.—Construction of a concrete reservoir (capacity 500,000 gallons), for the U.D.C. Mr. George Gledhill, Surveyor, Council Offices, Adwick-le-Street, near Doncaster. Deposit £5.

AUGUST 14.—**Kingussie.**—ROADS.—Formation of roadway and laying of fireclay drain at the Kingussie housing scheme, for the T.C. Mr. A. Cattanach, architect, Kingussie.

AUGUST 14.—**Southend-on-Sea.**—ROADS.—For making up parts of Fairfax-drive, Grange-gardens, Lime-avenue, Porters Grange-avenue, Southview-drive and Eton-road, for the T.C. Mr. R. H. Dyer, Borough Surveyor, Southend. Deposit £2 each road.

AUGUST 15.—**Birkenhead.**—CONCRETING.—For concreting passages, for the T.C. Borough Engineer, Birkenhead. Deposit 10s.

AUGUST 15.—**Leeds.**—ROADS.—For the fixing of kerbs and paving of channels on the Ring-road, from Stonebridge-lane to Swinnow-road, and on the new road from Harrogate-road, Moortown, to Buslingthorpe-lane. Mr. J. B. Hamilton, Commercial Manager, 1, Swinegate, Leeds. Deposit £1 1s.

AUGUST 15.—**Wetherby.**—RESERVOIR.—Construction of a concrete storage reservoir, 100 ft. × 55 ft. × 10 ft. deep, for the Wetherby and District Water Works Co., Ltd. Mr. Fred J. Rodwell (Spinks, Pilling & Rodwell), 37 & 38, Prudential Buildings, Park-row, Leeds. Deposit £1 1s.

AUGUST 16.—**Kilmarnock.**—TENNIS COURTS.—Formation of four municipal tennis courts off London-road, for the T.C. Burgh Surveyor, Kilmarnock.

AUGUST 17.—**Cowdenbeath.**—SEWER.—Laying of 33 lineal yards of 9 in. and 133 lineal yards of 7 in. fireclay sewer, for the T.C. Mr. C. A. Alexander, Burgh Surveyor, Cowdenbeath.

AUGUST 16.—**Wednesbury.**—SEWER.—Construction of 450 yds. of 9 in. stone-ware pipe sewer, for the T.C. Mr. E. Martin Scott, Borough Surveyor, Wednesbury.

AUGUST 17.—**Edeyrnion.**—RESERVOIR, &C.—Construction of a storage reservoir and the providing and laying of about 1,000 yds. of 6 in. and 3 in. water mains at Corwen, for the R.D.C. Messrs. Berrington, Son & Watney, Prudential Chambers, Wolverhampton. Deposit £5 5s.

AUGUST 17.—**Whitley.**—WIDENING.—Widening of the Promenade: (1) At the bottom of the Esplanade (corkscrew steps); (2) fronting the north end of the Waverley Hotel. Mr. A. J. Rousell, Surveyor, County Offices, Whitley Bay. Deposit £2 2s.

AUGUST 18.—**Durham.**—ROADS.—Construction of roads and sewers in connection with housing scheme at Ludworth, for the R.D.C. Mr. Geo. Gregson, surveyor, 38, Sadler-street, Durham. Deposit £2.

AUGUST 18.—**Hale.**—SEWERS.—For sewering Hale-road, for the U.D.C. Mr. T. Blagburn, Surveyor Council Offices, Hale.

AUGUST 20.—**Glasgow.**—ROADS.—Construction of about 3,000 lin. yds. of main road, including the laying of tramways thereon, forming a diversion of the Renfrew-road, between Maxwell-road, Shieldhall, and Millburn Bridge, Renfrew, with three reinforced concrete bridges, carrying the new road over existing and intended lines of railway, for the Clyde Navigation Engineer, 16, Robertson-street, Glasgow. Deposit £5 5s.

AUGUST 20.—**Kirkintilloch.**—WATER WORKS.—Providing and jointing 1,170 lineal yds. of 12 in. diameter cast-iron water pipes from Antermony Loch to Antermony Reservoir, for the T.C. Messrs. W. Copland & Sons, Civil Engineers, 146, West Regent-street, Glasgow. Deposit £1 1s.

August 20.—**Scunthorpe.**—Borehole.—Sinking borehole, for the U.D.C. Mr. W. Farrar, Surveyor, Council Offices, Scunthorpe.

August 21.—**Baildon.**—Roads.—For making-up part of Bank Crest, for the U.D.C. Surveyor, Council Offices, Baildon. Deposit £2 2s.

August 22.—**Limerick.**—Paving.—For paving about 36,166 sq. yds. of roadways with reinforced concrete 7 in. thick, 5,102 sq. yds. with re-dressed granite setts, and 4,974 sq. yds. with new granite setts, for the T.C. Mr. J. J. Peacocke, City Surveyor, Town Hall, Limerick. Deposit £2.

August 25.—**Southgate.**—Sewer.—Construction of surface water sewer and foul sewer, for the U.D.C. Mr. R. Phillips, Surveyor, Town Hall, Palmers Green, N.

August 27.—**Bishop Auckland.**—Sewer.—Construction of about 2,000 yards of 12 in. and 9 in. stoneware pipe sewer. Messrs. Willcox & Raikes, Union Chambers, 63, Temple-row, Birmingham. Deposit £5 5s.

August 31.—**York.**—Roads.—For making up seven streets, for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £1 1s.

September 1.—**Langton Matravers.**—Roads.—Widening and resurfacing of the "Valley-road," Langton Matravers, about 3¼ miles in length, for the Dorset C.C. Mr. W. T. Fletcher, County Surveyor, County Offices, Dorchester. Deposit £2 2s.

September 1.—**West Riding of Yorkshire.**—Roads.—For various road works in the districts of Saddleworth, Stanley, Birstall, Castleford, and Pontefract, for the C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

September 3.—**Mitcham.**—Roads.—For the making-up of Lewis-road, for the U.D.C. Surveyor's Office, Broadway House, London-road, Lower Mitcham.

September 3.—**Uckfield.**—Sewage Works.—Construction of sewerage and sewage disposal works at Waldron, for the R.D.C. Mr. J. Taylor, Henley House, Uckfield. Deposit £3 3s.

No Date.—**Watford.**—Roads.—For constructing about 500 ft. of roads, with sewers and storm-water mains. Cassiobury Estates, Ltd., 31, High-street, Watford.

Competitions.

(*See Competition News, page* 202.)

Auction Sales, Tenders, etc.

✱August 13.—**Borough, S.E.**—Messrs. Charles R. Davis & Co. will sell by auction builders' and decorators' plant and materials, at 37, Union-square, Union-road, under a D/A *re* W. C. Alderman, by order of the trustee; and other estates. Auctioneers, 285, Borough High-street, S.E.1.

✱August 14.—**Clerkenwell, E.C.**—Messrs. Charles R. Davis & Co. will sell (*re* Small & Sons, Ltd.), by order of the receivers and managers for the debenture holders, at the yard and workshops, No. 19½, Compton-street, St. John-street, Clerkenwell, E.C., the whole of the builders', contractors' and decorators' materials and plant; also a capital 1-ton Ford lorry. Auctioneers, 285, Borough High-street, S.E.1.

August 15.—**London, S.E.5.**—Messrs. Donaldson & Sons will sell, by order of liquidator *re* G. Hardy & Co., Ltd., at 88, Camberwell-road, S.E.5, the lease of the capital business premises 88, Camberwell-road, held for 5½ years at £65 per annum, with vacant possession of two floors, workshop and offices, two large workshops, large yard and shed. The dwelling-house is let off, producing £118 10s. 4d. Immediately following, the builder's stock will be sold. Auctioneers, 252, Queen's-road, Dalston, E.8.

✱August 21.—**London, S.W.**—Messrs. Veryard & Yates will sell, without reserve, at 255, Clapham-road, S.W. (close to "Swan," Stockwell), timber, fittings and building materials arising from demolition of a commodious residence. Auctioneers, 365, Norwood-road, S.E.27.

August 21, 22 and 23.—**Eltham.**—Mr. F. H. Clark will sell, without reserve, timbers and materials contained in the Women's Hostels, Well Hall-road. Auctioneer, Railway Wharf, York-road, Wandsworth.

August 23.—**London, E.C.**—Messrs. B. Norman & Son will sell re Chinns, Ltd., in liquidation, by order of the liquidator, removed from 7, Waithman-street, Ludgate-hill, for convenience of sale. Valuable London stock of brasswork, &c., plate-glass showcases, mirrors, office furniture. Auctioneers' Sales Rooms, 5, Little Britain (close to G.P.O.).

✱September 4, 5, and 6.—**Sussex.**—Mr. F. H. Clark will sell, without reserve, the whole of the huts and building material contained in South Camp, Seaford, Sussex. Auctioneer, Railway Wharf, York-road, Wandsworth.

Public Appointments.

August 20.—**Lambeth, S.W.2.**—Junior Engineering Assistant required in the Borough Engineer's Department by the Metropolitan Borough of Lambeth Council. Mr. Bruce Penny, Town Clerk, Lambeth Town Hall, Brixton Hill, S.W.2.

August 20.—**Stoke-on-Trent.**—Competent Temporary General Architectural Assistant required by the County Borough of Stoke-on-Trent. Mr. A. Burton, Borough Surveyor, Town Hall, Stoke-on-Trent.

August 20.—**East Ham, E.6.**—Clerk of Works required to supervise the erection of extension to the Town Hall and Public Offices by the Town Council of the County Borough of East Ham. The Borough Engineer, Town Hall, East Ham, E.6.

✱September 3.—**Middlesex.**—Architect or Building Surveyor required by the Justices of the Gore Division of Middlesex to examine the plans of alterations, &c., proposed in licensed premises, and to advise them thereon. The Clerk to the Justices, Edgware, by enclosing a stamped addressed envelope.

THE LAW OF HIGHWAYS.*

The last edition of this standard work on highways appeared in 1911, and if in the twelve years that have elapsed much water has run under the bridges, it is equally true to say much traffic has run over the highways; and it is not only the quantity of that traffic which has increased in that period, but its quality has also entirely altered. The problem of our highways is a very serious one in consequence, and much attention will have to be given to this subject in the near future and thus this latest edition of a well-known treatise appears at a particularly opportune time. The law of highways has always been a complicated subject, but recent developments and numerous statutes have rendered the subject even more abstruse. This can be appreciated when we say that the present volume, apart from the tables of statutes, tables of cases, and index runs to 1,309 pages of clear but not very large print, but the authors have not neglected to extend that helping hand to the practitioner and reader—an excellent index—which also occupies 172 pages. That the law does not stand still while the traffic moves on is proved by the fact that the authors, in their preface, state that they have added more than 400 references to cases decided since the last edition went to press, and also over a hundred references to decisions delivered before that date. The work is divided into two parts—I, The law of highways considered independently of Statute law, and, II, Statutes relating to highways, main roads, streets, and bridges.

As regards recent legislation, the authors state that perhaps the most striking changes in the law have been the transfer of the powers relating to highways from the Local Government Board, first to the Minister of Health and finally to the Minister of Transport; the supersession by the Minister of Transport of the Road Board and the Light Railway Commissioners; and his acquisition of most of the Board of Trade's powers in relation to roads, bridges, and traffic. It is unnecessary to inform our readers that many of the subjects included in this treatise are of especial interest to them; buildings and highways are closely connected and the material statutes such as the Public Health Acts, the Private Streets Act, and the Locomotive and Highway Acts and other legislation are dealt with in these pages. In connection with the latter Act the authors in their preface point out that the law of "extraordinary traffic" has attained greater certainty and, of course, this is fully dealt with.

The subjects treated of seem to have been brought well up to date, for we find the decision we commented upon so recently as May 25 (The King *v.* Adams on licences for taking material for highways) included in the text, and, so far as we have tested it, the same may be said of other parts of the work. In our legal section (November 25, 1921), we drew attention to a point in connection with the case Macclesfield Corporation *v.* Macclesfield Grammar School, on what is a reasonable time to allow frontagers, called upon to make up a street under the Public Health Act, 1875. The learned judge in that case intimated that the time must be reasonable in connection with the work each frontager was called upon to do, and not, as has, we believe, usually been the view, a reasonable time for the performance of the job as a whole, and we pointed out that this was an extremely important point to frontagers, as it would prejudice them in the time allowed them for the work. This case is, of course, referred to in those pages, but the point we raised was that the dictum was not material to the actual decision where three months was held a reasonable time for the whole work, and the authors are more than justified in passing over an obiter dictum without comment.

We cannot pass from this work without quoting one further passage from the preface. "The old problem of how to accommodate the highways to increased and novel traffic, and to avoid the restriction of such traffic within present limitations, is with us in an urgent and intensified form. We observe in the spheres of politics and litigation the struggle between the often opposed interests of the State and local authority, the railway or canal company and the users of traffic. It is certain that during the next few years fresh legislation will be effected from time to time, and the law of highways will become an increasingly important, and, it is to be feared, an increasingly complicated subject." The state of our highways is in even a more confused state than the law relating to them, and the users of the highways cannot have their way made clear by any text book. The complication in the law can be faced therefore with comparative equanimity so long as text books like that we are reviewing are provided, erecting sign boards at every difficult corner, but the congestion of the traffic itself is an even more difficult problem. No recommendation of a standard work which is in its seventeenth edition is required, but we may say that there appears every reason to believe that the present edition will prove as useful as its many predecessors, and will be even more welcomed, as it is an exhaustive exposition of the law on a subject which every day is growing in public importance as the highway has now become the rejuvenated rival of the railway.

* "Pratt and Mackenzie's Law of Highways, being the Law of Highways, Main Roads, Streets, and Bridges." By Joshua Scholefield, K.C., and Archibald W. Cockburn, M.A., Barrister-at-Law. Seventeenth edition. (London: Butterworth & Co. 1923. 77s. 6d. net. Thin edition 8s. extra.)

NEW COMPANIES.

The particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C. 2, from the documents available at the Companies' Registry.

M. Whiteley, Ltd. (191,390). Registered July 18, 129 and 131, Duddiston Mill-road, Birmingham. Tile fixers and slabbers, brick and tile manufacturers and merchants, builders' merchants and builders and contractors. Nominal capital, £1,000.

Froggatt & Prior, Ltd. (191,383). Registered July 18. 211, Broad-street, Birmingham. To acquire from William Froggatt and Henry Prior the business carried on by them at 211, Broad-street, Birmingham, of building contractors, heating, electrical, wireless and general engineers, sanitary and general plumbers, builders and repairers. Nominal capital, £1,000.

Butcher & Simpson, Ltd. (191,350). Registered July 17. 7, Cochrane-street, Wellington-place, St. John's Wood, N.W. 8. Builders and contractors, &c. Nominal capital, £1,000.

R. O. Arnold, Ltd. (191,363). Registered July 17. Prudential Chambers, Silver-street, Doncaster, York. Builders' merchants, builders and general contractors, &c. Nominal capital, £3,000.

Thos. Higson & Sons, Ltd. (191,269). Registered July 12. Byrom-street Saw Mills, Blackburn. Builders and contractors and all allied trades. Nominal capital, £2,500.

Hartley's (Castleford), Ltd. (191,291). Registered July 13. County Chambers, Castleford, York. Brick and tile, stoneware and earthenware manufacturers, now carried on by Charles Ibbotson Hartley, and Joshua Hartley, at Castleford, Whitwood Mere and Cawood, all in the County of York, under the style of Joshua Hartley & Co. Nominal capital, £40,000.

Guildford and District Guild of Builders, Ltd. (191,248). Registered July 11. To carry on the business of builders and contractors, &c. Nominal capital, £500.

North-East Building Traders' Protection Society, Ltd. (191,571). Registered July 26. 16A, Grainger-street, Newcastle-on-Tyne. To protect the mercantile interests of persons, firms, companies and corporations engaged in the business of builders' merchants. Nominal capital, £100.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	2 15 3	Do. Bullnose	10 1 6
Do. Bullnose	3 8 3	Blue Wire Cuts	7 11 6

Best Stourbridge Fire brick :—

2½ in.	11 3 0	3 in.	13 2 0

Glazed Bricks—

Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
		Two Sides and one End	32 10 0
		Splays and Squints	30 0 0
Headers	21 10 0		
Quoins. Bullnose and 4½ in. Flats	28 10 0		

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. „	2 5	4 in. „	3 7

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand	15 6	„ „
¾ in. Shingle for Ferro-Concrete	14 0	„ „
½ in. „	15 0	„ „
¾ in. Broken Brick	10 6	„ „
Pan Breeze	5 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to	£3 3 6
51/- alongside at Vauxhall in 80-ton lots.	
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 13 0
Keene's Cement, White	5 8 0
„ „ Pink	5 3 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 6
„ Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

Note.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
Bath Stone—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 10
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	3 0½
Portland Stone—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4½
Do. do. delivered on road wagons at above stations, per ft. cube	4 5½
White basebed, 3d. per ft. cube extra.	

Note.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

Hopton-Wood Stone. Delivered at any Goods Station, London.	
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides „	27/-
Sawn three or four sides „	32/-

	s. d.
York Stone, Blue—*Robin Hood Quality.* Delivered at any Goods Station London.	
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 5½
1½ in. to 2 in. ditto, ditto „	1 3
Hard York— Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto. ditto „	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

	s. d.
Delivered in London Area in full van loads.	
Plain per ft. cube	6 6
Moulded „ „	7 9
Cills „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	28 0	2 × 11	34 0
4 × 7	26 0	3 × 9	32 0
3 × 8	26 0	2½ × 9	32 0
3 × 7	25 0	3 × 4½	24 0
2½ × 7	24 10	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅜	20/-	1¼	33/6
½	23/-	1½	38/6
⅝	25/6		

TONGUED AND GROOVED FLOORING.		MATCHINGS (BEST).	
Inches.	per sq.	Inches	per sq.
1	25/6	¾	17/6
1¼	33/6	⅞	22/-
1½	38/6	1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle	0 2 10
Dry Wainscot Oak, per ft. super, as inch	0 2 0 to 0 2 6
¾ in. do. do.	0 1 6 to 0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9 to 0 2 6
Cuba Mahogany	0 3 6 to 0 4 0
Teak (Rangoon, Moulmein or Java), per load	45 0 0 to 50 0 0
American Whitewood planks, per ft. cube	0 14 0 to 0 16 0
Best Scotch Glue, per cwt.	4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or	5 7 6
Staffordshire district	5 12 6
Ditto hand made ditto	5 17 6
Ornamental ditto	0 9 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	

METALS.

Joists, Girders, &c., to London Station per ton—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅛ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

Wrought-Iron Tubes and Fittings—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. Half-Round Gutters—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¾	3¾d.
4 in.	1/4	1/1¾	3¾d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7¾	1/5½	5d.

O.G. Gutters.

3 in.	1/6½	1/2¾	3¾d.
3½ in.	1/6½	1/2¾	3¾d.
4 in.	1/7¾	1/4	3¾d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1¼	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. Coated Soil Pipes—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5½	3 3½
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3½	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. Coated Drain Pipes—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

Per ton in London.

	£ s. d.		£ s. d.
Iron—			
Common Bars	14 0 0	to	15 0 0
Staffordshire Crown Bars—good merchant quality	14 10 0	..	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	13 10 0	..	14 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 10 0	..	14 10 0
Hoop iron, basis price	16 10 0	..	17 10 0
„ Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	15 10 0	..	16 10 0
„ „ „ 24 g.	16 10 0	..	17 10 0
„ „ „ 26 g.	18 10 0	..	19 10 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24 10 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	21 10 0	..	23 0 0

Metal Windows—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
Lead—Sheet, English, 4 lb. and up	34 0 0 .. —
Pipe in coils	34 10 0 .. —
Soil Pipe	37 0 0 .. —
Compo pipe	38 0 0 .. —

Note—Country delivery, 30s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	21 10 0	.. —
Do., ex country, carriage forward per ton	22 10 0	.. —

PLUMBERS' BRASS WORK.

Delivered in London.

New River Pattern Screw Down Bib Cocks for Iron.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

New River Pattern Screw Down Stop Cocks and Unions.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

New River Pattern Screw Down Main Ferrules.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

Caps and Screws.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

Double Nut Boiler Screws.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

Brass Sleeves.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

New River Pattern Croydon Ball Valves. S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

Drawn Lead P. & S. Traps with Brass Cleaning Screw.

	1¼ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps	33/-	41/-	56/-	101/-	per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/-	„

Copper—	£ s. d.
Strong Sheet per lb.	0 2 3 .. —
Thin „ „	0 2 4 .. —
Copper nails „	0 2 3 .. —
Copper wire „	0 2 4 .. —
Tin—English Ingots „	0 2 0 .. —
Solder—Plumbers' „	0 0 11 .. —
Tinmen's „	0 1 1 .. —
Blowpipe „	0 1 3 .. —

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 3 8
„ „ „ in barrels „	0 3 10
„ „ „ in drums „	0 4 1
Boiled „ „ in barrels „	0 4 2
„ „ „ in drums „	0 4 4
Turpentine in barrels „	0 6 6
„ in drums (10 gall.) „	0 6 9
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	55 10 0

Genuine White Lead Paint—

"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	77 0 0
Red Lead, Dry (packages extra) per ton	42 0 0
Best Linseed Oil Putty per cwt.	0 16 0
Filocot per cwt.	0 15 6
Size. XD Quality fkn.	0 3 6

[*Concluded on next page.*]

* The information given on this page has been specially compiled for The Builder and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft
5 oz. fourths	3½d.	32 oz. fourths.....	8½d
5 „ thirds	4½d.	32 „ thirds.....	10½d.
1 „ fourths	5d.	Obscured Sheet, 15oz.	4d.
1 „ thirds	6½d.	21 „	5½d.
6 „ fourths	6d.	Fluted 15oz.	6½d. 21oz. 9½d.
6 „ thirds.....	7½d.	En'lled 15 „	5½d., 21 „ 7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
Rolled plate	4½d.
Rough rolled	5½d.
Rough rolled	5½d
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

	Per gallon	£	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Copal Carriage	ditto	1	4	0
Best ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	18	0
Fine Copal Cabinet	ditto	1	2	6
Fine Copal flatting	ditto	1	0	6
Hard drying Oak	ditto	0	18	0
Fine Hard drying Oak	ditto	0	19	0
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	2	0
Best ditto	ditto	1	12	0
Best Japan Gold Size		0	12	0
Best Black Japan		0	12	0
Oak and Mahogany Stain (water)		0	12	0
Brunswick Black		0	9	0
Berlin Black		0	14	0
Knotting (patent)		1	5	0
French and Brush Polish		0	17	6
Liquid Dryers in Terebine		0	9	0
Brass Black Enamel		0	7	0

PATENTS.*

APPLICATIONS PUBLISHED.*

179,516.—Wirebounds Patents Co.: Machines for use in making boxes.

197,100.—H. W. L. Pell: Grates or gratings for street gullies.

197,124.—H. N. Wylie: Portable structures.

197,220.—G. R. Sandford and W. T. Summers: Ladders.

197,221.—J. J. Evans and J. T. Ramsden: Safety-device for use with ladders.

197,228.—J. J. Ferguson: Heating systems for buildings.

197,250.—D. A. MacAskill: Windows.

197,258.—R. A. Hooper: Sliding-sash windows.

197,713.—M. Bacchiolelli and A. Meifred-Devals: Manufacture of articles made of melted igneous rocks.

197,735.—F. G. Lynde and E. L. Lynde: Apparatus for producing and imparting vibrations, particularly applicable for vibrating or tamping concrete while in a plastic state.

197,767.—J. Honey: Posts for attachment to tables and shelves.

197,768.—R. Heath and Low Moor, Ltd., and J. E. Harvey: Bars for reinforcing concrete.

197,790.—J. Lyons & Co., Ltd., A. Goddard, and G. Douglass: Systems of control for lifts.

197,791.—C. S. Garnett, W. A. Reid, F. E. S. Greenwood, and F. S. Cowlishaw: Composition and manufacture of refractory basic bricks.

197,800.—T. Wiggans: Sash fasteners.

197,808.—N. R. Bennet: Frames of school desks.

197,819.—F. J. Brougham (Perfect Window Regulator Co.): Rotatable handles and means for mounting them.

197,821.—S. Templeman and Co-operative Wholesale Society, Ltd.: Sliding doors of show cases and cabinets.

197,822.—J. Platt: Saws.

197,842.—C. Y. Hopkins and J. Cartland & Co., Ltd.: Means for actuating fanlight windows

*All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

197,849.—J. E. M. MacGregor: Opening and closing mechanism for fanlights and other lights.

198,758.—R. Bendall: Construction of roads and other similar work, and concrete slabs therefor.

198,759.—A. G. Gray: Derricks or cranes.

198,779.—Cleveland Bridge & Engineering Co., Ltd., and C. W. Hill: Machinery of drawbridges, cranes and dock gates.

198,783.—L. Alwyn: Manufacture of moulds for making concrete or like beams, blocks, columns.

198,803.—E. R. Appleton: Collapsible frames for tents and tables.

198,808.—W. E. Siday and J. T. Tidd: Brackets or supports.

198,817.—W. Green: Ceramic material.

198,820.—L. C. MacBean: Screw-down water taps.

198,823.—J. H. James: Method or process of manufacture of cabinet or like catches and anti-friction runner fittings.

198,825.—W. Carpmael (Chemische Fabriken vorm. Weiler-ter Meer): Process for impregnating wood.

198,863.—Caswell & Shearing, Ltd., and G. F. Caswell: Guy derricks.

198,884.—E. Somerfield: Construction or preparation of ground or floor surfaces suitable for hard-court Tennis and Badminton.

198,887.—W. A. J. Morrow: System of mural decoration.

198,896.—J. G. Zwicker: Apparatus for moulding pipe sections.

TRADE NEWS.

Messrs. Fenlon & Son, of 8, Tudor-street, E.C., have issued an illustrated pamphlet giving their latest list of geysers. The illustration shows the "C.C. Fleet" geyser, a high-grade geyser with closed chamber and detachable interior for cleaning or repair. This, it is



claimed, has been found to meet the demand for an efficient low-priced geyser. The heated water is fit for drinking. The Geyser, which we illustrate, is made of stout, hardened copper (including condensation trough), interior tinned, exterior polished and lacquered.

Messrs. Luckwood & Kesterton, Sentinel House, Southampton-row, W.C.1, have recently opened a builders' merchants business for the supply of all general ironmongery, hardware sanitary goods, cast iron baths, &c.

Mr. Frederick Parker has removed to Viaduct Works, Catherine-street (extension), Leicester, where he has larger and more commodious premises.

NEW BUILDINGS IN SCOTLAND.

Aberdeen.—Hospital Scheme.—At a meeting of the Royal Hospital for Sick Children it was stated that Mr. and Mrs. Herbert Taylor, of Rhu-na-Haven, Aboyne, had offered to pay for the site allocated to the hospital, provided the new scheme is proceeded with in a reasonable time. The estimated cost of the site at Foresterhill and Burnside is £5,550.

Glasgow.—Various.—At the last meeting of the Dean of Guild Court plans for new buildings at the corner of Trongate and Stockwell-street, for the Corporation, were deferred for further consideration. The estimated cost of the buildings was £190,000. The following plans were approved:—The Corporation Housing Department, streets and sewers at Hamilton-hill; MacFarlane, Lang & Co., 38, Wesleyan-street, additions to biscuit factory, Clydeford-drive, Tollcross, at £23,000; the Govan Ropework Co., Ltd., Helen-street, Govan, additions to work on the west side of Helen-street; the Rev. William Ogg and other, trustees of Mount Florida United Free Church, a church hall at the church, Cathcart-road and Hampden-street; Dallas's, Ltd., Milton House, 160–174, Cowcaddens-street, additions to property at Cowcaddens-street; James Craig (Glasgow), Ltd., 10–38, Woodlands-road, alterations to premises at 123–127, Sauchiehall-street; and Brown & Adam, Ltd., Riverbank Works, Pollokshaws, additions to works at Riverford-road, Pollokshaws.

Prestonpans.—School.—East Lothian Education Authority decided to build a new secondary school at Preston Lodge, Prestonpans.

Edinburgh.—Library Alterations.—The Corporation Public Library Committee has asked the City Architect to obtain tenders for the alterations necessary for installing the open access system in the Central Library.

Buckie.—Houses and Shops.—The T.C. has passed plans for a house and shops at Baron-street for Mr. C. Forbes, baker, and a store in Baron-street, for Mr. A. Grant, carting contractor.

Dumfries.—Houses.—The foundation stone of the municipal houses at Cresswell has been formally laid. This scheme is the first in Scotland on which building operations have actually been started under the new Housing Act.

Edinburgh.—Various.—At the last meeting of the Dean of Guild Court a warrant was granted to the city for the reconstruction of the flooring in the Synod Hall and the erection of tip-up seats. The flooring will be graded from back to front and the seats arranged in semi-circular rows. The cost will be £8,000. Warrants were also granted for the conversion of houses at Merchiston-avenue and Glencairn-crescent, while the erection of a cottage at Pinkhill and semi-detached houses at Riselaw-crescent and Ravelston Dykes were also approved. The North British Cold Storage and Ice Company, Leith, received a warrant to erect an additional story to their building for offices.

Aberdeen.—Schools, &c.—The T.C. Plans Committee have passed nineteen plans, at an estimated value of £11,000. These included plans for Aberdeen Grammar School former pupils' memorial pavilion at Harlaw-road, at an estimated cost of between £4,000 and £5,000. Six plans were for garages and two for bungalows.

Portobello.—Tramways.—The Tramway Committee recommends the Edinburgh Corporation to lay down electric tramways between Seafield, Leith and Portobello.

Housing Subsidy for Builders.

The Rhondda U.D.C. has decided to encourage building by local enterprise by granting a subsidy of £100 per house to builders subject to satisfactory safeguards being arranged to ensure that any subsidy so paid would be applied in reducing ultimate cost of the house so as to enable it to be sold or let on an economic and self-supporting basis.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in under pinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights ; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail ; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and	
Casement stays	1/2	making good	19/-
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	51	0
Do. Do. in flats	"	49	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	10d.	1/6	1/9	3/1	3/10	
Do. service	"	1/5	1/11	2/3	3/6		
Do. soil	"						6/2
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	" "	2	6
Do. Do. Keen's	" "	3	6
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to	4/-

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

AUDENSHAW.—Plans passed by U.D.C.: Two houses, Droylsden-road, Mr. S. Hadfield; extension of workshop, Planet Foundry Co., Audenshaw; two houses, Kershaw-lane, Mr. A. Lomas; shop, Mrs. Shaw.

BEXHILL.—Plans passed by T.C.: Dwelling-house, Cooden-drive, by Mr. A. C. Morris Edwards, for Miss J. E. Bone; dwelling-house, Bedford-avenue, by Messrs. Strouds, for Mrs. F. M. Crawford; residence, Ninfield-road, by Mr. J. E. Maynard, for Mr. Leeson; detached house, Kewhurst-avenue, Cooden, by Mr. D. B. Sceats, for Mr. A. G. Seaward; bungalow, Mayo-lane, Sidley, by Mr. D. B. Sceats, for Mr. H. Gillam; bungalow, Wickham-avenue, by Messrs. R. W. Price & Sons, for Miss K. Williams; dwelling-house, Sutherland-avenue, by Mr. H. W. Hetherington Palmer, for Mr. F. Climpson; dwelling-house, De La Warr-road, by Mr. G. Cash, for Miss L. E. Frost; bungalow, Kewhurst-avenue, Cooden, by Mr. E. H. Gandy, for himself; bungalow, Gillham Wood-road, Cooden, by Mr. E. H. Gandy, for himself; detached house, Barnhorn-lane, by Messrs. Wall, Callow & Callow, for Mr. A. E. Swaffer; dwelling-house, Highlands Estate, Turkey-road, by Mr. G. H. Gray, for Lieut.-Col. C. V. Isacke; residence, Hartfield-road, by Mr. J. H. Lye, for Mr. F. R. Swinburne; residence, Hever-crescent, by Mr. J. H. Lye, for Mrs. C. C. L. Druery; residence, Amherst-road, by Mr. J. H. Lye, for Mr. W. Shannon.

BLACKPOOL.—Plans passed by T.C.: Bungalow, Hemmingway, W. Schofield; house, Hesketh-place, G. H. Dewhurst; house, Leamington-road, P. Round; three houses and two garages, Westmoreland-avenue, B. Small; four houses, Rangway-avenue, H. H. Johnson; four houses, Rangway-avenue, H. H. Johnson; bungalow, Hemmingway, H. Schofield; seven houses, Handsworth-road, A. & E. Fielding; bungalow, Bank-avenue, J. England & Son; two houses, Dale-avenue, Bryning & Done; ten houses, Grenfell-avenue, E. Mason; two bungalows, Arlington-avenue, E. Farrar; two houses, Westmoreland-avenue, A. & H. Saltonstall; house, Boothley-road, C. Smith; six houses, Queensway, H. Wilkinson; six houses, Rothsay-road, A. E. Murdock; six houses, Rothsay-road, A. E. Murdock; three houses, Central-drive, J. Harrison; two houses, St. Anne's-road, L. Pilkington; two houses, Osborne-avenue and Queen Victoria-avenue, Suthers, Wilson & Randall; eight houses, King's-drive and King Edward-avenue, J. & T. Greenwood; two houses, Kirkham-avenue, E. R. Grimshaw; two houses, St. Annes-road, W. Briggs; two houses, Palatine-road and Bennett-avenue, G. Riley; two houses, Westfield-road, R. Marshall; bungalow, Piccadilly, —. Cooke; two houses, Warley-road, Holgate & Saxon; bakehouse, shops and flats, New-road, Dewhurst & Rose, Ltd.; business premises, Henry-street and Field-street, —. Forbes; storeroom, Park-avenue, J. Hardiman; addition, 1, Bryan-road, W. Waller; alterations, "Newlands," Newton-drive, J. F. Kelsall; additions, Rothsay-road, E. Chappell; alterations, Birley-street, Union Bank of Manchester, Ltd.; alterations, 61 & 63, Church-street, S.S., S. Whewell; additions, Bournemouth-road, T. Burton; stable and coach-house, Hawthorne-road, Williams & Co.; garage, 33, Whitegate-drive, Dr. Depree; house, Bournemouth-road, Mrs. S. A. McClean; two garages, 53, Withnell-road, G. Morrison; shop front, 150, Warbreck-road, W. Brown; two bungalows, Bispham-road, Wetton & Williams; two houses and shops, Highfield-road, J. Hill; bungalow, Gloucester-avenue, Mrs. Sanderson; three bungalows, Bank-avenue, J. England & Son.

BOLTON.—Plans passed by T.C.: Mr. Wm. H. Orrell, eleven wash-houses and sculleries, Durban-road; Mr. J. T. Clemmet, garage, 58, Seymour-road; Mr. T. Bolton, two semi-detached houses, Belmont-road; Richard Ball, for alteration to garage, 8, Defence-street; David T. Orrell, garage, 131, Chorley Old-road; W. Barlow, garage, 69, Chorley Old-road; J. C. & F. Woods, pair houses, Church-road; T. Gleave, garage, Greenmount-lane; Leigh Bros., shop, Chorley-Old-road; W. R. Bleakley, house, Chorley New-road; Fred Graham, for tennis pavilion, Regent-road; E. & S. Street, Ltd., pair houses, St. Michael's-avenue; Redfern & Robinson, pair houses, Regent-road; Fred Bennett, house, Regent-road; L. Whalley, bungalow, Bradford-road; A. S. Woods, pair of houses, Easedale-road; Wm. Gornall & Son, pair villas, Carlton-road; Thomas Blakley, pair houses, Green-lane; J. H. Coope, house, Green-lane; F. S. Walker, house, Harper's-lane; G. W. Crompton, paint and ladder store, back Chorley New-road; J. Sharman & Sons, Ltd., extension to premises, "Sir Sidney Smith," Bridgman-street; Thomas Blakley, pair houses, Wigan-road; Bolton Spinning Co., Ltd., new roof to warehouse, Turner Bridge; Waterworks Dept., garage, Bark-street; J. C. & F. Woods, nine garages, Sefton-road; Joshua Taylor, Ltd., seven garages, off Radcliffe-road; Magee Marshall & Co., addition to premises, Stonehouse Farm; Knowles & Green, addition to works, Undershore Bleachworks; Joseph Uttley, 24 houses, Halliwell Lodge Estate; F. H. Cartwright, 24 houses, Hulton-lane; Barlow & Jones, extension to warehouse, Jones-street.

BOURNEMOUTH.—Plans passed by T.C.: House and shop, garages, &c., corner Charminster-avenue and Portland-road, Mr. Hunt; two houses, Lonsdale-road, Messrs. W. E. Jones & Son; nine houses and shops and six garages, Wimborne-road, Mr. C. R. Belbin; ten houses and two houses and shops, Wimborne-road, Mr. H. C. Barnes; block of shops and flats, Old Christchurch-road, Mr. C. G. Knight; additions, "Westwick House," Belle Vue-road, Miss Holland; alterations and additions, "Branksome Lodge," Alumhurst-road, the Trustees of the late Sir Ernest Cassel; additions, "Berkeley Hall," Cliff Cottage-road, Mr. E. Helyar; additions to bungalow, corner Seafield and Tuckton-roads, Messrs. F. A. Griggs & Sons; additions to house, King George-avenue, Mr. Blamers; additions to house, Iddesleigh-road, Mr. J. A. Neathercoate; conversion into shops and flat, 2, Somerset-road, Miss Thompson; additions to bungalow, Charminster-avenue, Mr. J. Brown; alterations and additions, 7, Stourcliffe-avenue, Mr. W. M. Stoate; shop, Old Christchurch-road, Mr. A. E. Page; alterations and additions, 236, Wimborne-road, Mr. J. Gough; additions to motor house, "The Southcliffe Hotel," Southcliffe-road, Mr. R. Duncan; additions to house, Paisley-road, Mr. G. Witt: additions to house, corner Stourcliffe and Pinecliffe-avenues, Mr. Taylor; additions to house and shop, Kimberley-road, Mrs. S. E. G. Ricketts; bungalow, Charminster-avenue, Capt. Whistler; shop and three lock-up garages, West Hill-road, Mr. H. C. Payne; motor house, "Beechwood," Harvey-road, Mr. J. O. Hunt; motor house, Pinecliffe-avenue, Mr. E. R. Saunders; bungalow, corner Charminster-avenue and Court-road, Mr. E. Jones; house and garage, corner Strouden-road east and Bushey-road, Messrs. E. M. Drewitt & Co.; house and garage, Strouden-road east, Mr. J. Wellstead; house, St. Alban's-avenue, Mr. A. Adams; house, Strouden-road east, Messrs. E. M. Drewitt & Co.; house, corner Burleigh and Watcombe-roads, Mr. C. B. Philpot; house, Seafield-road, Mr. H. Litchfield; house, Watcombe-road, Mr. C. B. Philpot; ten houses, Arnewood-road and Herberton-road, Mr. A. Rendall; two houses, Tuckton-road, Mr. H. Litchfield; house, Easter-road, Mr. S. G. Ward; house, corner Penrith-road and Beechwood-avenue, Mr. H. Kneller; house, Glenmore-road, Mr. G. Dolman; bungalow and motor house, Strouden-road, Mrs. M. M. Day; house, Shelton-road, Mr. T. O. Barrett; additions, "Merdon," Westbourne Park-road, Mr. A. H. Dunnill; two houses, Stamford-road, Mr. M. Sellick; house, Court-road, Mr. S. G. Ward: transformer substation, Roumelia-lane, The Bournemouth & Poole Electricity Supply Co., Ltd.; house, Hillbrow-road, Mr. A. H. Elcock; house, King George-avenue, Mr. R. G. Puckett; motor house, 11, Irving-road, Mr. Smith; house, East-avenue, Messrs. G. E. & W. R. J. Lambert; house, Elmes-road, Mrs. A. E. Bower; house, Ravine-road, Messrs. E. M. Drewitt & Co.; house, Beaufort-road, Mr. G. Smith; house and garage, Penrith-road, Mr. J. F. Ellen; house, Ravine-road, Mr. F. H. Butler: four houses, Pine road east, Messrs. Hiscock & Wareham; two houses, Burleigh-road, Mr. M. Sellick; conversion into two flats, 70, Southcote-road, Mrs. A. K. Lacey; house, Wadham-road, Mr. E. D. Duss; house, Surrey-road, Mrs. Bland; alterations and additions to stables, "Denbigh-lodge," Surrey-road, Mrs. Bland; house, Court-road, Mr. E. Mabey; house, Watcombe-road, Mr. A. Williams; house, Watcombe-road, Mr. C. B. Philpott; house, Watcombe-road, Mr. C. B. Philpott; house, corner Wentworth-avenue and Ravine-road, Mr. H. Goode; house, Strouden-road west, Mrs. R. Stone; house, Heytesbury-road, Mr. H. S. Yates; house, Green-road, Mr. C. W. L. Jensen; house, Somerley-road, Mr. C. W. L. Jensen; eight houses, Castlemain-avenue and Amesbury-road, Mr. H. B. Mudge; five houses, Oswald-road, Messrs. S. J. & V. F. Sheppard; bungalow, Queen's Park-avenue, Mr. A. W. Horne; house, Wentworth-avenue, Messrs. Butler & Nabney; house, Queen's Park-avenue, Mr. E. G. Grinlinton; bungalow, Delhi-road, Mr. H. C. Raven; bungalow, Bushey-road, Mr. H. Wormald; house, Lonsdale-road, Mr. A. W. Davies; house, Heathwood-road, Messrs. Hawkins, Bros.; house, Delhi-road, Mr. O. Stroud; house, corner Elmes and Comley-roads, Mrs. A. F. Marshall; additions, 36, Knyveton-road, Mrs. E. M. Wilshere; house, De Lisle-road, Mr. M. O. A. Beer; garage, workshop, &c., Cardigan-road, Messrs. J. & B. Stathers; house, Seafield-road, Mr. H. Litchfield; house, corner Highfield and Boundary-roads, Mr. C. Abbott; conversion into flats, 237, Christchurch-road, Mr. F. W. Denning; two flats, Arcadia-avenue, Mrs. Cook; house, Richmond-Park-road, Mr. W. J. T. Stacey; conversion into flats, 5, Rushton-crescent, Mr. H. Streeter; house, Clarence-Park-road, Mr. J. E. Langdon; house, Holdenhurst-road, Mr. C. Abbott; conversion into four flats, "Stourcliffe House," Ken-road, Mr. W. Hayward; four houses, Elmes-road, Messrs. Jones & Sims; five houses, Pine-road, Messrs. Kennedy's, Ltd.; conversion into flats, "Stafford Lodge," Crosby-road, Mrs. M. R. Smith; ten houses, Cowper-road, Mr. C. K. Habgood; alterations and additions to garage, 74, Richmond-Park-avenue, Mr. R. Keeping; bungalow, Namu-road, Messrs. G. H. Burt & Son; additions, "Highfield," Dean Park-road, Col. Bannatyne; house, Lonsdale-road, Mr. A. D. Lambert.

BROOMS.—The Durham C.C. forwarded to the Board of Education plans for a new Roman Catholic School for 150 children at Brooms, near Leadgate.

CHEADLE.—Plans passed by R.D.C.: Three bungalows in Caverswall Wood, for Mr. Lovatt; lock-up shop at Cookshill, for Mr. T. Smith; alteration to house at Caverswall, for Mr. Hawkins; alterations to "Rising Sun Inn," Cheadle, for Messrs. C. Bunting, Ltd.; bungalow at Blythe Bridge, for Mr. H. Bednall: house, Whiston Bank, for Mr. R. Rainsford; bungalow at Wetley Moor, for Mr. H. Banks: bungalow at Brook-house-lane, Bucknall, for Mr. Mills; conversion of building at Tean, for Mr. W. Bradbury; bungalow, Gorsty-hill, Tean, for Mr. G. Malbon; outbuildings near Kingsley Holt, for Mr. Davall; bungalow at Washerwall, for Mr. Baskeyfield; bungalow and outbuildings at Wetley Moor, for Mr. S. Boldstone; bungalow at Chapel-street, Forsbrook, for Mr. S. Mawdesley.

DOVER.—Plans passed by T.C.: Workshop and lock-up shop at Ashen Tree-lane, for Capt. Noble, by Messrs. Worsfold & Wayward; alterations, 2, Limes-road, for Mr. S. H. Hillman. The T.C. has decided to accept the offer of Major Astor, M.P., to build, and to maintain at his own expense for two years, an adult dental clinic. The site, to be provided for the town, is near to the existing infant welfare clinic.

GELLYGAER.—Plans passed by U.D.C. for twenty houses at Deri, for Powell Duffryn Coal Co., subject to roadway being 18 ft. wide instead of twelve as proposed.——The U.D.C. has accepted £500 grant from the Miners' Welfare Committee in connection with recreation ground lay-out scheme for Bedlinog, and surveyor is preparing plans.

GRAYTHORP.—The E.C. of the Durham C.C. has submitted sketch plans for a new school for 150 children to the Board of Education, at an estimated cost of £1,875.

HAVERFORDWEST.—Plan passed by T.C.: House, opposite Belle Vue-road, for Mr. S. Frank.

ISLE OF WIGHT.—Over 50 acres of the Isle of Wight estate of the late Lord Alverstone is being developed as a garden village. Plans are out for over a hundred bungalow residences on modern lines, and the general scheme provides for tennis courts, a village hall, and public gardens.

ILKESTON.—Plans passed by T.C.: Factory, Awsworth-road, for Mr. A. Booth; house, Awsworth-road, for Mr. A. F. Bidnell; conveniences, "Bull's Head" public house, Little Hallam, for Messrs. Hansons, Ltd.; branch premises, Church-street, for the Ilkeston Co-operative Society.

KENDAL.—Plans passed by T.C.: Bungalow, Aynam-road, for Mr. Wm. O. Brown (architect, Mr. J. Stalker, Junr.); house and shop, Castle-grove, for Mrs. Ridgway (architect, Mr. G. Morland); house, Sedbergh-road, for Mr. Kenneth Webster (architect, Mr. G. Morland); lay-out of site for works and offices on Shap-road, for Messrs. Isaac Braithwaite & Son, Ltd., engineers (architect, Mr. H. E. Scarborough, Carlisle); alterations to sports pavilion, Parkside-road, for Messrs. Somervell Bros.; conversion of warehouse into flats, 97, Stricklandgate, for Mr. Foster Hodgson (architect, Mr. J. Hutton).

LEEDS.—Considerable extensions are to be made by the Leeds University in the department of agriculture. A recent contribution of £10,000 received from the late Mr. Walter Morrison, supplemented by a Treasury grant of £15,000 and a contribution of about £10,000 from the Yorkshire Council for Agricultural Education, has now made it possible for the University to consider the erection of new buildings, and the work will be put in hand shortly. A site of 190 ft. by 125 ft. on the University-road frontage of the University has been allotted.

MANCHESTER.—Plans passed: Conversion of premises into bank, No. 68, Hyde-road and Knutsford-road, Gorton; alterations to "Beswick Inn," No. 23, Rowland-street, Beswick; additions to bakery, Parrot-street, Clayton; conversion of house into shop and house, Hyde-road and Ashwood-avenue, Gorton; alterations to premises, 71, Fairfield-road, Openshaw; additions to works, Louisa-street, Openshaw; alteration to premises, 63, Cross-street and Ellesmere-street, Gorton; addition to works, Palmerston-street, Ancoats; addition to works, Howarth-street, Bradford; additions to works, Edward-street, Openshaw; additions to premises, 15, Oak-street, and Copperas-street, Shudehill; additions to dye works, Monsall-road, Newton Heath; offices and warehouse, 47–51, Mosley-street and Back George-street; alterations to premises, 30, Oldham-road, Miles Platting; alterations to works, Mark-lane and Pump-yard; alterations to shop, 85, Bury New-road, Cheetham; dwelling house, Polefield-road, Blackley; addition to house, 282, Waterloo-road, Cheetham; alterations to premises, Lime-street, Ebony-street, and Back Lime-street, Oldham-road; storage warehouse, Cross Keys-street and Addington-street; offices, the Parsonage, College Land and Parsonage-lane; manager's office, rest room, and lavatories to works, Chapter-street, Newton Heath; reinstating premises, 91, Great Ducie-street and John-street, Cheetham; house, Park-road, Crumpsall; alterations to premises, 37, Corporation-street and Macdonald's-lane; workshops to H.M. Prison, Southall-street, Cheetham; house, Hill-lane, Blackley; alterations to premises, 220, Bury New-road and Ashworth-street, Cheetham; offices, Hendham Vale Works, Hendham Vale; additions to premises, Victoria-street and Cateaton-street; house, Holland-road, Crumpsall; alterations to "Vine Inn," Kennedy-street; economiser house to Lloydfield Mills, Masonic-street, Ancoats; alterations to shop, 632, Stockport-road and Church-road, Longsight; offices and showrooms, Wilmslow-road and Rusholme-place, Rusholme; shop and house, Beresford-road and Montgomery-road, Rusholme; alterations to premises, 191, Upper Brook-street and Nelson-street, Chorlton-upon-Medlock; addition to house, 4, Lancaster-road, Didsbury; house, Melland Playing Fields, Mount-road, Gorton; additions to dancing academy, Brunswick-street, Chorlton-upon-Medlock; warehouse, Ducie street, Stockport-road, West Gorton; house, Macefin-avenue, West Didsbury; house, Sandy-lane, Chorlton-

* See also our List of Contracts, Competitions, etc.

cum-Hardy; 16 houses, Newport-road, Chorlton-cum-Hardy; additions to premises, 94–96, Barlow Moor-road, Chorlton-cum-Hardy; house, Wilbraham-road, Chorlton-cum-Hardy; additions to "The Gables," Manchester-road, Chorlton-cum-Hardy; addition to house, 106, Wilmslow-road, Withington; alterations to premises, 82–84, Barlow Moor-road, Chorlton-cum-Hardy; addition to Fallowfield Conservative Club, Mabfield-road and Langley-road, Rusholme; alterations to warehouse, 16, Oxford-street; alterations to premises, 103–105, Stretford-road, Hulme; conversion of house into flats, 424, Moss-lane East, Rusholme; billiard hall, Upper Chorlton-road, Moss Side; shops and billiard room, 32–49, Stretford-road, Hulme; alterations to premises, 14, Preston-street and Longworth-street, Hulme; brew house to Crown Brewery Renshaw-street, Hulme; offices, stands, &c., Manchester City Football Ground, Maine-road, and Kippax-street, Withington; shops, hall, and premises, Platt-lane, Yew Tree-lane, Lynton-street, and Tintern-street, Rusholme.

NEWTON ABBOT.—Plans passed by R.D.C.: Bungalow at Cowley Park, Moreton; bungalow at Huxner Cross, Kingskerswell, for Mr. O. Swanson; house in Cross-street, Moreton, for Mrs. E. L. Bailey; bungalow at Mount Pleasant, for Mr. J. West; bungalow at Bishopsteignton for Mr. W. Short; and house at Bovey, for Mr. W. Rhoades.

OXFORD.—Plans passed by T.C.: C. Raworth & Son, 79 and 80, St. Aldate's, workshop at north end of Bridewell-square, Speedwell-street; The Governing Body of the Warneford, Cheney-lane, addition of recreation room and dormitory block to ladies' wing of the Warneford Hospital; Lady Kennedy, St. Mary's Lodge, Kidlington, house on south side of Lonsdale-road extension; Messrs. J. H. T. Weatherby, 50, Norreys-avenue, and G. A. Hall, 32, St. Mary's-road, two houses on new estate south of Sunningwell-road; Geo. Weeks & Co., 4, Cornmarket-street, rebuilding their business premises; The Provost and Fellows of Oriel College, conversion of 9 and 10, King Edward-street into four residences; Wooldridge & Simpson, Frenchay-road, eight houses on north side of Bainton-road; J. R. Baffan, 28, Thorncliffe-road, house, Thorncliffe-road.

PONTYPRIDD.—The U.D.C. has received notification of a grant of £4,000 additional, for lay-out of public park.——The Graig ward welfare scheme to include a public hall and library has assumed definite lines; the secretary is Councillor Ben Davies, miners' agent.

ROMSEY.—Plans passed by R.D.C.: Bungalow at Newtown, Sherfield English, for Mr. James Smith; bungalow at Crawley Hill, East Wellow, for Mr. R. E. Street; bungalow at Windwhistle, East Wellow, for Mrs. Petty.

SOUTH SHIELDS.—Plans passed by T.C.: Mr. F. W. Newby for Mr. Wm. Skears, new shop front, 202, Ocean-road; Mr. G. R. Smith, for the Trustees of the United Methodist Church, Birchington-avenue, billiard and recreation room at rear of U.M. Church; Mr. H. Hill for Dr. R. M. Danks, motor garage and alterations, 11 and 13, Cleveland-street; Mr. H. Hill for Mr. R. P. Chipchase, rebuilding of premises at corner of Back Ogle-terrace and Back Albion-terrace; Messrs. T. A. Page & Son for Messrs. G. Thornton & Co., 25 semi-detached houses on building estate at corner of Cemetery-approach and Sunderland-road, Cauldwell; T. A. Page & Son for Mr. Hames, new shop front to premises corner of Hyde-street and Tennyson-street; Mr. J. H. Morton for Mrs. J. Burrows, new shop front, 2, Hampden-street, corner of Stanhope-road.

SURREY.—The C.C. has decided to proceed with a new arterial road from Kingston to Sutton, the estimated cost of which is £567,500.

SOUTH WALES.—The directors of the G.W.R. Co., at a meeting held on August 3rd, instructed proceeding with the following works: Glamorgan—Briton Ferry-road, completion of portion of hump yard, to enable shipment traffic for Swansea Docks to be dealt with by gravitation; Gowerton, construction of cattle pens sidings with independent approach road; Cardiff Docks—provision of floating pneumatic grain-handling plant, capable of discharging grain from ship to shore at maximum of 120 tons per hour; Monmouthshire—Cwmcarn, near Abercarn, provision of new station to serve developing mining district.

WOLVERHAMPTON.—Plans passed by T.C.: A. L. Blower, house, York-avenue; J. L. Wood, house, Richmond-road; C. W. J. Walton, house, Clark-road; C. Freeman, two villas, Clark-road; Freeman, Hardy & Willis, shop front, Queen-street; Star Tea Co., Ltd., shop front, 10 and 11, Queen-street; the Wolverhampton & Dudley Breweries, Ltd., improvements, "Wheatsheaf Hotel," Market-street; J. N. Miller, Ltd., grain storage tanks, Corn Hill; Wolverhampton Society for the Blind, workshop and lavatory, Waterloo-road; T. Thomas, house, Cooper-street; Chillington Tool Co., Ltd., dust exhaust and cyclone house, lavatory, oil and grease stores, Willenhall-road; Cleveland Casting Co., foundry, Hallets-row; S. G. Jones, bungalow, Compton-road; Wolverhampton & Dudley Breweries, Ltd., rebuilding "White Hart," Worcester-street.

WREXHAM.—The borough surveyor has been instructed to prepare a lay-out plan showing a new street, widening of King-street, and a new town hall and municipal buildings.

FIRES.

BATTLE.—A serious fire has occurred at Beauport Park, Battle, the residence of the late Sir Archibald Lamb.

BRADFORD.—A disastrous fire has occurred at Cannon Mills, Great Horton-road, owned by Messrs. Brooksbank.

MERTHYR.—The premises of Messrs. John Lewis, motor engineers, Merthyr and Cardiff, at Old Rink, Park-place, Merthyr Tydfil, were completely gutted by fire, and stock and building loss of estimated value £22,000 incurred.

NORTON MALTON.—As the result of a fire the picture house has been completely destroyed.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

*** Denotes *accepted*. † Denotes *provisionally accepted*.**
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

ABERDEEN.—For dredging of the navigation channel, for the Harbour Commissioners:—

*Tilbury Contracting and Dredging Co., London	£45,913 15

BIRTLEY.—For footpath flagging at Birtley, for the Durham C.C.:—

*Bolam, Simpson & Bolam, Birtley	£1,097 5

BISHOP AUCKLAND.—For improvements to heating apparatus at Girls' County School, for the Durham C.C.:—

*Brightside Foundry and Engineering Co.	£287 10

BOURNEMOUTH.—For paving in Wimborne and other roads, for the T.C.:—

*Limmer and Trinidad Lake Asphalte Co.	£16,411 10 0

BOURNEMOUTH.—For the construction of Boscombe promenade and other works, for the T.C.:—

*Anthony, Fasey & Son	£49,989 12 0

BOURNEMOUTH.—Supply of 120 lamp posts to T.C.:—

*J. J. Armfield & Co.	£395

BOURNEMOUTH.—For repairs and renovations at schools, for the T.C.:—

Moordown C. of E. Boys' School—	
*Jenkins & Sons	£143 0 0
Lansdowne Council School (A)—	
*Jenkins & Sons	96 0 0
Lansdowne Council School (B)—	
*Jenkins & Sons	132 0 0
Winton St. Luke's School—	
*Jenkins & Sons	114 0 0
Westbourne St. Ambrose School—	
*F. Spencer	49 8 0
St. Paul's School—	
*Binden & Son	116 0 0
Boscombe St. John's School—	
*H. C. Coates & Son	175 0 0

BRIDGEND.—For supply to U.D.C. of motor fire engine:—

Leyland Motors (Ltd.)	£1,525

CARDIFF.—For the erection of a depot at Velindra-road, Whitchurch, for the R.D.C. Mr. Wm. Farrow, engineer, 20, Park-place, Cardiff:—

Shail (Llandaff), Ltd., Llandaff, Glam.	£3,686 0 0
James Stephens, Cardiff	3,511 17 10
Knox & Wills, Ltd., Cardiff	3,500 0 0
Henry Jones, Cardiff	3,495 10 7
Bradford & Davies, Cardiff	3,344 0 0
S. & J. Williams, Cardiff	3,336 18 11
Newcombe & Co., Cardiff	3,190 0 0
E. R. Evans, Bros., Ltd., Cardiff	3,167 11 8
E. A. Bond & Co., Cardiff	3,075 0 0
Edwin Williams & Son, Whitchurch, Glam.	3,015 12 3
Thomas R. Evans, Cardiff	2,987 0 0
D. O'Neil, Cardiff	2,922 12 3
*John Harry, Radyr, Glam.	2,765 4 7

CASTLESIDE.—For tar paving playgrounds at Council School, for the Durham C.C.:—

*P. Harle, Sunderland	£255 4

CHELTENHAM.—For erection of 10 pairs of houses, for the T.C.:—

*W. Drew—5 pairs at	per pair £850
*H. Wilson & Sons Do.	,, 850

CHESTER-LE-STREET.—For sett paving on Great North-road, at Chester-le-Street, for the Durham C.C.:—

*Improved Road Constructions, Newcastle	£17,762 2 2

CHILTON FERRYHILL.—For general repairs at Chilton Ferryhill Station Council School, for the Durham C.C.:—

*G. W. Lazenby & Co.	£484 10

CORNFORTH LANE.—For pointing boundary walls, &c., at Council School, for the Durham C.C.:—

*W. & J. T. Bell, Coxhoe	£143 13

CROOK.—For general repairs to Council School, for the Durham C.C.:—

*J. H. Armory, Willington	£596

CROOKGATE BANK.—For sett paving on Gateshead—Burnopfield main road at Crookgate Bank, for the Durham C.C.:—

*Improved Road Constructions, Ltd., Newcastle	£2,146 18 0

DONCASTER.—For erection of pumping station at the Holmes, for the T.C.:—

*Edwards & Co. (Doncaster), Ltd.	£12,785 5 1

DONCASTER.—For erection of 75 houses on the Warmsworth-road site, for the T.C.:—

*W. & A. Forsdike, Ltd., Sheffield—	
20 A.N. houses	£6,830 0
10 A.N. houses	3,420 0
8 A.S. houses	2,752 0
6 C. houses	2,424 0
3 C. houses	1,207 10
28 C. houses	11,172 0

DOVER.—For painting and incidental work at Isolation Hospitals, Tower Hamlets, and Poulton, for the T.C. Mr. Wm. Boulton Smith, Borough Engineer, Maison Dieu House, Dover:—

G. Lewis & Sons (Dover), Ltd.	£597 0 0
T. W. Cole, Folkestone	525 18 6
Emery Bros., Dover	491 7 0
*H. Westley, Deal	245 19 0

DURHAM.—For asphalt surfacing on various main roads, for the Durham C.C.:—

*Highways Constructions, Ltd.	£46,164 5
*Limmer and Trinidad Asphalt Co.	29,906 5
*Whitehall Asphalt Co.	28,215 0
*Country Asphalt Co.	15,468 15

DURHAM.—For central heating installation at the Durham County Asylum, for the Visiting Committee:—

*John Musgrave & Son	£10,178

EASINGTON.—For general repairs and new ventilators at Easington-lane Council School, for the Durham C.C.:—

*T. Coates, Durham	£254 19

ELISABETHVILLE.—For installation of low pressure hot water system at Council School, for the Durham C.C.:—

*Steel & Co., Sunderland	£473 1 6

EPPLETON.—For repairs to playgrounds at Council School, for the Durham C.C.:—

*Whittingham Bros., Shadforth	£136 3

GELLYGAER.—For erection of bridge over railway at Gilfach, for the U.D.C.:—

*Barnes, Chaplin & Co.	£7,513 8

HAMSTERLEY COLLIERY.—For general repairs at Council School, for the Durham C.C.:—

*Ainsley Bros., Durham	£339 6 9

HAVERFORDWEST.—For constructing, for the T.C., a ferro-concrete road from Queen's Hotel to Bridgend-square:—

T. Hughes, Llanelly	£5,750 0 0
Standard Construction Co., Swansea	4,690 3 6
J. Morgan, Haverfordwest	4,266 16 4
Fothergill Bros., Exeter	4,265 0 0
*Watson & Horrocks, Bridgend	4,066 6 11

HULL.—For the erection of 26 houses on the Cottingham-road Estate, for the T.C. The City Architect, Architect's Office, Hull:—

*Stubbings & Fell, Sutton-in-Ashfield, Notts—	
24 houses	per house £350
2 houses	,, 320

(Accepted subject to confirmation by the Ministry of Health.)

ILKESTON.—For painting schools, for the T.C.:—

*H. Rainbow (*Hallam Fields*)	£189 0
*W. Bee (*Hallcroft*)	129 6
*W. Bee (*Chaucer-street*)	97 15

ILKESTON.—For alterations to heating apparatus at Hallcroft School:—

*T. Danks & Co.	£29

LEEDS.—For works in connection with construction of farm buildings and conversion of stable buildings into refreshment rooms on Temple Newsam Estate, for the T.C.:—

Electric lighting (including fittings), refreshment rooms—

*S. Dixon & Son, Ltd.	£159 16 6

Electric lighting (including fittings), mistals, dairies, &c.—

*S. Dixon & Son, Ltd.	91 1 0

Tiling, refreshment rooms and lavatories—

*A. Whitehead	971 5 11

Sanitary goods, lavatories, &c., to refreshment rooms, and dressing rooms—

*Hinchliffe Green Manufacturing Co., Ltd.	653 16 4

Heating, refreshment rooms—

*Central Heating Co.	485 0 0

Domestic hot water supply, refreshment rooms—

*H. Braithwaite & Co., Ltd.	330 0 0

LEEDS.—For erection of offices for Armley and Bramley Board of Overseers:—

*Appleyard Bros.	£2,100

LEEDS.—Erection of lodge at Dewsbury-road Reservoir, for the T.C.:—

*J. Ferguson	£780 10

LEEDS.—For painting at Holbeck Cemetery, for the T.C.:—

*C. & L. Greenwood	£110 10 6

LLANDILO.—For construction of drain and sedimentation tank at Cwmtyrch, for R.D.C.:—

*O. L. Rees, Brynamman	£432 4 3

LLANDILO.—For works in connection with Bettws water supply, for R.D.C.:—

*Owen & Rogers, Llandilo	£690 10 9

LIVERPOOL.—For painting railings, &c., at Sefton Park, for the T.C.:—

*Fryer & Hill	£1,234

LIVERPOOL.—For supply of (*a*) sluice valves, and (*b*) sluice valves, for Oswestry new filter beds, for the T.C.:—

*(*a*) Olley & MacLellan	£540 0
*(*b*) J. Blakeborough & Son	570 12

LIVERPOOL.—For painting railings, shelters, &c., at Stanley Park, for the T.C.:—

*J. Jones, Birkenhead	£1,765

LIVERPOOL.—For erection of conveniences at Smithy-lane Recreation Ground:—

*Roberts & Sloss	£306

LIVERPOOL.—For demolition of existing buildings and erection of 60 tenement dwellings, Prince Edwin-street, for the Corporation. Mr. F. E. G. Badger, Director of Housing :—

	Firm price tender not subject to variation as result of fluctuations in rates of workmen's wages and/or cost of materials.	Contract price variable as result of alterations in rates of workmen's wages, but *not* subject to variation as result of fluctuations in cost of materials.	Amount allowed for old materials in demolition.	Time periods for completion.
*William Hall & Son	£29,995	—	£3,217	16 weeks, 12 weeks and 16 weeks.
J. & G. Chappell	30,529	£30,529	350	No time stated.
Brown & Backhouse	30,594	30,594	300	No time stated.
Hughes & Stirling	30,650	30,650	Nil	No time stated.
Wm. Tomkinson & Son	31,431	Fluctuation wages, less 5 per cent. and plus 5 per cent.	Nil	To be arranged.
Haugh & Pilling	31,873	Wages variation, plus 5 per cent.	Nil	No time stated.
Roberts & Sloss	31,954	Fluctuation wages, less 5 per cent. and plus 5 per cent.	Nil	To be arranged.
R. Costain & Sons	31,995	£31,995 to be allowed 5 per cent. variation.	223	26 weeks, 30 weeks and 34 weeks.
Rimmer Bros.	32,035	Wages, plus 5 per cent.	Nil	No time stated.
Unit Construction Co., Ltd.	32,410	32,410	40	26 weeks, 26 weeks and 26 weeks.
S. Duthie & Son	33,048	—	Nil	No time stated.
J. Hall & Co.	33,270	33,270	Nil	20 weeks, 15 weeks and 20 weeks.
T. G. Huxley	33,400	—	Nil	No time stated.
C. & J. Desoer	34,799	—	509	30 weeks, 24 weeks and 30 weeks.
J. Laing & Son, Ltd.	34,980	—	Nil	No time stated.
J. Gerrard & Sons, Ltd., Manchester	38,300	—	Nil	No time stated.

LIVERPOOL.—For constructing paths, fences, &c., for 392 houses on Edge-lane Drive and the Walton Clubmoor Estates :—

*Unit Construction Co... £18 13s. 9d. per house

LIVERPOOL.—For electric installations in 150 houses on the Edge-lane Drive and the Walton Clubmoor Estates, for the T.C. :—

*Western Engineering Co., Liverpool—
For 75 houses, at £7 17s. per house for Type "A," and £8 11s. 6d. for Type "B."

*H. Jones, Liverpool—
For 75 houses, at £7 18s. per house for Type "A," and £8 14s. per house for Type "B."

LIVERPOOL.—Demolishing buildings and roofing over site, at Albion-place, Old Haymarket, for the T.C. :—

*Dyer Bros. £150

LIVERPOOL.—For cleaning and painting 11, Hatton-garden, for the T.C. :—

*W. & A. Piercy £147

LIVERPOOL.—For erection of switch house, at Hunts Cross, for the T.C. :—

*J. Williams (Liverpool), Ltd. £558

LONDON.—For redecorating men's first-class bath hall, for the St. Marylebone B.C. :—

C. Tavener & Son	£494 0
F. Mark	476 0
J. Simpson & Son	457 0
*Waring & Gillow, Ltd.	397 15

LONDON.—For construction of new intake dock upon the Regent's Canal, for the St. Marylebone B.C. :—

*H. Sabey & Co. (not exceeding) £2,539

LONDON.—Supply of galvanised mild steel cast-iron pipe work to the St. Marylebone B.C. :—

*Aiton & Co., Derby £778 15

LONDON.—For supplying and fixing 96 chimney pots to the flats on Brookfield Estate, for the St. Pancras B.C. :—

J. W. Falkner & Sons	£314 0
Howell J. Williams, Ltd.	305 0
*Albert Monk, Edmonton, N.9	286 10

LONDON.—For supplying and laying a 36 in. cast-iron condensing water main at the King's-road Power Station with an outlet into the Regent's Canal, for the St. Pancras B.C. :—

D. G. Somerville & Co.	£4,247 0 0
John Gill, Ltd.	3,500 0 0
Chessums, Ltd.	2,911 0 0
John Mowlem & Co.	2,733 4 7
*George Bell & Sons, Ltd., N.19	2,589 0 0

LONDON.—For erection of dwellings and road work at White Hart-lane Estate, for the L.C.C. :—

Arthur Vigor, Ltd., Knightsbridge, S.W.1	£37,023 6 4
L. H. & R. Roberts, E.	35,900 0 0
Holliday & Greenwood, Ltd., S.W.	34,750 0 0
T. Wood & Sons (Luton), Ltd., Luton	34,663 0 0
J. E. Billings & Co., Ltd., W.	34,615 0 0
A. Monk, Lower Edmonton	34,208 0 0
Fred & T. Thorne, Isle of Dogs,	33,868 19 0
S. E. Moss, Southend-on-Sea	32,699 3 9
Allen Fairhead & Son, Enfield	31,820 0 0
C. Miskin & Sons, Ltd., W.C.	31,766 0 0
Walter Lawrence & Sons, E.C.2	31,626 0 0
Thomas & Edge, Woolwich	31,585 0 0
*Rowley Bros., Wood Green, N.	30,690 0 0

LONDON.—For the construction of the chimney shaft and foundations at Tunnel-avenue depot, in connection with the refuse disposal plant, for the Greenwich B.C. :—

J. T. Tattersall	£2,050 0 0
S. P. Bidder & Co.	1,972 16 6
Poulton & Son	1,865 0 0
W. Mills & Sons	1,797 0 0
Topping & Leggat	1,794 0 0
Thomas & Cockin, Ltd.	1,710 0 0
Custodis (1922), Ltd.	1,704 17 0
*P. C. Richardson & Co.	1,638 10 0
Chimneys, Ltd.	1,619 0 0

LONDON.—For the asphaltic repaving of portion of King-street, for St. Pancras B.C. :—

Names of Tenderers.	Prices. Maintenance: Yard super.	Free. Years.	Further. Years.	Yard super. At d.	Trenches. Yd. super.
The Limmer & Trinidad Lake Asphalt Co., Ltd. (Rock Asphalte)	s. d. 13 0	2	8	6	s. d. 32 0
Val De Travers Asphalte Paving Co., Ltd. (Rock Asphalte)	12 6	2	8	6	30 0
The London Asphalte Co., Ltd. (Mastic)	11 9	2	8	6	30 0
French Asphalte Co., Ltd. (Rock Asphalte)	14 0	2	10	5	33 0
The Neuchatel Asphalte Co., Ltd. (Mastic)	13 3	2	8	6	32 6
Constable Hart & Co., Ltd. (Aztecmac)	9 0	5	5	3	25 0
*Whitehall Asphalt & Engineering Co., Ltd., (Duraphalt)	9 3	6	3	3	17 6

LONDON.—For the erection of 50 houses, in two sections of 28 and 22, on the No. 3 Section of the Council's Housing Site at Charlton, for the Greenwich B.C. :—

	28 Houses.	Completion Weeks.	22 Houses.	Completion Weeks.
Mr. E. Jackson	£20,298 4 4	60	£15,971 14 3	50
Messrs. Douglass Halse & Co., Ltd.	20,263 0 0	30	16,024 0 0	30
Messrs. F. & T. Thorne	19,800 2 1	28	15,477 6 8	22
The Guild of Builders (London), Ltd.	—	—	15,576 9 0	44
Messrs. Thatcher & Pritchard	—	—	14,216 0 0	48
Messrs. J. W. Ellingham, Ltd.	†18,637 0 0	35	†14,606 0 0	35
Messrs. Dillway & Elvy Hilliway	*18,363 18 0	28	*14,376 15 7	22
Messrs. Thomas & Edge	17,710 0 0	28	13,850 0 0	24
Mr. Charles Thompson	16,661 12 8	65	13,096 15 2½	65
*Mr. A. G. Winter, South Norwood, S.E.25	*16,288 0 0	40	*12,823 0 0	40

*1 per cent. reduction if accepted for whole of houses. †5 per cent. reduction if accepted for whole of houses.

LONDON.—For resurfacing portion of carriageway in Portland-road, for the Kensington B.C. :—

*Whitehall Asphalte & Engineering Co... 6s. 6d. per yard super. and maintenance for six years.

LONDON.—For the erection of subsidiary buildings at Tunnel-avenue depot, in connection with the refuse disposal plant, for the Greenwich B.C. :—

W. Mills & Sons	£2,295
*H. H. Hollingsworth & Son	2,070

LONDON.—For erection of sanitary convenience at Charlton Cemetery, for the Greenwich B.C. :—

Wm. Mills & Sons (builders and contractors), Ltd.	£287
W. Harris	284
Barnes & Co.	255
*A. W. Pelling, Catford, S.E.6	241

LONDON.—For laying two-coat Trinidad asphalt macadam, 4 in. deep, in several streets, for the St. Marylebone B.C. :—

*Limmer and Trinidad Lake Asphalt Co.—
In Clipstone-street, at 15s. 3d. per sq. yd.; Percy-street, 15s. 6d.; Barrett-street, 15s. 3d.; and Foley-street, 14s. 9d., with full maintenance for five years.

MANCHESTER.—Tenders accepted for the Corporation :—

For erection of a boiler house at Moss Side Baths—
J. H. Billings & Co.

For providing and fixing Galloway boiler at Prymestreet Baths—
Galloways, Ltd.

For painting, &c., interior of first-class swimming baths at New Islington Baths—
J. Gibbons.

For alterations to public wash-house at Mayfield Baths—
C. H. Normanton & Son, Ltd.

For the Cleansing Committee—
Lime—Buxton Lime Firms Co., Buxton.
Castings—The Gosforth Foundry Co., Ltd., Sheffield.
Thomson & Bradley.
Bolts and Nuts—Richard Davies & Son.
Paints—The Manchester Paint & Varnish Co., Ltd.

For electric lighting of various schools—
Ross-place—Power & Lighting Supplies, Ltd.
Varna-street—Hall & Stinson, Ltd., Sheffield.
Wheler-street—Ward & Booth.
Elysian-street—R. S. Miller.
Collyhurst and Cheetham—Maitland & Co.
Alfred-street—Power & Lighting Supplies, Ltd.
Elmfield-road—Manchester Electrical Maintenance Co.

For alterations to closets and drains at Christchurch School, Bradford, Manchester—
J. W. Billings.

For new boiler at St. Anne's, Newton Heath—
Turton & Sons.

For timber for Handicraft Centres—
Geo. Evans & Sons, Ltd.

For supply and delivery of pressure testing equipment for Electricity Committee—
Ferrante, Ltd., Hollinwood.

C.I. troughs for coke conveyor at Gaythorn Gas Works—
West's Improvement Co., Ltd.

For cleaning and painting gas holder at Gaythorn—
Pickles, Ayland & Co., Ossett.

For cleaning and painting gas holder at Bradford—
Bidder Steeplejack & Contracting Co.

For rack and pinion valves—
Bryan Donkin & Co., Ltd., Chesterfield.

NOTE.—Manchester firms unless otherwise stated.

MARYPORT.—For erection of bridge at Maryport for the Cumberland C.C. :—

*Border Engineering Contractors, Ltd. £3,356

NUNHEAD.—With reference to the rebuilding of "The Albion," Gibbon-road, reported in our issue of July 20, the architect for the work is Mr. A. E. Sewell, M.S.A.

OXFORD.—For the reconstruction and widening of Seacourt Bridge, and the widening and deepening the stream at the bridge, for the T.C. :—

A. E. Farr, London	A.	£6,106 0 0
Do. do.	B.	5,806 0 0
Davidson & Sykes, London	A.	6,469 2 2
Do. do.	B.	6,809 2 2
Frank Bevis, Ltd., Portsmouth	A.	8,920 15 0
Do. do.	B.	9,070 15 0
Kinnear, Moodie & Co., Hammersmith	A.	9,767 10 10
Do. do.	B.	7,967 10 10
Concrete Piling Co., Westminster	A.	6,751 1 1
Do. do.	B.	6,707 11 1
*Stewart & McDonnell, Westminster	A.	5,074 11 3
Do. do.	B.	5,154 11 3
Kirk & Randall, London	A.	5,703 1 0
Do. do.	B.	5,628 1 8
Nott, Brodie & Co., Ltd., Bristol	A.	—
Do. do.	B.	7,905 2 8
Christiani & Neilsen, S.W.	A.	5,971 18 4
Do. do.	B.	5,919 18 4
Playfair, Toole, Ltd., Southampton	A.	9,429 7 6
Do. do.	B.	9,579 7 6
J. & W. Stewart, London	A.	7,437 14 11
Do. do.	B.	—
D. G. Somerville, Ltd., London	A.	7,228 0 0
Do. do.	B.	7,332 0 0

(Tender "A" provides for Raymond piles, and "B" for reinforced concrete piles.)

RYHOPE COLLIERY.—For repairs to roofs, chimneys, &c., at Ryhope Colliery Infants' Council School, for the Durham C.C. :—
*C. Humble..... £407 3 7

SALFORD.—Supply and fixing of hot water heating apparatus at Wellington-street Girls' School, for the T.C. :—
*Elliott, Ellis & Co., Manchester..... £256

SALFORD.—For painting exterior of Frederick-road works and offices, for the T.C. :—
*H. R. Worsnip & Son £389 15

SALFORD.—For erection of the undermentioned buildings at Nab Top Sanatorium, for the T.C. :—
*Mark Warrington, Ltd., Hyde—
Doctor's house £1,800 0 0
Garage, mortuary, &c., block 763 0 0
Shelters 840 7 6

SALFORD.—For supply of 600 tons of black mountain lime to the T.C. :—
*Midland Builders' Supply, Leamington £937 10

SALFORD.—Supply and fixing on seatings, and connecting up of three new steel Lancashire boilers, each 30 ft. long by 8 ft. diameter, and the supply and erection of three mild steel chimneys, two boiler feed pumps, three injectors, two cast-iron feed water tanks, piping, hangers, damper operating gear, &c., and all boiler fittings at the Regent-road Gas Works, for the T.C. :—
*Yates & Thom, Blackburn..... £6,090

SEAHAM HARBOUR.—For recovering flat roofs and repairs to Council Schools, for the Durham C.C. :—
*J. & T. Parker, Sunderland.... £738 3 1

SHERBURN HILL.—For providing ventilating stoves at boys' school, for the Durham C.C. :—
*Whittingham Bros. £125 10

SITTINGBOURNE.—For erection of oak fence round Cemetery extension, for the U.D.C. :—
*C. Debnam, Guildford..... £460 16 7

SOUTH SHIELDS.—For foundations to new boilers at Electricity Works, for the T.C. :—
*G. Bailey & Co. £4,422 18 10
(Tender previously accepted withdrawn.)

SOUTH SHIELDS.—For cleaning and painting of schools, for the T.C. :—
*G. H. Thirkell—Stanhope-road B., G. & I. School (inside only)..... £320 0
*J. J. Miller—Westoe Secondary School 240 0
*C. Lea—Dean-road School 173 10
*J. J. Miller—Westoe B. & G. School and extension (inside only).... 154 0
*R. C. Hill—Ocean-road Junior School 134 10
*C. Lea—Mortimer-road Infants' School (inside only) 94 0

TILBURY.—For erection of 118 houses, for the U.D.C. :—
*G. Slade & Co. £41,817

WEST BOLDON.—For sett paving on Gateshead-Sunderland main road at West Boldon, for the Durham C.C. :—
*J. W. White, Sunderland..... £3,316 18 6

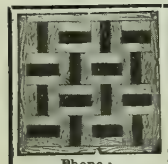
WOLVERHAMPTON.— Erection of boundary wall at Commercial-road power station, for the T.C. :—
*A. M. Griffiths..... £279

WOLVERHAMPTON.—Erection of glazed brick divisions to fish stalls in retail market, for the T.C. :—
*R. Speake & Sons..... £214

WOLVERHAMPTON.—Hot-water heating boilers at (*a*) Secondary School; and (*b*) Dunkley-street centre, for the T.C. :—
*Jones & Attwood.....(*a*) £115 (*b*) £54

WOLVERHAMPTON.—For repairs to playgrounds at (*a*) Dudley-road School; and (*b*) Bingley-street School, for the T.C. :—
*Val de Travers..(*a*) £197 11 6 (*b*) £167 17 6

The annual outing of the staff of Messrs. Stevens & Co., Silica Brick Works, Kidwelly, was held recently by some 300 members journeying to Aberystwyth. There Sir Alfred Stevens, chairman of directors, and Lady Stevens, entertained them.


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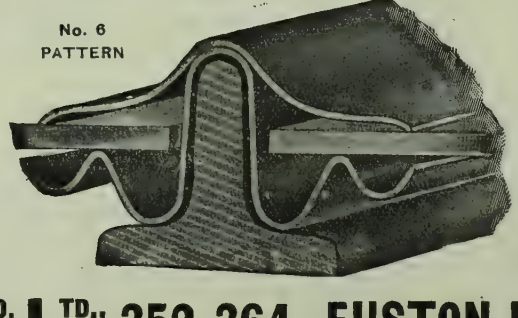
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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXV.—No. 4202. AUGUST 17, 1923

THE SUPERSTITION OF THE PAST.

EVERYTHING which, in the study of the past, can inspire us to emulate its most noble achievements is desirable, and we can, therefore, hardly overestimate the claims upon us to preserve our national inheritance without needless violence being shown towards it; for great harm was done during the last century through ignorantly conceived restoration, and even from sheer vandalism. But if we have escaped these dangers, we must also beware lest we fall into others, one of which is the making a superstition of the past. Withdrawn from all the strife which the competition for livelihood and opposing aims sets up amid contemporary effort, the past rests in a twilight of its own, tranquil and consoling no doubt, but it is not, therefore, surprising if it exercises over us a strange fascination, so that to wander through some cathedral cloister or ancient Cotswold town leads us to invest the whole surroundings with a beauty and romance wholly undisturbed by the contending currents of our own time. It is a resting-place as well as background for our thoughts, and a dream of beauty to our eyes. All this is well, and to be valued, like the reverence for old age, ennobling to the self-respect of a nation reared on such a tradition. Nor is the influence only direct, for, in the case of architecture particularly, it is surrounded with the rich embroidery which nature and time have contributed to it, so that it is presented to us framed in a golden imagery of its own. We can claim no like advantage for our own time and work, which is moored in no such tranquil harbour and forges itself in the fierce heat of contemporary criticism and the struggle for livelihood. We accept the past in quite another way; it is much easier to be just to it. We may vary in our appreciation, but personal feeling hardly enters to disturb our judgment. Unfortunately, we can claim no such detachment in judging of our own work. It is this fact which should make us careful to sustain an open and generous attitude towards contemporary achievement, in that it is so much more difficult to be just to it. The problems which beset the mediæval craftsman are too far off to agitate us now, and we ought not to form unfavourable comparisons between past and present just because of this, or depreciate modern effort. This self-respect, the need to do justice to our own time, and show tenderness to failure, is its due. And when we hear unfavourable comparisons made between our own and mediæval craftsmanship, are we always just to our own?

Those no doubt preoccupied with the craze for antiques will refuse to believe that we have craftsmen working to-day whose work offers favourable comparison with the best work of the past, but are such eyes open to the virtues of our own time? We think, on the contrary, that we suffer from much ignorant disparagement of contemporary work, which is most unfortunate in its influence. It is very slender evidence of taste to accumulate "old masters," and proclaim that we never purchase modern examples, as though to infer that the former were invariably intrinsically valuable—which they are not; and there is often more snobbery than discernment in cramming our home with "antiques." We recall an instance of the kind in the case of a visitor at the house of a wealthy man, who, admiring a piece of pottery in one of the cabinets, was told by his host that he knew nothing about it—the pottery being there merely because he had told his dealer to fill his shelves! The industrial age no doubt brought many evils in its train, and perhaps the most alarming is that it has led us to doubt ourselves. We flee from the present as some manufacturers flee from their factories, making their home far away from the locality which their occupation has defiled. But while all this may be granted, it would lead us to very false conclusions if we thought it the whole story. That the prevailing evil of too much self-seeking should distort the picture for us is only to be expected, but everyone is not tainted with "commercialism," neither is there any quarrel with commerce rightly conducted and producing necessary things, for we all depend on it, and a too indiscriminate condemnation leads us into error. For the good is with us, too; and in the matter of craftsmanship, were we to exercise a more generous judgment, we should find much of beauty in our own time we had not discovered before. Instead of pursuing the path of the dilletante, a better citizenship admonishes us to seek out and encourage the good in our own time on which we and the future so much depend. We need to discredit the superstition which makes an idol of the past, one we ignorantly worship. Many are familiar with the levity which finds no inconsistency in putting up the vilest window in an ancient church, at the same time professing a most bat-eyed adoration for its ancient features.

A thing is not good because it is old, however, but because it is good; and it is no true respect for the past which leads us to think meanly of ourselves. The architect is, we think, sometimes at fault when, having built a good house for his client, instead of directing him to the good work of our own craftsmen he ransacks the antique shops to furnish it with old pieces. It was stated to us by a rich man that he preferred to spend his money in philanthropic ways because there was so much division as to what was bad or good in modern art, so that he felt his money was more securely spent in giving it to charity. It is no objection to philanthropic enterprise which compels us to criticise so short-sighted a view. Was it not his obligation to distinguish himself between what was good or bad in art? Surely a better citizenship required that he should form a sound judgment. Besides, that desire to be secure, to protect oneself in such a way, has nothing admirable in it, and he ought no longer to get off on such an excuse.

Better men have more real respect for the past, and act more like it, when they live in their own time and through it, instead of turning their eyes away. It is much easier to recognise value when it has been already recognised for us, easy enough to admire what all are admiring. But to form our own independent appreciations and to have the true culture that enables us to form them rightly is not so easy. To seek out and make opportunity for the vital craftsmanship of our own time asks a finer courage and discernment than any included in merely stuffing our house with "antiques"; and it appears to us that the time is coming when this better leadership will be recognised as such and bring us more prestige, because it includes not only truer discernment but better citizenship as well. We need to bring our appreciations nearer to reality, and in doing so we shall perceive the evils of dilletantism and unreality. It is impossible to disregard those symptoms which imperil the prospects for art; the capture of architecture by the salesman, its inevitable disintegration under commercial exploitation, the replacing of vital craftsmanship more and more by standardisation—all this should teach us that a dilletantism preoccupied with the past and living in a vain show of false culture is not the direction through which to cure present evils. For it is example, leadership, that is wanted. Let us not be too ready to blame our time or think meanly of it, for we are all part of it, and the physician must heal himself. The superstition of the past is no alternative for confidence in the present; nor is it a genuine understanding of what the work of the past should mean to us if it only lessens that confidence. For it suggests that we neither understand the past nor ourselves. In the end we best encourage art not through the dead but the living. He who has created opportunity for one good piece of work now is a greater benefactor than if he had filled his house with antiques. It is in this better understanding of ourselves that we shall rightly apportion what we owe to the past, while at the same time perceiving that we owe to our own time much more. In this better atmosphere results will grow, as most things accommodate themselves to good will. A household is not kept together by either distrust or sermons, but by the prevailing large-heartedness and understanding which governs it. We have little use now for those whose admirations reach no further than "period" furniture and antique surroundings, always looking backward and caricaturing the past. From such poor reverence we may well escape. Let us rather be in the van, for true leadership is what really matters. Thus, in the words of a master-poet, we may "Strike up for a new world," leaving the dead past to bury its own dead.

NOTES.

Assessments. The recent agitation against the new assessments of houses for income-tax has been fairly met by the concessions the Government has made. The increased allowance for repairs and the reductions in the inhabited house duty were, we think, wise concessions to make. All through the controversy we noted the tendency in the Press to discuss the matter solely from the householder's point of view, in the sense that the additional tax was an added burden to the already heavy taxation. We did not subscribe to the indiscriminate agitation in the belief that the additional tax was unfair; we maintained that it was unreasonable to grant subsidies to encourage the building of houses and then to proceed to neutralise the whole principle by increasing the responsibilities of the building owner. It was wholly a question of whether we wanted revenue or houses; the financial side was merely a matter of book-keeping, as in the end the Government is forced to stimulate the supply of houses.

Taxation. We have frequently stated that the principle of taxation and rating of houses is fundamentally wrong. The question of housing is one which directly affects the health and happiness of a nation, yet we place a heavy burden of taxation upon our buildings such as we would not dream of putting upon any other useful commodity. The reply would probably be that it is because houses are so essential that they form the most convenient and equitable basis for taxation purposes. It is obvious that there must be limits, and those who are interested in the social development of a nation may be able to indicate the point when it assumes a *non possumus* attitude towards its obligations and responsibilities and spends its money as it pleases. It may be that the battle of paying our way is quite sufficient for the moment, and that we can listen to discussions upon the proper disposal of our surplus income with academic detachment.

Main Roads into London. From the interesting paper on "London's New Trunk Roads in the Making," by Mr. C. H. Bressey, we note the author's confident belief that Londoners can be relied on to see to it that the greatest city of the world is approached by highways worthy of London's noble history and nobler destiny, though some may remain incomplete for a considerable period. He says: "Even our quick-witted Parisian friends have to tolerate some degree of delay in such matters, and I was consoled to read a month ago that the completion of the Boulevard Haussman, which was begun in 1857, is now being seriously taken in hand." Those who have travelled much by road and experienced the awkwardness and delay in passing through congested traffic like that in Exeter or Croydon, will realise the advantages which are coming from by-pass roads, such as that at Croydon. This enables motorists to swerve from the London-Croydon main road at Thornton Heath, leave Croydon with its trams, 'buses and shopping centres on the left, and follow for four miles the wide new unobstructed highway saving in distance as well as in speed of travel.



The Western Doorway, Southwell Cathedral.
[This Norman doorway is reputed to have been built about the year 1110.]

A National War Memorial. In regard to the proposal for a national war memorial, to which we made reference last week, we thought the occasion to be commemorated too great to be mixed up with a scheme, however commendable, for providing a new road bridge across the Thames at Charing Cross. That we should bring the right spirit to such a commemoration, on which perhaps the very existence of Europe in the future depends, appears to us of paramount importance. The Charing Cross scheme has received too large a measure of representative approval to require hoisting on the shoulders of another object, with which it cannot in any way be considered to be closely related. The Honorary Secretary of the London Society, writing in a contemporary, states that the London Society is "in entire sympathy with the suggestion," i.e., of mixing the two together; but we think it more to the advantage of the much-needed London improvement to rest it on its own merits, and when the occasion comes for a National War Memorial to rest that on its own also. It may be that our own time is better spent in laying the foundations of a better future, out of which such monuments may grow, than in finding there so easy to talk about just now.

The Cardinal's Lodgings. The opening to the public of the three rooms in Hampton Court Palace known as "My Lorde Cardinall's Lodgynges," is an event of very considerable interest. Allotted to private occupation by favour of the Crown, but little attention hitherto has been given to the historical and archæological interest. An opportunity, however, occurring when the rooms were lying vacant, the Office of Works made investigations which revealed that the modern battening and papered canvas covering the walls concealed a great quantity of fine old "linenfold" panelling, the ceilings also displaying the badges and cognisances of the Cardinal himself. Other discoveries have since been made, and the rooms, now in order for public inspection, show



"The Three Mills."
By Mr. Hesketh Hubbard, R.O.I., A.R.W.A.
(*See p.* 257.)

prove of great interest to the many thousands of people who visit Hampton Court—but surely the Office of Works has been ill advised in making a charge for admission? In regard to the more complete restoration of the rooms and the renewing of the ceilings, something may be said on both sides. To have the ceilings, as a contemporary suggests, "decked again in their old colours," is not an easy task, unless under very sympathetic treatment, and the matter should be weighed very carefully before tampering with the original work.

Pictures for the National Gallery. The offer of the sum of £50,000 by Mr. Samuel Courtauld, accepted by the Board of the National Gallery, Millbank, for the purchase of modern foreign pictures which the nation might not otherwise easily acquire, will be welcomed by many people. Purchases, it is said, are to be limited "to the works of a definite list of painters centering round the great Frenchmen of the latter half of the nineteenth century." On the question of the "greatness" of some of these painters opinion is still divided. Much will depend on the choice which is made, as the work of members of this school is often very unequal, and it is pointed out in a contemporary, with some truth, that "it is one thing for the National Gallery to accept certain definite pictures offered or bequeathed by private individuals, and quite another for the Gallery to agree in advance to spend a sum of money on the purchase of unspecified pictures of one or two specified schools." The National Gallery is therefore involved in a somewhat undetermined responsibility, and there is the feeling that the gift would have been better bestowed had not the donor proposed to force his own particular appreciations on the nation. We are not disposed to challenge the claims of these schools to representation—far from it; but the final estimate of the permanent value of the contribution to art of some of these painters is not yet determined.

The Placing of Sculpture. Messrs. Helmle & Corbett, the Bush Building Co.'s architects, are leaving nothing to chance regarding the placing of the figure compositions in the great arch over the main entrance of this new building. They have recently experimented with full-size photographic enlargements of the compositions, which effectively show the pattern or silhouette of the proposals and allow a good judgment to be formed as to what the foreshortenings amount to from the eye-level whilst coming down Kingsway. We do not remember having seen such things attempted in this country before, the usual methods being too often haphazard. Much figure work on our modern buildings is ill-placed and shows a lack of mature thought, especially regarding the level from which it will be viewed. Interest will centre on the result of Messrs. Helmle & Corbett's experiments.

Student-Miner's Success. At the Welsh National Eisteddfod, held at Mold, the prize for architectural design was awarded to Mr. David J. Williams, a student in the School of Architecture at the Technical College, Cardiff. The subject for the design was an entrance archway in stone with iron gates suitable for a memorial recreation ground. Mr. Williams' success is particularly praiseworthy in that he has studied under considerable disadvantage, inasmuch as during the early part of his course in architecture he continued his regular work in a coal mine.

Hours of Labour. Coming from such a keen social reformer, and one with such well-known sympathies with labour, as Mr. Seebohm Rowntree, some statements in an address he gave at the annual congress of the Royal Sanitary Institute at Hull are of particular interest to the building trade. After expressing the view that a wage sufficient to maintain a reasonable standard of comfort, reasonable hours of work, reasonable security during the whole of life, a reasonable share in determining the conditions of labour, and an interest in the prosperity of the industry, were essentials which every industry should provide for its workers, he said a working week of forty-eight hours had proved to be a satisfactory general standard, and any deviation from it, either up *or down*, should be justified by special circumstances. With the means of production at present in use it can hardly be expected that the benefits which Mr. Rowntree lays down as essential to a contented working-class population can be secured for less than forty-eight hours of work each week.

Trade Union Discord. A statement by a correspondent of *The Times* last week contains much food for thought. Signing himself "Architect," he instanced an important building work in the North of England on which stone was required from the Midlands. It appears from the letter that the quarry owners in the Midlands were paying their men the local trade union rates, but the operatives on the building declined to handle the stone and threatened to strike unless the quarrymen in the Midlands were paid the northern rate. The dockers have struck against their own leaders, and now apparently one trade union is threatening to strike against another. If the trade of the country is to be hampered by the internal discords of the trade unions as well as by their disagreements with employers, it is difficult to conjecture how the unemployment which is, unfortunately, now o such large proportions can be lessened.



Gateway at Stoneleigh Abbey.
[This gateway, which is still in much the same condition as when built, now gives access to the residence of Lord Leigh, near Kenilworth.]

GENERAL NEWS.

Professional Appointment.

Mr. Reed Edwards, surveyor, Haverfordwest, has been appointed Surveyor to Goodwick (Pembroke) U.D.C. There were 28 applicants for the post.

Proposed New Road to London Docks.

The London Chamber of Commerce has decided to urge the Government to consider the question of constructing a new arterial road to the London Docks. The question of the making of the proposed thoroughfare, which it is suggested should run through the heart of London to Tilbury, has already been brought to the notice of the Government, who, it is understood, are reluctant to make a move in the matter because it would involve the demolition of a large number of dwelling houses, particularly of the smaller type, at a time when the housing shortage is so acute.



St. John's Church Alley, Norwich. From a drawing by Mr. George J. Skipper, F.R.I.B.A.

[This building was apparently part of a clergy house, attached either to the Duke of Norfolk's palace or the Church whose tower buttresses jut into this building. The small, moulded brick doorway was revealed, as also were the remains of the ground floor window, and two doorways and windows on the street front (not shown in the drawing), where the old stucco was stripped off the walls. These features were not known until the work of repairing the roof—with which the work started—was well advanced. The building had been used as a second-hand furniture stores, and was very dilapidated before it was repaired].

Nos. 210–216, Old-street, E.C.

With reference to our illustrations of 210–216, Old-street, E.C., last week, the quantity surveyor was Mr. George Spencer, F.S.I., F.I.A., of 79, Gresham-street, E.C.2.

New Church at Freshwater.

The Roman Catholic Bishop of Portsmouth last week dedicated a new church at Freshwater, Isle of Wight, erected and endowed by the bequest of the late Mr. Edmund Granville Ward. The new church is designed in the Italian Romanesque style, and is constructed entirely of brickwork specially made in the Isle of Wight.

Canada's Pavilion at Wembley.

There is stated to be keen rivalry among the Dominion representatives who are arranging the construction of their various national buildings in the grounds of the British Empire Exhibition at Wembley. Canadian workmen are making good progress in the construction of the pavilion which will represent that Dominion. The main building, neo-Greek in design, covers an area of 120,000 sq. ft., with a frontage of 415 ft. facing the artificial lake running east to west the full width of the Exhibition grounds.

Taxation of Land Values.

The International Conference on the Taxation of Land Values, at which delegates from fourteen countries were represented, formally began its sittings in the Municipal Buildings, Oxford, this week. Mr. C. E. Crompton, in his presidential address, urged that the tenure of land was the great governing factor which ultimately determined the economic, political, and, consequently, the intellectual and moral condition of a people. The more completely land was monopolised the greater was the insecurity of employment. He advocated that the equal right to land be established and the full fruits of industry be secured to industry; that to attain this end in the simplest, easiest, and most practical way public revenues be obtained by imposing taxation on the value of land apart from improvements due to private enterprise; and that taxation on land value be payable by each person interested in the value of the land and in proportion to his interest. The complete taxation of land value, he said, would provide such public revenue as would render all tariffs and restrictive taxes unnecessary, and would give the world freedom of trade and remove the main causes of international strife.

COMPETITION NEWS.

St. Stephen's Church Hall and Institute, Bush Hill Park, N.

The design placed first in this competition, held recently, was that of Messrs. George Baines & Son, F.R.I.B.A., F.S.Arc., 121, Victoria-street, Westminster, S.W.

Halifax.

For the Corporation.—Plans and report for lay-out of Bull Green site and part of centre of the town adjoining. Premium, £50. Sending-in day, October 1. Banned by R.I.B.A.

Ellesmere-street Wesleyan New Church and Schools, Warrington.

The Committee has extended the date of delivery of plans in this competition from August 8 to August 15. Banned by R.I.B.A.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Singapore College (Jan. 1, 1924; March 30). Greenwich Baths (Aug. 25; May 4). Hull Art Gallery (Nov. 5; May 4). Mint competition for plaques (Sept. 30; May 25). Birmingham Masonic Temple (Sept. 12; June 22). Colour scheme (Sept. 30; June 29); Memorials to the Missing (Jan. 1, 1924; Aug. 3).

CORRESPONDENCE.

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Tunbridge Wells Pavilion Competition.

Sir,—The present generation of architects who spend laborious days and nights (chiefly nights, *vide* "Jacob Stahl,") on competitive work, appear to be obsessed with the "heavy monumental type" of building. As you have timely observed, they display, in consequence, "a lack of sympathy or imagination." There is no doubt that recent illustrations furnish ample evidence in support of your observations. Long ago I came to the conclusion that the phrase, drummed into me in my early years, viz., "the plan is the thing," was given undue importance. The assessor in the above competition was, apparently, similarly influenced and, even now, cannot resist the temptation of passing it on. He writes: "The plan is economical and well arranged, and there is no wasted space." The plan, of course, is important; but, in my judgment, unless the roofing receives as much attention, such schemes as the one at Tunbridge Wells will continue to merit, relatively, the observations you have passed upon them. What is the cause of the trouble? My submission is that architects in general will not, or cannot, escape from that arrangement of their forefathers (unfortunately pandered to by all the manufacturers of cheap steel trusses), viz., that principals must be 10 or 12 ft. apart. Our predecessors, when using wood, were justified; but can the same be said to-day when we have at hand a material capable of performing greater service? (*Note.*—The premiated Tunbridge schemes: Steel trusses, 10 or 12 ft. apart, and covered up. Why not 20 or 25 ft. apart?) Play can then be made with lunettes and light intermediate areas, instead of heavy brickwork, small windows, "unpleasing parapets," and generally uninteresting side elevations. The assessor nearly stumbled on the truth when he said that "the upper windows might be larger, but that is a detail!" Not a word about the disposition of the principals! Increasing the size of the windows, when the principals are approximately 10 ft. apart, will not prevent the "elevations being austere," and certainly will not create the effect suggested as required in your article. What is really necessary is to reduce the points of support, and then sympathy and imagination will get their chance.

Apart from the "monumental" aspect, permit me to direct your attention to the section of the end gallery (Schemes 1 and 2). Why broken backs? What are sight lines for? To remedy this defect in Scheme No. 1 the roofing (flat) will have to be raised 3 to 4 ft. (Missing cube over 3,000 ft.). The seating arrangements (Schemes 1 and 2) may, in the county of Kent, be considered satisfactory; in London or Essex, distinctly, "No. A" licence for music could not be obtained. Scheme 3, in this respect, is excellent.

Walthamstow. J. Williams Dunford.

Sir,—One of the Conditions of the competition for the Tunbridge Wells Pavilion reads:—"The drawings are to be in ink, on double elephant sheets of drawing paper, except the perspective drawing, which is to be on a half double elephant sheet, mounted on strainers, in black line with sectional parts blocked in." Furthermore, answers to competitors' questions made it quite clear that competitors were not permitted to present any of their drawings rendered in wash. Yet the premiums are awarded to those who ignored these conditions, and the conscientious competitor unwittingly handicaps himself in presenting his scheme in line drawings as specified without availing himself of the undoubted advantages of indicating the materials of construction through the medium of colour.

One of the principal objects of the conditions of competitions is presumably to form a common basis for the purpose of comparison of schemes, and one would expect that competitors not complying with such conditions would be disqualified—certainly not awarded the premiums, as in this case.

Again, the Conditions state that the "Perspective view is to be taken from about the point marked 'A' on the block plan." In the first premiated design the perspective is plotted from the air, presumably to obtain a better effect. Surely some explanation is due to the other competitors who complied with the letter of the Conditions.

All premiated designs show a band stand "arranged for either an inside or outside audience," but half of the inside audience have their backs to the band. We fail to see how it can be inferred from the Conditions that a re-arrangement of the seating on each change of weather was contemplated.

As we are competitors who actually received a letter from the promoters of the scheme, in reply to a question, to the effect that "Drawings are not to be coloured," we feel that we are singled out for handicap, and we shall be glad, therefore, if you will kindly give publicity to this protest.

We can only hope that competitions in future will be run on more satisfactory lines.

"Competitors."

Sir,—All hail to your readers who desire to see a drastic revision in the conduct of architectural competitions. After the Tunbridge Wells and Bournemouth failures the R.I.B.A. would be well advised to establish a system which would avoid the giving of prizes for inefficiency.

It is a pity to see architects designing balconies in which 40 per cent. of the seats give no proper view of the stage (a very sad thing for the promoters), and it is surely a scandal that assessors should award premiums for such designs.

Robert Cromie.

London.

Clerks and Artists.

Sir,—Passing by the personal remarks about conjuring with rabbits, &c., and condensing the rest to try to get the meaning clear, I understand Mr. Maxwell Aylwin to say: (1) Style designing is not now in fashion; (2) The free artist is as much out of the scheme of things as the free "Tommy"; (3) The architect should be encouraged to get on with his job.

(1) I should be glad to think so, but I don't; rather I see a tendency to pile on more, or other, style features, and then to pretend that the composition is just "architecture"—much as the Prussian rulers piled up frightfulness and called it culture.

(2) I welcome this clear statement, and think it right to suggest that we should modify our martial-law kind of architectural commands and save some percentage of the "decorations" (?) for free artists.

(3) Is the architect's job structural perfection or "scholarly individuality" in design? I have wished to encourage architects to concentrate on the former view of their job and to get on with it quickly. W. R. Lethaby.

Architecture and Commerce.

Sir,—I have read your article in last week's *Builder* with interest. As a genuine expression of opinion I accept the trend of its thought with an equal mind, but I venture to suggest the following to your readers:—

It is obvious that any state of civilisation must base itself first on the necessities of life, *i.e.*, food, clothing, shelter, for all. The superstructure which is built upon this base can never be anything but a reflection of the desires of the people after the necessities of life have been provided.

Granted that the present order provides every individual with the necessities of life—which it does not—what are we to say is the quality of our desires as reflected in the superstructure? We can only say, and this with perfect justice, that modern world commerce is almost entirely occupied in catering for our lower or corporeal natures. The desires of the body are the lowest known to philosophy. Out of this low general state of desire no general beauty can ever come, and that which is occupied in supplying these lower desires, whether we call it commerce, trade, industry, or what not, can never be whitewashed even by the most sublime genuis ever born.

W. W. Scott-Moncrieff.

London, S.W.

Office of Works Appointments.

Sir,—Under the heading "Office of Works Appointments," which appeared in your issue dated August 3, there was an important slip in the third column. In describing one of the four cases to which the Institution of Professional Civil Servants took strong exception, the article stated that the official in question was going back to a post senior to many posts held by men formerly his "juniors"—the word should have been "seniors." The answer given in the House of Commons on July 31 to Mr. G. Jones (*Hansard*, No. 108, Vol. 167, col. 1294), who asked a further question on the same subject, was very unsatisfactory, for it merely catalogued the qualifications possessed by any moderately qualified assistant architect in the Office of Works. Most of them are much better qualified. There was nothing exceptional in the qualifications of the official whom it was proposed to treat in so exceptional a manner.

H. E. Weaver,
Secretary.

Institution of Professional Civil Servants.

Work for "Unemployment."

Sir,—My reference in your last issue to the possibility of commencing the immediate construction of the connecting link in the Green Park between the northern and southern sections of the suggested mid-metropolitan artery on the score of "unemployment," prompts me to further explanation.

Proposed originally in following up the recommendations of the Royal Commission on London Traffic for the widening of Berkeley-street now that the Devonshire House site is to be built on, further investigation has shown that there are three or four alternatives northwards. Any one of those might be adopted, the question being as regards the most suitable in the problem.

An outer traffic ring would be added to "Regal Circle" with two levels, the lower passing under the Mall and the other outlets, existing or projected. As pointed out last week, apart from the main question, there is the pressing necessity of more direct cross-communication facilities for traffic midway between Whitehall and Hyde Park Corner, a distance of over a mile, which must be conceded sooner or later. In the adoption of an outer ring, which would mean the diversion thereto of all through traffic, the immediate vicinity of the Palace itself would benefit in the quieter atmosphere produced, only traffic for the Palace being admitted.

The predominating sombre traffic surface might then be replaced by the verdant parterre, resplendent with floral beauty, to an enhancement of the aspect in general.

"O.B.I.T."

London.

[Other letters are given on pp. 254, 262 and 269.]

Demand for Corporation Houses.

Thousands of men, women, and children it is reported, went to the Manchester Town Hall last week to apply for 690 houses, the erection of which has just begun. The houses are being built for £425 each, against £1,100 paid for similar houses when prices were higher. Many people walked from the suburbs, and a queue had formed by six o'clock.

THE BANK OF ENGLAND.

HOW IT WAS BUILT, THE MEN WHO WORKED UPON IT, AND WHAT IT COST (1788-1833).

BY ARTHUR T. BOLTON, F.S.A., F.R.I.B.A., *Curator of the Sir John Soane Museum.*

THERE is a well-known story which tells how Louis XIV, on receiving the building accounts of the Palace of Versailles, promptly burnt them, so that no one but himself should ever know what had been the disastrous cost of his great white elephant. Had Sir John Soane, at his resignation on October 16, 1833, presented the 14 small folio volumes of fair copies of "The Tradesmen's bills for the Bank," covering the 45 years of his stewardship, now in his Museum, and stated the total as well under a million, the Directors, having in mind the recent scandal of Buckingham Palace under Nash, might well have been incredulous.

Included in this total are the five houses in Princes-street, known as New Bank Buildings, and the National Debt Redemption Office in the Old Jewry, both now destroyed. The cost of the Bank is apparently nowhere stated, nor would it be possible to say what, as a building, it did cost, for the table of annual outlay, which is given in this article, includes every conceivable item, such as ordinary maintenance charges, down even to window cleaning, lay out and upkeep of the garden, furniture, bedding, curtains, carpets, counters, desks, stools and chairs, beer and medical aid for workmen, even the national illuminations, &c., all of which would never in the ordinary way appear in such a calculation. Soane, as architect to the Bank, becomes the universal provider to the vast establishment, and his red ink deductions pursue every tradesman with the keenness of a Treasury official of the Gladstonian epoch. The Bank accounts are a picture of the period 1788–1833, the cost rises with war freights and King's duties, the Continental blockade troubles Soane with inquiries into the real value of Memel and Dantzic timbers, and, after Waterloo, we see the same fall in values and wages that we anticipate so eagerly to-day. There is a significant Note that "since 1804 old stone, old bricks, &c., have been used."

There was no organising contractor who built the Bank. It was the work of a group of tradesmen controlled by the architect and his clerk of works. This method of building secured the high level of workmanship to which the durability of the Bank is a witness. It does not lend itself to an exact determination now of what was done in a particular year, because it is only rarely that the place, or the work, is defined. It was obvious at the time, but the identification now would probably be beyond the powers of the most experienced surveyor. It was a peculiarity of Soane, as an architect, to act as his own surveyor, and he prided himself on making no extra charge. He is simply paid the usual five per cent. on the half-yearly totals, except on a very few occasions, when some very special service is rendered, as, for instance, the laying out of the Princes-street and Lothbury extensions, with all the Committee work in Parliament, in the City, and the negotiations with the Grocers' Company, &c., involved, on which occasion he makes a special charge of £200 for invaluable services. The accounts are made up quarterly by himself, abstracted in two columns, of one quarter each, giving the half-yearly total, and with this he renders his statement of charges as follows:—

"The Honble. Governor, Deputy Governor, and Directors of the Bank of England.

To John Soane.

(from Lady Day to Michaelmas 1791.)			
Commission on the Bills for work done as per abstract . . . . amounting to £5,471 3s. 6d. at 5 pr. cent.	£273	11	2
Clerk of the Works, 161 days from the 25 March, 1791, to 29 September, 1791, included	40	5	0
	£313	16	2"

The form does not vary, as the last, in 1833, is made out in exactly the same way. The date of the last payment made to him was April, 1834, being for the account to October 16, 1833, the date of his resignation. The clerk of works was, I think, the same all through, Walter Payne. He was at first paid £78 a year, £100 in 1800, and £165 from 1812 onwards. In Sir John Soane's will (May, 1833) £150 a year is left to "Walter Payne, my present Clerk of Works at the Bank, and his wife, for their lives." He is also, with five others of the office, to share the stock of red wines and spirits in Soane's cellars at the time of his death. The following list gives the names of those worthy to be recorded for their achievements:—

Schedule of the principal tradesmen* employed on the Bank from 1788 to 1833:—

Masons.—Henry Parrell and Jas. Nelson, both from 1788; Nelson and Grundy, 1807; Thos. Grundy, from 1810.

Bricklayer.—Thos. Poynder, from 1788.

Carpenters.—Wm. Collcott and James Swinton, both from 1788; Swinton and Martyr, Richard Martyr.

Plasterers.—Thos. Palmer, John Bayley (d. 1812).

Painter.—Hannah Rowe, from 1788; John Crace (1794) and Wm. Watson (1810)

Glazier.—James Curtis, from 1788.

Coppersmith.—Samuel Rehe.

Stove-makers.—Alex. Brodie, Jas. Lukin & Co., Aug. Ramellie (1793, serpent in Bank Stock office cellar), John Skidmore, Macnaugten & Co.

Iron sash-makers.—Jas. Keir & Co., from 1788; Underwood & Co.

Smith.—Thos. Russell, from 1788.

Plumbers.—Sam. Draper, from 1788; Lancelot Burton, and Ann Draper.

Clocks and Dials.—John Thwaites and James Drury.

Cabinetmakers.—Francis Gilding and John Robins (1804).

Upholsterers.—Kent & Sons, and David Bruce.

Lamps (patent) and illuminations.—Fossick & Mathews (1812).

Safes.—Rowley, Culter and Machell.

Hollow Cones for vaults.—Joseph Peters (1817). No name is given for the earlier supplies of these cones.

Hot water apparatus.—A. M. Perkins, 1833 (Court room).

Gas.—Thos. Rawling, 1830 (front of Bank).

Garden.—1824, J. Allport.

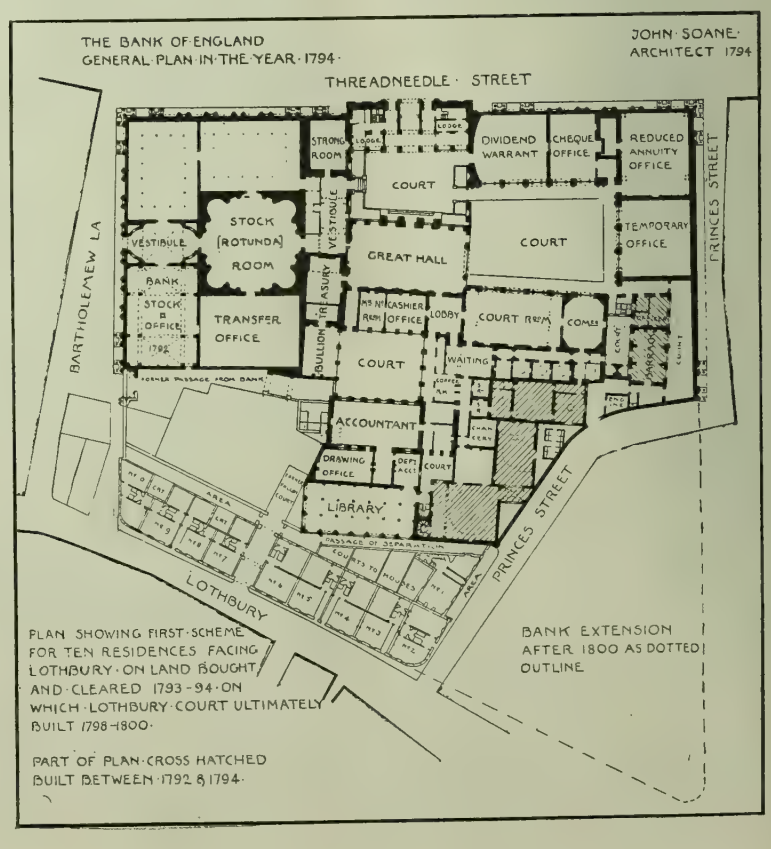
These are all the names of highly competent craftsmen, who executed the modelling and decorative work, carving and reliefs from the architect's designs and instructions. Except for Coade & Sealey, who modelled and made the statues and cariatides, there is no mention of any sculptor as such. The name of Thos. Banks, R.A., only occurs once in 1789, for a mantelpiece,† though we know that he modelled the reliefs of "Night" and "Morning" in the Lothbury Court. For the latter only £200 appears in the mason's bill, which looks as if the masons cut them direct from the full size cast now in the Sir John Soane Museum. Even the pendentive cupids of the cupola of the National Debt Redemption Office in the Old Jewry, which had been thought of as possibly Westmacott's work, are merely charged in the bill of Thos. Palmer, the plasterer, in 1819, as "four ornaments of foliage at springing of dome, 2 ft. 0 in. high × 1 ft. 0 in. wide, four ditto worked by hand, 4 ft. 10 in. × 2 ft. 4 in., and four figures with torches, £5 5s. 0d. each= £21 0s. 0d. Modelling enriched friezes, flowers, soffites, &c., £20 15s. 0d."

Henry Provis, one of Soane's office,‡ is paid £58 16s. 0d. in 1796–7, for "Sundry models for use of workmen, rotunda, 4 per cent. office, and façade to Lothbury." These

*Some names run right through, others have successors, as shown by the second and third names given.

†Statuary marble chimney-piece. Mr. Newland's apartment, £94 19s. 3d. Angular columns with twisted flutes. Tablet laurel festoons on friezes.

‡H. Provis, an outdoor clerk, from 1791. In 1802 he was completing his supervisory work at Tyringham, Bucks., built 1794–1802.



were probably some of the wooden models, now in the Sir John Soane Museum. The plasterers made a model of the façade of the Bank in 1825; the coppersmith, in May, 1792, makes a brass model of the roof of the Bank Stock Office, with iron rafters, pillars, fretwork, &c., for £18 0s. 0d. The capitals of the main order of the exterior are in the mason's bill, in 1795, as "James Nelson, mason, four capitals carved, £31 10s. 0d.= £126 0s 0d. Paid B. Grant for modelling a capital, £12 10s. 0d." "Paid Pelligrini* for small do., £1 1s. 0d." The same two names occur, in 1802, as "J. Pullinger, attending on workmen, £8 8s. 6d., and Benjamin Grant, modelling and casting plaister ornaments at different times, £7 1s. 0d." In 1804 these capitals were executed at £26 each, the pilaster caps at £8, the characteristic Soane scrolls at £11 11s. 0d., and the caduceus in panels, £6 each. There is a charge this year for a carver, "114 days at 6s.," comparing with masons 4s. 10d., and labourers, 2s. 11d. a day. In 1822 the column caps had fallen to £24 each. Portland stone was then 4s. 9d. per ft. cube, inclusive of duty.

A curious entry in 1802 shows that Soane made a special journey to Fonthill (Wyatt's masterpiece for Beckford), "to see doors, chimneypieces, &c., that might be used, £18 14s. 6d." It is not very probable that any were used. The following has a special interest, as it shows that the figures in the great lanterns were not from stock but specially designed :—

Ornamental Stone Manufactory. E. Coade.	£	s.	d.
1795. Modelling 12 statues for the dome of rotunda, 15 gns...	189	0	0
Masons and labourers setting same, cartage	11	2	0
	200	2	0
1799. No. 12 statues as Cariatides for transfer office, 20 gns...	252	0	0

For the Lothbury Court there are entries as follows :—

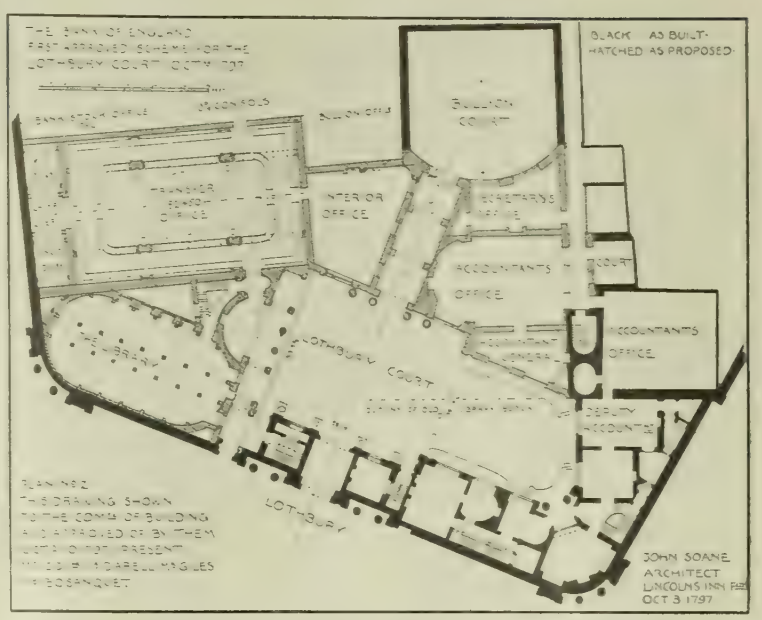
1801. June 19. Making four vases ornamented flowers and flutes	£	s.	d.
	34	16	0
Expenses modelling same ..	12	12	0
Fixing	3	18	6
July, same, repeat order ..			
August 4. Making model statue, Europa	14	0	0
Modelling statue from above..	88	10	0
Same for Asia, Africa and America			
(Total for Lothbury Court, including modeller attending several days, and directing fixing the work, £514 19s. 6d.)			

For the Consols Office of 1818–23, however, in place of Coade, we read : "Thomas Grundy, mason, 16 Cariatides at £21 each, with caps at £4 4s. 0d., as agreement," £403 ; and T. Palmer & Sons, plasterers, pendentive medallions at £10 each, plus £1 for the frame, and the caduceus below the same, 4 ft. 10 in. high, £4 each. It is curious and interesting to find in these building accounts the following items :—

1808. Joseph Nollekens, sculptor, marble busts of "The late Wm. Pitt, £105, and C. J. Fox, £126." Also in 1812, P. Turnerelli, "A large bust of His Majesty in marble, £126 ; do. of King William III, £126."

The history of the Bank building, from the account book point of view, would appear to be that from 1788 to 1792 Soane, besides ordinary maintenance works, was making some minor alterations and additions, such as vaults under Bullion Office, &c., apartment for Mr. Newland, new barracks, &c., all works in the rear of the older buildings of Sampson and Taylor. In 1792 begins the first characteristic work, the reconstruction of one of Taylor's halls, as the new fireproof vaulted "Bank Stock Office." It is evident that this work was purely internal. Taylor's screen wall façade remained until 1823. John Bayley constructed the remarkable vaulting, as an account, dated May 1—December 22, 1792, shows :—

*Possibly J. Pullinger, as spelt later.



				£	s.	d.
Bricklayers	695 days	3s. 4d. ..		133	7	0
Plasterers ..	783 „	3s. 10d.		150	4	4
Labourers ..	1,274 „	2s. 4d...		148	13	3
Boys ..	319 „	1s. 2d...		18	12	2
Paving bricks	55,815	4s. 4d.	per 100	120	0	0
Stock bricks	25,500	4s. 0d.	„	51	0	0
Cones ..	27,650	10s. 6d.	„	145	3	3
Plain tiles ..	4,350	3s. 0d.	„	6	10	6
Ten inch .. s	3,300	15s. 0d.	„	24	15	0
Foot do. ..	100			1	14	0
Plaister ..	3 bags	1s. 6d.	..	0	4	6
Hods composition ..	6,053	2s. 0d.	..	608	10	0
12 Loads scaffolding carted to and from Bank ..	..	6s. 0d.	..	3	12	0
(— J. S., deduction £2 6s. 0d.)				1,412	6	0

The cones mentioned are tapering hollow blocks of terra-cotta, introduced for lightness and strength by Sir John Soane, as had been done in Byzantine times at Ravenna. Two sample ones are preserved in his museum. Immense numbers were used at various times for the vaults and domes of the Bank, and apparently the great segment vault of the Accountants' Hall is so constructed. The centering for the Bank Stock Office is charged in the third quarter of 1792, £146 0s. 0d. Thomas Palmer, the plasterer, has an account of £116 for finishing the Bank Stock Office, as "362 feet super roughing in, floating and doing in trowelled finish with stone lime the large circular soffites at 3d., £4 10s. 6d," &c.

"Ditto soffites over pilasters at 4d. spherical spandrils, do., circular mouldings on soffites, 7 in. girt, 6d., 2 in. sunk fillets, 2d., &c." The ornaments are charged as, "four raffle leaf flowers, 3 in. imbost, with lion's head in centre spandrils, 6 in. imbost, £8 0s. 0d.; eight raffle flowers, Medusa's head in centre, 35s., £14 0s. 0d.; four foliage flowers, 2 ft. 0 in. diameter, 2½ imbost, 30s., £6 0s. 0d.; 46 flowers, 3 in. imbost, 1 ft. 0 in. diameter, 7s. 6d., £17 5s. 0d." These ornaments can be seen in the photograph of the interior. The above are very good samples of the bills throughout. There is a special charge in 1793 for "ornamental painting on ceiling in Bank Stock Office, two men, three weeks each, £2 2s. 0d., £25 0s. 0d.," showing that the variety of colours still to be seen in the older offices is a tradition of the original. It might be expected to be so, in continuation of the Adam idea of Soane's youth. The change to "Yellow stone colour" comes in with the growing strength of the Greek revival, about 1800–2, when the great Princes-street extension of the Bank was undertaken. The earlier Soane work had probably strong colour, as we see it in his own house, as a good deal of scarlet appears in the bills. John Crace is employed in 1794, and the following colours are mentioned : Dead white, purple brown, veined marble, and sunk fillets, cut and shadowed, grain satin wood, gilt fillets and sunk do., black and varnished do., £17 15s. 3d. Also grey white, lilac, fawn colours, scarlet margin 1½ in., fillets in fine yellow, also in black, fine scarlet in panels varnished, Vitruvian scroll in fawn colour, 3 in. fawn margin on ceiling, &c.

In 1800 there is mention of "glazing pilasters with blue and yellow coloured glass, 144 strips at 1s. 10d., 24 small do. 1s. 3d., 72 slips of yellow glass 2s. 6d., and 96 small do. 1d.;" and in 1807 we get a note of the cost of stained glass (flashed glass, not pot metal) as yellow 5s. per ft. super, orange 8s., blue 5s. 9d. per lb. (analysed as "about 8s. 3d. a foot, about 10 in. × 10 in.=1 lb."), purple and green same price, and red 14s. per ft. There is no doubt that Soane's idea was to mitigate the cold effect of white light on plain stone-coloured walls, as Robert Adam had first used tints on his ceilings in order to reduce the glare of white plaster. The following describes and prices the remarkable lanterns with which Soane lit his novel interiors :—

Bank Stock Office (old building).

Coppersmith, Saml. Rehe.

1792. May 19. A model of brass for the roof with iron rafters, pillars and fretwork, &c., over the above office ..	£	s.	d.
	18	0	0
December 20. 1,032 super. tinned copper covering over lantern light, 18 oz. to ft., 2s.	103	4	0
12 iron bars dovetailed and let into iron rafters, 6s... ..	3	12	0
40 iron braces, three holes in each for rivets, 1s. 8d. ..	3	6	8
18 copper screws and nutts to skirting to prevent too much air, 1s. 4d.	1	4	0
24 large copper screws to the iron rim, 1s. 2d.	1	8	0
24 straps and keys with copper pins to secure the capping, 2s. 6d.	3	0	0
96 large iron braces and stays in frieze, 1s. 6d.	7	4	0
Copper rivets, 12 doz., 1s. 8d., 40 doz. at 1s. 3d.	3	8	6
Extra labour in fitting and rivetting the iron braces to the friezes, the holdfasts to the rafters and pilasters, drilling, &c., 7 men, 17 days, 5d.	19	5	0
120 lb. lead to fix copper holdfasts on pilasters and labour running and melting, 3d..	1	10	0
	165	2	10

Saml. Rehe also supplies the Bank Stock Office finishings as "brass beaded mouldings to the counters and doors, 108 ft. 7 in., weighing 421 lbs. 13 oz., at 5s. 6d. lb., £116 0s. 0d., with labour, &c., 11th May to 5 June, £152 total bill." The heating of these great halls was another great problem. Evidently at first Soane continued the "serpent stoves" that Adam had used in his rotundas, as "April, 1793, erecting a heating stove to warm the Bank Stock office placed in the cellar underneath according to the estimate, £138 18s. 0d." "7 square cast-iron boxes fixed in the thickness of the arches to clean the revolutions of the flues, &c., total bill, £159 10s. 0d." Following on this, however, independent stoves, placed against the main piers, were used. After the Bank Stock Office, the next important undertaking was the reconstruction of the old rotunda of Sir Robert Taylor with a fireproof dome, in place of lath and plaster. As "Midsummer to Michaelmas, 1795, Thos. Poynder, bricklayer, 3,493 cube brickwork in dome, done with kiln burnt bricks and tiles with stone lime, 1s. 10½d., £327 9s. 4½d." The centering for the dome, by Jas. Swinton and Richard Martyr, carpenters, cost, say, £400, as "2,662 ft. super spherical cradling for dome in 128 pieces, close boarded, at 10d. 987 ft. 6 in. cube rough fir frame at 2s. 3d., circular curb and purlins at 4s. 6d.," &c.

The Portland stone at this time cost 2s. 4d. and extra freight 4d., and duty 6d., 3s. 2d. ft. cube. As regards the plaster finish of the rotunda, there is a bill of John Bayley "September 30–October 27, 1795 (exclusive of contracts), 1,183 super ft. plain face in composition, 9d. Plain mouldings, 2s.," and the wages charged are: Men, 3s. 6d.; ornaments do, 7s.; labourers 2s. 4d.; boys, 1s. 2d. per day. For warming the rotunda in October, 1795, "two very large patent philosophic rarefying stoves, extra strong metal with double back and cast feet" were installed, and Soane reduces both of them from £20 to £17 10s. 0d. in price. It is to be hoped that they were more successful than such things usually proved to be in heating such a vast space.

A clock maker, James Drury, supplies a great clock with a 4 ft. dial, for £101 10s. 0d., but the remorseless Soane cuts it down to £80. It does not appear where the clock is to be placed, but probably it was for this rotunda which was, of course, at this period the Stock Exchange, being entered from Bartholomew-lane, through the still existing vestibule of Sir Robert Taylor's design. The circular lantern on the top of the rotunda was supplied by James Keir & Co., October, 1795, for £135 5s. 0d., as "frames, £40 10s. 0d.; sashes, £50 19s. 8d.; extra casements to open, £15; and glazing, £28 16s. 4d." The fanlights in the arches below cost £18, as "January, 1795, six large semi-circular iron fanlights with wainscot frames and iron bottom rail, to sketch received, glazed and painted complete." John Thwaites, October 5, 1795, supplied for £36 0s. 0d. "A wind dial to show horizontal in centre of dome of rotunda, 5 ft. 0 in. copper dial plate, black with gilt letters, &c.", showing that originally the top of the lantern of the rotunda was not all of glass. In 1792 the purchase of Haines Estate in Princes-street had made possible the large extension that followed at the rear of the Bank. Soane was paid £70, 1 per cent. for his services in this acquisition. While this was going on, piles were being driven for the outer wall, as "2,888 cube rough fir and labour in piles drove in foundation in Lothbury, 2s.," and "Alex. Goudge, paviors, delivered Princes-street for foundation, July to November, 1795, 100 tons picked large size pebbles delivered at 16s., £80 0s. 0d." There can be no doubt that the new façade wall in Lothbury, forming the back enclosure of the Bank site, as at this time extended, was erected at once for a protection, leaving the final determination of the offices to be built behind it for future consideration.* It would appear that the internal outline of the Lothbury Court and the group of buildings adjacent, *i.e.*, the Residents' Court, &c., was only settled at the end of 1797. Soane, no doubt, had a general idea in his mind,† but it is quite clear that no final plan had been arrived at and settled with the Committee of Building until October 10, 1797.‡ It is astonishing, but true, that, apart from Sir John Soane's genius for grasping an occasion, the Lothbury Court, instead of being the realisation of a great Court, as dreamed of by Palladio, might have been a mere back yard for the bullion and stationery vans to draw into. The Lothbury side of the Court, the first built, illustrates this, and it will be seen on the plan of 1797 that the screen of columns across the Residents' Court, though a key idea of the design, has evidently been sketched in afterwards. It is more than likely that the Committee never passed it. The design, as in the case of St. Paul's, grew in the course of execution. The absence of what Soane calls a "closed contract" suited the fluid character of his design, which achieves its end by a constant scrapping of ideas, felt to be capable of re-statement in a better form. The new Library (which replaced the old, pulled down to facilitate the new extension) and the Transfer Office were in hand, 1798–9. The reconstruction of another of the offices, built by Sir Robert Taylor, in lath and plaster with wood columns, was effected by John Bayley, 1796, whose account is: "Building the arches and dome in the late 4 per cent. Consols Office § with paving bricks and cones set in composition, according to the plans and sections as directed, and finishing in compo all the external parts, and a rough coat on all the internal parts, as per contract, £1,683." And a letter is copied into the book, "John Soane to the Governor," "the work of the 4 per cent. Office being nearly completed" to pay £1,000, June 23, 1796. James Swinton and Richard Martyr, carpenters, charge for the centering for the vaults of this office, £155 10s. 10d., the items being as for example, "13 squares, 38 ft., extra strong centering to segment arches, at 18s., £12 0s. 0d., &c."

The original flat copper tops of the lantern light cost £101 17s. 11d., and the plasterer's account (1796), including ornaments, panels and mouldings, is £194 7s. 2d. Part of the inside scaffold in the office fell, as in the last quarter of 1796 Surgeon Lewis Lease receives £16 15s. 0d. for attending accidents at the Bank," and a publican, Free, is paid £26 7s. 9d. for beer for the workmen, and in 1800 appears an item "Amount of cash paid the men who fell with the scaffold in the 3 per cent. Consol Office." In 1804 the famous Governor's Court, one of the most original features of the interior of the Bank, was in hand, James Nelson, mason, as "Last quarter, 1804:—

	£	s.	d.
"99 ft. super. rustic work face of arches in Court, 5s.	24	15	0
14 ft. 6 in. do. do. in soffite, 6s.	4	7	6
No. 1. ¾ antique pilaster cap ..	18	0	0
„ 2. Do. do. column cap ..	36	0	0
„ 2. ⅞ do. do. do. ..	39	0	0"

*S.N.B. "Feb. 27, 1796. Mr. Meyer finished drawings of Bank Gateway." Oct. 30, "Settled finishing rooms over gateway." (Soane's office at the Bank over the Lothbury entrance.)

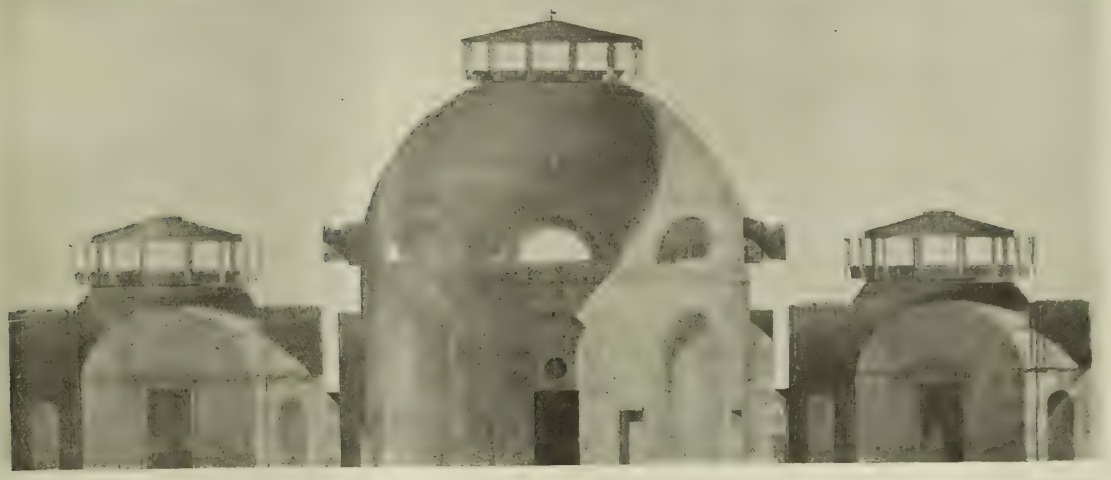
†Soane was making plans January 14–15, 1797, for this new vacant land.

‡ "September 19, 1797. Presented two plans and two small models for the improvements adopted by the Committee of the Treasury to be recommended to the General Court of Directors." At this meeting one of the Committee appears to have indulged in some possibly harsh criticism of the Architect, but the Memo. is written in such an agitated hand as to be indecipherable. Probably it was a reflection of the unfair external attacks made against Soane at this time, 1796–7.

§ S.N.B. "July 19, 1796. Settled about finishings to the 4 per cent. office. Sept. 12, Do. 4 per cent. office to be finished by Christmas." The same month Soane is engaged on plans for the new Consols 3 per cent. office.



Interior of Bank Stock Office.



Section: Rotunda of Bank of England and Consols Office.

Masons were then getting 4s. 10d. a day, labourers 2s. 11d., carver (114 days) 6s. Mortar, 6d. a hod. Cube Portland is 4s. 5½d., including war freight and duty. Plain work on same is 1s. per ft. super., and sunk and moulding work, 1s. 3d. Previously these prices had been 10d. and 1s. There is nothing in the accounts to particularise the beautiful loggia, full of Greek feeling, standing over these arches, nor can the Tivoli Corner be identified. It is merely evident from the large amount of circular work that appears in the bills of 1804–5. The plumbers, Lancelot Burton and Ann Draper, charge cast lead at 36s. cwt. Plumbers get 4s. a day. "A new angular anvil rainwater head" is priced at £3 3s. 0d., and 6 in. lead R.W. pipe at 6s. 6d. a ft.; these prices had been £2 2s. 0d. and 6s. In 1789 cast sheet lead was only 23s. cwt., milled do. 24s., and plumbers had 3s. a day. In 1805 the bricklayers are carrying up the east and south fronts of this Court and putting in foundations of the new screen wall.

The formation of the arches of the new vestibule, Princes-street entrance, is priced in the last quarter of 1805. Bricklayers in 1806 are 4s. 10d. a day, and 4s. 4d. winter; labourers 2s. 10d. and 2s. 8d.; a load of 29 hods Dorking mortar. 30s.; grey stocks, 50s. a thousand; malms, 77s.; paving bricks, 70s.; plain tiles, 53s.; cones, 136s. 6d.

Brickwork a rod is £16 8s. 0d.; with malm facing, 4d. ft. extra.

There is a first mention of Parker's Stucco (Roman cement ?) jointing in piers and openings, 4s. 6d. a yard. In 1789 brickwork, grey stocks in foundations and wall to Princes-street, cost only £9 a rod; bricklayers, 3s. 4d. a day; labourers, 2s. 2d.; and grey stocks were 30s. a thousand. Masons were only at the same level; carpenters, 3s.; plasterers, 3s. 10d. a day, instead of 3s., illustrating the rise, no doubt largely due to war conditions. A curious item in 1800 is "Painting two French soldiers with cutting them out complete for Armoury, £4 14s. 6d." Possibly they were for target practice? At this time an item "Painting a model of the new building, 7s. 6d.," appears in the painter's bill. The Peace of Amiens, though short lived, was welcomed with illuminations, as "Transparent painting by Robert Smirke for south front, April 29, 1802, £84 0s. 0d." Two others are supplied by Wm. Miller, £42 and two old ones are altered and repaired for the occasion by Cornelius Dixon (probably Wyatt's clever assistant), £14 14s. 0d. The Victory of Vittoria, however, was kept with three days of illuminations, July 5, 6 and 7. The first day 3,171 lamps; second, 6,195; third, 6,995, 16,361 lamps at 7d. each, Fossick and Mathews, £477 3s. 11d. While the following year, April 11, 12 and 13, 1814, 36,115 were used at a cost of £1,053 7s. 1d., and on June 9, 10, 11, no less than 149,500 were used at a cost of £4,360, with, besides, "150 two-spout lamps for transparency, £22 10s. 0d." Waterloo falls behind this as the illuminations on June 23, 24, only required 16,228 lamps at £473 6s. 4d., and in 1821 George IV, on July 19, gets only 6,544 lamps, costing £195 17s. 4d., and for William IV, September 8, 1831, a mere £27 13s. 0d., seems to have been sufficient. A most significant record of comparative national enthusiasm.

"1804. Plaisterer, Thos. Palmer.

"Accountants' Hall and Passages each side of Vestibule :—

	£	s.	d.
2,348 ft. sup. float lath and plaster circular in panels, 5d.	48	18	4
91 bulls' heads, 10 in. deep, 2½ imbost, ears and drops fixed separate, 3s. 6d.	15	18	6
88 swags of fruit, flowers and ribbands, cast, trimmed, &c., fixed separate, 6s.	26	8	0
189 fluted pateras, 2½ in. diam., 4d.	3	3	0
223 plain „ 3 in. „ 3d.	2	15	9
98 flowers trimmed hollow, 6d. ..	2	9	0
One ornament 20 ft. 0 in. long, consisting of two cornucopias tied with ribband, oak leaves at centre, fluted at wreath with fruit, flowers, &c.*	8	8	0
103¾ days plaisterer, as per Note, 5s.	25	18	9
Two days ornament, do., 8s. ..		16	0
38¼ Labourers, 2s. 10d.	5	9	1
41¾ boys, 1s. 7d.	3	6	1

Total plaisterer's bill, £511 10s. 8d."

Wm. Rothwell, Junr., the other plasterer, sent in similar bills.

Very few people realise that the Threadneedle-street front, the return façade halfway down Princes-street, and nearly all that towards Bartholomew-lane, only date from 1823. The screen walls, erected by Taylor in extension of Sampson's original Bank, were still standing in May of that year when Sir John Soane addressed a Report "to the Honorable, the Governor, the Deputy Governor, and the other Members of the Committee of Building." He says: "I am induced now to offer a few words on the subject, as the state of the exterior of the Bank requires immediate attention, and the regularity of the building must depend on the present determination of the Committee. . . . To restore the exterior of the south, east and south-west wings, in the same form they now are, without rounding off the corner next Bartholomew-lane, and without increasing the thickness of the walls in the several recesses (of Sir R. Taylor's arcaded design), so very necessary to be done, the expense will be about £10,000; but if the necessary additional strength be given to the building, and the angle next Bartholomew-lane curved, according to the design submitted, it will add materially to the safety and convenience of the Public, and the expense will not exceed £12,000. Permit me to conclude," he says, "by observing that, if the first idea, namely, that of restoring the south-east and south-west wings to their original form (Taylor's design), should be adopted this great national establishment will then present an irregular assemblage of heterogeneous parts, but, if it should be the pleasure of the Committee to approve the plan submitted, the whole of the exterior of this extensive pile, erected at so many different times, and under many different circumstances, will appear uniform, simple and characteristic.

"All of which is submitted, John Soane, Architect to the Governor & Co. of the Bank of England. 28 May, 1823."

The veteran architect was then 69, and had spent 35 years on the work, and his concluding and very significant words are eloquent of the spirit that was carrying him through to the final completion of his great task. This report of his shows clearly that, while Taylor's walls were rebuilt, the centre, by Sampson, was only cased up. The estimated cost seems very small, but Sir John Soane was so extraordinary punctilious and successful in not exceeding his estimates that it is unlikely that it was surpassed. He was helped by the fall in prices, as in 1825 Portland stone was down to 3s. 5d. ft. cube. For the recesses, "18 Portland stone trusses, 2 ft. 3 in. long with 6 in. face" are only charged at 90s. each, for masonry and carving, while the honeysuckle ornaments over doors cost 30s. each. It had been charged against Soane, in 1797, that he should have continued round Lothbury the design of Taylor's wing, but Soane's clear answer was that the scale of the older screen wall was too small, and that, owing to the great fall in the ground at the back, Taylor's order would have had to stand on a disproportionate high plinth. There is not a shadow of doubt that Soane was right in his refusal to be tied to the old scale of height.† As it is the greatest defect on the Threadneedle-street front is the absence of any plinth. It is very possible that, as is constantly happening in London, the pavements have been raised, and certainly in 1796 no one foresaw the vast extension of the future Bank, but one cannot help regretting that the base level of the new order at that date was not set higher by two or three feet, which would have in 1823 greatly aided Soane in dealing with the Threadneedle-street front. It is unfortunate that the main front of the Bank was deferred so late, and that the earlier and fresher work of Sir John Soane has always been at the rear of the building. Artistic opinion crystallised at

* The original model for this is in the Sir John Soane Museum.

† *Taylor's Order*: Plinth, 4 ft. 9 in.; column, 14 ft. 9 in.; entablature, 3 ft. 3 in.; balustrade, 3 ft. 6 in. =26 ft. 3 in. *Soane's Order*: Plinth, 7 ft. 8½ in.; column, 23 ft. 4¼ in.; entablature, 4 ft. 1½ in.; blocking, 3 ft.; attic, 7 ft. 3 in. =45 ft. 6¾ in., or without attic, 38 ft. 3½ in. The difference on the column, 23 ft. 4¼ in. as against 14 ft. 9 in. was vital.

once on the Tivoli Corner as the masterpiece of the architect, and that, as we have seen, is work of the 1805 period. Soane had been through some bitter experiences in the 18 years that had elapsed, and though the fire of his enthusiasm still burnt, much of the joy of existence had been clouded over. In 1824 he had an operation for cataract, and his health was badly shaken; only his indomitable spirit carried him for another decade, until his resignation in 1833. Concurrently with the decision to complete the façades, it was decided to enclose the Bank with a railing. Probably Soane greatly regretted the necessity of this addition. In 1824 the smith supplies "148 ft. 3 in. feet run handsome framed railing and double top rail, ornamental spike heads, fixed with cast blocks, including patterns complete, £489 7s. 11d." "Cast iron and lead, 32s. cwt., wrought iron 74s. 8d. do."

The process of taking the railing all round the Bank went on for some years. The Garden Court was laid out May, 1824, J. Allport being the gardener and florist. Laurels, box, lilac, rhododendrons, cedars, azaleas, geraniums, hydrangeas, &c., are included in a bill of £28 9s. 6d.

In June and July, £10 15s. 0d. is spent on flowers, and in August and October, £3 14s. 6d. for chrysanthemums, privet and holly. At this time there is a mention of steel shutters—7 pairs for £102 16s. 3d.—no doubt for the doorways. In 1827 the rotunda is provided with a new skylight costing £46 12s. 0d., and in 1830 new skylights were supplied to the Bank Stock Office and the vestibule to Bartholomew-lane. The first mention of hot water apparatus occurs in 1883, when £100 was paid for Perkins's high pressure system for the Court Room. This is the same apparatus as that installed at the Sir John Soane Museum in 1831, where it is still in use, as also at the Royal Society of Arts in the Adelphi. No doubt after this date the old stoves gradually disappeared. Gas was only slowly introduced, as in 1833, in the Lothbury Court, and Bullion Office Court. It only remains to call attention to the remarkable table of annual expenditure on the Bank, which follows. This of itself dates the principal periods of the work by the rise and fall in the annual outlay under Sir John Soane's direction. This remarkable, if not unique, record of the actual process of the work fully bears out the claim, made on other grounds as well, that the Bank of England is a great national historical building. Others, as will have been seen, as well as Sir John Soane literally built their lives into the building, and in the future, as is perhaps better recognised to-day by our cousins than ourselves, the Bank will be regarded as important a link in the chain of national history as any work of the Middle Ages.

Annual Expenditure on the Bank from 1788 to 1833, from the half-yearly statements, rendered by Sir John Soane to the Governors:—

		£	s.	d.
1788.	Sir John Soane appointed Architect, October 16			
1789.	Half-year to Xmas (New Barracks and some alterations)	6,082	15	1
1790.	Whole year (New Barracks and some alterations and back additions)	11,393	3	4
1791.	(New Barracks and some alterations and back additions)	13,014	2	7
1792.	Bank Stock Office reconstructed	9,430	9	6
1793.	Do. do.	10,646	17	3
1794.	First half of façade to Lothbury before it was doubled in length by the 1800 extension	22,025	1	2
1795.	(First half of façade to Lothbury before it was doubled in length by the 1800 extension)	29,291	11	0
1796.	(First half of façade to Lothbury before it was doubled in length by the 1800 extension)	26,210	17	3
1797.	Lothbury Court (after October 10, 1797)	17,946	12	5
1798.	Do. do.	22,696	18	5
1799.	Lothbury and New Library and Transfer Office	22,824	11	9
1800.	Do. do.	16,669	13	2
1801.	Completion Lothbury Court and New Accountants' Office	25,449	14	5
1802.	Extension Princes-street and Lothbury	15,600	6	1
1803.	(Extension Princes-street and Lothbury)	29,485	10	9
1804.	Do. and Tivoli Corner built	33,881	13	6
1805.	(Do. and Tivoli Corner built)	49,926	18	1
1806.		25,546	14	5
1807.	Includes Robins for Desks, &c., £1,745	33,583	7	8
1808.	Includes the 5 new Houses, Princes-street	46,464	1	0
1809.	Do. do.	24,494	0	1
1810.	Do. do.	41,603	6	1
1811.	New Houses still in hand	23,617	10	2
1812.		11,042	15	10
1813.	Illuminations (Vittoria) July and also November, say, £1,000 (included)	12,167	17	10
1814.	Illuminations April and June (£5,440 16s. 5d.)	18,648	4	1
1815.	Illuminations, June 23, 24 (£473 6s. 4d.), New Treasury and entrance to Rotunda, &c.	18,335	4	2
1816.		22,290	11	9
1817.		16,793	9	4
1818.	National Debt Redemption included	24,356	19	2
1819.	Do. do.	35,320	6	5
1820.		15,181	0	3
1821.		10,867	9	6
1822.	Additional room N.D.R. Office	15,786	1	11
1823.		14,754	17	5
1824.	Bank Garden (Bank railings begun)	20,025	9	5
1825.	Completion work to façade to Threadneedle-street and returns to side street	15,835	19	7
1826.*	(Completion work to façade to Threadneedle-street and returns to side street)	16,705	0	3
1827.	(Completion work to façade to Threadneedle-street and returns to side street)	10,650	7	3
1828.		5,255	9	2
1829.		3,482	2	1
1830.		5,029	13	9
1831.		5,886	8	8
1832.		6,249	5	8
1833.	Sir John Soane resigned, October 16	4,051	12	0
	Estimated total for the 45 years, 1788–1833	£866,602	0	8

*From this time the Bank of England began Branch Banks at various provincial centres, but these accounts are not included, being separately rendered by Sir John Soane. These early local banks seem to have been mainly alterations of old premises. C. R. Cockerell, successor to Soane in 1833, began the series of important new buildings as at Liverpool, &c.

Excavating for Roman Relics.

To-morrow (Saturday) excavation work will be resumed for Roman relics at Richborough Castle, near Sandwich. Soil will be turned over which has lain undisturbed for quite 1,400 years. The work is being undertaken by the Kent Archæological Society, in conjunction with the Society of Antiquaries and the Society for Promoting Roman Studies. Richborough is one of the most important Roman sites in this country. It was the port of passage between Britain and Gaul, and later was one of the chains of forts erected on the East and South Coasts against the Saxons.



House at North Lancing. Mr. C. Cowles-Voysey, A.R.I.B.A., Architect.

[This house, which is now being completed, faces south towards the sea. It contains two living-rooms and four bedrooms. It is built with cavity brick walls, plastered externally, and cream washed. The shutters and doors are painted green. The roof is covered with interlocking double Roman tiles.]

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ILLUSTRATIONS.

P.L.A. Sports Pavilion, Stands, and Groundsman's Cottage at Ilford.

These buildings are to be erected on the Port of London Authority's Sports Ground at Ilford.

The pavilion stands on elevated ground commanding a view of the playing field and the surrounding country. The walls are faced with 2 in. light red bricks with darker bricks for dressing of quoins, window jambs and plinth. The stands are situated below the pavilion, and are constructed of timber with a tile roof. The groundsman's cottage lies behind the pavilion, and is treated similarly, but has a steep-pitched roof of tiles.

The pavilion has a feeling of breadth and dignity of treatment which are pleasing for a central feature in the sports grounds. The picturesque cottage for the groundsman appears to the left of the view.

The work will be carried out by Messrs. William Saint, Ltd., of Cambridge; electric lighting by Messrs. Higgins & Griffiths, Ltd.; heating and ventilation by Messrs. Mumford, Bailey & Preston, Ltd.; The clerk of works is Mr. Le Marie.

Sir Edwin Cooper, F.R.I.B.A., is the architect.

New Offices, East India Dock.

This building is being erected on the quay of the East India Dock, facing the Export Dock. Accommodation is provided for the Warehouse-keeper and staff, with a large general office, pay office, dining room, kitchen, scullery, heating chamber and lavatories.

The walls are faced with light red bricks, dark bricks being used for the dressing of quoins, window jambs, and plinth. The roof over the centre portion of the building is covered with pantiles with concrete flats at each end.

The building contractors are Messrs. Walter Lawrence & Sons; electric lighting, Messrs. Higgins & Griffiths, Ltd.; heating and ventilation, Messrs. Mumford, Bailey & Preston, Ltd. The clerk of works is Mr. Le Marie.

Sir Edwin Cooper, F.R.I.B.A., is the architect.

Dockmaster's Offices, King George V Dock.

This building, of which Sir Edwin Cooper, F.R.I.B.A., is the architect, is being erected on the Pier Head of the lock of King George V dock, providing accommodation for the Dock-master, pilots, searchers, foremen and lockmen, with a rope store adjoining.

The exterior is of 2 in. red bricks, dark bricks being used for the dressing of quoins and window jambs, and a lighter shade for the walls. Tiles are used in the arches. The roof is covered with pantiles.

The contractors for the building are Messrs. Walter Lawrence & Sons; electric lighting, Messrs. Higgins & Griffiths, Ltd.; water and gas mains, Messrs. Mumford, Bailey & Preston, Ltd. The clerk of works is Mr. Le Marie.

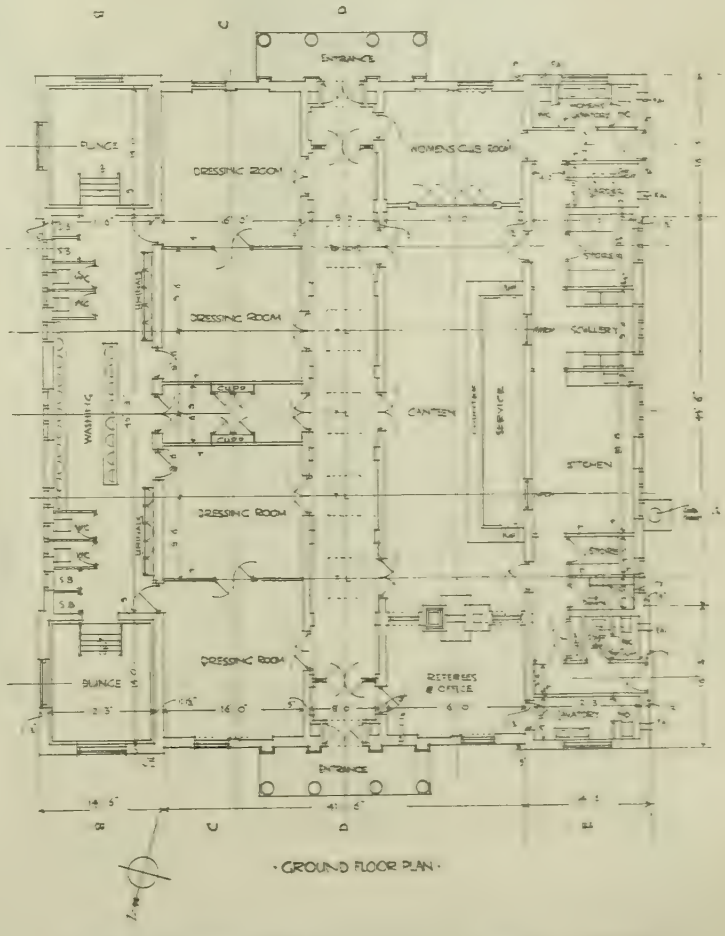
Port of London Authority Building.

We also illustrate the Rotunda of Sir Edwin Cooper's Port of London Authority Building, Tower Hill. The clock tower, counter and desks in this Rotunda were made by Messrs. John P. White & Sons, Ltd., of The Pyghtle Works, Bedford, to the designs of the architect.

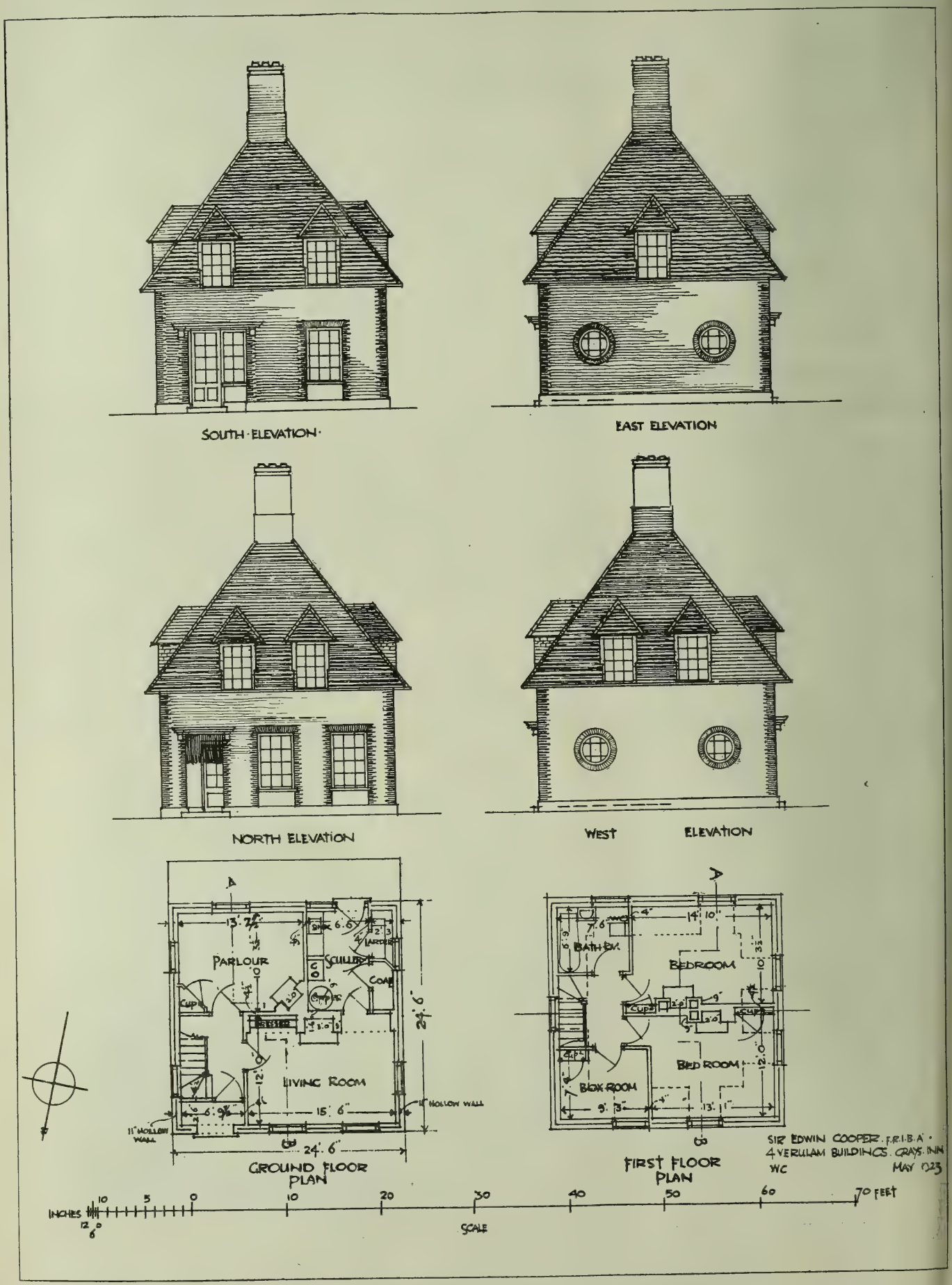
EXHIBITION NOTES.

NORFOLK AND NORWICH ARCHITECTURAL EXHIBITION.

The recent exhibitions of architectural photographs which have been held in London and the provincial cities of the country, particularly those arranged by the Royal Institute of British Architects and the Architecture Club, have no doubt been a stimulus to other architectural societies to bring together not only drawings or sketches of proposed or executed work, but photographs of completed buildings. We confess to a preference for the exhibition of drawings, as drawings are the basis of architecture, and can give at least as satisfactory a representation as photographs of a building as it is. Photography has helped to create public interest in architecture, and this, of course, is one of the objects of these exhibitions, especially when they are housed in buildings to which the general public have free access. For these reasons we think the Norfolk and Norwich Architectural Association was well advised to hold their recent exhibition of architectural drawings and photographs in the new gallery of Norwich Castle Museum, where the exhibits were appropriately grouped on the walls, and made a highly creditable display. The exhibits were not all of recent work, but from both photographs and drawings we realised that there has been a fair amount of activity in the district, especially in housing work and war memorials. One of the best collections, of drawings and photographs, was that of Mr. G. J. Skipper, F.R.I.B.A., of Norwich, whose Holt housing scheme, which we recently illustrated, was represented by an excellent drawing by Mr. T. Raffles Davison. Mr. Skipper has given a good deal of attention to building in clay lump, and has shown that the material is well adapted to cottage building, several of the cottages which he exhibited being built of this material, and at a cost which suggests that more use might be made of it for cottage building. The Holt, East Dereham, Lenwade, and Poringland cottages, amongst others, are admirable in design, and show what can be done by a competent architect. A collection of photographs of recent work by Mr. J. Page, B.A., A.R.I.B.A., was shown, including the Harris memorial reredos at Langham St. Andrew, Norfolk, and the war memorial screen at Great Ryburgh, both interesting works, while drawings of Wolterton Manor, East Barsham, showed a scheme of partial restoration. Messrs. Lacey & Upcher's exhibit consisted of various war memorials and church work, including the restoration of St. Martin's Church, Overstrand. Messrs. E. Boardman & Son's collection, mainly of photographs, showed both domestic and public work, including Carrow Abbey; Jenny Lind Hospital, Norwich; Stuart Court, Norwich; and house at Drayton, Norwich. Mr. Stanley Wearing, A.R.I.B.A., showed several housing schemes of interest, two of the principal being Lowestoft Borough housing scheme and the Norwich Mile Cross scheme. Other exhibitors were Messrs. A. F. Scott & Sons, Messrs. Morgan & Buckingham, Messrs. Olley & Haward, Messrs. Buckingham & Berry, Mr. S. G. Livock, Mr. Albert C. Havers, Mr. E. J. Tench, F.R.I.B.A., and Mr. J. O. Bond, Lic.R.I.B.A.

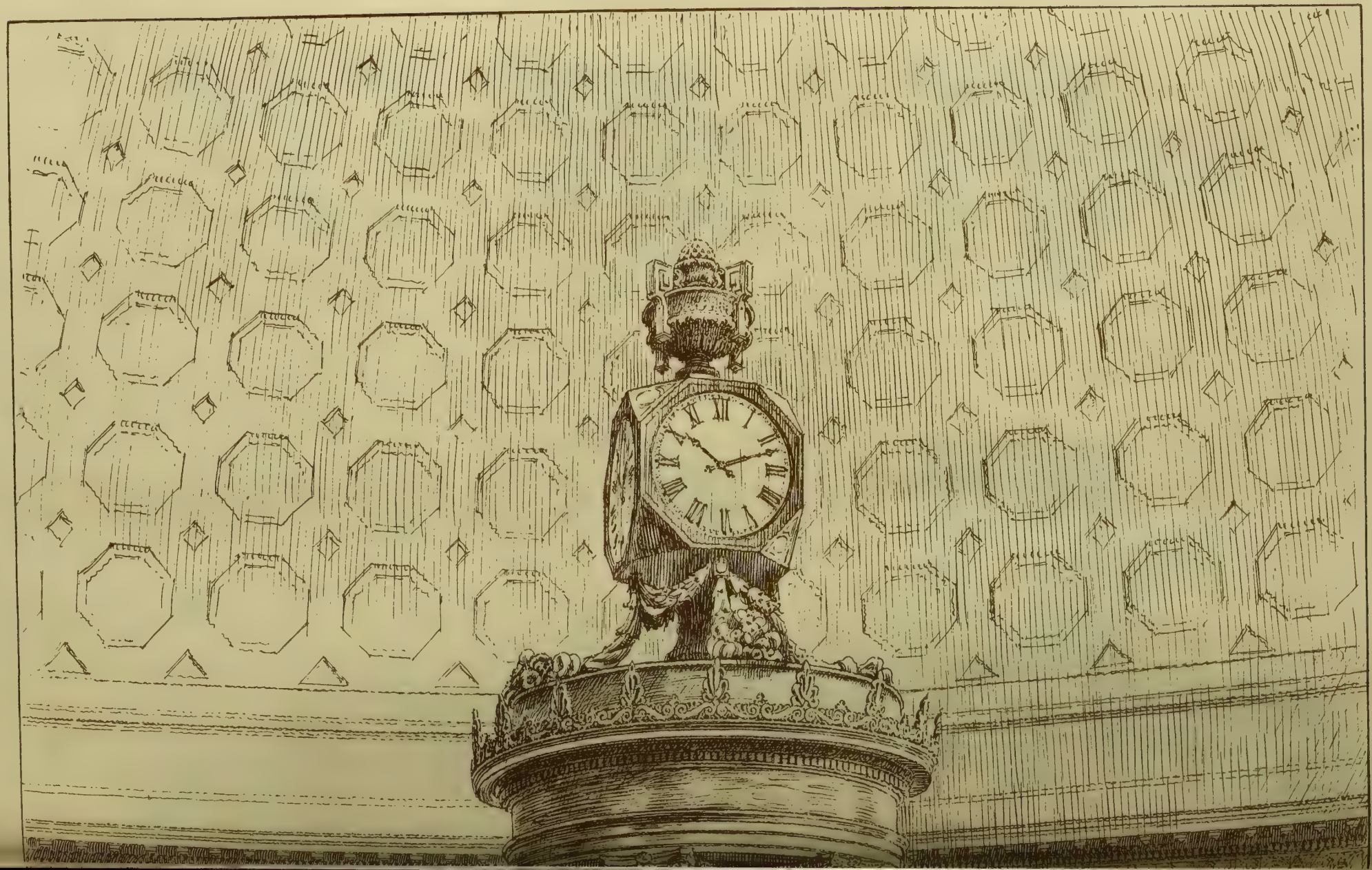


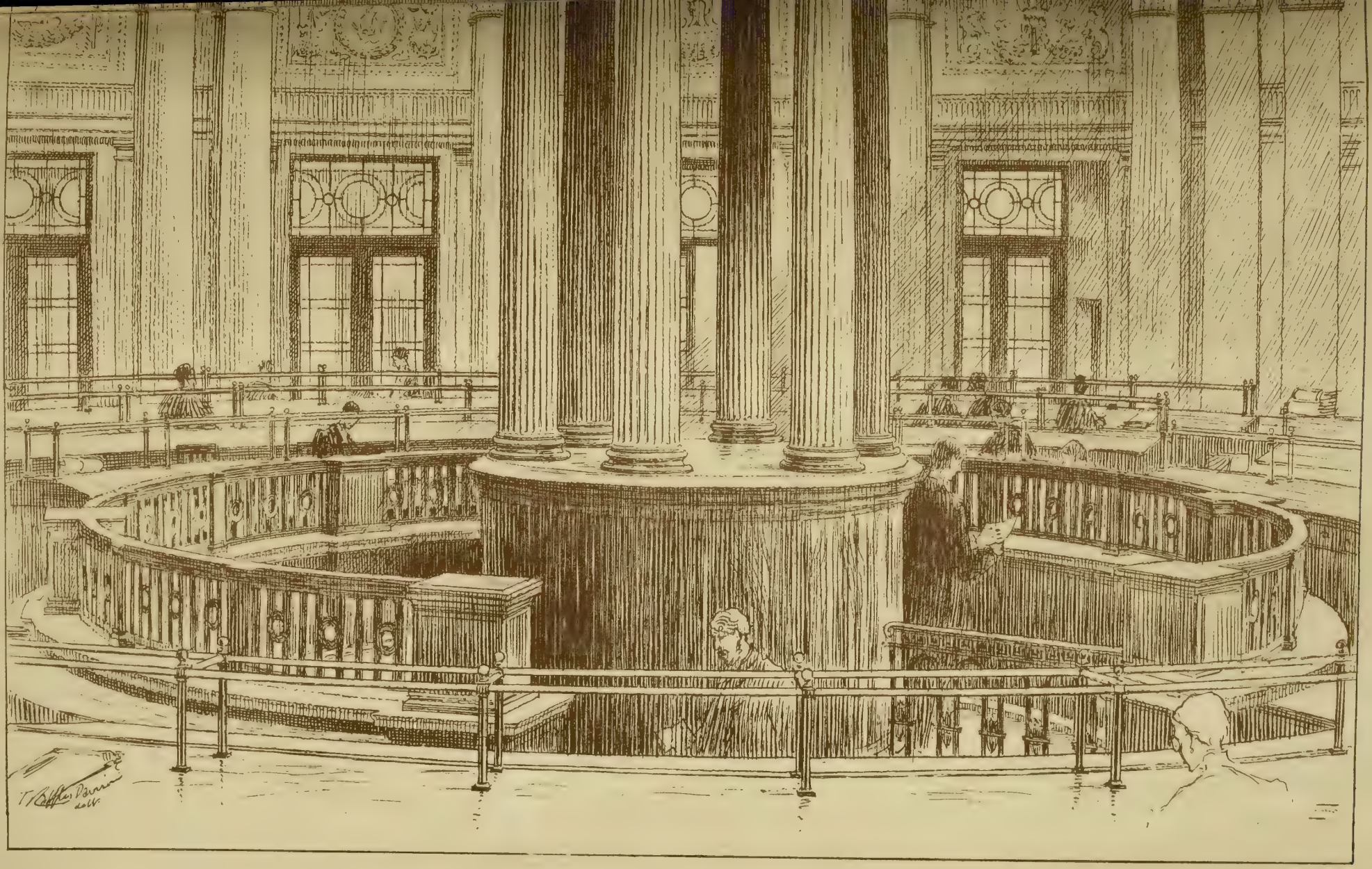
Sports Pavilion, Ilford, for the Port of London Authority.
SIR EDWIN COOPER, F.R.I.B.A., Architect.



Groundsman's Cottage, Ilford, for the Port of London Authority.

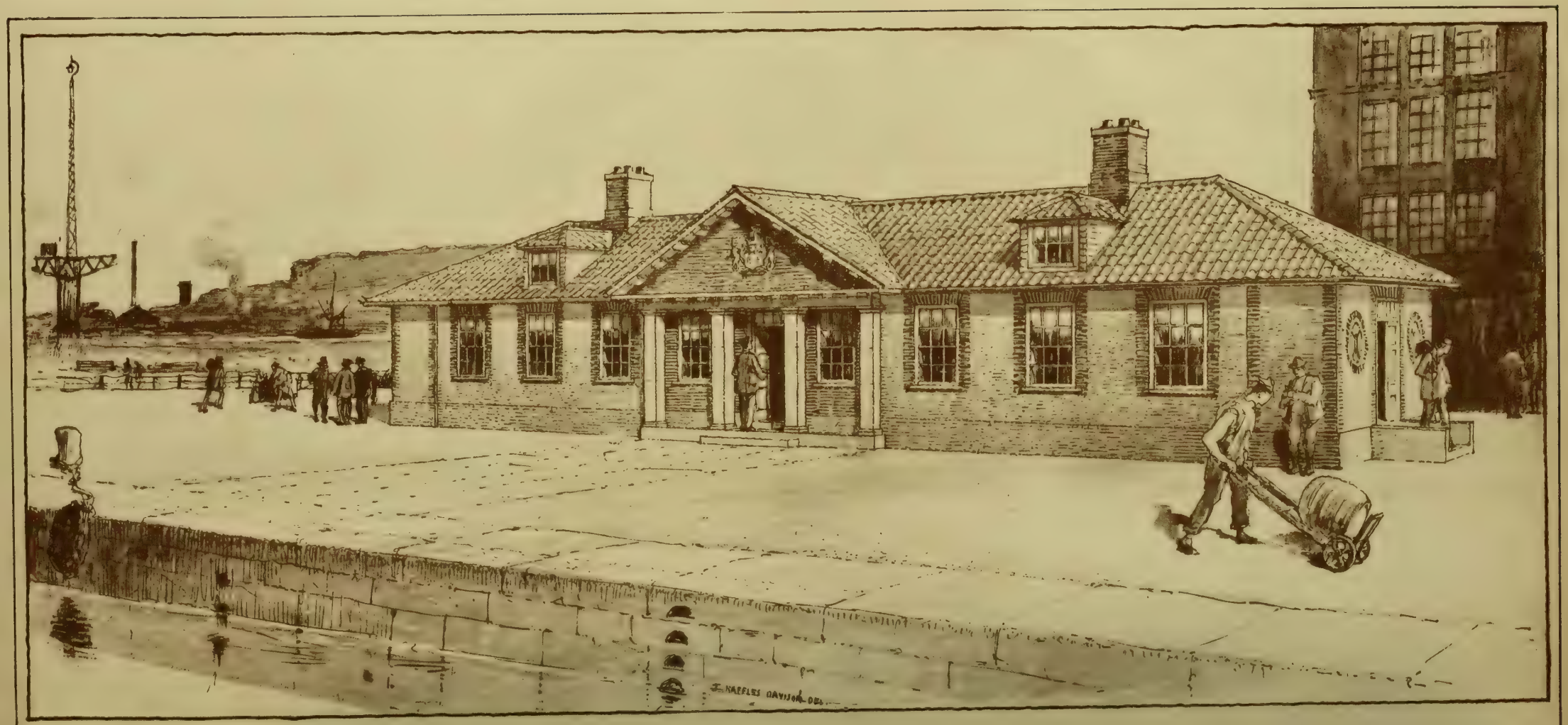
Sir Edwin Cooper, F.R.I.B.A., Architect.





CENTRE OF ROTUNDA, PORT OF LONDON BUILDING.

SIR EDWIN COOPER, F.R.I.B.A., ARCHITECT.



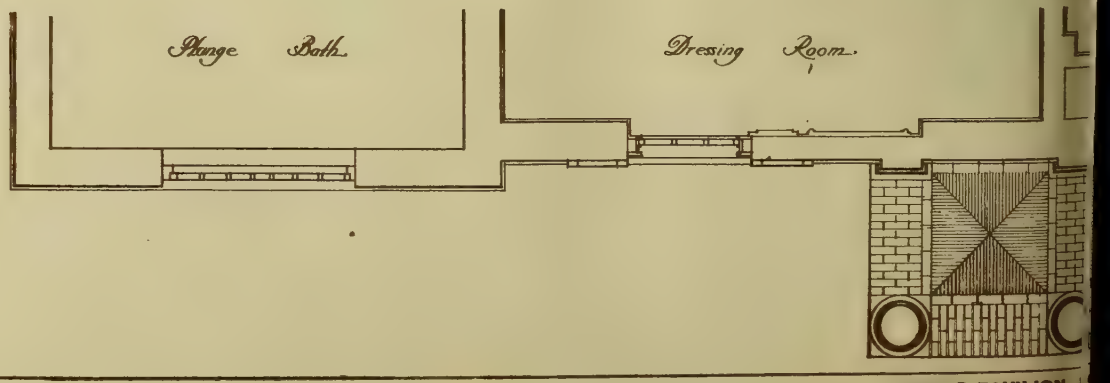


PIERHEAD DOCK MASTER'S OFFICES, KING GEORGE V. DOCK.

SIR EDWIN COOPER, F.R.I.B.A., ARCHITECT.

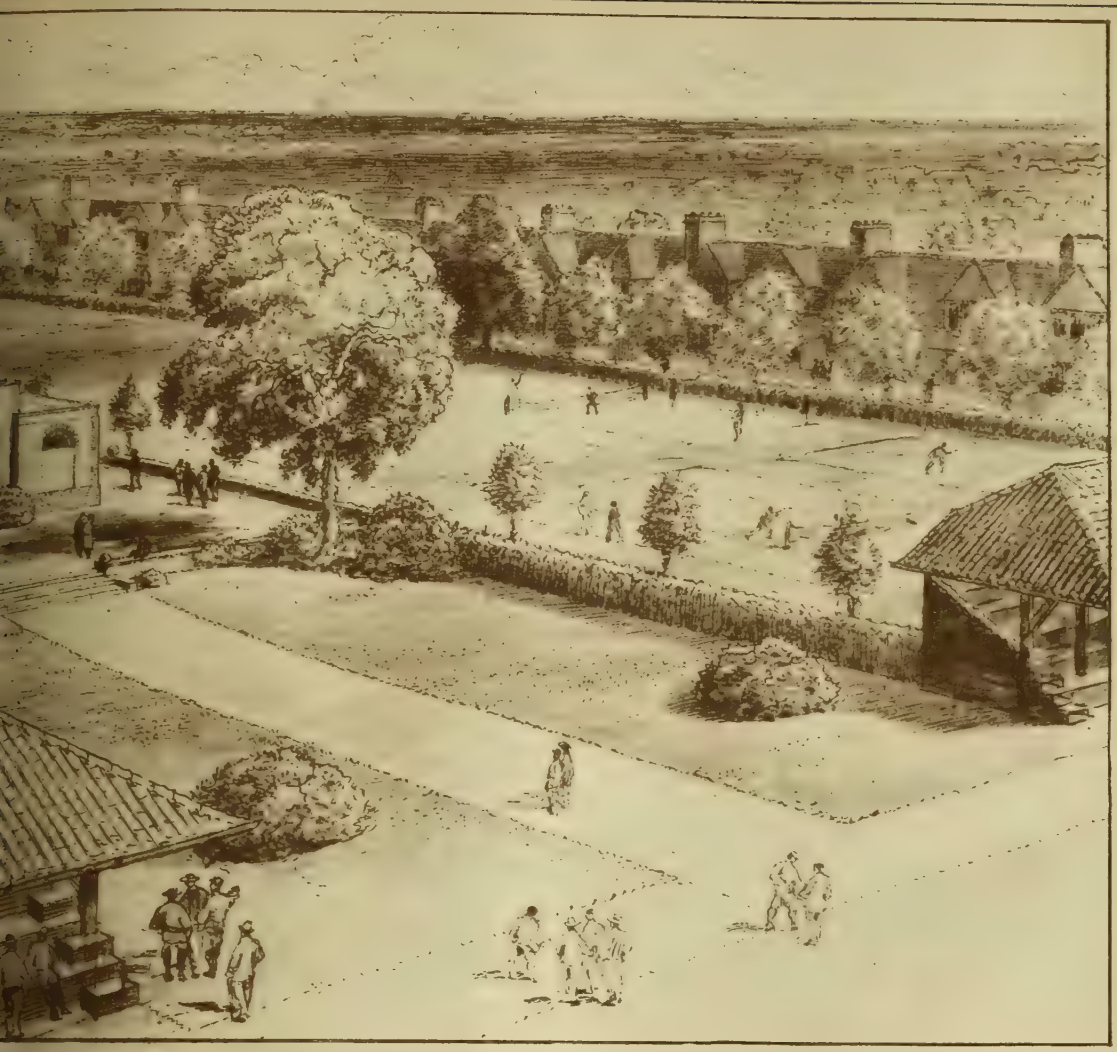


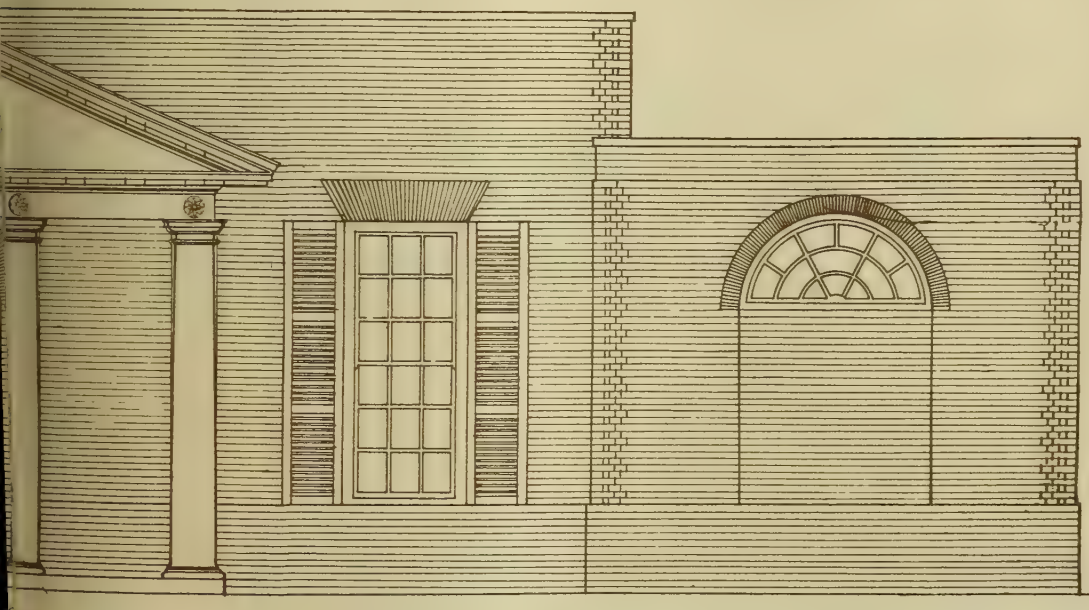


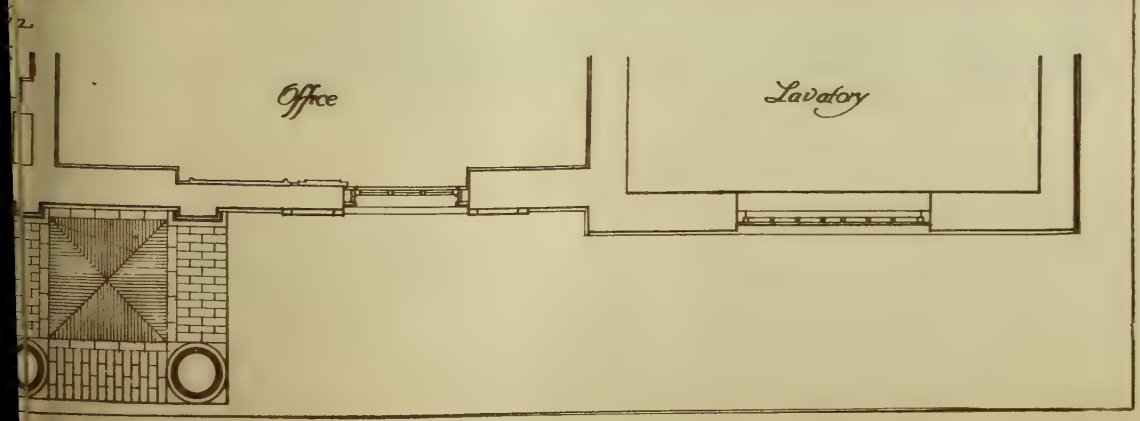


SPORTS PAVILION,

SIR EDW

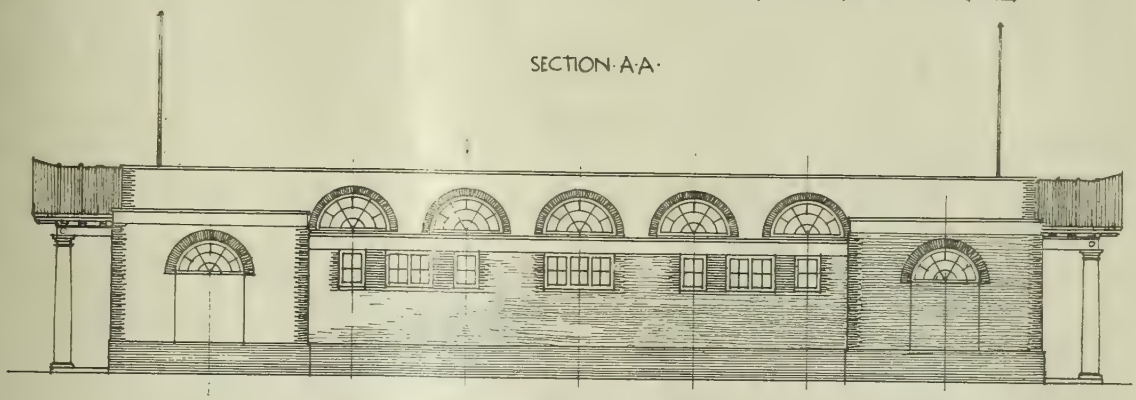




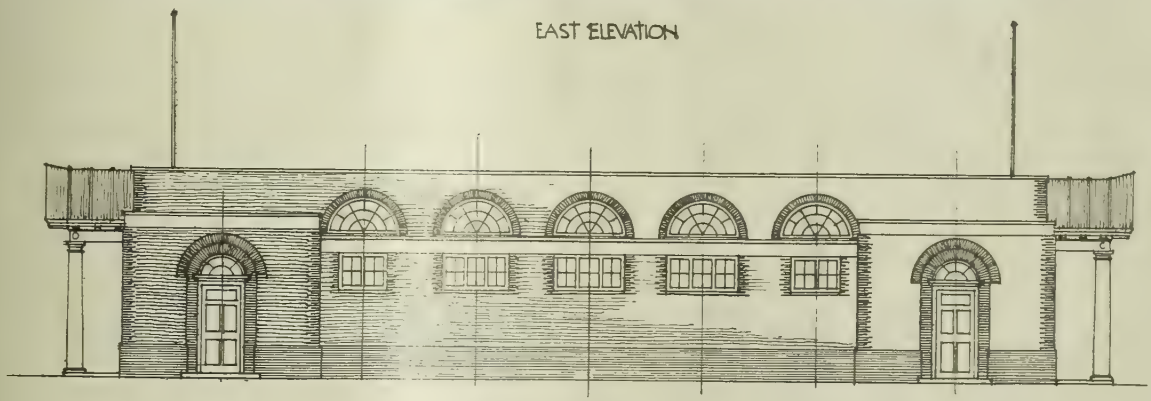

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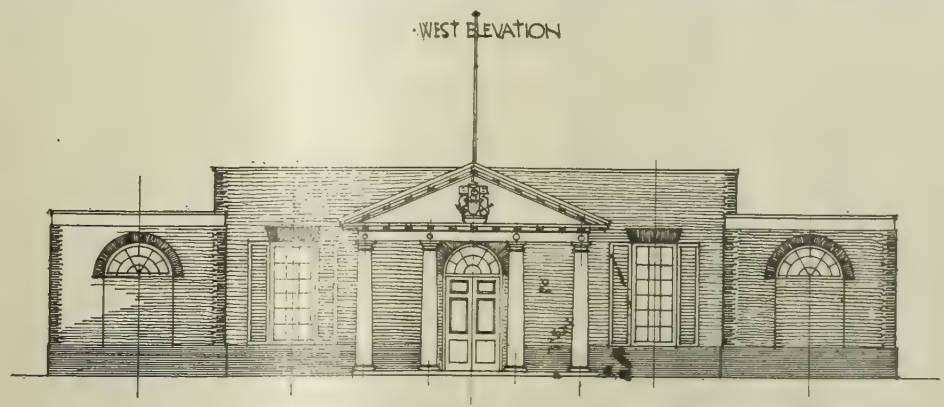
SECTION·A·A·



EAST ELEVATION

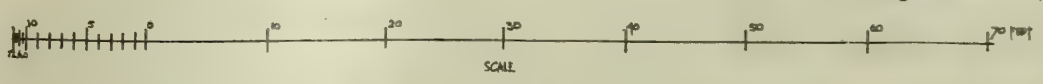


·WEST ELEVATION



·NORTH & SOUTH ELEVATION·

SIR EDWIN COOPER F.R.I.B.A.
4 VERULAM BUILDINGS. GRAYS INN
W.C. May. 1923



Sports Pavilion, Ilford, for the Port of London Authority.
Sir Edwin Cooper, F.R.I.B.A., Architect.

New Offices, East India Dock, for the Port of London Authority.

THE ROYAL ARCHÆOLOGICAL INSTITUTE

ANNUAL MEETING.

By H. J. D. ASTLEY, M.A., Litt.D., F.R.Hist.Soc.

The annual meeting of the Royal Archæological Institute was held at Norwich from July 25 to August 1. Owing to the death of Sir H. H. Howorth, the presidency of the meeting devolved on Mr. W. Heward Bell (President of the Wilts Archæological Society), and the post of Honorary Secretary was ably filled by Mr. L. G. Bolingbroke, a well-known local antiquary.

Civic Reception.

On Tuesday morning a civic welcome was given to the visitors, who numbered about 100, at the Guildhall, by the Lord Mayor of Norwich (Sir George Morse), who was accompanied by Mr. Arnold Miller (Town Clerk) and Mr. J. H. F. Walter (President of the Norfolk and Norwich Archæological Society). Mr. Heward Bell suitably replied.

After seeing the Corporation plate—a fine collection—the crypt and other features of the Guildhall, the visitors proceeded to St. Peter Mancroft Church, where an address was given and they were conducted round by the Rev. Canon Meyrick, the vicar.

Norwich Cathedral.

The afternoon was occupied by a visit to the cathedral, where the party were received by the Dean. An address was given by Mr. A. Hamilton Thompson, F.S.A., who exhibited plans of the building and discussed its history and architectural details. The address was particularly interesting from the fact that the lecturer broached the question as to who actually built the cathedral. He said Norwich Cathedral was always associated with the name of Herbert de Losinga as its founder. But the life of a bishop was a strenuous one in mediæval times, and it was extremely unlikely that one in that position had the leisure or the training to do what must have required the application of a lifetime. The person really responsible for the plans of the building must have been the master mason employed by the bishop. We were accustomed to speak of certain changes as being due to the work of certain bishops. In his belief they were due rather to a change in the master masons. In process of time Norwich Cathedral had suffered many alterations, but in the Middle Ages these alterations were not, like modern alterations and additions, attempts to graft imitations of a dead style upon historical buildings; they were the work of artists who were still working in a living style, in sympathy with the social and economic conditions of their age.

A perambulation of the cathedral followed, under the guidance of the Dean, and the Bishop entertained the party to tea at the Palace.

Eleventh-century Village Churches.

In the evening a lecture was given in the room over the St. Ethelbert's Gateway by Professor Baldwin Brown on "English Village Churches in the Eleventh Century," illustrated with lantern views.

The lecturer explained that his remarks would be confined to the central period of the century, and would deal specially with the Saxo-Norman overlap, by which was meant the appearance in the same building of Saxon and Norman features. The theme had been selected partly because that "overlap" was represented in a large number of East Anglian churches. It was, of course, rarely that one met with a building presenting the same style throughout the existing fabric. The village church as they knew it was generally the work of the centuries from the thirteenth to the twelfth, but it commonly bore traces of older woodwork of the twelfth and even the eleventh, while between two and three hundred examples up and down the country contained work that carried them back to the Anglo-Saxon period. The great majority of mediæval churches were, indeed, of Saxon foundation, though the fabric of them might have been completely reconstructed. Hence the examples noted, though regarded specially from the standpont of the eleventh century, presented themselves as illustrating the village church in general, always mediæval, though representing more than one century. Built originally by the local lord or squire, but for the common use, at first probably of wood, but later rebuilt in stone, enlarged by the Normans after the Conquest, altered, added to, refitted, from age to age, the church had come down to them as the dominant feature of the settlements, rural and semi-urban. In all Europe there was no class of monuments more full of varied interest than English country churches, for, belonging on the one hand to the great, and on the other hand to the simple, they enshrined a large part of the social history of the land. The Saxons had their own repertory of constructive and ornamental forms which was quite different from that of the Normans. Characteristic Anglo-Saxon marks, none of which was used by the Normans in their own Duchy, were: (1) Double-splayed windows; (2) pilaster-strips, narrow, upright bands of stonework, not buttresses, but decorative enrichments of walls; (3) similar projecting strips surrounding openings; (4) double openings in the belfry stages of towers divided by mid-wall shafts; (5) the special treatment of corners of structures and jambs of openings called popularly "long-and-short work." The Normans had also their characteristic forms and methods, and the relation between the two sets of forms when they occurred in the same building required careful investigation. The lecturer, in conclusion, remarked on the interest of the study of the buildings of this period as casting a light on the historical situation after the Conquest. It was a fact, worthy of special attention, because on general grounds it would not be anticipated that certain Anglo-Saxon schemes of planning and details were taken over by the Normans and became established features of post-Conquest architecture. That Norman and Saxon worked together on the churches, and that, at any rate at first, the Saxon influence was on the whole predominant, was not without its historical significance, and was a rebuke to those old-fashioned scholars, if any survived, who still believed that architecture, with all the other elements of civilisation, was introduced into Great Britain by the Norman invaders.

Wymondham.

Wednesday morning was spent in visits to Wymondham, Attleborough, and Hingham; the afternoon to Caistor Camp and Carrow Abbey.

The first stop was made at Wymondham, in order to see the magnificent remains of the Abbey Church, of which only the nave, used as the parish church, and the central and west towers, still stand. William d'Albini, a great landowner in Norfolk, founded a priory at Wymondham in 1107 for twelve monks of the Benedictine order, as a cell of St. Alban's. In 1448 it became an independent Abbey. The original church, which consisted of nave, with north and south aisles, a Galilee porch at the west end between two western towers, transepts with central tower, and presbytery with north and south chapels, was completed about 1130. In the thirteenth century the choir was extended eastward. In 1400, the Norman central tower having become decayed, the present octagonal tower was built on the original crossing. In 1445 the two western towers were pulled down and the present west tower erected.

Attleborough.

Attleborough Church, described by Mr. A. B. Whittinghame, was originally a cruciform structure of the Middle Norman period, of which only the central tower remains. In the fifteenth century the nave and aisles were rebuilt, but the window-tracery could be taken for Decorated work apart from its mouldings. The rood screen of this date, which crossed the nave and aisles without a break, still exists, though, unfortunately, it has been removed to the west end of the church. Mr. Agmer Vallance described it as a magnificent specimen, and typical of Norfolk screen work, richly decorated, painted and gilt, but the tracery somewhat poor and flimsy. It was the finest example he knew, except that at Ranworth, and he hoped it might be restored ere long to its proper position.

Hingham.

Hingham Church was next visited. This is a fourteenth century church, having been built by Remigius de Hethersett, who was rector from 1316 to 1359. The east window is filled with German glass of about 1500, and contains figures of St. Anne, the Madonna, and Saints. There is a fine table tomb with canopy over to Thomas, Lord Morley, who died in 1435, and his wife. It is interesting to remember that Abraham Lincoln was descended from the Lincoln family of Hingham, and a bust of the President has been lately presented to the church by American citizens.

Caistor.

When the visitors arrived at Caistor the Rev. Dr. Astley gave an address on the Camp. He adduced reasons for holding that Caistor is the *Venta Icenvrum* of the Ninth Irer of Antoninus, and not Norwich, as some Norfolk antiquaries mistakenly hold; and explained *Venta* as being derived from Lat. *vendere*, to sell, and meaning, therefore, "the market-town of the Iceni," similarly to *Venta Belgarum* and *Venta Silurum* in Britain, and a host of Ventas in Spain and Portugal to this day. The Camp is about 34 acres in extent, strongly walled on pre-Roman foundations, and with towers at intervals, erected in the third century. One of these has lately been excavated under the supervision of the Rev. J. W. Corbould-Warren, the owner of the site; but the whole area awaits systematic excavation. The "finds" of coins, jewellery, pottery, and other articles are endless; the coins show continuous occupation from Nero to Gratian.

Carrow.

At Carrow Abbey Mr. B. Cozens-Hardy (Hon. Secretary, Norfolk Archæological Society) told the story of the house. Carrow was founded in the reign of Stephen as a Priory of Benedictine nuns, and was famous, as long as it endured, as a training school for Norfolk ladies. It was suppressed in 1536. The church and conventual buildings are all in ruins, but the results of Mr. J. J. Colman's excavations in 1881 may be seen. The present mansion was originally the Prioress's lodging, the older portion consisting of the hall, the parlour (panelled in dark oak), and the bedrooms above. It was built by Prioress Isabella Wygun early in the sixteenth century. The mantelpiece in her parlour bears her rebus, on one side the letter Y, on the other a gun.

In the evening a reception was held by Mr. and Mrs. L. G. Bolingbroke in the Strangers' Hall, their former home, now generously gifted to the city. A detailed history of the building was read by Mr. Bolingbroke, and its rooms and various contents, which form a veritable civic museum, were inspected.

Great Snoring.

Thursday was set apart for a tour in N.W. Norfolk.

The first place of call was Great Snoring, near Fakenham, where the rectory and church were described by Mr. John Page, A.R.I.B.A. The rectory takes its place with East Barsham Hall in the same neighbourhood as two remarkable examples of Early

Renaissance or Tudor architecture. Great Snoring rectory was originally a manor-house erected by the Shelton family, whose rebus, a "shell" and a "tun" is inscribed in a scroll over the entrance door. There were originally two corner turrets, of which only one now remains to its full height. These show the influence of Gothic which still survived. The two upper stages are of richly-traceried terra-cotta work, and a rich band of terra-cotta shields and lozenges, with the arms of the Sheltons, and the letters MIHC, *i.e.*, "Mary and Jesus" below, continuously repeated, runs the whole length of the east and south sides.

Binham Priory was next visited, where Mr. F. E. Howard described the church (of which only the nave with its fine Norman interior and beautiful Early English west front remains, as at Wymondham), and the ruins of the conventual buildings. Mr. A. Hamilton Thompson gave the history of the Priory. It was founded, according to Matthew Paris, about 1093 by Peter de Valoin, as a cell to St. Alban's Abbey, and the eastern part is of that date. The west front was rebuilt by Prior Richard de Parco between 1225 and 1240, and is a very fine example of the work of the period. The south aisle disappeared long ago, but the north aisle was only removed early in the last century, when the arcade was bricked up and some of the original fifteenth century windows of the aisle were inserted. The ruins of the western windows of north and south aisles remain, that on the north being one of the earliest examples known of a window with a transom.

The morning concluded with a visit to the so-called "Danish" Camp at Warham, where on the slopes of the circumvallations the Rev. Dr. Astley set forth such facts as are now generally received. This so-called Danish camp, he said, was situated two miles south-east of Wells. It stood on the slope of a hill, and in a bend of the river, some 60 ft. above the sea-level on the north-east side, while that part adjoining the river was some 30 ft. above the sea. The entrenchments were strong, being composed of chalk overgrown with turf, but the position was naturally weak, as on the north-east side the land outside was higher than that within. The ground covered by the earthworks and camp was approximately nine acres, the interior space alone about three and a half acres. There were two ramparts; the inner one over a quarter of a mile in circumference. In 1914 excavations were undertaken, in the course of which definite evidences of Roman occupation were found, and also slight indications of the presence of late Celtic pottery; but the earliest date of Warham Camp had not yet been ascertained. There seemed to be no evidence of Danish occupation, but it had been the fashion to call this camp and others in the neighbourhood Danish, through the known fact of the invasion of East Anglia by these pirates of the North Sea.

Lunch was partaken of at Wells, after which the Walsinghams were visited.

Great Walsingham Church.

Great Walsingham Church, in structure and proportion is a splendid example of the Norfolk village church. It is at some points in a deplorable state of disrepair. Mr. F. E. Howard said the church dated from the fourteenth century, with the exception of the south porch which was built a hundred years later. The chancel had long been in ruins. The window tracery throughout was exceptionally beautiful and might be instructively compared with Beeston-next-Mileham. The roof appeared to be rather later than the walls; and that of the nave was arch-braced and was of exceptional construction. The benches were of the early sixteenth century; the pulpit was probably of the fifteenth; the font cover and the altar rails were of the seventeenth. The remaining fragments of stained glass were coeval with the windows. There was a consecration cross on the south wall.

Walsingham Priory.

Speaking at Little Walsingham Priory, Dr. A. Hamilton Thompson described it as one of the greatest scenes of pilgrimage in the Middle Ages. The place was spoken of as Walsingham Abbey, the term abbey being commonly used even where houses were actually ruled not by abbots but by priors. This house of Our Lady of Walsingham was founded some time in the twelfth century. The fame of the house was due to the fact that it possessed a celebrated shrine, a wooden shrine having two doorways, so that worshippers could come in by one and go out by the other, said to be in imitation of the Holy House of Loretto, from which, it was said, the body of Our Lady was translated in 1291. There were still in existence two important chapels which were used as stations by pilgrims on their way to Walsingham; one was the Red Mount Chapel at King's Lynn, built about the beginning of the sixteenth century, and the other was the beautiful fourteenth century chapel between Walsingham and East Barsham, called the Slipper Chapel, because it was at this point, in all probability, that the pilgrims took off their shoes before approaching the sacred place. The Priory of Austin Canons, founded on the site of an earlier chapel of the Blessed Virgin about the middle of the twelfth century, was entered by a fifteenth-century gatehouse in the west wall of the precinct, adjoining which were remains of the almonry buildings. The church stood on the north side of the cloister, and was of an unusual plan, a long aisled building without transepts, and with an aisleless bay projecting at the east end. The east wall, with very beautiful early fourteenth-century detail, remained; the gable was rebuilt and a large window inserted in the fifteenth century. There were also remains of the western piers of the nave. On the north side was a small chapel, projecting from the north wall, and a large projecting building further west, which appeared to have been the *novum opus*, built in the fifteenth century to hold the celebrated shrine. The south part of the eastern range of the cloister, including a passage through the range, and the common house or dormitory sub-vault, remained. The latter, with the vaulted passage between the dormitory and refectory, was included in the modern house. Much of the south wall of the refectory, with its pulpit and stair, was left; the west wall and gable, the doorways of the screens at the west end, and portions of the north wall also remained. The west range, which probably contained the cellar with the prior's guest hall and great chamber above, had disappeared. Remains of other buildings to the south-east and south of the cloister, one of which was probably the infirmary, were incorporated in the modern house. There was some ancient work in a gateway, called the Knights' Gateway, to the north-east of the priory. The holy wells, east of the church, were approached by a beautiful archway, c. 1200, which was removed here from one of the destroyed buildings.

The Greyfriars, Walsingham.

Of this picturesque building Dr. Hamilton Thompson remarked that it consisted of two courtyards. The smaller court, on the south, was entered at the south-west corner, and had covered passages with rectangular traceried windows on its east and west sides. The east passage might have communicated with the infirmary and other offices, of which there were traces on the east and south sides. The passage on the west led to the cloister court, on the north side of which was the church. Of this and of the eastern cloister-range there were only fragments, and little was left of the refectory; but the walls and gables of the western range were left and showed that it was of unusual size. The friary was founded in 1346; but the remains, so far as their date could be identified, seemed to belong to the next century.

East Barsham.

East Barsham Hall, built by Sir William Fermor, 1512-1515, and now being judiciously restored by its present owner, Mr. W. C[o]man, under the supervision of Mr. M. Pa[g] was also visited. Here the Italian influen[ce] is even more pronounced than at Great Sn[o]ing Rectory. Pietro Torrigiano, or Peter T[o]risan, as he was called in England, w[as] was entrusted by Henry VIII with the er[ec]tion of Henry VII's tomb at Westminst[er] was probably the designer of the ornamen[t]tion on both houses.

Norfolk Rood Screens.

The evening meeting was held at St. Eth[el]bert Gateway, when Mr. F. E. Howard [de]livered a lecture on Norfolk screens, ill[us]trated by many lantern views. Mr. How[ard] said, considering the artistic merit of [the] mediæval screens of Norfolk, it was amazi[ng] that so little had been written about the[m]. Many of them were in an appalling conditi[on] and some appeared to be regarded simply [as] lumber by their custodians. There were ab[out] 650 churches in Norfolk, and 250 of these [or] thereabouts had screens. The lecturer fi[rst] dealt with the screens of the fourteenth c[en]tury, and pointed out that there were t[wo] chief types, one in which the tracery was s[up]ported by a series of turn shafts, and [the] other with the uprights treated as pinnac[les]. The Norfolk screens of the fourteenth cent[ury] were notable for the beauty of their trace[ry] especially the roses or wheels over the do[or]ways. The fifteenth-century screens fell i[nto] two groups—the square-headed, which h[ad] coved or flat soffits to the rood loft, and [the] arched screens, which were vaulted. T[he] screens at Ranworth and Attleborough w[ere] particularly fine specimens of fifteenth-cent[ury] screens, and the lecturer drew particu[lar] attention to the remains of the rood loft [at] Fundenhall and also of that at Tottington.

The tour on Friday comprised a trip [by] motor-launches on the Norfolk Broads, a[nd] with the exception of the visits to Ranwo[rth] and Ludham, it partook more of the nat[ure] of a holiday excursion.

Mr. Heward Bell having been compelled [to] leave, the Presidentship was assumed by M[r.] A. Hamilton Thompson.

Ranworth.

At Ranworth Church Mr. F. E. How[ard] suggested that in Norman days there was [a] long and narrow church, consisting of n[ave] and chancel. The present chancel retai[ns] certain windows of the fourteenth centu[ry] but they seemed to have been re-used in [the] rebuilding or remodelling of the late f[our]teenth century or early fifteenth. Instead [of] adding aisles to the Norman nave, as wo[uld] have been done in other parts of Engla[nd] the builders of the early fifteenth century [had] built a huge structure, comprising, as it w[ere] nave and aisles in a single span. They [had] added a western tower and north and s[outh] porches. A double hammerbeam roof [is] known to have been destroyed by faculty [in] 1705. Probably the font cover, of whic[h a] fine drawing remained in the church, [was] destroyed about the same time. The fitt[ings] were of the greatest interest. Besides a [fine] set of backless benches, disfigured in mo[dern] times, and considerable remains of the [old] stalls, there remained a most interesting [old] lectern, with desks at different heights. [The] rood screen was perhaps the most beau[tiful] though not the most elaborate, in Nor[folk]. It extended right across the wide nave, [the] side sections being treated as reredoses [to] the two side altars, with delightfully des[igned] wings to protect them. Though the s[creen] retained a larger portion of its loft, the gr[eater] part of its vaulting had been destroyed. [The] portion which remained was exqui[sitely] painted with floral sprays. Nowhere els[e] the arrangement of the side altars be[en] beautifully preserved as here. But [the] arrangement of side altars and reredos w[as] unique in Norfolk. It was merely an ex[ample] of quite a common thing. The scre[en] would date at 1450 or 1460. It did not [stand] alone as regarded style. There were [other] screens about here which were the w[ork] the same hand. The style of the side r[ood]

as very much like a screen at Gooderstone. he restoration of the screen had hardly been appy, but so far as he knew nothing old had een destroyed. It was an interesting ques-on as to whether the painting was contem-orary with the screen, and whether it was he work of the same craftsman. He thought ot, for he knew of three other screens dis-nguished by work evidently from the same ever hand.

Ludham.

Mr. F. E. Howard's address on Ludham hurch stated that the chancel, of the first alf of the fourteenth century, was probably rebuilding on a much larger scale of the iginal Norman chancel. The west tower, ther later in style, must have been com-enced quite clear of the older church. The ne aisled nave dated from the late fourteenth early fifteenth century. The eastern four ays appeared to have been built first, the ork being then extended to link up with the estern tower. The roof of the nave was a ammerbeam example, relying for its stability its long wall posts, which transmitted the rust to the aisle roofs; these were of the me date and of flying buttress form. The ancel roof was modern. Of the fittings, e most important was the rood screen, ted 1493, retaining its original colour, in-uding a fine series of saints on the lower nels. Above the screen was a mediæval mpanum, discovered in recent times in the od-loft stairway. The actual painting prob-ly dated from Marian times. Within the ancel were simple but dignified returned alls on their original platforms. There was interesting chest and a plain and massive ms-box. The font was a good example of e usual Norfolk type, with alternate evan-elistic symbols and lions.

In the evening the visitors were the guests the President and Committee of the Norfolk d Norwich Archæological Society at a recep-on held in the Keep of the Castle Museum.

Beeston-next-Mileham.

On Saturday the visitors saw some of the ost interesting remains Norfolk has to show. he tour was in the district which the late r. Jessopp called the "Norfolk Holy Land" om the profusion of monastic houses to be und in it, *i.e.*, Castle Acre and the neigh-ourhood. The first stop was made at eeston, which Mr. F. E. Howard described "one of the most delightful structures of s kind in Norfolk," and "beautifully pre-rved after 500 years of neglect." There as originally a Norman aisleless church and ancel: the chancel was rebuilt about the ar 1310, the nave somewhat later, and it this fourteenth-century church that we see -day. The flowing tracery in the windows is aracteristic. The parclose screens, of both rth and south chapels, at the east end of e nave, are well preserved, an unusual cir-mstance; some of the "choir-stall-like" ting remains. The southern screens date m 1400; the northern about 1475. The ancel screen is well preserved, the rood loft ne. The painting is original, and remark-le for its "landscape" instead of the usual per background. The church possesses a e-Reformation paten.

Great Dunham.

We next arrived at the church of Great nham, considered by Professor Baldwin own to be one of the most interesting mples of late-Saxon work in the country. has all the features of pre-Conquest work igh fenestration, central tower, triangular-ded west door (now blocked up), long and rt work, very pronounced, and arcading. e latter in this case is interior, and may compared with that at Bradford-on-Avon, ich, however, is there exterior. The wall-is thick for the period. The windows are ble splayed. In the tower there are small ular openings, which is an Anglian fea-e and a mark of late pre-Conquest work. belfry windows are divided by a mid-l shaft with cushion cap.

Swaffham.

The interesting fifteenth-century church at Swaffham was next visited, and an address given by the Vicar, who exhibited some of the treasures of the church library, among them the famous "Black Book of Swaffham," an early Vulgate, and a beautiful little fifteenth-century Book of Hours.

Castle Acre.

After lunch the party proceeded to Castle Acre, where Dr. Astley described the earthworks and gave the history of the Castle; Mr. F. E. Howard said all that was necessary about the church; and Mr. A. Hamilton Thompson gave a *résumé* of the history of the Cluniac Order, and a description of the Priory, with the aid of Sir W. St. John Hope's excellent plan. All these may be found in Dr. Astley's "Guide to Castle Acre."

East Dereham.

On the return to Norwich a halt was made at East Dereham for tea and a brief inspection of the church to view the Seven Sacrament Font, much mutilated, and the Cowper Monument. The Vicar read an extract from the old church account-book, showing that the whole cost of the font in 1468 amounted to £12 13s. 9d., of which the stone cost £1, and the mason "for workmanship of the seyd funte" was paid £10.

The tour on Monday took the members to North Norfolk, where the churches of Sall, Cawston, Cley, and Blakeney, and the historic Blickling Hall were visited.

Cawston.

The first halt made was at Cawston, where an inspection of the church was made. Its chief features of interest were described by Dr. A. Hamilton Thompson. The chancel was built in the early part of the fourteenth century. About 1400 the west tower was built largely of freestone, on a site clear of the building. The chief interest of the church is its hammerbeam roof, remarkable for the tall figures of angels set in front of the struts between the hammerbeams and principal rafters. The screen, of the characteristic local type, has a series of painted panels. There is a large wall painting with a defaced inscription on a scroll in the south transept, which also has a ceiling with well-painted bosses. The ringers' loft in the tower remains. The church has a fifteenth-century pulpit.

Sall.

On leaving Cawston the party drove to Sall Church, which was also described by Dr. Hamilton Thompson. The chapel above the north porch retains its piscina and is vaulted. The church has a handsome series of choir stalls with carved misericordes, and the lower portion of the screen remains, with defaced paintings of St. James the Great and the Latin Fathers and remnants of the Nicene Creed painted on the sill above.

Blickling Hall.

Leaving for the time being the study of churches, the visitors went on to Blickling Hall, built by Sir Henry Hobart in 1620 on the site of an earlier house erected by Sir Nicholas Dugworth. A paper on the history of the hall and its chief features of interest was read by Canon Meyrick, who has long and intimate memories of the hall. The party spent some time in going through the rooms and gardens.

Cley.

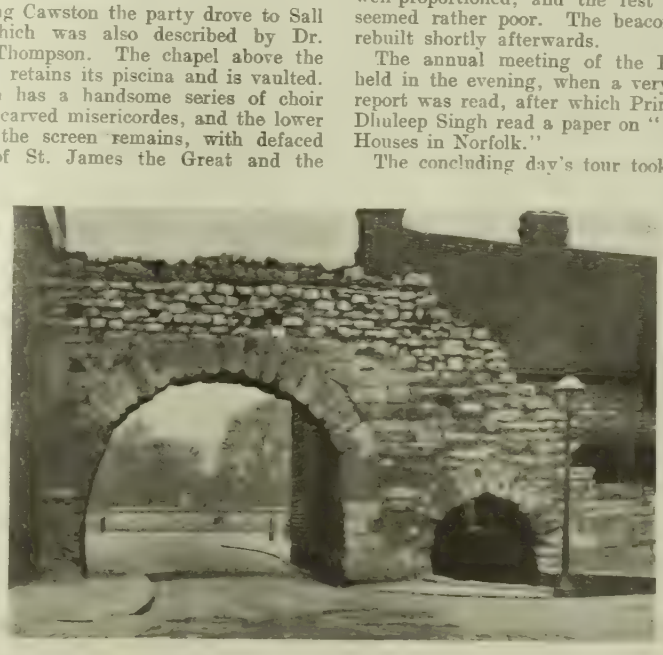
At Cley Mr. A. B. Whittingham dealt with the architectural features of the church. It was during the fourteenth century, when Cley was a flourishing port, that the rebuilding of the church took place, but on a more magnificent scale, and it is for the work that was then done that the church is famed. A clerestoried nave was built wider than before. On each side broad aisles were made, with transeptal chapels at their east end. In the fifteenth century new windows and roofs were given to the aisles and chancel, and three porches were added. The south porch is a fine piece of work of 1400. In the room above is a rare contemporary iron-bound chest for the church valuables. The pulpit is dated 1611.

Blakeney.

The last place visited in the day's tour was St. Nicholas' Church in the adjoining village of Blakeney. Mr. A. B. Whittinghame acted as guide. He pointed out that the church was chiefly remarkable for its two towers, there being a small beacon tower at the north-east of the chancel in addition to a large one at the west end. The building was all of two dates. The Early English chancel was vaulted in two bays. Its east window was of seven lancets, but the three-light side windows had given way to others of Perpendicular date. At the east end a space was walled off to form a sacristy, and from this a stair ascended to the beacon tower and the space above the vault. The rest of the church was entirely rebuilt in the fifteenth century. The rebuilding commenced in 1434. This work consisted of a clerestoried nave with aisles, north porch, and west tower, the west bay and tower being a little later than the rest. Internally the building was quite pleasing with its hammer-beam roof, but externally the tower was not well-proportioned, and the rest of the work seemed rather poor. The beacon tower was rebuilt shortly afterwards.

The annual meeting of the Institute was held in the evening, when a very satisfactory report was read, after which Prince Frederick Dhuleep Singh read a paper on "Some Manor Houses in Norfolk."

The concluding day's tour took the visitors



The Newport Arch, Lincoln.

[This arch is probably the oldest of its kind in the Kingdom still serving its original purpose; it was built by the Romans.]

into East Norfolk, so that we may say that they have not left unsampled any of the best things which the county has to show of its wealth of antiquarian objects of interest.

Barton Turf.

At Barton Turf Church Mr. Arthur B. Whittingham explained that the church, which was mentioned in Domesday Book, was enlarged early in the fourteenth century by the addition of the present aisles and chancel. Later in the same century a small clerestory was built. Early in the fifteenth century various improvements were made. A new rood screen was erected at this time, which now formed the chief feature of the church. The paintings on its twelve lower panels represented the nine heavenly orders. At the east end was a painting of the descent of Christ, said to be by Van Dyck.

Tunstead.

At Tunstead Church Mr. Philip M. Johnston, referring to the fabric as the stately church of a vanished town, said the church is remarkable for its size, the internal measurements being: Chancel, 51 ft. 4 in. by 25 ft. 3 in.; nave, 87 ft. 2 in. by 24 ft. 10 in.; and aisles, co-terminous with the nave, 14 ft. 1 in. wide. As Tunstead gave the name to the Hundred, it was probably in Saxon times the capital town in it. There are records of walls, gates, and important houses and holdings, indicating a town of some size and importance, of which nearly every trace has vanished.

Worstead.

With regard to Worstead Church, which was next visited, Mr. Johnston said this church occupied about the same area as Tunstead Church, but while its chancel was wider and much shorter, it was flanked by important chapels, and that on the north had an original two storied sacristy to the eastward—a comparatively rare feature locally. The church was exceptionally rich in painted screens. The rood screen of ten openings retained its vaulted cove, and was erected between the years 1512-24.

From Worstead the party went on to North Walsham, where they looked round the church.

Bromholm.

On leaving North Walsham the party drove to Bacton for the purpose of inspecting the remains of Bromholm Priory. The Priory was founded in 1113 for a few Cluniac monks, and the Priory church was dedicated to St. Andrew. The oldest portion of the present remains is a block standing apart from the rest, which formed the north transept of the Priory church. The date of this portion is of the close of the twelfth century. The ivy-clad remains of the Priory offer many points of interest to the antiquary.

Mr. Johnston read a paper on the Priory written many years ago by Mr. Harrod, a former secretary of the Norfolk and Norwich Archæological Society, and added some account of his own of the Cluniac order of monks. In concluding his remarks he said the owner had expressed his readiness to permit any competent body to undertake the excavation of the site.

Dr. Hamilton Thompson, in referring to the ivy-clad condition of so much of the ruins, said that to talk about the beauty which clinging ivy gave to such ruins was purely an artificial idea. He did not think there was anything pretty about it. Ivy was extremely gloomy, and was fatal to stonework. If those ruins were to be properly preserved some means should be taken for removing the ivy from them.

Paston.

The visitors next drove to Paston, where the church was described by Mr. Herbert Loraine. The present edifice is not the original church of Paston. The existing building was erected early in the fourteenth century. It was restored notably in 1601, 1843, and 1869.

From the church the members passed to the manor barn, close by, which was built by Sir William Paston, whose tomb is in North Walsham Church. The barn is said to be the largest in the county.

The rest of the day's tour included visits to Mundesley, Trunch, and Knapton, which were described by Mr. Aymer Vallance.

Norwich.

On the last day of the meeting Mr. W. R. Rudd conducted the visitors to places of interest in the "City of Churches," including the "Great Hospital," with the cloisters, Eagle Ward, and Church of St. Helen; Bishop Bridge; Cow Tower; St. Andrew's Church; the Convent of the Black Friars, including St. Andrew's Hall (formerly the nave of the church), Blackfriars Hall (the former choir of the church), and cloisters; the City Bridewell (now the property of the city), and others—at all of which Mr. Rudd discoursed.

This brought a most successful week to a close. For the excellence of the arrangements all credit is due to Mr. L. G. Bolingbroke, who had also prepared a most attractive book of the programme, with plans of the principal buildings, full of information, to be carried away as a memento of the occasion. Thanks must also be accorded to all the organisers of the meeting, and to the various lecturers, whose descriptions added so much to the enjoyment and profit of the members.

SOCIETY FOR THE PROTECTION OF ANCIENT BUILDINGS.

"Isis" writes as follows:—

Sir,—The recent controversy over the western towers of Canterbury which has taken place between Canon Mason and the S.P.A.B. has set some of us wondering. I find myself gasping in a rather stifling air of outworn phrases and doctrines when reading letters of the Secretary of the S.P.A.B. We all recognise the excuses for the attitude of the Society lying in the immense injury done to ancient buildings in the past through so-called "restoration," but is it not becoming a little hysterical and out of touch with life when it fails to do justice to the changes in public opinion for which its own good work is so largely responsible? Instead of recognising these and keeping an open mind, it appears to have fallen back on the reiteration of generalities and theories, so remaining out of practical touch with things. Moreover, it has set itself to assume as concluded, as stated by the Secretary, that no modern material is to be used in repairs, as when he says: "Tinkering with stone surface is as harmful to old masonry as the addition of modern stained glass to ancient stained glass windows." This surely needs some qualification, for it is not the fact. The numberless pieces of "matted" glass inserted in the windows at Fairford, for instance, to fill the gaps in the original stained glass are largely modern, and, though better than incompetent restoration, greatly disfigure the windows. The spirit in which the repairs are made determine the results much more than whether the glass used for repairs is new or old. Nor can one for a moment accept the view that in no circumstances should repairs include the restoration—in the right sense—of the original. The confusion seems to have arisen through the abuse of bad restoration, which has reacted on the S.P.A.B. in the form of fixed ideas which mutilates its influence. It is quite open to question—though each instance must be judged on its merit and not by the imposition of fixed dogmas—whether the insertion of patches of matted glass, otherwise unpainted, in a painted window is at all satisfactory; nor is it the best that can be done. If it were possible it is certainly better to renew, in sympathetic treatment with the original window, the missing pieces—and why not? The cry of "forgery," where no forgery is intended is beating the air, and the "falsification of history" only a grand ose commonplace. To give the ancient windo more of its original appearance, to restore i beauty, is much more important than suc history. Nor do I suggest that in the case a largely perished window such restoration desirable or possible, but in those cases whe the repainting of a few pieces of the missing gla would complete the effect again it is of ever advantage to repaint them. And it can b done when these matters are not regarded a matters of repair unworthy of an artist attention, and the artist himself direct them. I have recently seen such repair executed in the way I describe, wholly sym pathetic and successful—much more successfu than the purism that replaces the lost piece with patches of new matted glass. I hold ther can be no deception where there is no intentio to deceive, and history may well, in such case, yield to beauty, though no such yieldin is really involved. And so with regard to ston work, it is the craftsmanship much more tha the new stone that arouses objection to repair made in such a way. It may be answered tha sympathetic modern stone work is not obtain able. I doubt the truth of this, but were it s it does not make it undesirable, or, on the othe hand, justify this superstition about old work as though it were something not wrought b human hands which we must superstitiously worship. More alive to the need of the times we should seek in such repairs for a treatmen of the stone work more in sympathy with th old—and then, perhaps, "patches of hard edged new stone" would not occur, and re incarnation would more truly describe th results obtained. One has the feeling that th constant reiteration of outworn phrases abou "forgery," "falsification of history," an "puerile imitation" does not help at all, an that their tendency is to harden into dogma to the undoing of a good cause.

"SUGGESTED SANITATION."

A correspondent ("Experimentia") writes:—

Sir,—We can increase the preservation o our health in all sewered towns in an economica manner, varied to circumstances, by naturall and mechanically inducing the air flow into th sewers, using every existing surface ventilato as an induction port, whereby all spores, insect dust, bacteria, and deleterious air, &c., a driven into the sewer flow, and if desire through water spray, or a destructive jet flam thus greatly mitigating fog. This schem particularly applies to London.

Even the energy in sewage gravitation some points may be used to drive the loc propeller under control. Seaside towns, su as Brighton, could also flush their sewers wi sea-water, and repeatedly use the gravitat water energy for ventilated induction as f as the outfall. Bureaucracy seldom initiate we are burdened with academic coat and theo I think we can apply some such practi effort, which could be gradually adopted small units and sections to a concerted whe It has also the merit of a remunerative p position in its broad aspect.

Housing in Glasgow.

Under the new Rent Act vacant hou became automatically decontrolled, and question arose whether these houses would be at an increased rental. "There are,' st a Scottish contemporary, "probably vacant houses in Glasgow, but several are la houses with rents from £90 to £300. Ot houses, again, are not in a fit state for habitat The City Assessor's Department had a list 100 empty houses ready for occupancy w rents running from £10 or £12 to £80. Inq shows that, with two exceptions, these ho are being let at the former rents, and betw twenty and thirty are tenanted. Some of vacant houses, it is understood, are being off for sale."



Greek Composition.

Design by Mr. D. E. Harrington (1st Year Student), Awarded First Prize, Day School of Architecture, Northern Polytechnic.

BOOK REVIEWS.

House and Cottage Construction. Vol. I. By H. Bryant Newbold, M.S.A., with special chapters by Guy Cadogan Rothery, Paul Willoughby, F.S.Arc., E. W. King, G. J. Strange, and A. C. Martin, A.R.San.I. (London: Caxton Publishing Co., Ltd., Surrey-street, W.C.2.) Price 58s. 6d. the set of three volumes.

Mr. Bryant Newbold, in his book on "House and Cottage Construction," covers a much wider field than is usually the case with text books on this subject; he aims at laying before his readers enough general information to render them at the least intelligent and sympathetic critics of the architect's endeavours. In this connection his quotation from H. G. Wells' description of a writer's efforts is very apt. Like the writer, the architect has to revise continually his earliest ideas before a thoroughly satisfactory effect is produced. "The actual operation described by one well-known architectural designer as 'fooling about' consists of roughly blocking out the rooms required, having due regard to the conditions of site, &c. Over this rough drawing a piece of tracing paper is placed, and the whole thing gone over again. This operation is repeated, and repeated, until every possible solution has been tried, and the best has been found. So out of the 'slush' by 'fooling about' arises the finished article. And here a plea on behalf of the designer may be made. Should the client, in discussing the final sketch plans, find his architect somewhat irritable when faced with some brain wave by the client, the client will perhaps regard his irritation more leniently when he learns that the designer has spent perhaps several hours in considering this very brain wave in the fooling about process or slush stage."

It is this constructional meditation which marks out the expert designer from the novice. A design must be considered in relation to its site, its sanitation, its aspect, its subsoil, the position of the entrance drive, before the position of a single wall can be determined. Even at a later stage the design will probably have to be reconsidered again, remodelled in fact, to bring it within some stipulated limit of cost.

Mr. Newbold's criticism of the plans designed by a lady, on pp. 105–7, are very much to the point. The designer was obviously ill-equipped to deal with the necessary processes of revision or even to visualise the inconveniences of working in or even staying as a visitor in such a house. It is impossible for the amateur to have in mind all the many factors of convenience, construction and appearance that have to be combined to produce a work of architecture. A good housewife may and should know how to describe her chosen method of work to her architect in order that he may arrange the rooms in convenient positions to avoid loss of time, wasted space and needless wandering about the house, but this knowledge is the function not of an architect but of any good client who may reasonably be expected to explain the purposes of his business before requiring an architect to design premises to accommodate it.

The fact remains that neither housewives nor business men take sufficient interest in ascertaining what their own views of convenience really are, and Mr. Newbold will have done a notable service to architecture if he directs attention to this aspect of design based upon the practical necessities of the case.

Passing from the consideration of convenience to the consideration of beauty, the value of homogenity is very rightly emphasized. The stringency of the cost of building since the war has done something to help architecture to avoid needless fussiness due to the capricious employment of discordant methods, materials and colours in the same building, but the compulsion which has sometimes led to the erection of simple and suitable buildings will often result in the production of merely mean ones which inspire again a desire for detail to break the monotony as soon as times are easier and funds permit. The plainness of domestic architecture at the moment is a virtue derived from compulsion and Mr. Newbold does well to endeavour to establish it upon a basis of rational choice. The details and fittings of houses and cottages are explained with great care and many excellent constructional devices whereby convenience can be made to go hand in hand with economy are illustrated in clear diagrams. Without necessarily agreeing with Mr. Newbold in all his personal preferences, the reader will certainly feel that nothing has been advanced from caprice, and that honest conviction and sound reasoning underlie the treatment of each detail of house and cottage construction contained in this useful and comprehensive book.

Modern Cabinet Work: Furniture and Fitments. By Percy A. Wells (Head of the Cabinet Department at L.C.C Technical Institute, Shoreditch; Silver Medallist Royal Society of Arts) and John Hooper, M.B.E. (Honour Silver Medallist, City and Guilds of London Institute). 3rd edition, revised, with additional illustrations. (London: B. T. Batsford, Ltd., 94, High Holborn) Price 25s. net.

So much is heard of antique furniture, the imitation of it, or the cunning tricks of the worm-hole artist, that it is a pleasure to find an excellent and authentic book on modern cabinet work reaching its third edition. It is difficult in a period of unrestful eclecticism to rival the productions inspired by an unbroken tradition when furniture and fittings were designed by masters imbued with a feeling for



From Modern Cabinet Work: Furniture and Fitments.

A Cabinet in Coromandel and Satinwood: Designed at the School of Arts and Crafts, and made by Mr. J. H. Brandt.

ateliness throughout a whole scheme, but some the modern work illustrated demonstrates at new designs need not be in any way inferior the old. (Plate xix.) A cabinet in coromandel d satinwood, designed at the L.C.C. Central hool of Arts and Crafts, and made by J. H. andt, exhibits a mastery of the principles of lour composition in the disposition of the gorously figured material, and two pieces by W. Gimson, a sideboard veneered with rr elm and a print cabinet in Italian walnut th raised inlay, would be distinctly pleasant ms among one's household goods. Examples historical styles are introduced for the sake comparison, and beautiful as these unubtedly are, the present fashion for the tique at any price is hardly justified by any arth of good modern work. The constructonal side of the craft is developed with the sistance of a great number of illustrations here the intricacies of cabinet making are set rth in the most comprehensible manner. he methods for ascertaining the true dimenons of bevels and of splayed and curved surfaces r the preparation and fitting of veneers are aborated in a chapter on "Practical Setting ut and Applied Geometry." Theory and ractice are dealt with together; shrinkage is rovided for when the full-size setting out is ade.

In the description of the geometrical groundork of "an elliptical dome" the following ractical instructions are given: "Dry, well-asoned wood is, of course, an essential in this ork, and it will be found advantageous to ughly cut the segments to shape first, and hen allow them to stand about for some time ntil the shrinkage is quite complete before nally jointing and glueing up to shape." mong much other useful matter a chapter on Constructional and Decorative Brasswork. lovements and Fittings" is particularly aluable, and the book is brought up to date respect to material for cabinet making by he inclusion of a list of English, foreign and olonial woods with three plates showing anelling and furniture executed in various ustralian woods. The material for veneering also treated of in Chapter IX in connection ith the methods adopted in its application. A glossary of technical terms and an index omplete this useful work.

ixty-six Etchings by Members of the Print Society. Edited by Hesketh Hubbard, R.O.I., A.R.W.A. (Issued by the Print Society, Woodgreen Common, Breamore, Hampshire.) 21s. net.

It is a pleasure to look through this volume th its introduction by Mr. Kineton Parkes, hich is most interesting and instructive, pecially to those who have not the time, they have the inclination, to study thoroughly subject in which there is so much to be arned. Hints on framing, the display and care prints, mounts, &c., are dealt with, and that portant and mystifying term known as tates" is comprehensively explained and will lighten many. Etchings are receiving more ention of late years and well they deserve It is to be hoped that the days of the soled "furnishing pictures" are drawing to lose. So many a picture once on the wall, ually hung crookedly, is never looked at in; but once the taste for good specimens leveloped, great and refreshing is the pleasure ived from one's purchases.

t is pleasing to know that the Society is leavouring to advance taste for fine work, l this volume should help the novice and ector in making a choice; the specimens strated deal with varied subjects and will peal to all tastes. To become a collector mber is a simple matter. The merits of the ts illustrated are high, which make it icult to select any for special mention, we may mention some half-dozen. No. 1, nshine and Shadow," by Wilfred Applebey; ew of a quayside or harbour, taken between old buildings, effectively treated in sunt and shadow. No. 15, "The Trawler," Edward Charlton; a trawler putting to sea; sea in the wake of the trawler is beautifully expressed, the whole is characteristic in its expression. Plate No. 24, "The Harrow," by George Gascoyne, R.E., is another pleasing specimen. Plate No. 33, "The Three Mills," by Hesketh Hubbard, R.O.I., A.R.W.A., is a decorative subject poetically treated, and the composition well considered. Plate No. 53, "The Three Scythers," is another attractive plate. No. 68, "The Silver Stream," by E. Marsden Wilson, A.R.E. (mezzotint), makes a strong appeal with its beautiful cloud effects. Many others are worthy of notice. Through the courtesy of the Editor, we are able to illustrate Plates No. 1 and No. 33.



From "Sixty-six Etchings by Members of the Print Society."

"Sunshine and Shadow." By Mr. Wilfred Applebey.

THE ROYAL SANITARY INSTITUTE.

ANNUAL CONGRESS—II.

MODERN BUILDING MATERIALS.

Mr. H. D. Searles-Wood dealt with materials and methods of construction which, although not new in the sense of having been recently discovered, were not in general use.

Sand-Lime Bricks.—These bricks were manufactured in large quantities in most European countries with well-known success, and also in the United States of America and Canada, where large quantities had been made for years past, and so important had the industry become that the manufacturers had combined and founded a "Sand Lime Brick Association" for their mutual help and protection. The process solved to a great extent the problem of producing a brick of first-class quality in localities where clay was not available. In the manufacture of sand-lime or calcium bricks, sand and lime of a suitable quality were thoroughly mixed in approved proportion. When thoroughly mixed and brought to the desired constituency by the introduction of water, the mixture was passed into metallic moulds and subjected to mechanical pressure. As the bricks passed from the machines they were packed by hand and started on a trolley and run into a hardening chamber into which, after having been sealed, steam was admitted to the pressure of which the bricks were subjected for a sufficient period of time. Sand-lime bricks for many years past had been manufactured by a large number of firms in this country and it was confidently anticipated that the existence of a British Standard Specification would conduce to uniformity in practice and give confidence to the purchaser and the user.

It was of the utmost importance that the material used should be of the best quality obtainable. The sand selected might be bank sand, freshwater river sand, drift sand, or sand or sandstone crushed or an approved mixture of these. A good practical rule for fineness was that all the sand should pass through a sieve having 2,500 meshes per sq. in., about 85 per cent. retained upon a sieve having 10,000 meshes per sq. in. Generally speaking, the sand should consist of grains of assorted size, and so graded as to give the greatest density of material. When a coarse sand was used suitable means should be provided either before or during the mixing operations for reducing it substantially to the above fineness.

The most suitable lime was a high calcium lime containing 90–95 per cent. of calcium oxide and not more than 0.5 per cent. of magnesium oxide. The lime must be thoroughly hydrated before or after admixture with the sand; the ratio of the weight of dry hydrated lime to the total weight of dry hydrated lime and dry sand was usually not less than 7½ per cent. nor more than 12½ per cent. Whether the lime and sand be mixed by weight or by volume, care should be taken to see that (1) the required ratio of lime to sand was consistently maintained, and (2) that the mixing ensured the lime being disseminated thoroughly throughout the mass.

The average crushing strength when dry should be not less than the following:—Engineering bricks, 2,800 lbs. per sq. in.; bricks for external walls, 2,000 lbs. per sq. in.; bricks for internal walls, 1,000 lbs. per sq. in. The average crushing strength when tested wet should not fall below the figures specified for the first two classes by more than 20 per cent. and for the third by more than 30 per cent.

Concrete.—After referring to the different methods of concrete building construction, he said hollow concrete floors were now much used. In one system of this type of floor construction, instead of the usual collapsible core which was withdrawn after the formation of the hollow concrete slab around it, each of the floor units consisted of a pre-cast reinforced concrete beam formed around a perforated metal hollow core which was left permanently embedded. The beams varied from 12 in. to 16 in. in width and from 5 in. to 10 in. in depth, and were appropriately reinforced according to span between supporting walls or joists, and nature of load to be carried. The advantages were obvious. Instead of a centralised plant, establishment and transport charges, all the operations for the production of the beams could be carried out by any reputable contractor on the actual building site or at any convenient spot adjacent thereto. The metal for the cores was delivered cut to sizes in flat sheets, and by means of a simple apparatus was bent into the required shape. The main reinforcing bars—delivered cut to lengths—were attached thereto, thus giving a complete "coring and reinforcing" unit around which each beam was cast in moulds used repeatedly throughout the job. The fact that the metal cores were left permanently embedded gave each beam—and consequently the completed floor—additional strength and rigidity, whilst the whole process of production was simplified and rendered speedy and economical. The speed with which the floor could be erected enabled the general contractor and subsidiary trades to make rapid progress. The floor was much lighter than a solid floor of equal strength. A material saving in dead load was, therefore, effected. A further advantage—particularly in hospital, school, or commercial buildings—was the elimination of noise, in addition to temperature and fire-resisting properties.

The units could also be employed for flat roofs, external or internal walls, and partitions, stairways, landings, &c., the advantages of speedy erection, strength with lightness, sound and temperature resistance, applying as in the case of floors. With a slight modification, lintels and sills could be similarly produced, having a finish equal to the best masonry work, with a distinct saving in cost.

Another recent development was the manufacture of cast-iron pipes and concrete pipes by centrifugal action. In the manufacture of reinforced concrete pipes by the centrifugal method a thin sheet-iron mould was built up, inside which a spiral wire reinforcement was fixed. The mould was then placed on vertical rollers which caused it to rotate at a high speed. Suitable concrete was then thrown in and built up to the required thickness. The concrete became dense and the water was occluded owing to the influence of centrifugal force. After a few minutes' spinning, the pipes were placed in a steam bath and left for eight hours, when the concrete was sufficiently hard to allow the outside mould to be removed. The pipes were then placed in the open to season for four weeks. The effect of the spinning was to produce an extremely dense concrete which should effectively protect the reinforcement and give a thoroughly waterproof pipe. The pipes were normally tested up to 150 lbs. per sq. in. By the time the final spin had been completed, all the excess air and water in the concrete had been draining out by the action of centrifugal force. After the first spin the concrete mixture in the mould was so hard and dense that it was impossible to make an impression with the thumb on the side surfaces. Another interesting feature was that the centrifugal process imparted abnormally smooth internal surface to the pipes, thus reducing frictional losses to a minimum.

An interesting comparison was recently published concerning the external tests carried out on various stoneware and concrete pipes. It was a well-known fact that concrete increased in strength with age, which rendered the following comparison all the more remarkable: A concrete pipe, one year old, of 18 in. diameter, of 3 ft. length and of a thickness of 1½ in., was tested to a breaking load of 1,345 lbs., equivalent to a load of 2,448 lbs. per ft. run. That pipe was compared with another stoneware pipe, which gave under test 1,400 lbs. per lineal foot. The concrete pipe tested was non-reinforced, and only three weeks old, of the same diameter and thickness, but of 4 ft. length instead of 3 ft. A breaking load of 10,622 lbs. was applied, equivalent to a load of 2,656 lbs. per foot run, as against 2,448 lbs. and 1,400 lbs. respectively.

White Lead Paint.—The subject of lead poisoning amongst house painters had for many years been a matter of acute controversy, and a large number of Government inquiries had been carried out in various countries into the medical and technical aspects of the problem. There had been much difference of opinion as to the extent to which poisoning took place, and in particular as to how far symptoms frequently attributed to lead were to be more properly ascribed to other causes, such as the inhalation of turpentine and other volatile thinners. Discussion had also turned on the question as to how the danger of lead poisoning could be met, whether by way of regulations, in methods of use, or by prohibition of the use of lead paints. The all-important conclusion which had been generally agreed was that the chief cause of poisoning amongst painters was the inhalation of lead dust. The question was discussed at the third International Labour Conference of the International Labour Organisation of the League of Nations, which met at Geneva in October and November, 1921, and as a result of that discussion a Draft Convention was drawn up which was to be submitted for the consideration of the legislative authorities of the various countries which were members of the League of Nations.

The Draft Convention proposed regulations for the use of paints containing white lead and sulphate of lead, and these regulations were directed towards:—

(1) The prevention of the dangers arising from dust caused by (*a*) the dry rubbing down of lead paint, (*b*) the spraying of lead paint, (*c*) the use of white lead and sulphate of lead in dry or powder form.

(2) The provision of means for personal cleanliness.

(3) Medical examination of workers and notification of cases of lead poisoning.

In regard to the painting of the inside of buildings, where it was considered to be difficult to make regulations effective, and where the use of lead paints was considered less imperative, the Convention purposed to prohibit the use of lead paint after November, 1927, except in cases such as industrial establishments, railway stations, and other places where the use of lead paint was considered necessary.

Under the Convention, the regulations should come into effect on January 1, 1924. The British Government, it was understood, was anxious to introduce regulations as soon as possible, and at a series of conferences recently held between representatives of the Home Office and the Painters' and Decorators' Industrial Joint Council of Great Britain; Draft Regulations were prepared with that end in view.

Of these regulations the most important was probably III, which prohibited dry rubbing down or scraping of surfaces painted with lead paint and aimed at preventing cases of lead poisoning due to the inhalation of dust. It has recently been shown that it was unnecessary to rub down by the dry process, because the work could be done as effectively by the use of pumice stone after moistening the surface with water. That was applicable, not only in the case of oil paint, but with intermediate coats, even within a few hours of the application of the paint. Certain cases, such as the intricacies of door mouldings, presented difficulties in the use of pumice stone, but that could be overcome by the use of waterproof sandpaper, of which several varieties, all suitable and satisfactory, were now obtainable.

Amongst other important regulations were those dealing with cleanliness; there could be no doubt that if persons using lead-containing materials would wash their hands before handling food and attend to the cleanliness of the mouth, the risk of poisoning could be greatly reduced.

Discussion.

In opening the discussion on this paper and Mr. Palethorpe's paper on "Concrete in Municipal Work" (given in our last issue) Professor E. R. Mathews, M.Inst.C.E., s

that concrete linings for pipes formed a splendid preservative; it did not add to the cost, and was to be recommended.

Mr. Shenton expressed the opinion that engineers did not take sufficiently into account the crushing tendency of the weight above underground pipes.

Mr. Whittaker (Croydon) explained that suitable sand for making sand-lime bricks was only known to exist in Kent and Surrey and parts of Suffolk; so far as he knew it was not to be found north of those districts. He urged engineers to experiment with other sands in order to adapt them for the purpose of manufacturing sand-lime bricks; he thought any sand which made a good foundry sand would be suitable.

Mr. Campbell (Edinburgh) said that the difficulty of obtaining ordinary bricks would probably be solved if the sand-lime brick were developed. He also referred to the utilisation of oil shale for making bricks in West Lothian.

Another speaker said it was difficult to get a builder to use a brick which had not been burnt. In Surrey there seemed to be a tendency to use sand-lime bricks for internal walls only, and he would like to know how they weathered.

Professor E. R. Mathews urged engineers not to use concrete tubes unless they were reinforced and unless they had been cured for at least six months.

Another speaker urged that, on account of its cheapness and adaptability, concrete and reinforced concrete should be used in municipal work wherever possible. The cost of shuttering could be much reduced if it were used several times. A great economy was obtained by the use of concrete fence posts, telegraph posts, and gullies.

Mr. Frank (Plymouth) said it was of paramount importance to use the correct amount of water in manufacturing concrete, as an excess of 10 per cent. of water would weaken the concrete by as much as 50 per cent. He strongly advocated the use of the slump test for determining the consistency of concrete.

Mr. W. C. Fenton, F.R.I.B.A., said he had had a remarkable instance of the strength of reinforced concrete in a warehouse he had built. For that building the floors had been designed to carry a load of 3 cwt. per ft. super., and on visiting the building he found one of the floors carrying 10 cwt. per ft. super. There was, however, no trace whatever of any cracks, although it was only six months after the building was erected. He had worked on a factor of safety of 4, and the fact that the floor had successfully withstood a load 150 per cent. in excess of that showed, he thought, that the factor of safety of 4 which was theoretically necessary was in excess of what was practically required. He had recently built a block of offices in Sheffield of monolithic concrete with a thin veneer of granite on the face of the walls; by that method of construction a saving of 25 per cent. was made on the cost of the shell, and in addition the building was more efficient than if it had been built of stone. He also referred to a church at Goldthorpe which had been carried out, together with the vicarage, entirely in reinforced concrete. The building had a most effective appearance, and no material could have been more suitable for the purpose as the ground in the neighbourhood was liable to subsidence.

HOT-WATER SUPPLY AND SLUDGE DISPOSAL.

In a paper with the above title (which was taken as read), Mr. A. J. Martin, M.Inst.C.E., explained that sludge disposal and hot-water supply, although apparently unconnected at first sight, had an important bearing on each other.

The paper stated that sludge contained a respectable amount of combustible matter. Samples of Birmingham sludge dried at 212° F. gave calorific values of 4,120 and 4,893 B.T.U. respectively, or one-third of that of coal. Herr Elsner, in "Treatment and Utilisation of Sludge," stated that briquettes made from dewatered Frankfort sludge, air-dried to 10 per cent. of moisture, gave an effective calorific value of 4,500 B.T.U. per lb. Sludge as it left the tanks contained always a very large proportion of water, often 90 per cent. or more. In that state it would not burn; but it would do so readily if its water-content were reduced by air-drying. During the coal strike of 1912, and again in 1920, a large quantity of air-dried sludge was used to supplement the coal burnt in Lancashire boilers at Birmingham. It was found that, generally speaking, 1 lb. of sludge would raise at least 1 lb. of steam.

Another way of utilising the combustible matter in sludge was to convert it into gas. The sludge might be carbonised in retorts, as was done with coal. The sewage works at Chorley were lighted for some time with gas produced in that way from the pressed sludge, the average yield being 7,000 cu. ft. of 20 candle-power gas per ton.

Gas was also produced by the spontaneous decomposition of the sludge. The sewarge works at Exeter were lighted for many years with the gas from the septic tank; the Leper Hospital at Matunga (near Bombay) pumped its sewage, lighted its buildings and compound, and cooked the patients' food by the same means. Parramatta had for some years pumped the whole of its sewage with the gas from its septic tanks.

The main source of that gas was the cellulose, in the form of paper and vegetable fibre, which constituted a large proportion of the organic matter in sludge. The gas was produced by the decomposition of cellulose by anaerobic bacteria. Omelianski had succeeded in isolating two organisms which had the power to decompose cellulose, the one producing hydrogen and the other methane or marsh gas.

Records of the yield of gas from septic tanks were somewhat scanty; and many of the figures given were unreliable through the absence of proper facilities for collecting and measuring the gas. Observations of the yield over short periods would generally be misleading, for the gas was not liberated continuously, but accumulated in the sludge, from which it broke away at intervals, more particularly when the relief of pressure due to a fall in the barometer caused the imprisoned bubbles to expand. The temperature of the sewage also had an important bearing on the amount of gas produced. At Manchester in 1901 Professor Fowler obtained 1 cu. ft. of gas per 100 gallons of sewage, or 0.61 cu. ft. per head per day. The yield at Exeter was roughly estimated at 1 cu. ft. per head per day. In Mr. James' opinion it would be safe at Matunga to count on an average volume of from 3 to 4 cu. ft. per head per day. Three cu. ft. per head was reported from Parramatta.

It was not necessary to generate the gas in the septic tank itself. The retention in such a tank of large quantities of sludge which was periodically thrown up into the sewage by the evolution of gas was not conducive to the clearness of the effluent. A better plan was to remove the sludge from the tank at short intervals and to digest it in a separate chamber. The digestion of sludge in an independent tank had been carried on in many places for some years, not with a view to the production of gas, but for the purpose of reducing the volume of the sludge and rendering it inoffensive and non-putrescent. That is done on a large scale at Birmingham; and in that case the question of gas production had been lost sight of.

Birmingham produced every year not less than 400,000 tons of sludge, containing over 27,000 tons of dry solid matter, of which 9,000 tons were gasified during digestion, yielding 320,000,000 cu. ft. of gas. That was within a small fraction of 1 cu. ft. per head per day for the whole population of the sewerage district. There was every reason to expect the calorific value of the gas to be from 650 to 700 B.T.U. per cu. ft. The money value of such gas was very considerable. The Gas Light and Coke Co. was selling gas of 500 B.T.U. at 9.2d. per therm, or 3s. 10d. per 1,000 cu. ft. At the same price per therm, the 365 cubic feet produced in one year per head of population would be worth 1s. 9.8d.; or at 3s. 10d. per 1,000 cu. ft., 1s. 4.8d. The corresponding figures for a town of 50,000 people would be £4,500 and £3,500; for Birmingham, with its population of 948,000, £86,000 and £66,000; and for London, with 5,342,000 people, £485,000 and £374,000 respectively.

The yield of gas might be increased in case of need by the addition of waste paper, &c., to the sludge; and there was always the alternative of generating the gas by distilling the sludge in retorts.

Discussion.

Mr. Watson (Birmingham) said the process of turning the gases from sludge into heat was quite practicable, but careful attention should be given to all the conditions before money was invested in such work. Such gas was valuable for the production of power, and he had gone so far as to install a gas engine of 25–30 h.p. which worked on such gas for two or three hours per day. He was not quite satisfied that the process was an economical proposition, otherwise he would have installed a gas holder to impound the gas which was allowed to escape into the air.

Mr. Edward Willis (Chiswick) said he had used sludge in road construction in a low-lying district. The sludge was carefully placed in layers in conjunction with destructor clinker, and when it was opened up again some years later it was found that wedges had to be used to break it; it had become a very hard concrete. He was not quite sure that the utilisation of the gas from sludge was an economical proposition.

NEW METHOD OF LAYING DUST.

A paper, on "Dust Laying by an Emulsion of Oil and Bitumen," was read by Major-General Sir George K. Scott-Moncrieff, K.C.B. He said dust, usually created by some of the processes of civilised life, was characterised by want of cohesion between the particles and increased area of surface tension. It was in some cases of a combustible character and a fruitful cause of explosion in mines, &c., also a danger to health.

The remedy usually adopted of treating the dust with water was unsatisfactory, because of rapid evaporation, and in mines that remedy was not always permissible because of the condition of the natural strata. Water was an inefficient means of treating dust. The ideal liquid in mines was one which contained a small quantity of solvent and had a low-surface tension.

For work on roads a binding element was necessary to provide cohesion in the dust, and that binding element was found in bitumen, which was capable of being melted into a liquid form, and under certain mechanical treatment could combine with oil to form an emulsion.

Thus, there were three elements involved in the emulsion, *i.e.*, water to act as a conveyor, oil to act as a lubricator and transmitter of interfacial energy, and bitumen as a binding element. An emulsion sufficiently stable to be transmitted from the place of manufacture to the place of application, and then locally diluted with water, had been found effective.

The experimental use of that emulsion in mines was still under investigation, but so far it had been found satisfactory in many particulars, and further experiments as to its prevention and the transmission of explosions were now under preparation.

In municipalities the use of the emulsion had been found to result in great saving of water for keeping down dust in streets, and on country roads the emulsion, mixed with nine or ten times its volume of water, and sprinkled by a water-cart in the ordinary way, had been found remarkably effective. The further application of the principle to factories, shops, refuse heaps and so on, had not yet been extensively tried, but there was little doubt that it would be found to be as efficacious as in the case of roads and mines.

Presentation.

Major Lionel D. Lewis, who lately resigned the position of Surveyor to the Abertillery U.D.C., upon appointment under Ministry of Transport, was, with Mrs. Lewis, the recipient of a presentation at a meeting recently at Abertillery.

REINFORCED CONCRETE GRAND STAND AT BLACKHEATH.

The Blackheath Football, Cricket and Lawn Tennis Co., Ltd., are to be congratulated on obtaining such an excellent structure in the new reinforced concrete grand stand which has just been completed to accommodate spectators at their ground at Rectory Fields, Blackheath, S.E., which we illustrate in this issue. The stand was designed by Messrs. Walter Bridges & Co., consulting engineers and architects, of Parliament-street, S.W.1, and constructed under their supervision by Messrs. A. Roberts & Co., Ltd., builders and contractors, of 74, Earl's Court-road, W.

The stand is 300 ft. long and 30 ft. wide, while the terraces in front, which extend along the whole of the length, form an additional forward extension of 25 ft. A roadway at the rear, 20 ft. in width, gives access to the stand, lavatories, offices, &c., underneath the stand, and also provides a parking space for cars.

The structure will accommodate 1,800 spectators seated in the stand and about 3,500 on the terraces in front. There are commodious and well-lighted offices and lavatories underneath the stand, and drainage has been laid for additional dressing-rooms, baths, &c., which it is proposed to erect at a future date.

The original stand, a timber structure of about half the size of the present building, was practically demolished by fire last summer, and the owners have now replaced it with a permanent structure in reinforced concrete, which has a minimum of fire risk and requires the least possible maintenance.

The illustrations show the substantial proportions of the structure, the rigidity of the construction, and the treatment of the exterior. The effect of the completed structure is happily not spoilt by an array of advertisements which it is customary to plaster over football stands nowadays.

The columns are of various sections, from 10 in. by 10 in. to 14 in. by 14 in., dependent upon the unbraced length, the degree of fixity at the footings, and the load to be carried; they are arranged in three rows, approximately 15 ft. apart, with 10 ft. centre to centre between columns in each row.

The treads of the steppings of the stand were made in 3 in. pre-cast reinforced concrete slabs, which were erected on to ledges formed in the pre-cast riser beams and provided with rebates 6 in. by $\frac{3}{4}$ in. at back and front, in which projecting expanded metal reinforcement from the risers was laid and afterwards grouted in. In this manner the advantages resulting from the use of pre-cast members were obtained without sacrificing to any great extent the continuity of monolithic construction.

The steelwork of the superstructure was manufactured and erected by Messrs. James Allan, Senr., & Sons, of Glasgow. Trusses are spaced 10 ft. centres, and each is supported at the back of the stand on short steel stanchions of 12 in. by 5 in. British Standard section well anchored, so as to resist the whole of the horizontal wind stresses.

The trusses at the front are supported on light lattice girders of 30 ft. span, which are bolted to stanchions arranged so that the rectangular down pipes fit into the bosom of the joists.

The risers of the reinforced concrete steppings to the stand are 1 ft. 3 in., and the width of tread 2 ft. 9 in., this latter being somewhat unusually large, but providing much greater comfort for the spectators. The actual proportion of tread to riser was ascertained after a careful study of the levels of the field of play, and the slope calculated so that all spectators have an uninterrupted view of the near touchline.

The front valance boarding was kept sufficiently high to enable the back row of spectators to see the ball throughout its trajectory when punted near the stand.

The terraces in front of the stand are constructed of steps 6 in. by 15 in., the lower nine being formed by a solid bank riveted with timber and the upper seven steps of reinforced concrete spanning 9 in. brick walls at 10 ft. centres.

An independent test made on specimens of concrete taken from batches mixed for the actual job showed excellent results. Three 6 in. cubes were tested, and gave the following crushing strengths per sq. in. at 29 days: 3,940 lb., 4,020 lb. and 4,010 lb., an average of 3,990 lb. The proportion of the concrete was 1 part Portland cement, 2 parts sand, and 4 parts ballast, graded so that the largest particles passed a $\frac{3}{4}$ in. ring.

ACQUISITION OF BREWERY PROPERTY.

Mr. J. D. Wallis, Official Arbitrator, sitting at Doncaster, heard a claim by John Smith's Tadcaster Brewery Co. against the Borough of Doncaster, concerning the Corporation's acquisition of premises in St. Sepulchre Gate and West Leith Gate.

The Official Arbitrator has awarded that the acquiring authority is to pay the owners the sum of £3,945 as purchase money and compensation, and the fees on the award, and £60 towards the costs of the owners.



Reinforced Concrete Grand Stand at Blackheath.



Reinforced Concrete Grand Stand at Blackheath. (See p. 260.)

THE BUILDING TRADE.

SPECIFIC PERFORMANCE: RECTIFICATION OF MISTAKE.

We may draw attention to two important decisions in connection with specific performance of contracts. In Craddock *v.* Hunt (*Weekly Notes*, April 14, 1923) the Court of Appeal held (Lord Justice Younger dissenting) that, where owing to a mutual mistake in reducing a verbal agreement for the sale of land into writing, the written agreement failed to express the actual bargain between the parties, with the result that a piece of land which had been in fact bought and paid for by the plaintiffs was wrongly conveyed to the defendant, who had notice of the plaintiff's title, the Court since the Judicature Act, 1873, had jurisdiction to rectify the mistake in the conveyance, notwithstanding that the deed conformed strictly with the written agreement, and although the effect of ordering rectification was to grant specific performance of a written agreement with a parol variation.

We take the above statement from the headnote of that case in the *Weekly Notes*, and the case has now been followed by the Privy Council in the case, The United States of America and Another *v.* Motor Trucks, Ltd. (*Weekly Notes*, August 11). The respondent company, in 1918, had contracted to machine high explosive shells for the appellant Government, and the contract contained provision for the contract being cancelled when the war terminated, and for certain payments to be made to the company, which were to include reimbursement for the cost of buildings and plant which the company had to provide to carry out their contract. Notice to terminate the contract having been given in November, 1918, at the termination of the war, certain sums were agreed, which included 376,496 dollars in respect of land and buildings. This agreement was subsequently incorporated in a formal document, the material portion of which was "Title to all property specified in Schedule A hereto annexed shall vest in the United States immediately upon execution of this agreement."

The land and buildings, however, were not mentioned in the schedule. The sum agreed having been paid, the Government claimed the land and buildings, but the company denied the right to possession. The American Government then brought this action, claiming rectification of the schedule by the inclusion of the land and buildings and specific performance so rectified of the contract. The case was tried in the Courts in Canada, and the judge had found that the intention of the parties was that the land and buildings should become the property of the American Government, and made an order for performance of the contract. The Appellate Division had reversed this judgment, but the Privy Council have restored it. It was held that the omission to include the land and buildings in the schedule to the agreement was the result of mutual error; but, there being an actually concluded agreement, it could be enforced after rectification consistently with the Statute of Frauds, and the case of Craddock *v.* Hunt was approved. In Canada there is a statute similar in terms to the Judicature Act on this point.

It will be observed that in both these cases there was a definitely concluded verbal agreement, which represented the true intention of the parties, but which through a mutual error had not been incorporated correctly in the formal contract, but the principle would not be extended, we imagine, where there was any dispute as to the terms of the original agreement. In our Legal Section, June 29, we gave an instance of another kind of mistake in a note on Horner *v.* Walker. In that case the formal document had not been signed owing to a wrong part having been sent to the purchaser.

THE LATE SIR HENRY HOLLOWAY.

In our last issue we briefly reported the death of Sir Henry Holloway, J.P., and give herewith an account of his career. The late Sir Henry Holloway founded in 1882 at Battersea, with his brother, the late H. Thomas Holloway, the business of Holloway Brothers, builders and contractors. After a few years hard work the business developed rapidly, and in 1900 more important works premises were acquired on the riverside in Belvedere-road. In 1897 the firm obtained their first really important contract, viz., the building of the new Naval Barracks at Chatham for the Admiralty, at a cost of nearly half-a-million. This contract was carried out to the entire satisfaction of the authorities, and was the forerunner of many large and important contracts, including the London Wall Building Estate (a large block of offices in Finsbury-circus) the amount of the contract being about £400,000; the Central Criminal Court, Old Bailey, on the site of the old Newgate Prison; the New General Post Office and Sorting Office; Messrs. William Whiteley's new stores in Queen's-road, Bayswater; the Admiralty Offices and the large block of Government Offices adjoining St. James's Park. In addition to the large public buildings enumerated above, the firm has also carried out several important housing contracts, viz., the garden city at Rosyth for the Admiralty, a contract of £650,000; the housing scheme for the city of Winchester, a contract of about half-a-million; and a scheme for the Wandsworth Borough Council at Earlsfield.

During recent years the firm has also developed a civil engineering contractors' business, and many important works such as docks, shipyards and bridges have been undertaken successfully. In 1915 the firm again had to move their premises from Belvedere-road to their present site at the corner of Vauxhall Bridge and Grosvenor-road, owing to the acquisition of the former site by the London County Council.

The late Sir Henry Holloway was a past-President of the London Master Builders' Association and also of the Institute of Builders, and J.P. for the County of London. During the war Sir Henry was called upon by the Government to take control of the Department set up for providing temporary housing for munition workers. For about 1½ years he gave himself unsparingly to this important work and carried through what was recognised by many people as one of the best pieces of administrative work done during these critical times. For these services he was honoured with a knighthood and few could have better deserved the honour. In addition to his activities in connection with the firm of Holloway Brothers, he was chairman of the Limmer & Trinidad Lake Asphalt Co., Ltd. He was, a fervent adherent of the Wesleyan Church, of which his father before him had been a local preacher and class leader. He was also a strong temperance advocate. He was in politics a Liberal, and in his younger days was an ardent worker in the cause. He was one of the late Lord Moulton's keenest workers when he won the Clapham Division. He afterwards fought hard for Mr. Reginald McKenna, when that gentleman unsuccessfully contested the same constituency. Sir Henry Holloway was a Freemason and a Past-Master of the Streatham Lodge.

The following were amongst Sir Henry Holloway's many activities:—Governing Director of Holloway Brothers (London), Ltd., chairman of the Limmer & Trinidad Lake Asphalt Co., Ltd., director of Messrs. Chubb's Lock & Safe Co., Ltd., director of the United Kingdom Provident Institution, Director of Temporary Housing under the Ministry of Munitions for about twelve months in 1916-1917; received knighthood in 1917 as recognition of his services to country. On several occasions he was consulted by the late Ministry of Health on the housing question, and, with others, made recommendations which resulted in the subsidy being granted to house builders; was a member of the Government Trade Dispute Disqualification Committee appointed to deal with cases arising out of trade disputes affecting the Unemployment and Health Insurance Acts; member of the Panel appointed by the Government for finding employment for ex-officers; Past-President of the Institute of Builders and London Master Builders' Association; chairman of the Joint Committee of the Federation of Civil Engineering Contractors and Public Works Contractors; founded a scholarship for students of the Architectural Association; governor of Leys School, Cambridge; J.P. for the County of London.

THE INSTITUTE OF BUILDERS.

Mr. F. J. Gayer writes:—

Sir,—The criticism of Mr. Stone on the Institute of Builders' examinations appears to fall into the usual error of being destructive rather than of being constructive, and the criticism in general would appear to be founded upon an "immature consideration" of the real facts. Mr. Stone suggests that the syllabus was promulgated without reference to the many building institutions and educational bodies, whose suggestions might have been of great value. The Institute did, in point of fact, collaborate with several of the best authorities on technical building education, and are indebted to them for their valuable assistance.

Mr. Stone's remarks might be considered very much more appropriate if the syllabus now launched by the Institute was intended to replace all and every scheme of technical education for all and sundry; whereas the Institute, catering for the prospective master builder, very rightly decided that admission to its ranks after this year can only be by examination. Hence they, like any other Institute, have a perfect right to lay down the qualifications by which entry can be made to the Institute. It is common knowledge that there are in the country about 14,000 federated employers in the building industry, and it is the intention of the Institute to secure their recruits from the ranks of the above, and not at this stage to enlarge the scope to include every one connected with the many branches of the Institute.

There is nothing new in an institute defining the conditions under which its members are created; in fact this had ruled since 1834, and the only variation now sought to be established is that entry shall be by examination only. It is possible, even probable, that in the light of experience certain modifications may be necessary in the Institute syllabus, but if it is borne in mind that the Institute is not seeking to revolutionise all courses of building study, but rather to define those subjects that experience has taught to be essential to the master builder, then much of the adverse criticism falls to the ground.

Mr. Stone criticises the judgment of the Institute in attaching some importance to bookkeeping and accountancy costing, &c. Had Mr. Stone's walk in life placed him in the position of a builder, he would long since have recognised that the amount of ignorance in this direction has had a most disastrous influence on the trade, and surely it is one of the fundamental duties of the Institute to foster and develop proper training with a view to uplifting the industry to the high level to which it rightly belongs.

NATIONAL FEDERATION OF BUILDING TRADES' OPERATIVES.

PRESIDENT'S ADDRESS AT THE ANNUAL CONFERENCE.

In his address at the annual conference of the National Federation of Building Trades' Operatives, held at Ilfracombe on Wednesday, Mr. George Hicks, the President, said :—

The present, said a thinker, was the knife-edge of the past cutting into the future, and that was a thought which he might use to convey the further idea that the great value of a conference such as that was the opportunity given by it to consider the events of the past year as a guide to future actions. The National Federation of Building Trades' Operatives, with every constituent body, had passed through a year of no little anxiety. The middle of April this year marked, as they knew, the highest point of crisis in the building industry, when a stage of negotiations had been reached that seemed to make hostilities inevitable. Those threatened hostilities were averted at the last moment, and an agreement arrived at which, so far as the wages question was concerned, had fructified in the arbitrament now in operation. Obviously a compromise, the settlement so far fell short of what their members would have wished to prevail, and in many quarters dissatisfaction was frankly expressed. It was to be understood, but it touched a question of fundamental importance—one that had been raised in other industries as well as theirs—that was to say, the entire position of negotiations as a principle. He took the opportunity of that opening address to examine the matter in the light of what was practical truth, pleasant or unpleasant. In the first place, negotiation with employers was not a cheap and easy method of getting their own way. If they were strong enough they could get their own way by fighting for it at the price of a fight. Employers who met them in conference brought no gifts. It was pull-devil pull-baker, or more appropriately, building worker, with the result invariably (on large issues) of compromise. The word sounded unpalatable, but it was no use for any of them to imagine that wages and conditions negotiation would exist at all if the facts were otherwise. The employers would be fools to come in, and so should they be, merely to argue about what was inevitable by sheer strength of organisation.

What, then, was the worth of negotiation? He left them to judge, but he asked them to judge on business lines. If every strike were successful, if no direct action ever ended in compromise, there would be no argument. But was it so? What they had to form their judgment about was this: taking success and failure together, and the varying measures of both, in past conflicts throughout industry; taking also their own resources and prospects, were they in the long run likely to get more by one form of compromise, negotiation, than by what must be (unless they could be invincible) another form of compromise, *i.e.*, the aggregate outcome of strikes? They must do one thing or another. It was not possible to pick and choose or to say "We can win this issue or that by a fight." There must be common purpose and loyalty, or the cause of the industry as a whole was bound to suffer. They, whose duty it was to carry on pourparlers and to exhaust the possibilities of arrangement, felt as keenly as any of the rank and file the injustice of being forced to accept reductions below the sliding scale adopted in 1921. That was the crux of the matter and a source of legitimate grievance. The earlier variation, they would remember, was agreed to in consideration of a period of stabilisation of wages during which there was every possibility of the cost of living figures dropping substantially below the rate thus stabilised. But it was not just a gamble entered into in any spirit of challenging fortune. It was the issue of a struggle, but the best they could achieve in the circumstances, and one in which Clause 14 C of the document figured to their disadvantage. The recent award of the Arbitrator served to emphasize the same fact. As an award crowning the general negotiations it was favourable to them, since it whittled the employers' demand down by about 75 per cent. He was not more satisfied than them to see the conditions of their industry depreciated. Nevertheless, there was a lesson that labour throughout the country was beginning to learn, that of unity against sectionalism. It was not the weakness of officials, but unpreparedness, backwardness of organisation, lack of common purpose.

On the general question of building trade standards there was one question he wished to refer to which affected the whole country, and the government of the country, as seriously as it affected the building industry. Few people realised how serious the reduction was in regard to the attractiveness of the industry when they faced the fact that population was racing houses and gaining rapidly. If all the available labour was put on to building houses at once it would take a score of years to catch up in that race, according to any tolerable measure of housing accommodation. That was the position as things stood. But a fact of greater gravity remained. It was common knowledge to them that building was not to-day attracting new blood sufficient to compensate for the natural loss of man-power due to the passage of time. What that meant to the nation ought to be plain to the minds of those who had the nation's affairs and destinies in charge, except that foresight seemed no more to be a quality of statesmanship than public interest a concern of capitalism. It was at such a time that the attempt was made to filch from the building operative the small advantage gained as a result of improved organisation over the conditions that prevailed in 1913. The best authorities on housing outside the building industry were agreed that good conditions must be established if the present numerical strength was to be kept up, let alone increased, and the point of view was laid down explicitly at the last conference in London of municipal representatives convened by the National Housing and Town Planning Council. He warned those who had any shred of responsibility in that matter that they were drifting to a condition where the limit of possible overcrowding would be reached, and this country would have not only an unemployed margin but literally a houseless margin, which would mean desperation and potential barbarism. The fact that fathers were ceasing to apprentice their boys to their trade in anything like the number of former times, and that apprenticeship wages were ridiculously low was a striking commentary on the supposition of relative prosperity in the building industry.

It was to be recorded with considerable satisfaction that officials of the National Federation were invited to sit upon the Special Committee on Building Materials' Prices which was appointed by the Government to watch the building rings, with particular regard to the State subsidy. That the proposal to spend public money to encourage house building would lead to inflated prices, which, if not checked, would absorb the whole of the subsidy, was taken for granted by every responsible person and apparently by the Government. But merely to hold a watching brief under the present terms of reference was not even a case of locking the stable door after the steed had been stolen. It was asking the thief to purloin the harness as well. The terms of reference must be enlarged to the extent of enabling the Committee not only to demand the production of business ledgers and accounts wherever required, but also to make definite proposals for legislation according to what was necessary for effective control. It was amazing that, with a problem so vital to the industrial efficiency, general health, and social morality of the nation confronting the executive to-day, a handful of grasping profitmongers should be allowed to stop progress in the name of private enterprise. That was what it meant. What municipality—or, for the matter of that, what ordinary builder—was going to plan house erection or town development at a loss to fill the pockets of the trusts? The race might be poisoned in filthy slums, just as it might be battered and even annihilated in future wars, so long as "business is business" to-day no matter what the consequences to-morrow. Their demand was for nothing more ambitious than moderately decent living conditions, and without those it was shown the industry could not live. If they were to be denied upon the ground that it did not pay to feed and clothe them properly, what was to be done to the commercial vampires who drained even the life-blood infused into the industry's veins by State surgeons?

Turning to their domestic affairs once again, he thought they would agree that prospects of closer unity were growing rapidly. The discussions that had taken place between the Amalgamated Society of Woodworkers and the Amalgamated Union of Building Trade Workers were an indication of the progressive tendencies in existence and the present position of those negotiations was a matter upon which congratulations were due. Industrial unionism meant one union for one industry and was an alternative to craft unionism, which meant one union or more for each separate trade. Ever since the miners (together with their dispute) were "settled" in the Spring of 1921, the movement in support of industrial unionism had grown rapidly, and the work of the General Council recently in bringing unions of associated interests together in conference promised far-reaching results. Some of the difficulties to be overcome were technical; others depended for solution upon education and sufficient of the industrialist spirit in the unions. The case for industrial unionism rested upon facts of capitalist organisation, which were plain to everyone. In the business world enterprise was not in the main split into crafts. Even where specialist distinctions existed the tendency to amalgamation of interests, or at least very close federation, was prominent. Sectional jealousies and even serious competition were beginning to be eliminated for the sake of common advantage. Between employers there was a stronger sense of affinity than ever. Trusts, rings, joint directorships and joint stock helped to complete the process of breaking down the old solid exclusiveness of the individual master. Workers of all crafts within one industry or more were brought together on the job, under the same control, exposed to the same conditions, good or bad, and working to the same end.

Industrial unionism was the inevitable answer of organised labour to modern developments of capitalist industry and finance with their political connections. The task before them was to find within each body of organisations an administrative scheme that, granting the desire for amalgamation, would be acceptable to the separate units, and that meant taking account of and dealing with the peculiar difficulties that in the past had influenced opinion adversely and given arguments for the propaganda of those whose interests lay in preventing union. That large amalgamations had taken place where, prior to the event, societies were diverse in machinery, funds, craft interests and schedules of benefit, proved that, if the will existed, the way was to be discovered. Probably the most important of the difficulties to be dealt with was of the craft. Craft was, like nationality, a matter of temperament, tradition and pride. But if all those were submerged in a wider outlook, or at least adapted to fraternal necessities, there still remained the practical workaday interests of the craft that men in the trade considered themselves best fitted to decide upon. A great deal of the opposition to amalgamation that was met with arose from fear, especially in the case of specialised crafts, that such interests might be overlooked or deliberately neglected. Beyond that were questions of workshop

management, for instance, more important to the craft itself than might be the case to the industry at large. Those matters were familiar enough to everyone who had been engaged in conference or negotiation with a view to amalgamation, and in some cases where union had been accomplished they remain sources of undesirable friction.

Closer unity, however, need not spell the submerging of legitimate craft interests, and he was convinced that it was within the practical wit of trade unionists to find ways of guaranteeing reasonable independence and even a considerable measure of trade autonomy whilst securing that common organisation and movement which events proved more and more every day to be necessary in the larger issues. The future was with those who would sink what was petty and rise to the higher call of human fraternity and industrial freedom. The National Federation of Building Trades Operatives had done and was doing fine pioneer work for closer unity, patiently serving the interests, separate and communal, of all trades concerned. That experience and lesson would bear rich fruit as time went on in proving that they could work together as comrades for great and enduring ends. With their industrial effort and all the promise it afforded there was disappointment in store for those who believed that trade unionism could be separated from political matters with advantage or without injury. The history of the past century showed that conditions affecting labour could be vitally improved by labour legislation and injured by legislative neglect; the facts of the immediate present were eloquent of what might be achieved by wise co-operation of industrial and political power. Labour was ready to mount the saddle—the race was for economic freedom. That end was not industrial only, nor political only; it was both, transformed into the people's co-operative State.

THE SMALL DWELLINGS ACQUISITION SCHEME.

At a meeting of the Maldens and Coombe Urban District Council, held on August 9, Councillor Kirk (Deputy Chairman of the Small Dwellings Acquisition Committee) reported on action arising out of applications made by local builders and contractors for the recommendation of the local authority to the Minister for the benefit of grants by way of lump-sum payments as set forth in the Housing Act and Circular 388.

The Ministry of Health had replied that the Minister was not satisfied on the information before him that the need for houses proposed could not be met without assistance.

The effect of the decision (said Councillor Kirk) was to stifle building operations and end all confidence with the Government department and, moreover, place the county and even the country in a grave competitive position. In short, the promise of a subsidy was an essential factor to encourage, secure, and complete the house ownership difficulty, and had already had marvellous self-help quickening power.

The Council passed a resolution expressing its surprise and disappointment at the Ministry's decision, and pledged itself immediately to approach all local authorities within the county with a view to entering a county protest against the restricted and prejudicial action of the Minister and his advisers in excluding houses of a type and size specified in Section 1 of the Housing, &c., Act, 1923, and which in the opinion of the local authority is suitable to the needs of the area.

The Council urged that a Conference of local authorities and interested bodies be convened by the Thames Valley Councils' Association to determine county action immediately replies are forthcoming.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Plasterers
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Bedford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½		1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3		0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Cambridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Chatham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Chelmsford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Colchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½		1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3		1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½		1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Great Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3		1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Ipswich	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6		1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½		1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½		1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Luton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Maidstone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Norwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Oxford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5		1/1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Reading	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Rochester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
St. Albans	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Scarborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3		0/11½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3		1/0
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Windsor	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
York	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½

(For rates of wages in the Building Trade in Scotland, see page 265.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING

AUGUST 18.—**Bristol.**—FLATS.—Erection of two blocks of flats at Lawford's Gate, for the T.C. Housing Department, 51, Prince-street, Bristol. Deposit £2.

AUGUST 18.—**Newcastle-on-Tyne.**—NURSES HOME.—Erection of a large nurses' home on the Dunholme Site, Westgate-road, for the Board of Guardians. Mr. Gladstone Walker, Clerk, 127, Pilgrim-street, Newcastle-upon-Tyne. Deposit £10.

AUGUST 18.—**Southend-on-Sea.**—CLUB.—Erection of club premises for Southend Labour Institute Society. Mr. N. Evans, architect, 27, County Chambers, Weston-road, Southend. Deposit £3 3s.

AUGUST 18.—**Treorchy (Glam).**—REPAIRS AND PAINTING.—For effecting general repairs to and painting externally of 76 houses at Treorchy, and three houses at Treherbert, for Mr. L. Baron. Mr. W. D. Morgan, M.S.A., Architect, 199, Ystrad-road, Pentre (Rhondda).

AUGUST 18.—**Willington.**—HOUSES.—Erection of 30 houses on the Willington Dene Housing Site. Messrs. Hays & Gray, A.A.R.I.B.A., Wingate, Co. Durham.

AUGUST 20.—**Aylesbury.**—OFFICES, &C.—For new offices and council chamber in the Butchers' Market. Mr. W. H. Taylor, Borough Engineer, Town Hall, Aylesbury.

AUGUST 20.—**Barnsley.**—PAINTING AND CLEANING.—The Committee of the Barnsley Liberal Club invite tenders for the cleaning and painting of its premises. Secretary, Market-street, Barnsley.

AUGUST 20.—**Coventry.**—REPAIRS.—Provision and fixing of new eaves, gutters and rain-water pipes, at Whitmore Park Hostels, for the T.C. Mr. J. E. Swindlehurst, City Engineer, Council House, Coventry. Deposit, £1 1s.

AUGUST 20.—**Cowdenbeath.**—HOUSES.—Erection of 10 additional houses in Stenhouse-street, for the T.C. Mr. C. A. Alexander, Burgh Surveyor, Town House, Cowdenbeath. Deposit £2 2s.

AUGUST 20.—**Dover.**—PAINTING.—For painting and incidental work at the Isolation Hospitals, Tower Hamlets, and Poulton, for the T.C. Mr. Wm. Boulton Smith, Borough Engineer, Maison Dieu House, Dover.

AUGUST 20.—**East Ham.**—CONVERSION.—For the conversion of open-air swimming baths in Central Park into dressing rooms, &c. Mr. J. Birch, Borough Engineer, Town Hall, East Ham, E.6. Deposit £1.

AUGUST 20.—**Edinburgh.**—VARIOUS WORKS.—For works at Bangour Village Mental Hospital, for the District Board of Control, viz.: (1) Painter work of houses of staff and Massage Department; (2) minor additions to waterman's house and house at No. 30 Deehmont; (3) erection of revolving shutters in verandahs of Homes 9 and 10, and the repair of screens in verandahs of Homes 7 and 8. Mr. James D. Gibson, Surveyor, 60, Frederick-street, Edinburgh.

AUGUST 20.—**Islington, N.19.**—ALTERATIONS AND ADDITIONS TO LAUNDRY BUILDINGS AND PLANT.—(*a*) Alterations and additions to the laundry buildings; (*b*) alterations and additions to the plant and machinery, &c., in the laundry at the Infirmary, Highgate Hill, N., for the Guardians of the Poor of the Parish of St. Mary, Islington, in the County of London. Mr. Edmund J. Harrison, Lic.R.I.B.A., 23, Berkeley-road, Crouch End, N.8. Deposit £2.

AUGUST 20.—**Leeds.**—HOUSE.—Erection of a house on the Weetwood Estate, Headingley, for Mr. G. D. Lumb. Messrs. Jones & Stocks, architects, 56, Prudential Buildings, Park-row, Leeds.

AUGUST 20.—**Markethill.**—REPAIRS.—For extensive repairs to the Mullaghbrac Roman Catholic Church, near Markethill, Armagh. Messrs. W. H. Bryne & Son, architects, 20, Suffolk-street, Dublin.

AUGUST 20.—**Middleton-in-Wharfedale.**—VARIOUS WORKS.—(1) Painting, (2) road-making, and (3) boundary wall, gates, &c., at Sanatorium, for the West Riding C.C. Health Committee. West Riding Architect, County Hall, Wakefield.

AUGUST 20.—**Nenagh.**—HOUSES.—Erection of eight houses, for the U.D.C. Town Clerk, Nenagh. Deposit £2 2s.

AUGUST 20.—**Penistone.**—VARIOUS WORKS.—Works at Penistone Grammar School: (1) New floor in cookery room; (2) conversion of gymnasium into class-room and class-room into gymnasium. Education Department, County Hall, Wakefield.

AUGUST 20.—**Rhyl.**—HOUSES.—Erection of 12 houses, on Vale-road site, for the U.D.C. Mr. A. A. Goodall, surveyor, Rhyl.

AUGUST 20.—**Walthamstow, E.17.**—HOUSES.—Erection of a total number of houses not exceeding 100 at Higham Hill site, Billet-road, Walthamstow. Contractors may tender, for two or more houses, for the Walthamstow U.D.C. Mr. G. W. Holmes, A.M.I.C.E., Engineer and Surveyor to the Council, Town Hall Annexe, Orford-road, Walthamstow, E.17.

AUGUST 20.—**Woolfold.**—PAINTING.—For painting at Wesleyan School. Mr. G. F. Camm, 6, Lamel-street, Tottington.

AUGUST 21.—**Cape Town.**—RESIDENCES, &C.—For erecting residences for men and women, Principal's house, and other contingent works at the site of the new University buildings, Groote Schuur, for the University Council. High Commissioner for South Africa, Trafalgar-square, London, W.C., and Messrs Hawke & McKinlay, and C. P. Walgate, The Rhodes Buildings, St. George's-street, Cape Town. Deposit £10.

AUGUST 21.—**Chelmsford.**—SHELTER, &C.—For the erection of a shelter, convenience, and dressing room for ladies in the Recreation Ground, for the T.C. Borough Engineer, Municipal Offices, Chelmsford.

AUGUST 21.—**Islington.**—GARAGE.—Erection of a garage at Studd-street, P.O. Stores, Islington, N., for H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit, £1 1s.

AUGUST 21.—**Knaresborough.**—COVERING SHED, &C.—For stripping and re-covering with new galvanised corrugated iron sheets asphalte shed at Howe Quarry, and for painting at Howe Quarry, for the R.D.C. Mr. Chas. F. Smith, Clerk, Union Offices, Knaresborough.

AUGUST 21.—**London.**—PAINTING WORKS.—For the execution of painting works at the South-Western District Post Office, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

AUGUST 21.—**Oxford.**—EXTENSION.—Extension for Telephone Exchange) of Oxford Head Post Office, for the Commissioners of H.M. Office of Works. Contracts' Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s (payable to the Secretary).

AUGUST 21.—**Ton Pentre (Rhondda).**—PAINTING, &C.—For painting and decorating the Workmen's Hall, Library and Institute at Ton Pentre, for the trustees of Maindy and Eastern Collieries Workmen. Mr. W. D. Morgan, architect, 199, Ystrad-road, Pentre.

AUGUST 21.—**Walsingham.**—PAINTING.—For external painting of 12 houses, for the R.D.C. Mr. W. O. Humphrey, Surveyor, Fakenham.

AUGUST 22.—**Bacup.**—FILTER HOUSE.—Construction of a filter house, &c., for the T.C. Mr. W. H. Newton, Borough Engineer, Municipal Offices, Bacup. Deposit £3 3s.

AUGUST 22.—**Londonderry.**—COTTAGES.—Erection of 57 cottages in rural district. Ministry of Finance (Northern Ireland), 15, Donegall-square West, Belfast. Deposit £1.

AUGUST 22.—**Saxmundham.**—ADDITIONS, &C.—For new lavatories, cloak-rooms, and other alterations, repairs and redecorations at the Market Hall. Mr. George J. Cook, Clerk, Saxmundham.

AUGUST 22.—**Sowerby Bridge.**—JOINERS' WORK.—For the carpenters' and joiners' work required in constructing movable flooring and platform for adapting the Swimming Baths for use as a Public Hall. Mr. J. Eastwood, Surveyor, Council Offices, Sowerby Bridge.

AUGUST 23.—**London, E.1.**—RENOVATING AND REDECORATING.—Renovating and redecorating at the Schools, at Green-street, Upton Park, E.7, for the Guardians of the Parish of St. George in the East. Mr. R. M. Lochner, Clerk, Guardians' Offices, Raine-street, Old Gravel-lane, E.1, on receipt of stamped (postage 6½d.), addressed, large size envelope.

AUGUST 23.—**Manchester.**—PALM HOUSE.—For rebuilding palm house at Alexandra Park, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

AUGUST 23.—**Swansea.**—HOUSES.—Erection of 14 houses on Llanerch Estate, for the T.C. Mr. E. E. Morgan, Borough Architect, 3, Prospect-place, Swansea.

AUGUST 23.—**Thakeham.**—REPAIRS.—For repairs to the roof at the Poor Law Institution at Thakeham. Mr. Percy Ayling, Clerk, Storrington, Pulborough.

AUGUST 23.—**Wrexham.**—BATHS.—For extension of the Public Baths, for the T.C. Mr. J. England, Borough Engineer, Wrexham. Deposit £2 2s.

AUGUST 23.—**Enniskillen.**—HOUSES.—Erection of 12 houses, for the U.D.C. Borough Surveyor.

AUGUST 24.—**Kirkcudbright.**—HOUSES.—Erection of four blocks of two houses. Mr. John Gibson, Town Clerk, Kirkcudbright. Deposit £1 1s.

AUGUST 24.—**Salford.**—EXTENSION.—For new lavatories and mess-room extension at the Mains Depot, Frederick-road. Borough Electrical Engineer, Electricity Works, Frederick-road, Salford.

*AUGUST 24.—**Woking, Surrey.**—NEW BAPTIST HALL AND INSTITUTE.—Erecting new Baptist Church Hall and Institute at Woking, Surrey. Messrs. C. S Thomas and Herbert Jones, architects and surveyors, Salisbury Chambers, Winds-street, Swansea. Deposit £3 3s.

AUGUST 25.—**Abersychan.**—HOUSES.—For erecting 40 houses on Manor-road site, for Abersychan U.D.C. Also for construction of necessary roads and sewers in connection with houses (separate tenders). The Architects to the Council, Co-operative Wholesale Society, St. Mary-street, Cardiff.

AUGUST 25.—**Bridlington.**—HALL, &C.—Erection of gymnasium and assembly-hall at the Bridlington School. Mr. John Bilson, architect, 23, Parliament-street, Hull. Deposit £1.

AUGUST 25.—**Dewsbury.**—PAINTING.—For painting the outside woodwork of the Springfield Chapel and school buildings in Halifax-road. Mr. B. Micklethwaite, 42, Plevna-terrace, Savile Town, Dewsbury.

AUGUST 25.—**Ebbw Vale.**—HOUSE.—Erection of sexton's house at Ebbw Vale Cemetery, for the U.D.C. Mr. P. I. Davies, Surveyor, Ebbw Vale.

AUGUST 25.—**Edinburgh.**—HOUSES.—Erection of seven single and two double tenements, comprising in all 66 houses, at St. Clair-street, Easter-road, for the T.C. Messrs. Morham & Brotchie, 29, Hanover-street, Edinburgh.

AUGUST 25.—**Milnrow.**—WAR MEMORIAL.—For erecting a war memorial on a site in the Mill-yard, for the War Memorial Committee. Surveyor to the U.D. Council, Council Offices, Milnrow. Deposit £3 2s.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick-layers.	Car-penters, Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Brick-Masons' Labourers.	Plas-terers' Labourers.
Aberdeen	1/7	1/8	1/7	1/7	1/8	1/8½	1/4½	1/-	
Airdrie	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/5	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/7	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Fort William	1/7	1/6	1/6	1/6	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 264.

AUGUST 25.—**Percy Main.**—HOUSES.—Construction of two dwelling houses at Low Row, Percy Main, for the Tyne Improvement Commissioners. Mr. Richard Aughton, General Manager, Tyne Improvement Commission Offices, Bewick-street, Newcastle-upon-Tyne. Deposit £2 2s.

AUGUST 25.—**Portrush.**—HALL.—Erection of Masonic hall. Mr. A. J. Clarke, architect, 11, Kerr-street, Portrush.

AUGUST 27.—**Greenock.**—TENEMENTS.—Erection of 10 three-story tenements (four sites), consisting of two and three apartment houses, for the T.C. Office of Public Works, Municipal Buildings, Greenock. Deposit £1 1s.

AUGUST 28.—**Cape Town, South Africa.**—MEDICAL SCHOOL.—Erection of a new Medical School and other contingent works at Groote Schuur, near Cape Town, for the Council of the University of Cape Town. High Commissioner for the Union of South Africa, Trafalgra-square, London, W.C. Deposit £2.

AUGUST 28. — **Beaconsfield.** — POST OFFICE. — Erection of a new Sub-Post Office at Beaconsfield. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

AUGUST 28.—**Ealing.**—ALTERATIONS.—Alterations, additions, repairs, &c., to Ealing Telephone Exchange, for H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

AUGUST 28. — **Evenwood.**—REROOFING.—For the reroofing of the Congregational Sunday School, Evenwood. Mr. John Allinson, The Green, Evenwood.

AUGUST 28.—**Fitzwilliam.**—HOUSES.—Erection of 60 dwelling-houses, at Fitzwilliam, near Wakefield, for the South Kirkby, Featherstone, and Hemsworth Collieries, Ltd. Messrs. Garside and Pennington, architects, Ropergate, Pontefract. Deposit £2 2s.

AUGUST 28.—**Hammersmith.**— REBUILDING.—For rebuilding the frontage at Grove-road, Hammersmith, Sorting Office, for H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

AUGUST 28.—**Inverness.**—HOUSES.—Erection of two dwelling houses at Fort Augustus, and one block of two houses at Gorthleck, for the Inverness C.C. Mr. A. Grant, architect, 6, Queen's-gate, Inverness.

AUGUST 28.—**Leeds.**—HOUSES.—Erection in brick or concrete of 50 houses on the Crossgates Estate, and 50 houses on the Middleton Estate, for the T.C.. Mr. W. T. Lancashire, City Engineer, Municipal Buildings, Leeds. Deposit £1 1s.

AUGUST 28.—**Newport (Mon).**—HOUSES.—Erection of six houses in Corporation-road. Borough Engineer, 8, Corn-street, Newport. Deposit £2 2s.

AUGUST 29. — **Blyth.** — HOUSES. — Erection of 50 houses, for the T.C. Borough Engineer, Municipal Buildings, Blyth.

AUGUST 29.—**London.**—PAINTING, REPAIRS, &C.—For cleaning painting, repairs, &c., at Fountain Temporary Mental Hospital, Tooting-grove, for the Metropolitan Asylums Board. Offices, Thames Embankment. Deposit £1.

★AUGUST 29.—**London, S.W.17.**—PATENT GLAZING.—Patent glazing, &c., to covered ways at Tooting Bec Mental Hospital extension, Church-lane, S.W. 17., for the Metropolitan Asylums' Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

★AUGUST 29.—**London, N.W. 3.**—ALTERATIONS.—Sundry alterations at the North Western Fever Hospital and Ambulance Station, Lawn-road, Hampstead, N.W. 3, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

AUGUST 31.—**Barking, Essex.**—SHEDS.—Completing the erection of two open resting sheds, at their Faircross Elementary School, in their district. One shed is about 90 ft. × 30 ft. in two spans; the other about 55 ft. × 15 ft. in one span, each consisting of cast-iron columns and light fir-framed roofs covered with corrugated asbestone, for the Barking Town U.D.C. Mr. C. J. Dawson, Clock House Chambers, Barking.

★AUGUST 31.—**Barking, Essex.**—BUILDING.—Erection of a Centre for Domestic Instruction, about 43,000 cub. ft., at the site of the Westbury School in this district. Quantities, &c., on and after August 21, at the office of the Council's Architect, Mr. C. J. Dawson, F.R.I.B.A., Clock House Chambers, Barking. Deposit £2 2s.

AUGUST 31.—**Brynmawr.**— HOUSES.—For erecting, for U.D.C., 60 houses (22 parlour type, and 38 non-parlour type) at Twyncynghordy, Brynmawr. No sublet of contract or piece workmanship agreed to. Contracts may be for whole or not less than 10 houses. Mr. Henry Waters, M.S.A., Waungoch House, Beaufort, Deposit £2 2s.

★AUGUST 31.—**Loughborough.**—NEW OFFICES AND FITTERS' SHOP.—Clearing site and erection of new offices and fitters' shop for the Gas Department for the Gas Committee of the Borough of Loughborough. Messrs. G. H. & A. M. Barrowcliff, Town Hall Chambers, Loughborough. Deposit £2 2s.

AUGUST 31.—**Penybont (Glam).**—TWENTY HOUSES.—For erecting, for the Penybont (Glam) R.D.C., 20 houses at Sam Housing Site. Mr. J. Simon Davies, F.S.I., 8, Wyndham-street, Bridgend. Deposit £2 2s.

AUGUST 31.—**Sutton-in-Ashfield.**—BATHS.—Erection of public swimming baths, for the Sutton-in-Ashfield Miners' Welfare Committee. Mr. L. Dodsley, architect, Bainbridge Chambers, Brook-street, Sutton-in-Ashfield. Deposit £2 2s.

AUGUST 31.—**Tenby.**—PAINTING.—For painting of Carswell Farm buildings, &c., for trustees of Tenby Church and Charity Estates. Mr. J. A. Bancroft, St. Julien-street, Tenby.

SEPTEMBER 1.—**Barnsley.**—STREET WORKS AND HOUSES.—Tenders are invited as follow: Private improvement works and the making up and completion of Henshall-street, Milnes-street, back road laying between Hawthorne-street, St. George's-road, and Longcar-lane, and back road between Kier-street and Summer-street, Barnsley. Painting exterior of the Public Baths, York-street and Race-street, Barnsley. External work at Locke Park, Town End Recreation Ground, and St. Mary's Disused Burial Ground. Erection of 82 non-parlour houses at the junction of Pontefract-road and Grange-lane, Barnsley; and for the drainage work in connection therewith. Borough Engineer, Fairfield House, Barnsley.

SEPTEMBER 1.—**Brentford.**—CONVENIENCE.—Erection of a public urinal at the Recreation Ground, St. Paul's-road, for the U.D.C. Mr. W. J. W. Westlake, Clifden House, Brentford.

SEPTEMBER 1.—**Royston, near Barnsley.**—HOUSES.—Tenders are invited for the erection of 12 houses, for the U.D.C.; also the roadmaking and laying of sewer. Messrs. Dyson, Cawthorne & Coles, 10, Regent-street, Barnsley.

SEPTEMBER 3.—**Bristol.**—CONVENIENCE.—Erection of public convenience at Greville Smyth Park, for the T.C. Mr. L. S. McKenzie, City Engineer, Bristol. Deposit £2 2s.

SEPTEMBER 3.—**Dartford.**—HOUSES.—Erection of 24 houses at Ship-lane, Sutton-at-Hone, for the R.D.C. Mr. Eustace J. Robbs, Clerk, Council Offices, West Hill, Dartford. Deposit £2 2s.

SEPTEMBER 3. — **Norwood, S.E.** — EXTENSION. — For an extension of the playroom at The Children's Home, "Cumberlow," Goat House Bridge, Norwood, S.E., for the Guardians of the Poor of the Lewisham Union. Guardians' Offices, 394, High-street, Lewisham, S.E. Deposit £1 1s.

SEPTEMBER 3.—**Rochdale.**—SCHOOL.—Erection of open-air school at Brownhill, for the T.C. Borough Surveyor, Town Hall, Rochdale.

★SEPTEMBER 4.—**Aberdare.**—POST OFFICE AND TELEPHONE EXCHANGE.—Erection of a new Post Office and Telephone Exchange at Aberdare, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s., payable to the Secretary.

SEPTEMBER 4.—**Birmingham.**—REPAIRS, &C.—Execution of ordinary works and repairs at the Beacon and Lickey Hostels, Birmingham, for H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit 10s. 6d.

SEPTEMBER 4.—**Cardiff.**—PAINTING.—(1) External painting, City Lodge, East; (2) external painting, City Lodge, West, for the B.G. Mr. R. Stephenson, Clerk, Union Offices, 11, Park-place, Cardiff.

SEPTEMBER 4.—**Hampton, Middlesex.**—HOUSES.—Erection of 24 houses on the Priory-road site, Hampton, for the Urban District Council. Mr. Sidney H. Chambers, Surveyor to the Council, Public Offices, Hampton, Middlesex. Deposit £2 2s.

★SEPTEMBER 4.—**Various Places.**—ORDINARY WORKS AND REPAIRS.—Execution of ordinary works and repairs at the buildings in the charge of the Commissioners of H.M. Office of Works, at various places. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit 10s. 6d. in each case (payable to the Secretary).

SEPTEMBER 5.—**Manchester.**—SCHOOL.—Erection of Higher Ormond-street Municipal School. Education Offices, Deansgate, Manchester. Deposit £1 1s.

★SEPTEMBER 5.—**Twickenham.**—HOUSES.—Erection of 16 "A" type houses on the Prospect-crescent Site, Whitton, for the Twickenham U.D.C. Surveyor to the Council, Town Hall, Twickenham. Deposit £2 2s.

★SEPTEMBER 6.—**Surbiton, Surrey.**—PUMP HOUSE.—Construction of a pump house, alterations to existing boiler house, boiler setting, &c., and other contingent works, at their Surbiton Pumping Station, in the county of Surrey, for the Metropolitan Water Board. Mr. Henry E. Stilgoe, Chief Engineer, Offices of the Board, New River Head, 173, Rosebery-avenue, E.C. 1. Deposit £5, to Accountant to the Board.

SEPTEMBER 10.—**Glasgow.**—SANATORIUM.—Erection of the Mearnskirk Sanatorium, Mearns, Renfrewshire. Office of Public Works, 64, Cochrane-street, Glasgow. Deposit £10 10s.

SEPTEMBER 12.—**Woolwich, S.E.18.**—PAINTING, &C.—Painting works, &c., to the premises Furze Lodge, Plum-lane, Plumstead, for the Guardians of the Woolwich Union. Messrs. Whincop & Channer, architects, 42, William-street, Woolwich.

★SEPTEMBER 17.—**Laleham, Middlesex.**—ENGINE HOUSE, &C.—Construction of the superstructure for an engine house, boiler house, elevated coal bunkers, chimney shaft, fitters' shop, stores, ash hoist building, sewage disposal plant, and other contingent works, at the Littleton Reservoir, in the Parish of Laleham, in the county of Middlesex, for the Metropolitan Water Board. Mr. Henry E. Stilgoe, Chief Engineer, Offices of the Board, New River Head, 173, Rosebery-avenue, E.C. 1. Deposit £10, to Accountant to the Board.

NO DATE.—**Buckhaven.**—HOUSES.—Erection of 60 two-roomed houses, with bathroom, sculleries, &c., at Buckhaven, and 40 houses of a similar type at Methil, for the T.C. Mr. T. L. Brown, Burgh Engineer, Buckhaven. Deposit £1 1s.

NO DATE.—**Dumbarton.**—PAINTING.—For painting work for nine blocks of houses at Old Kilpatrick, for the C.C. Mr. J. Weekes, Architect, 24, George-square, Glasgow. Deposit £1 1s.

★NO DATE.—**Dunmow, Essex.**—DEMOLITION AND REMOVAL.—Offers are invited for the demolition and removal of an old timber, plaster and thatched cottage near Dunmow. Oak timbers and floor boards. Mr. Jno. Stuart, F.R.I.B.A., County Architect, Springfield, Old Court, Chelmsford.

NO DATE.—**Killin.**—HALL.—Erection of new Village Hall, Killin. Messrs. Colcutt & Hamp, architects, 20, Red Lion-square, W.C. Deposit 10s.

NO DATE.—**Llandough (near Penarth).**—ERECTION OF MEMORIAL HALL.—For erecting for the Executive Committee the Llandough and Leckwith Memoria. Institute. Mr. J. T. Dewar, 30, Grove-terracle Penarth.

NO DATE.—**Pontypool.**—OFFICES.—Erection of new Guardians' Offices, in Hanbury-road. Mr. C. J. F. Wilton, architect, Pontypool. Deposit £1 1s.

NO DATE.—**Pontypridd.**—DRIVAGE.—For driving a number of headings in hard ground and some in coal, for the Great Western Colliery Co., Ltd. The General Offices of the Company, Great Western Colliery, Pontypridd.

NO DATE.—**Thornhill.**—HOUSE.—Erection of a dwelling house in Thornhill. Mr. A. Barker, The Cross, Thornhill.

NO DATE.—**Uig.**—DOCTORS' HOUSES.—For all trades in connection with the erection of (1) doctor's house, Carloway, (2) doctor's house, Miavaig. Mr. Wm. Macrae, Inspector of Poor, Miavaig, Stornoway.

FURNITURE, MATERIALS, etc.

AUGUST 20.—**Chorley.**—GRANITE SETTS.—Supply of 2,000 tons of 4 in. by 5 in. granite setts to T.C. Town Clerk, Chorley.

AUGUST 20.—**Wakefield.**—MATERIALS, &C.—Supply of road materials, tools and implements, to the Highways Committee of the West Riding C.C. West Riding Surveyor, County Hall, Wakefield.

AUGUST 21.—**Poole.**—MATERIALS.—Supply of broken granite or limestone to the T.C. Mr. S. J. Newman, Borough Surveyor, Poole.

AUGUST 22.—**Belfast.**—MATERIALS.—Supply to the Belfast and County Down Railway Co. of stores for twelve months. Storekeeper, Belfast Terminus.

AUGUST 24.—**Dundee.**—WOOD BLOCKS.—Supply to the T.C. of 210,000 creosoted deal paving blocks. Mr. G. Baxter, City Engineer, Dundee.

AUGUST 24.—**London.**—MATERIALS.—Supply to the Bombay, Baroda and Central India Railway Co. of picks, phowrahs, and shovels. Mr. S. G. S. Young, Secretary, 91, Petty France, S.W. 1. Charge 10s.

AUGUST 24.—**Woodford.**—MATERIALS.—Supply of road materials, &c., to the U.D.C. Mr. W. Farrington, Surveyor, Council Offices, Woodford Green.

AUGUST 25.—**Beddington.**—MATERIALS.—For supply of road materials, tools, &c., to the U.D.C. Mr. S. F. R. Carter, Surveyor, Wallington.

AUGUST 25.—**Escrick.**—MATERIALS.—Supply of slag and tar to the R.D.C. Mr. J. R. Hudson, surveyor, 4, Heslington-road, York.

AUGUST 27.—**Bermondsey.**—MATERIALS.—Supply of various materials to the B.C. Mr. Fredk. Ryall, Town Clerk, Town Hall, Spa-road, S.E.

AUGUST 27.—**Chatham.**—KERB.—Supply of granite kerb and setts to the T.C. Mr. R. L. Honey, Borough Engineer, Town Hall, Chatham.

AUGUST 27.—**Johannesburg.**—PAINT.—Supply of 200 gallons of aluminium paint to the T.C. Department of Overseas Trade, 35, Old Queen-street, S.W.

AUGUST 27.—**Leeds.**—GRANITE SETTS.—Supply of granite setts to the West Riding C.C. West Riding Surveyor, County Hall, Wakefield.

SEPTEMBER 18.—**Merthyr Tydfil.**—SUPPLIES.—For supply in bulk for period of six months from October 1 next, for the Poor Law Institutions at Merthyr and Trecynon and the Cottage Homes, Aberdare, for the Merthyr Tydfil Board of Guardians, of the following supplies:—Building materials, haulage, straw, electrical fittings, earthenware, oils, paints, glass, ironmongery, shoemaking materials, leather, boots, &c., drugs. The Clerk to the Guardians, Union Offices, High-street, Merthyr Tydfil.

ENGINEERING, IRON AND STEEL.

AUGUST 17.—**Walsall.**—WEIGHING MACHINE.—Providing and fixing of a weighing machine (8 to 10 tons) at their Institution, of the B.G. Mr. A. H. Lewis, Clerk, 29, Leicester-street, Walsall.

AUGUST 18.—**Chorley.**—ELECTRIC LIGHTING.—Supply and fixing of the necessary wiring and fittings required in connection with the lighting by electricity of a portion of the interior of the Town Hall. Borough Surveyor, Chorley.

AUGUST 18.—**Selby.**—ELECTRIC LIGHTING.—For the installation of electric lighting in the Selby Wesleyan Chapel. Mr. W. T. Blackburn, Brayton-road, Selby.

AUGUST 21.—**London.**—ELECTRICAL INSTALLATION.—For electric wiring installation at Somerset House, for H.M. Commissioners of Works. Contracts Branch, King Charles-street, S.W. Deposit £1 1s.

AUGUST 21.—**Manchester.**—STEELWORK.—For constructional steelwork required for the provision and erection of a new sub-station in Gorton. Mr. F. E. Hughes, Secretary, Electricity Department, Town Hall, Manchester. Deposit £1 1s.

AUGUST 23.—**Salford.**—BRIDGE.—For construction of footbridge over L.M. & S. Railway, near Hodge-lane, for the T.C. Borough Engineer, Salford. Deposit £2 2s.

AUGUST 24.—**London.**—HEATING INSTALLATION.—Installation of heating apparatus, &c., at the New Science Museum, London. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

AUGUST 24.—**Manchester.**—STACKS.—Supply and erection of steel newspaper stacks at temporary Reference Library, Piccadilly, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

AUGUST 25.—**Wigan.**—GAS PLANT.—For supply of carbonizing plant at Gasworks, for the T.C. Mr. F. Bentley, Gasworks, Wigan. Deposit £4.

AUGUST 25.—**Hamilton.**—GAS HOLDER.—Erection of a spiral guided gasholder and steel tank of approximate capacity of 1¼ million cubic ft., for the T.C. Mr. David Robb, Engineer, Hamilton Gas Works.

AUGUST 28.—**Oulton and Wakefield.**—BRIDGES.—(1) Croft Bridge, Oulton: Partial reconstruction of arch (12 ft. span) in reinforced concrete, and other repair works; (2) Woolley North Bridge, Wakefield: Partial repairs, in stone, to east elevation, and rebuilding of parapet walls. West Riding Surveyor, County Hall, Wakefield. Deposit £1 each contract.

AUGUST 29.—**London.**—WEIGHBRIDGES.—For providing and fixing a new 20-ton weighbridge at each of the following institutions: Northern Fever Hospital, Winchmore Hill: Queen Mary's Hospital, Carshalton; Darenth Training Colony, Dartford; Tooting Bec Mental Hospital Extension, Tooting, S.W., for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C.4. Deposit, £1.

AUGUST 31.—**Chile.**—HARBOUR WORKS.—**Extension of the mole of the Port of Valparaiso and complementary harbour works, depots, &c., for the Navy. Chilean Legation in London.**

AUGUST 31.—**Sheffield.**—BRIDGE.—Designs and tenders for reinforced concrete bridge over River Don at Leppings-lane, for the T.C. Surveyor, Town Hall, Sheffield. Deposit £5.

AUGUST 31.—**Tottenham, N. 15.**—REFUSE DESTRUCTOR.—Dismantling certain cells, boilers, economiser, &c., and the substitution of a modern refuse destructor plant at the Refuse Destructor Works, Down-lane, Tottenham, N., for the Tottenham District Council. Engineer of the Council, Town Hall, Tottenham, N. 15. Deposit £1 1s.

SEPTEMBER 3.—**Dublin.**—STEELWORK.—Supply of steelwork for bridge for the Midland Great Western Railway of Ireland Co. Chief Engineer, Broadstone Terminus, Dublin. Charge 4s.

SEPTEMBER 3.—**Dundee.**—BRIDGE.—Erection of plate girder railway bridge over Kingsway, for the T.C. Mr. G. Baxter, City Engineer, Dundee. Deposit £5.

SEPTEMBER 14.—**Nottingham.**—PIPING, &C.—Manufacture and erection of steam water and other pipework, valves, tanks, &c., at the Power Station, for the T.C. Messrs. Preece, Cardew & Rider, 8, Queen Anne's Gate, Westminster, S.W.1. Deposit £5.

SEPTEMBER 15.—**Manchester.**—PUMPS.—For one set of electrically driven high-pressure centrifugal pumps, to deliver 1,000 g.p.m. against a pressure of 1,120 lb. per square inch. Secretary, Waterworks Offices, Town Hall, Manchester. Deposit £2 2s.

SEPTEMBER 17.—**London.**—MACHINE TOOLS.—Supply of machine tools, for the Council's Tramway Central Repair Depot, Charlton. General Manager, London County Council Tramways, Victoria-embankment, W.C.2. Deposit £2.

SEPTEMBER 19.—**Fulham.**—FILTRATION PLANT.—Supply and erection of filters and plant at the Fulham Public Baths. Superintendent and Engineer at the Baths, Walham Green, S.W.6.

SEPTEMBER 27.—**Chile.**—PORT IMPROVEMENT.—Improvement of the Harbour of Constitucion, for the Chilean Government. Chilean Legation, 22, Grosvenor-square, W.1.

NOVEMBER 1.—**Siam.**—BRIDGES.—Supply of superstructures of steel railway bridges to Siam State Railways. Messrs. C. P. Sandberg, 40, Grosvenor-gardens, S.W.1. Charge 28s.

NOVEMBER 30.—**Sydney.**—BRIDGE.—Construction of the superstructure and substructure of a cantilever bridge across Sydney Harbour; also an alternative tender for the construction of the superstructure and substructure of an arch bridge across Sydney Harbour. Agent-General for New South Wales, Australia House Strand, W.C.

NO DATE.—**Conningsby.**—EQUIPMENT.—Complete equipment of the Lincolnshire Co-operative Bacon Factory, Ltd., with plant, machinery, electric lighting installation, and all accessories. Mr. B. E. Brighton, Lincolnshire Co-operative Bacon Factory, Ltd., Conningsby, Lincolnshire. Deposit £5 5s.

NO DATE.—**Dewsbury.**—ELECTRIC LIGHTING.—Wiring, &c., of The Hollins, Dewsbury Moor, for electric light. Secretary, Moor End W.M. Club, Dewsbury Moor.

ROAD, SANITARY, AND WATER WORKS.

AUGUST 18.—**Durham.**—ROADS.—Construction of roads and sewers in connection with housing scheme at Sudworth, for the R.D.C. Mr. Geo. Gregson, surveyor, 68, Sadler-street, Durham. Deposit £2.

AUGUST 18.—**Hale.**—SEWERS.—For sewering in Hale-road, for the U.D.C. Mr. T. Blagburn, Surveyor, Council Offices, Hale.

AUGUST 20.—**Glasgow.**—ROADS.—Construction of about 3,000 lin. yds. of main road, including the laying of tramways thereon, forming a diversion of the Renfrew-road, between Maxwell-road, Shieldhall, and Fillburn Bridge, Renfrew, with three reinforced concrete bridges, carrying the new road over existing and intended lines of railway, for the Clyde Navigation. Engineer, 16, Robertson-street, Glasgow. Deposit £5 5s.

AUGUST 20.—**Kirkintilloch.**—WATER WORKES.—Providing and jointing 1,170 lineal yds. of 12 in. diameter cast-iron water pipes from Antermony Loch to Antermony Reservoir, for the T.C. Messrs. W. R. Copland & Sons, Civil Engineers, 146, West Regent-street, Glasgow. Deposit £1 1s.

AUGUST 20.—**Lanark.**—ROADS, &C.—Construction of roads and sewers at Garnkirk Housing Site, for the C.C. Mr. Jas. A. M'Callum, District Clerk, 15, West George-street, Glasgow. Deposit £1 1s.

AUGUST 20.—**Urmston.**—ROADS.—Laying about 1,200 sq. yds. of concrete flagging in Church-road, for the U.D.C. Mr. J. Heath, Surveyor, Council Offices, Urmston.

AUGUST 20.—**Scunthorpe.**—BOREHOLE.—Sinking borehole, for the U.D.C. Mr. W. Farrar, Surveyor, Council Offices, Scunthorpe.

AUGUST 21.—**Ayrshire.**—SEWERS, &C.—Construction of main sewers in streets, outfall sewer, manways, septic tank, and percolating filter, &c. Mr. J. Montgomerie Pearson civil engineer, 51, John Finnie-street, Kilmarnock. Deposit £2 2s.

AUGUST 21.—**Baildon.**—ROADS.—For making-up part of Bank Crest, for the U.D.C. Surveyor, Council Offices, Baildon. Deposit £2 2s.

AUGUST 22.—**Barnstaple.**—ROADS.—Supply of hired steam rollers to the Devon C.C. Mr. R. M. Stone, County Surveyor, Northern Division, Barnstaple.

AUGUST 22.—**Leadgate.**—ROADS.—Strengthening and resurfacing of 1,150 yds. of Class I road, at East Castle, for the U.D.C. Mr. Albert Johnson, Surveyor, Council Office, Leadgate.

AUGUST 22.—**Limerick.**—PAVING.—For paving about 36,166 sq. yds. of roadways with reinforced concrete 7 in. thick, 5,102 sq. yds. with re-dressed granite setts, and 4,974 sq. yds. with new granite setts, for the T.C. Mr. J. J. Peacocke, City Surveyor, Town Hall, Limerick. Deposit £2.

AUGUST 22.—**Stainland.**—SEWER.—Provision and laying of about 170 lin. yds. of 9 in. pipe sewer, for the U.D.C. Mr. H. Edgar Moses, Surveyor, Council Offices, Stainland.

AUGUST 25.—**Isle of Thanet.**—SEWER.—For laying sewer for the R.D.C. at Westgate-on-Sea. Surveyor, Offices, Birchington.

AUGUST 25.—**Middlewich.**—WATER WORKS.—(1) New borehole; (2) extension of pumping station buildings; (3) new pumping plant, for the U.D.C. Mr. F. W. Stocks, Engineer, Town Hall, Middlewich. Deposit £2 2s.

AUGUST 25.—**Newbury.**—ROADS.—For re-surfacing of Andover-road, for the T.C. Borough Engineer, Municipal Buildings, Newbury.

AUGUST 25.—**Southgate.**—SEWER.—Construction of surface water sewer and foul sewer, for the U.D.C. Mr. R. Phillips, Surveyor, Town Hall, Palmers Green, N.

AUGUST 27.—**Bishop Auckland.**—SEWER.—Construction of about 2,000 yards of 12 in. and 9 in. stoneware pipe sewer. Messrs. Willcox & Raikes, Union Chambers, 63, Temple-row, Birmingham. Deposit £5 5s.

AUGUST 28.—**Bradford.**—SANITARY.—For clearing of middens, &c., in Tong Village and North Bierley and Dile districts, for one year. Mr. Call, Superintendent, Hammerton-street Depot, Bradford.

AUGUST 28.—**Glasgow.**—ROADS.—Construction of roads and sewers at Cathcart-road, for the T.C. Mr. J. Lindsay, Town Clerk, Glasgow.

AUGUST 28.—**London.**—ROADS.—For the formation of roads and paths at the Camberwell Housing Scheme, Surrey-avenue, Denmark-hill, S.E., for H.M. Office of Works, Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit, £1 1s.

AUGUST 28.—**Thorne.**—SEWERS.—Construction of 2,850 lin. yds. of pipe sewers, from 9 in. diameter to 18 in., Bamster, in parish of Stainforth, for the R.D.C. Mr. E. J. Silcock, 10, Park-row, Leeds. Deposit £5.

✱AUGUST 29.—**London, S.W. 17.**—TAR PAVING.—Providing and laying tar paving to paths, &c., at Tooting Bec Mental Hospital extensions, Church-lane, S.W. 17, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

AUGUST 31.—**York.**—ROADS.—For making up seven streets, for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £1 1s.

SEPTEMBER 1.—**Chapel-en-le-Frith.**—SEWAGE WORKS, —For construction of sewage disposal works at Bamford, for the R.D.C. Messrs. Brady & Partington, Engineers, Town Hall, Chapel-en-le-Frith. Deposit £5.

SEPTEMBER 1.—**Langton Matravers.**—ROADS.—Widening and resurfacing of the "Valley-road," Langton Matravers, about 3½ miles in length, for the Dorset C.C. Mr. W. T. Fletcher, County Surveyor, County Offices, Dorchester. Deposit £2 2s.

SEPTEMBER 1.—**West Riding of Yorkshire.**—ROADS.—For various road works in the districts of Saddleworth, Stanley, Birstall, Castleford, and Pontefract, for the C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

SEPTEMBER 3.—**Hammersmith.**—MATERIALS, &C.—Supply of stores and materials to the B.C. for six months. Borough Engineer, Town Hall, Hammersmith, W.

SEPTEMBER 3.—**Mitcham.**—ROADS.—For the making-up of Lewis-road, for the U.D.C. Surveyor's Office, Broadway House, London-road, Lower Mitcham.

SEPTEMBER 3.—**Stirling.**—ROADS.—Re-surfacing of the roadway from Larbert Cross to Carron Iron Works with clinker or slag asphaltic macadam, for the C.C. Mr. Alexander Lindsay, Joint Road Surveyor, District Office, Falkirk.

SEPTEMBER 3.—**Uckfield.**—SEWAGE WORKS.—Construction of sewerage and sewage disposal works at Waldron, for the R.D.C. Mr. J. Taylor, Henley House, Uckfield. Deposit £3 3s.

SEPTEMBER 7.—**Barnsley.**—ROADS.—For private improvement works at Henshall-street, Milnes-street, and two back roads, for the T.C. Borough Engineer, Barnsley.

Competitions.

(*See Competition News, page 240.*)

Auction Sales, Tenders, etc.

AUGUST 21.—**London, S.W.**—Messrs. Veryard & Yates will sell, without reserve, at 255, Clapham-road, S.W. (close to "Swan," Stockwell), timber, fittings and building materials arising from demolition of a commodious residence. Auctioneers, 365, Norwood-road, S.E.27.

AUGUST 21, 22 AND 23.—**Eltham.**—Mr. F. H. Clark will sell, without reserve, timbers and materials contained in the Women's Hostels, Well Hall-road. Auctioneer, Railway Wharf, York-road, Wandsworth.

AUGUST 23.—**London, E.C.**—Messrs. B. Norman & Son will sell re Chinns, Ltd., in liquidation, by order of the liquidator, removed from 7, Waithman-street Ludgate-hill, for convenience of sale. Valuable London stock of brasswork, &c., plate-glass showcases, mirrors, office furniture. Auctioneers' Sales Rooms, 5, Little Britain (close to G.P.O.).

✱AUGUST 23.—**London, W.C.1.**—Messrs. Henry Butcher & Co. will sell, at the Auction Rooms, 13, High Holborn, W.C.1, an assortment of new and partly used tools and stores, comprising 1,250 stonebreakers, and boiler-makers' hammers, 400 assorted 10-lb. sledge hammers, &c. Auctioneers, 63 and 64, Chancery lane, London, W.C.2.

SEPTEMBER 4, 5, AND 6.—**Sussex.**—Mr. F. H. Clark will sell, without reserve, the whole of the huts and building material contained in South Camp, Seaford, Sussex. Auctioneer, Railway Wharf, York-road, Wandsworth.

Public Appointments.

AUGUST 20.—**Lambeth, S.W.2.**—Junior Engineering Assistant required in the Borough Engineer's Department by the Metropolitan Borough of Lambeth Council. Mr. Bruce Penny, Town Clerk, Lambeth Town Hall, Brixton Hill, S.W.2.

AUGUST 20.—**Stoke-on-Trent.**—Competent Temporary General Architectural Assistant required by the County Borough of Stoke-on-Trent. Mr. A. Burton, Borough Surveyor, Town Hall, Stoke-on-Trent.

AUGUST 20.—**East Ham, E.6.**—Clerk of Works required to supervise the erection of extension to the Town Hall and Public Offices by the Town Council of the County Borough of East Ham. The Borough Engineer, Town Hall, East Ham, E.6.

✱AUGUST 28.—**Dorset.**—TEMPORARY ARCHITECTURAL ASSISTANT.—Temporary architectural assistant for general county work by the Dorset C.C. County Architect's Department. Mr. E. A. Ffooks, Clerk to the County Council, County Offices, Dorchester.

SEPTEMBER 3.—**Middlesex.**—Architect or Building Surveyor required by the Justices of the Gore Division of Middlesex to examine the plans of alterations, &c., proposed in licensed premises, and to advise them thereon. The Clerk to the Justices, Edgware, by enclosing a stamped addressed envelope.

PATENTS.*

APPLICATIONS PUBLISHED.*

198,899.—W. G. Chambers: Windows.

198,924.—G. A. Edman: Fireplace frames.

198,928.—W. Bell: Removable and adjustable frieze or moulding for spanning passages and recesses.

198,930.—F. W. Mellowes, H. Hall and G. Gibson: Glazing.

187,936.—L. Ottinger: Latches.

198,036.—G. Jones and G. F. Davis: Fasteners for windows and doors.

198,074.—E. S. Shoults: Knock-down or portable shelves.

198,082.—A. Ramsay and H. B. Perry: Fowl-houses and the like.

198,084.—A. M. Tucker: Weight-indicating devices, more particularly for use with well-drilling apparatus.

176,794.—P. O. Abbe, Inc.: Manufacture of paints.

198,108.—J. M. Tourtel and L. Johnston: Master-keyed locks.

198,129.—J. T. Haslam: Concrete mixers.

198,130.—D. Forsyth and W. Cook & Sons (Glasgow), Ltd.: Circular saws.

198,152.—A. Mackinnon: Windows.

198,154.—C. Harrison and W. Harrison: Method of and apparatus for the cutting, shaping and moulding of stone.

198,161.—B. Heffer: Concrete pipe-making machines.

198,162.—J. Legge and W. H. Legge: Locks and latches.

198,176.—E. E. Hall: Suspended ceilings.

198,181.—F. J. B. Standerwick and H. Stevenson & Sons, Ltd.: Boxes.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge. £ s. d.

Best Stocks 4 2 0
Second Hard Stocks 3 17 0

Per 1,000. Delivered at London Goods Stations.

Flettons, at King's Cross £ 2 s. 13 d. 3
Do. grooved for plaster 2 15 3
Do. Bullnose .. 3 8 3
Best Stourbridge Fire brick :—
2½ in. 11 3 0
3 in. 13 2 0

Glazed Bricks—

	£ s. d.		£ s. d.
Best White Ivory, and Salt Glazed Stretchers ..	22 0 0	Best Blue Pressed Staffs.	9 11 6
Headers	21 10 0	Do. Bullnose ..	10 1 6
Quoins. Bullnose and 4½in. Flats	28 10 0	Blue Wire Cuts	7 11 6
		D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends ..	31 10 0
		Two Sides and one End	32 10 0
		Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. "	2 5	4 in. "	3 7

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	" "
Thames Sand	15 6	" "
Best Washed Sand.....	15 6	" "
½ in. Shingle for Ferro-Concrete	14 0	" "
¼ in. "	15 0	" "
½ in. Broken Brick.....	10 6	" "
Pan Breeze	5 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6
51/- alongside at Vauxhall in 80-ton lots.
Ferrocrete per ton extra on above..... 0 10 0
Super Cement 4 8 0
Roman Cement 8 15 0
Parian Cement 5 13 0
Keene's Cement, White..... 5 8 0
" " Pink 5 3 0
Plaster, Coarse, Pink 3 0 0
" " White 3 12 6
" Fine 5 12 0
Sirapite, Coarse 3 9 6
" Finish 3 17 6
Grey Stone Lime 2 10 9
Chalk Lime 2 10 9
Best Ground Blue Lias Lime..... 2 13 6
Hair 17 0 0
Granite Chippings 1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.
Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube..... s. d. 2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube..... 2 11½
PORTLAND STONE—
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube..... 4 4
Do. do. delivered on road wagons at above stations, per ft. cube..... 4 5
White basebed, 3d. per ft. cube extra.
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.
HOPTON-WOOD STONE.
Delivered at any Goods Station, London.
Small random blocks, up to 10 ft. cube. Per ft. cube 7/-
Random blocks from 10 ft. and over " 17/-
Sawn two sides ..... " 27/-
Sawn three or four sides ..... " 32/-
YORK STONE, BLUE—*Robin Hood Quality.*
Delivered at any Goods Station London. s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.).....Per Ft. Super 5 3
6 in. rubbed two sides, ditto..... " 5 9
3 in. sawn two sides slabs (random sizes) " 2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) ..... " 1 5½
1½ in. to 2 in. ditto, ditto ..... " 1 3
HARD YORK—
Delivered at any Goods Station London.
Scappled random blocks.....Per Ft. Cube 5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.).....Per Ft. Super 5 4½
6 in. rubbed two sides ditto ..... " 6 0½
4 in. sawn two sides slabs (random sizes) " 2 10
3 in. ditto. ditto " 2 5
2 in. self-faced random flags..Per Yard Super 7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads. s. d.
Plain ..... per ft. cube 6 6
Moulded ..... " " 7 9
Cills ..... " " 8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	.... £34 0	3 × 6	.... 225 0
4 × 9	.... 34 0	3 × 11	.... 34 0
4 × 8	.... 28 0	2 × 11	.... 34 0
4 × 7	.... 26 0	3 × 9	.... 32 0
3 × 8	.... 26 0	2½ × 9	.... 32 0
3 × 7	.... 25 0	3 × 4½	.... 24 0
2½ × 7	.... 24 10	3 × 4	.... 24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11 .... £38 10 1 × 9 .... £36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅞	20/-	1¼	33/6
⅞	23/-	1½	38/6
1	25/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	25/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅛	17/6
¼	22/-
½	26/-

BATTENS

Inches	s. d.
¾ × 2	2 4 per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¼ in. do. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 6	to	0	4 0
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube ..	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt. ..	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12.....	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9.....	18 12 6
22 by 11.....	31 5 0	16 by 10	17 12 6
20 by 12.....	29 15 0	16 by 8	13 15 0
20 by 10.....	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or	5 7 6
Staffordshire district	5 12 6
Ditto hand made ditto	5 17 6
Ornamental ditto	0 9 6
Hip and valley tiles (per dozen) Hand made	0 9 0
Machine made	

METALS.

JOISTS, GIRDERS, &C., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
" Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	16 10 0	⅝ in. to ⅞ in...	13 10 0
⅜ in.	14 10 0	1 in. to 2¾ in...	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¼	3½d.
4 in.	1/4	1/1¾	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7¾	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &C.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles, s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.	£ s. d.
Common Bars.....	14 0 0 to	15 0 0
affordshire Crown Bars—good merchant quality	14 10 0 ..	15 10 0
Staffordshire "Marked Bars"	17 0 0 ..	18 0 0
Mild Steel Bars	13 10 0 ..	14 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 10 0 ..		14 10 0
Hoop iron, basis price	16 10 0 ..		17 10 0
" Galvanised	31 0 0 ..		32 0 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g...	15 10 0 ..		16 10 0
" " " 24 g...	16 10 0 ..		17 10 0
" " " 26 g...	18 10 0 ..		19 10 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g...	21 10 0 ..		22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.....	22 10 0 ..		23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g...	24 10 0 ..		26 10 0
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0 ..		22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0 ..		22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0 ..		24 10 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker ..	23 10 0 ..		24 10 0
Best Soft Steel Sheets, 22 g. and 24 g. ..	24 10 0 ..		26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0 ..		27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	21 10 0 ..		23 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.) £ s. d.

LEAD—Sheet, English, 4 lb. and up	34 0 0 ..		—
Pipe in coils	34 10 0 ..		—
Soil Pipe	37 0 0 ..		—
Compo pipe	38 0 0 ..		—

NOTE—Country delivery, 30s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton	21 10 0 ..		—
Do., ex country, carriage forward ..... per ton	22 10 0 ..		—

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1½ in.	1¾ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES. S.F.

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps ..	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps ..	35/-	45/-	66/-	126/- "

COPPER—	£ s. d.	
Strong Sheet ....per lb.	0 2 3 ..	—
Thin " .... "	0 2 4 ..	—
Copper nails .... "	0 2 3 ..	—
Copper wire .... "	0 2 4 ..	—
TIN—English Ingots "	0 2 0 ..	—
SOLDER—Plumbers' "	0 0 11 ..	—
Tinmen's ..... "	0 1 1 ..	—
Blowpipe ..... "	0 1 3 ..	—

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes .....per gallon	0 3
" " " in barrels .... "	0 3
" " " in drums .... "	0 3 1
Boiled " " in barrels .... "	0 4
" " " in drums .... "	0 4
Turpentine in barrels ..... "	0 6
" in drums (10 gall.) .. "	0 6
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	55 10

GENUINE WHITE LEAD PAINT—
"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots.....per ton delivered 77 0
Red Lead, Dry (packages extra)....per ton 42 0
Best Linseed Oil Putty.....per cwt. 0 16
Filoco.....per cwt. 0 15
Size. XD Quality.....fkn. 0 3

[*Concluded on next page.*]

* The information given on this page has be specially compiled for THE BUILDER and is copyrigh Our aim in this list is to give, as far as possible, t *average* prices of materials, not necessarily the high or lowest. Quality and quantity obviously affe prices—a fact which should be remembered by the who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft
15 oz. fourths	3½d.	32 oz. fourths.....	8½d
15 „ thirds	4½d.	32 „ thirds.....	10½d.
21 „ fourths	5d.	Obscured Sheet, 15oz.	4d.
21 „ thirds	6½d.	21 „	5½d.
26 „ fourths	6d.	Fluted 15oz. 6½d. 21oz.	9½d.
26 „ thirds.....	7½d.	En'lled 15 „ 5½d., 21 „	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4½d.
3/16 Rough rolled	5½d.
¼ Rough rolled	5½d
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white.....	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.	Per gallon.	£	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Copal Carriage	ditto	1	4	0
Best ditto.....	ditto	1	12	0
Floor Varnish.....	Inside	0	18	0
Fine Pale Paper	ditto	0	18	0
Fine Copal Cabinet	ditto	1	2	6
Fine Copal flatting	ditto	1	0	6
Hard drying Oak	ditto	0	18	0
Fine Hard drying Oak	ditto	0	19	0
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	2	0
Best ditto	ditto	1	12	0
Best Japan Gold Size.....		0	12	0
Best Black Japan.....		0	12	0
Oak and Mahogany Stain (water).....		0	12	0
Brunswick Black.....		0	9	0
Berlin Black.....		0	14	0
Knotting (patent)		1	5	0
French and Brush Polish.....		0	17	6
Liquid Dryers in Terebine.....		0	9	0
Cuirass Black Enamel.....		0	7	0

HEAVY TRAFFIC AND VIBRATION.

Writing with reference to a paragraph in our issue of July 27, the Thames Paper Co., Ltd., of Purfleet, Essex, state:

"There is constantly accumulating evidence that the ordinary plaster ceiling will not withstand the disintegrating effects of vibration inseparable from the modern conditions. Basing one's assumption on the number of cases of falling ceilings which are reported in the columns of the Press, it seems obvious that the fall of plaster ceilings is a frequent occurrence, and in many cases more or less serious injury results. The trouble is by no means limited to old property, for it seems that a great many of the subsidy houses erected during the last two or three years have defective ceilings. In some cases practically all the houses on an estate are suffering from the defect. It will be said by some, no doubt, that this is the result of hurried workmanship and is not due to the method, and while it might perhaps be admitted that many of these houses were put up under difficulties, at the same time the trouble is so general that it indicates an inherent weakness in plaster ceilings. In any event the shortage of really skilled plasterers is a factor to be reckoned with, whilst the increased amount of vibration to which you allude in your article as a result of the increase in mechanically propelled traffic is something which ought not to be overlooked. All these indications seem to point to the necessity for revising the methods of ceiling construction. By the use of a good wallboard the danger of falling ceilings is entirely obviated. This material is easily and quickly fixed, and with the exercise of ordinary care and attention to the simple precautions that experience has shown to be necessary, satisfactory ceilings, that are, to all intents and purposes, permanent under the most severe conditions of vibration, will be secured."

DONCASTER STREET IMPROVEMENTS.

Mr. J. D. Wallis, Official Arbitrator, at Doncaster, heard the case of the Doncaster Corporation and the Doncaster Co-operative and Industrial Society, Ltd., concerning the Corporation's acquisition for the purpose of street improvements, of land, shop and premises, known as No. 58, St. Sepulchre Gate, Doncaster.

Mr. Jardine, for claimants, handed in the notice to treat and particulars of the claim, dated March 2, 1914, for £4,456. He said this claim was binding upon the claimants, but, as the notice to treat was served nine years ago, the property had an increased value to-day. The Co-operative Society, in consequence of the notice to treat, had bought other and larger premises on April 15, 1914, at the corner of Printing Office-street and St. Sepulchre Gate, for £8,000, and spent £4,224, between 1911 and 1923, on extensions. They continued trading at 58, St. Sepulchre Gate until June, 1914, and between then and September, 1914, the removal took place. For the remainder of 1914 they traded at the new premises and had the old premises on their hands. The Corporation took possession of the old premises on January 1, 1915. They bought the premises, No. 58, St. Sepulchre Gate on June 24, 1911, for £2,900, and they spent £605 on them. Their valuation of the property was now £4,500.

Mr. T. H. Johnson, architect and surveyor, Doncaster, giving evidence for the claimants, said that 58, St. Sepulchre Gate was one of the best business positions in the town. His valuation was £4,532. The rental value before the war was, in his opinion, £250.

In cross-examination by Mr. Schofield (counsel for the Corporation), Mr. Johnson said the new site was a better one. The price paid for that was £24 a yard with costs.

On behalf of the Corporation, Mr. Wm. Dawson, valuer, of Doncaster, submitted a valuation of £3,137 10s. He said he should take the site value of the new premises in 1914 at £20 a yard. The site value of the old premises in 1914 he would put at £15 a yard.

Mr. Sept. Hedley, valuer, of Sunderland, also giving evidence for the Corporation, submitted a valuation of £3,257.

The Official Arbitrator, who reserved his decision, has since awarded that the acquiring authority is to pay the owners the sum of £3,780 as purchase money and compensation, and the fees on the award, and £50 towards the costs of the owners.

NEW BUILDINGS IN SCOTLAND.

Leven.—Houses.—The T.C. is informed that the Board of Health is prepared to advance an annual payment of £432 for the municipal housing scheme, which, it is estimated, will enable the Council to build 60 houses—30 immediately.

Greenock.—Houses.—The Corporation proposes to erect 150 houses along a new street to be formed between Peat-road and Gateside.

Dundee.—Baths.—At a meeting of the T.C. held recently it was reported that the Baths Department required £5,000 for repairing the baths and washhouses.

Cove.—Church Renovations.—Efforts are being made to raise £1,500 for the renovation of the organ, the enlargement of the church hall, and the redecoration of the interior of the Cove and Killcreggan United Free Church.

Dunbar.—Houses.—The T.C. has been notified that estimates for the erection of 12 houses in Belhaven-road, under the Board of Health housing scheme, have been accepted. Under the original scheme the number of houses to be erected was 50.

Prestwick.—Houses.—The Dean of Guild Court has passed the following plans: Twenty-one houses in Mansfield-road, for Mr. D. Alexander; four houses in Bank-street, for Mr. J. McG. Owen, at an estimated cost of £2,600; Mrs. McKie, a house in St. Quivox-road, at an estimated cost of £1,500; Miss M. W. Gardiner, a house in Ayr-road, at a cost of £875; and Mr. T. Howie, a garage at "St. Ninians," at a cost of £145.

Oban.—Hall.—The Dean of Guild Court has passed plans for a hall in connection with the St. Columba Roman Catholic Pro-Cathedral, with seating accommodation for 352 people.

Dennistoun. — Villa. — Mrs. D. Herbert, Whitehill-gardens, Dennistoun, has presented plans for the erection of a two-story villa on the south side of Victoria-road.

Mossvale.—Houses.—The Lower Ward Committee of the County of Lanark has passed plans for two semi-detached houses for Mr. Hugh Cleland, Drumcavil-road, Mossvale, Chryston, near Glasgow.

Bonnyrigg.—Tenement.—The T.C. is erecting a tenement of from 20 to 24 houses, and have appointed Mr. Gray, architect, to carry out the scheme.

NEW COMPANIES.

The particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C. 2, from the documents available at the Companies' Regi try.

Grip Block Building Co., Ltd. (191,273). Registered July 12. Cranmore, Yarmouth, Isle of Wight. Builders, contractors, manufacturers, artificial stone manufacturers, &c. Nominal capital, £1,000.

J. Penzer, Ltd. (191,220). Registered July 10. Builders' merchants, &c. Nominal capital, £1,000.

Moor Park Gardens, Ltd. (191,197). Registered July 9. 36, New Broad-street, E.C. 2. Builders of flats and other residential buildings. Minimum subscribers, 7 shares. Nominal capital, £6,000.

Associated Paint Manufacturers, Ltd. (191,171). Registered July 7. To manufacture sell and deal in paints, oils, colours, &c. Nominal capital, £5,000.

H. Howard Edwards & Co., Ltd. (191,508). Registered July 24. To carry on the business of builders and contractors. Nominal capital, £1,000.

A. E. Simms, Ltd. (191,545). Registered July 26. 7, Upper Heath-road, St. Albans, Herts. Builders and contractors, wood and stone carvers, shop fitters, sanitary engineers and decorators, heretofore carried on at St. Albans under the style of A. E. Simms. Nominal capital, £1,000.

Gleave & Co., Ltd. (191,507). Registered July 24. Tile merchants, now carried on by Herbert Leigh Gleave and John Henry Ashworth at New-road, Blackpool, under the style of Gleave & Co. Nominal capital, £4,000.

F. Lewtas, Ltd. (191,481). Registered July 23. Plumber and contractor, now carried on by Fred. Lewtas at Tanners-lane, Pendleton, Lancaster. Nominal capital, £5,000.

Cook & Hooper, Ltd. (191,452). Registered July 20. 21, Orchard-street, Bristol. Builders, contractors and merchants, now carried on by Herbert Sales Cook and Harold William Percival Hooper in Bristol, under the style of Cook & Hooper. Nominal capital, £2,000.

George Green (Beckenham), Ltd. (191,421). Registered July 19. Dashwood House, New Broad-street, E.C.2. House agents, builders and contractors, &c. Nominal capital, £1,000.

John Tomlinson, Ltd. (191,425). Registered July 19. Builders and contractors and British and foreign timber merchants, now carried on by Thomas Withnell, James Withnell, Edward Withnell, and Albert Cottam, at Towngate, Leyland, Lancaster, under the style of John Tomlinson. Nominal capital, £10,000.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	„ „	1	0
Add for every additional depth of 6 ft.	„ „	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	„ „	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0	
Add if in underpinning in short lengths	„ „	7	6	
Add if in floors 6 in. thick	„ „	3	6	
Add if in beams	„ „	4	0	
Add if aggregate 1 : 2: 4	„ „	10	0	
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	„ „	3	3	

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	„	7	10	0
Add if in Staffordshire blues	„	22	0	0
Add if in Portland cement and sand	„	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	„ „	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	„ „	0	0	10
Axed in stocks	„ „	0	1	9
Rubbed and gauged jointed in putty camber or segmental	„ „	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	„ „	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	„	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	„ „	9	0
½ inch on flats in two thicknesses	„ „	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	„ „	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	„ „	21	6
Bath stone and all labour fixed	„ „	10	6
Portland stone fixed	„ „	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9	
Do. 20 in. × 10 in. Do. Do.	„	80	9	
Do. 24 in. × 12 in. Do. Do.	„	90	0	

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3	
Do. joists	„ „	5	9	
Do. roofs, floors and partitions	„ „	6	3	
Do. trusses	„ „	8	3	

		¾″	1″	1¼″	2″
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	„	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	„	1	6
Gutter boards and bearers	„	1	0

FLOORING.		¾″	1″	1¼″	1½″
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	„		54/-	65/-	72/-
Do. matchings	„	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	„ „	2	1
Add for fitting and fixing	„ „	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	„ „	3	9

DOORS.		1½″	1¾″	2″
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	„	2/5	2/8	2/11
Two-panel moulded both sides	„	2/8	2/11	3/2
Four-panel Do. Do.	„	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1″	1½″	1¾″
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	„	1/5	1/7	1/10
Add if cross tongued	„	2d.	2d.	2d.

STAIRCASES.	1″	1¼″	1½″	2″	2½″
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	„ „	6	0
Add if ramped	„ „	11	10
Add if wreathed	„ „	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	„	20	0
Do. stanchions	„	23	0
In roof work	„	28	0

RAIN-WATER GOODS.

		3″	4″	5″	6″
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	„	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	„	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	„	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	„	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	51	0
Do. Do. in flats	„	49	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	„ „	1	6
Copper nailing	„ „	0	6

		½″	¾″	1″	1½″	2″	4″
Drawn lead waste	per ft. run	10d.	1/6	1/9	3/1	3/10	
Do. service	„	1/5	1/11	2/3	3/6		
Do. soil	„						6/2
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	„	1/2	1/8	2/1	2/10	3/6	
Red lead joints	„	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	„	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	„				14/7	19/6	
Bib cocks and joints	„	6/4	9/7	15/4	41/-		
Stop cocks and joints	„	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	„ „	2	6
Do. Do. Keen's	„ „	3	6
Add sawn lathing	„ „	1	5
Add metal lathing	„ „	2	3
Portland cement screed	„ „	1	10
Do. plain face	„ „	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

21 oz. sheet plain	per foot sup.	0	9	
26 oz. Do.	„ „	1	1	
Obscured sheet	„ „	1	3	
⅛ in. rolled plate	„ „	0	9	
¼ in. rough rolled or cast plate	„ „	0	11	
¼ in. wired cast plate	„ „	1	5	

PAINTER.

Preparing and distempering, 2 coats	per yard sup.	0	9	
Knotting and priming	„ „	0	7	
Plain painting 1 coat	„ „	0	9	
Do. 2 coats	„ „	1	2	
Do. 3 coats	„ „	1	9	
Do. 4 coats	„ „	2	4	
Graining	„ „	2	3	
Varnishing twice	„ „	1	9	
Sizing	„ „	0	3	
Flatting	„ „	0	7	
Enamel	„ „	1	1	
Wax polishing	per foot sup.	0	6	
French polishing	„ „	1	2	
Preparing for and hanging paper	per piece	2/- to	4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1¼ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERDEEN.—Plans passed: Dwelling-house and garage on the east side of Royfold-crescent, for the Misses Isabella and Jemima Reid, per Messrs. Brown & Watt, architects; alterations at Gray's School of Art, Schoolhill, for the Governors of Robert Gordon's Technical College, per Mr. R. L. Rollo, architect; garage, 25, Fonthill-terrace, for Dr. Theodore Shennan, per Messrs. D. & J. R. M'Millan, architects; two garages, Hope-street, for Mr. Edward Reid and Mr. Frank J. Whitehead, per Messrs. Sutherland & George, architects; garage and store, 39, Carlton-place, for Mr. Andrew Stott, per Mr. G. Bennett Mitchell, architect; garage, 1, Woodstock-road, for Mr. Robert M. Smith; garage, 46–48, Whitehall-road, for Miss M. Moss; alterations and additions, 34, Queen's-road, for Mr. J. H. Coutts, per Mr. A. H. L. Mackinnon, architect; golf club-house, for the Northern Golf Club, per Mr. William E. Gould, architect.

ABER VALLEY.—A welfare scheme by joint action of colliery companies, colliers and Miners' Welfare Grants Committee, involving an expenditure of £5,000 in constructive and ground lay-out work, has been framed for Aber Valley (Glam.); and Councillor William Morgan, miners' agent, has been elected secretary of committee.

ACCRINGTON.—The Accrington Co-operative Society, Ltd., propose to erect a new store and 11 houses on the Laneside Estate.

ALNWICK.—Plans passed by R.D.C.:—Bungalow, Usher-lane, Alnmouth; garage at Newton-on-the-Moor; house near Shilbottle.

ALSAGER.—Structural alterations are proposed at the "Alsager Arms" Hotel, for Mr. W. Brocksbank.

AMMANFORD.—Grant of £1,994 towards improvement of Wind-street has been received by the U.D.C., and work is to be put in hand.——The U.D.C. has decided to demolish old buildings in Pentwyn-road and improve the corner, and is treating with church authorities and Bethany Chapel trustees for sanction to take back boundary walls for alignment of road.——The miners' lodges are treating for a site to build new public hall and library under Miners' Welfare scheme.

ANDOVER.—The Southampton C.C. proposes providing a new secondary school for girls at an estimated cost of £11,300.

ASHTON-UNDER-LYNE.—The Education Committee have instructed Messrs. John Eaton, Sons, & Cantrill, architects, Stamford-street, to prepare plans for the erection of a two-story school with accommodation for 600 children; also to submit an estimate of cost for a one-story building of a type suggested by the Board of Education. The T.C. has decided to erect 19 shops outside the market in Bow-street and Market-street, and have given permission to the Markets Committee to appoint an architect to prepare plans and estimates.

BACUP.—The T.C. has decided to purchase the Heath Hill estate, Stacksteads, and have given instructions to the builder to proceed with the erection of a further 20 houses of the parlour type.

BASINGSTOKE.—Lord Bolton, of Hackwood Park Basingstoke, has initiated a scheme to relieve the housing difficulty. In order to facilitate the building of houses for the working classes he has allotted plots on four of the main roads leading out of Basingstoke, and convenient of access to the centre of the town. The sites each cover about a quarter of an acre, and are on roads which are already sewered, and have water, gas, and electricity services. These sites will be allotted to working men in the district desirous of acquiring their own freehold, and payments will be arranged on the deferred system. They are being rapidly acquired, and the scheme is so popular that it is believed the housing difficulty in the district will be fully met by Lord Bolton's liberality and enterprise.

BATLEY.—Plans passed: Handsome new offices at Lakeridge Mills, Blakeridge-lane, for Messrs. J. T. & J. Taylor, Ltd.; house at Norfolk-avenue, Carlton Grange, for Mr. B. H. Childs; two houses at Norfolk-avenue, Carlton Grange, for Messrs. G. & J. Mortimer, Ltd.; house and shop, Mill-lane, Hanging Heaton, for Mrs. Wood; and additions to premises in Town-street, Batley Carr, for Messrs. M. Watssmann & Son, Ltd.

BENTLEY.—Mr. M. G. Weekes, Inspector of the Ministry of Health, has conducted an enquiry into the application by the U.D.C. for permission to borrow £4,350 for the purpose of sewage works extension at Oaksey-lane.

BIRKENSHAW.—Plans passed: Two houses, for Mr. Jackson Foster; two houses for Messrs. Jowitt & Haylshon; and new cowshed at Miazebrook, for Mr. Wigglesworth.

BISHOPS STORTFORD.—Plans passed by U.D.C.:—Extension to maltings, Dane-street, for Messrs. Bennes; house, London-road, for Mr. Stevens.

BLACKBURN.—The Corporation have received sanction to proceed with the completion of the new arterial road from Brown Hill to Whalley Old-road, the work to be carried through by direct labour in relief of unemployment. Sanction has also been received for the erection of 97 dwellings on the Intack Estate, some of which will be flats. It is the intention of the Corporation to invite tenders for the erection of 36 of the houses. The Corporation have applied for sanction to borrow £30,000 for extensions to the five retorts at the Greenbank Gas Works, and the installation of twelve waste heat boilers.

BLACKLEY.—Messrs. W. Johnson & Son, architects, Oldham-road. Miles Platting, are preparing plans for a detached house in Polefield-road, for Mr. G. J. Irving.

BLACKPOOL.—Messrs. Owen & Co., builders, 16, Talbot-street, Moss Side, Manchester, have secured a site in Cavendish-road, Bispham, to erect a detached and semi-detached houses, brick-built, slated or tiled roofs. Rough-cast and half-timbered, containing two reception rooms, kitchen scullery on ground floor, four bedrooms, bath-room, &c., on first floor, coal cellar and larder in basement, with labour-saving fittings. Work is to be commenced immediately.

BOGNOR.—The proposal of the U.D.C. to borrow a further sum of £5,000 for sewerage works, and £1,800 for an improvement of the roadway and promenade, has been before an inspector of the Ministry of Health (Mr. P. M. Croothwaite) at a local inquiry.

BOLTON.—Plans have been approved for structural alterations to the "Sir Sidney Smith," Bridgeman-street, and the "Bee Hive" Inn, Duke-street.

BRADFORD.—The erection of an infirmary at Daisy Hill is being considered. An offer of £100,000 has been made for the present premises for conversion into municipal offices. The B.G. has consented to the provision at the Daisy-hill Institution of a new entrance-lodge and attendant's residence, a stable, and extension of the dining-hall, at a cost not exceeding £2,650, and to the application of a portion of the proceeds of the sale of the Eastby Sanatorium for the purpose of defraying the aforesaid expenditure.

BRADSHAW.—The Parochial Council of Bradshaw propose to erect a memorial to the late Rev. R. J. Judson, M.A., in the form of a reredos carved in wood. It has been designed by Messrs. Bradshaw, Gass, & Hope, architects, 19, Silverwell-street, Bolton. The estimated cost is £200 to £250.

BRAMHALL.—Plans passed by the D.C.: Four houses, Nevill-road, for Messrs. Oakes & Kidd; shop and house, Buxton-road, for Messrs. Bancroft & Pixton; house, Douglas-road, for Mr. J. Moss; house, Carr Wood-road, for Mr. W. G. West; house, Bosden Fold-road, for Mr. J. Smith; 34 houses, North Park-road, and Glyn-road, for Residents, Ltd.; 10 houses, Offerton-lane, for Mr. A. Frost; house, Buxton-road, for L.M.S. Railway; new roads, Midland-road and North Park-road, for Messrs. Venables; and Ladythorn-crescent, for Messrs. Brocklehurst; 6 houses, Grenville-road, for Messrs. Oldham & Hallworth; house, Offerton-lane, for Mr. W. Swann. Mr. W. H. Snow, builder, 119, King-street, Stretford, has secured a site in Moss-lane to erect residences.

BRECONSHIRE.—The County Council is to widen Glais Bridge, Pontsam, and bridge over Dulas River, at estimated costs, respectively, of £500 and £400.——The Builth Wells U.D.C. will shortly invite tenders for foundation work and lay-out in connection with the War Memorial scheme.

BRIDGEND.—The U.D.C. has passed plans for four new houses at Merthyrmawr-road for Messrs. Hitt & Morgan. The Penybont (Bridgend) R.D.C., at instance of Ministry of Health, will erect new maternity centre, estimated to cost £2,000, and has invited Bridgend U.D.C. to share scheme. The Glamorgan C.C. has notified R.D.C. of site selection for new school at Pontrhydycyff and Penybont R.D.C. is selecting site for proposed school at Pyle. Estimates submitted to Penybont Council for building of generating station at Kenfig Hill, distribution of cables, &c., in connection with proposed electricity scheme, amounting to £28,760 initial capital expenditure.

BRIERFIELD.—Plans passed by U.D.C.: For conversion of house, 26, Sackville-street, into house and lock-up shop, for Mrs. M. A. Pickles; for conversion of house, 14, Ann-street, into house and shop, for Mrs. Parker.

BROCKENHURST.—Addition to buildings at the County School are proposed by the Southampton C.C., estimated to cost £3,264.

BURNAGE.—Mr. H. M. Emery, builder, 38, Errwood-road, Levenshulme, proposes to erect shops on a site in Burnage-lane.

BURNLEY.—Plans approved at a meeting of the Improvement Committee: Two houses, Queen's-road, for Messrs. Butson, Clegg & Holdsworth; additions, Victoria Hospital, for the Board of Management; house, Barden-lane, for Mr. G. A. Jobling; alterations, 2, Lowerhouse-lane, for Mr. Herbert Draper; eight houses, Marsden-road, for Mr. W. Taylor; additions to kitchen and pay-box, Savoy Café Cinema, Manchester-road, for Messrs. Savoy (Burnley), Ltd.

BUXTON.—Plans passed by T.C.: House in St. John's-road, for Mrs. H. Wood; lavatory at the King's Head Hotel, for Messrs. Marston, Thompson & Evershed, Ltd.; gravel store in Ashwood Dale, for Mr. Norman Axe.

CAERPHILLY.—Structural alterations to the "Star" Inn, Nantgarw, are to be undertaken by the Rhondda Valleys Brewery Co., Pontypridd.

CARLISLE.—Plans passed by R.D.C.:—Mr. Stead, Dalston Hall, additional farm buildings at Low Cummersdale Farm; by Mr. H. E. Ayris, architect, Lowther-street, on behalf of Mr. F. H. Oldfield, Scotland-road, Stanwix, for a pair of semi-detached houses near Whiteclosegate.

CHARTHAM.—The Kent C.C. has decided to enlarge the asylum at a cost of £60,000 (including equipment).

CHELTENHAM.—Plans passed by T.C.:—H. Webb, alterations, 187, High-street; J. Lethbridge, additions, 27, Grosvenor-street; J. Holman, additions, 13, Great Norwood-street; Mrs. E. Courteen, house, Leckhampton-road; Miss F. Acock, house, Whaddon-lane; A. Edwards, motor house, Old Bath-road; Miss Mortlock, house Whaddon-lane; H. Greaves, motor house, Donnabate, St. George's-road; G. H. Roberts, additions to stables, Alexandra Villas, Hewlett-road; Sharpe & Fisher, Ltd., store building, Swindon-road.

CHESTER-LE-STREET.—The U.D.C. has decided to ask the Ministry of Health to sanction the erection of 250 more houses on the Council's building estate.

CRUMPSALL.—Mr. F. E. L. Harris, architect to the Co-operative Wholesale Society, Ltd., 99, Corporation-street, Manchester, has prepared plans for a detached house to be erected in Park-road, Crumpsall, for Miss E. L. Stephenson.

DARWEN.—The Health Committee recommend the T.C. to spend £2,000 on improving accommodation for nurses at Bull Hill Hospital.

DEAL.—Plans passed by T.C.:—Alterations at 12 and 14, Victoria-road; two houses in Stanhope-road, for Mr. J. Howland; two detached houses in Church-path, by Mr. G. E. Tournay.

DELPH.—It was decided to invite tenders for the erection of Council houses. Tenders had come in, but not being endorsed, they had been opened in mistake. Under the circumstances, it was decided to invite tenders in a new form.

DEWSBURY.—Plans passed by T.C.: George Benson, workshop, Edge Top-road, Thornhill; W. C. Wakefield, two bungalows, Church-lane, Thornhill; H. Burton, shed, off Wakefield-road, Chickenley; J. C. Crawshaw, additions, Holly-bank, Halifax-road; A. Barker, dwelling-house, Thornhill Cross; Warwick & Co., garage, "Waggon and Horses Inn," Chickenley Heath; G. Gallagher, addition to house, Arroyd-street; W. C. Wakefield, two houses, Deadman's-lane, Thornhill; Camroyd Motor Co., service depot, Leeds-road; Yorkshire (W.D.) Electric Tramways, Ltd., extension of motor garage, Tram Depot, Savile Town; H. Mayman, extension to "Mayville," Oxford-road; Mrs. E. A. Simpson and Mrs. B. Sterry, two dwelling-houses, Earlsheaton Common. The Technical School is to be fitted with a mining laboratory at a cost of £426.

DUKINFIELD.—Messrs. W. Kenyon & Sons, Ltd., Chapel Field Ropery, are constructing a new tennis court for the use of their employees.

DUMBARTON.—Another instance of the enterprise of Dumbarton Building Society (Limited), was given in the Dean of Guild Court when plans were presented for the erection of 21 cottages on a site fronting Silverton-avenue in the Newtown district of the burgh. The plans were passed. Each house will consist of a living-room, kitchenette, three bedrooms on upper floor, bath-room, and other conveniences, and will be electrically lit throughout. Six of the houses will be allocated to ex-Service men.

DURHAM.—Plans passed by T.C.:—Dean and Chapter, boarding-house adjoining Langley House; Co-operative Society, lavatories, &c., at Claypath.

EALING.—At its last meeting the T.C. passed plans for the erection of six new shops and nine garages in Uxbridge-road, Ealing Common, 22 lock-up garages in Elers-road, at the rear of Nos. 104–55, Northfield-avenue, 10 lock-up shops in Northfield-avenue, three houses in Carew-road, four in Tring-avenue, one in Raymond-avenue, one in Park-View-road, and one in Castlebar Park (for Sir John Young). Plans were also passed for St. James's new vestry hall, the Ealing Chamber of Commerce £1,000 house in Camborne-avenue, and the extension of Ealing Hospital.

EARSDEN.—Plans for the erection of a branch store at Castle Park, Backworth Village, by the Backworth Co-operative Society have been passed by the U.D.C.

FAILSWORTH.—Manchester Licensing Justices have approved plans for sanitary alterations to the "Bridge" Inn, for Mr. T. Barnes.

FARNHAM.—Application is to be made to the Ministry of Health by the U.D.C. for approval of a scheme for the provision of an additional 30 working-class dwellings, to contain three bedrooms each, 20 of a non-parlour and 10 of the parlour type, and to the building of two pairs of houses upon the remainder of the Weybourne site, and a block of three houses upon a site belonging to the Council fronting Ridgway Hill-road.

FISHGUARD.—A site has been obtained for a new parish hall to be built for St. Mary's Church.

FOLESHILL.—A legacy of £1,000 left by Miss Nicklin to St. Laurence's Parish Church, Foleshill, is to be devoted towards enlarging the fabric.

GLYNCORRWG.—The U.D.C. has obtained sanction to put in hand work of constructing new culvert at Abergwynfi, to cost, estimate, £2,000. The Ministry of Health is considering application of U.D.C. to undertake road and bridge widening work at Abergwynfi.

GORTON.—Messrs. Thorpe & Collin, architects, 66, Deansgate, Manchester, are preparing plans for a garage to Lonsdale House, Hyde-road, and Break Range, Gorton, for Mr. R. Ashworth, and for the conversion of house, Hydc-road and Ashwood-avenue into shop and house, for Mr. R. Dewhurst.

HAILSHAM.—Plans passed by R.D.C.:—Bungalow on Hammonds Farm, Laughton, for Mr. George Ancill; house at Stonehill, Chiddingly, for Mr. E. R. Vincent; house at Upper-street, Ninfield, for Mr. W. H. Burt; bungalow, near Beestons Farm, Warbleton, for Mr. P. G. Barrow.

HALIFAX.—The Borough Surveyor has been instructed to obtain tenders for the erection of new tramways and parcels offices on a site in Powell-street. The Corporation are seeking sanction to borrow £13,000 for the erection, and £1,400 for the land from the Ministry of Health.

HEALD GREEN.—Mr. A. Hollows, builder, 27, Elmsmere-road, Didsbury, is erecting houses on a site in Finney-lane.

HORSFORTH.—The proposed new road and bridges at Calverley have been approved by the West Riding C.C. Work is to be commenced at once; the estimated cost is about £137,000.

HOVE.—A scheme for the erection of a "luxury" pier, at a cost of £180,000, is reported nearing completion at Hove. The principal directors of the company responsible for the scheme are stated to be Sir Charles Ruthven, Sir Cecil Partridge, and Alderman S. Isger, a member of Hove Town Council. The company will be known as the Hove Pier, Theatre, and Kursaal Co.,

and the pier, 1,250 ft. long, and designed by Mr. H. Hoyne Fox, for many years chief architect and engineer to the Government of Burma, will be built of ferro-concrete on a site at the western end of the front. The scheme is to include a theatre seating 1,400 people, a kursaal, and a dance or concert hall accommodating 1,000 people. The principal floor of the kursaal is to be used as a residential club.

KINGSBURY.—The Ministry of Health has intimated to the U.D.C. that it will be prepared to approve a scheme for the erection of 24 houses. The original scheme was for 48 houses.

KNOWLE.—The Solihull magistrates have granted a provisional licence for the erection of a cinema with approximate seating accommodation for 250 persons, to John E. Chamberlain, of Knowle.

LEEDS.—The Finance and Parliamentary Committee is recommending the City Council to purchase the Chapeltown Barracks in the city for £12,000, for the purpose of utilisation under the Blind Persons Act. The buildings and estate, which cover 53,000 square yards, will be turned into hostels and workshops for the blind.——The B.G. propose erecting new offices for Armley and Bramley overseers, at an estimated cost of £2,100.

LITTLEBOROUGH.—Plans have been approved for structural alterations to the "Royal Oak" Inn, Summit.

LLANELLY.—The Electric Lighting and Traction Co. have applied for an order to extend area of supply to outside districts, and notice is given that Electricity Commissioners propose recommending order be made. ——The B.C. is to carry out extensive widening scheme of Thomas-street.——The G.W.R. Co. has notified B.C. that plans for proposed new railway station at Llanelly have now been drawn, and Directorate is to consider them: the Council expect, in consequence, work will soon be put in hand.——Hospital Management Committee was reported to B.C. to have under consideration purchase of new motor ambulance.——The B.G. is to erect a tramp ward at rear of Workhouse, at estimated cost of £2,000.

LLANHARAN.—The Trustees of Carmel Baptist Chapel are to erect new building to seat 500 people instead of present structure. Large schoolroom is to be included in scheme, the architect of which is Mr. J. H. Davies, architect and surveyor, Pontypridd.

LONDON.—The contract for the improvements at Surrey Commercial Docks, part of the Port of London Authority's £5,000,000 unemployment relief works, has been placed with the Westminster firm of Topham, Jones & Railton. The plans provide for a new dock, with a passage 80 ft. wide, within the triangle now occupied by the Canada, Centre and Quebec ponds, which will afford five additional ship-berths each 400 ft. in length.

LONDON (GREENWICH).—Drainage plans passed by B.C.:—Mr. Herbert Ashworth, for Guardians of the Greenwich Union, at premises on the Institution side of the Estate; Messrs. Wm. Mills & Sons, Ltd., at 33 to 63, Delafield-road; Wright & Handisyde, at 24, 30 and 32, Old Dover-road; Mr. George Redgrove, at Nos. 22 to 32, Winforton-street; Messrs. De Zoysa & De Zoysa, at 14, St. John's Park Mews, Blackheath; Mr. Edward Proctor, at 9, Shooters Hill-road; Mr. T. D. Leng, at Messrs. J. Stone & Co.'s premises, East side of Anchor and Hope-lane, Charlton.

LONDON (WESTMINSTER).—It is announced by Electric Railway House, Westminster, that Piccadilly-circus Underground Station is to be rebuilt. The new station, it is stated, will be about 15 ft. immediately below the circus. A broad subway under the circus, completely encircling the booking-hall, will be a feature. Seven entrances will be provided: Two on either side of Regent-street, two on either side of Messrs. Swan & Edgar's, one at the corner of Glasshouse-street, one at the corner of Shaftesbury-avenue, one at the site of the present Tube station. The proposed station will be oval in shape, with a large circulating area, from which separate escalators will connect with the Bakerloo and Piccadilly lines, thus dispensing with the present lift service. In all there will be six escalators—a record for any one station.

LONGTOWN.—Plans passed by R.D.C.:—By Mr. Foxall, architect, for Memorial Hall at Longtown; Mr. Thomas Watson, Newcastle-on-Tyne, house near Longtown; house at Stoney Gate, Nicholforest, for Mr. P. H. Holt.

LOUGHBOROUGH.—The justices have approved of plans for the rebuilding of the "Rose and Crown" Inn, for Messrs. Everard & Co.

MANCHESTER.—The authorities of the Salvation Army have secured a site on the junction of Osborne-road and Moss Brook-road, Harpurhey, where they propose to erect a new hall, estimated to cost £7,000. Accommodation will be provided for 450 adults and 350 children. No plans have yet been approved. The local secretary is Mr. E. Donaugh, 2B, New-street, Moston. A new branch bank to be erected in Ashburton-road, Trafford Park, is proposed for the London Joint City and Midland Bank. The Manchester E.C. have decided to purchase a site for a new school adjoining Gorton Mount Estate, at a cost of £1,252. The Manchester City Architect, Mr. H. Price, F.R.I.B.A., has submitted plans prepared in his department for the erection of new police headquarters on the site in Jackson's-row, owned by the Manchester Watch Committee. Sanction has been obtained to borrow £627 for re-roofing certain Heaton Park hut-ments, and instructions have been given for the work to be put in hand. The Manchester Public Health Committee are proposing a Children's Hospital at Abergele, to provide accommodation for 200 children, and application for sanction is being made to the Ministry of Health. Plan of tramway siding in Mount-street, Oldham-road, Newton Heath, approved by the Manchester City Council, and subject to the necessary consents being obtained, instructions given for the work to be carried out. The Textile Paper Tube Co., 3, York-street, Manchester, are proposing to erect a new factory on a site at Romiley, near Stockport.——Mr. A. Rangeley, architect, Killvert's Buildings, Withy-grove, Manchester, is preparing plans for alterations to printing works Mark-lane and Pump-yard, for Messrs. E. Hulton & Co., Ltd.—— Mr. N. H. Hacking, architect, 5, Blackfriars-street, Manchester, is preparing plans for a large billiard hall to be erected on a site in Upper Chorlton-road, for the Brooks's Bar Billiard Co.——Mr. E. Dawson, architect and surveyor, 49, Deansgate, Manchester, has prepared plans for additions to premises, 15, Oak-street and Copperas-street, for Mr. W. H. Meadowcroft; Mr. F. Fenn, architect, 11, Chapel Walks, Manchester, has prepared plans for alterations to premises, 30, Oldham-road, Miles Platting, for Mr. H. Bellinger; Mr. A. McDonald, architect, 71, Meadow-street, Moss Side, has prepared plans for alterations to shop premises, 85, Bury New-road, for Mr. G. Segel. ——Messrs. Rhodes & Dunseath, builders, 47, Wood-road, Whalley Range, have secured a site in College-road, for the erection of houses.

MERTHYR.—The T.C. is to start as soon as possible on sewer laying from Quaker's Yard to Troedyrhiw, and sanction to borrow £26,000 for the purpose has been sought.

MERTHYR TYDFIL.—The B.G. has decided to undertake extensions at Workhouse and installation of new heating plant, &c., at estimated cost of £13,700. Of this, erection of boiler house and laundry extension building work is estimated at £3,000, other building work and setting of boilers £2,000, and £9,900 cost of machinery and fittings.——Messrs. John Lewis, motor engineers, Merthyr and Cardiff, announce that they intend building new garage to accommodate 120 cars to replace that recently gutted by fire.

MIDDLETON.—Mr. Harrison, Borough Surveyor, has been requested to prepare provisional plans for a proposed new arterial road between Bolton and Oldham, which will concern the urban districts of Royton, Chadderton, Middleton, Prestwich, Whitefield, Radcliffe and Little Lever.

MONMOUTHSHIRE.—The County Education Committee is to build new central school at Cwmbrau, on land acquired for the purpose.——The Abersychan U.D.C. is to erect 40 houses, sanction having been obtained from the Health Ministry; the Council is to make £100 grant per house erected by private enterprise in the area.——The U.D.C. has received estimates for the electricity supply scheme for the district, showing initial expense of £15,000 on sub-station erection, plant and cables, &c.

MYNYDDISLWYN.—The U.D.C. is purchasing land for widening of Penllau-lane, and is arranging with Tredegar Estate for taking over of land adjoining Victoria-road, Fleur-de-Lis, for widening scheme.—— The U.D.C. has requested L.M. & S. Railway Co. to erect without further delay the footbridge at Pontllanfraith.——The U.D.C. has received notification of financial assistance from the Monmouthshire County Council toward cost of widening South Ward bridge, the work to shortly be put in hand.

NARBETH.—Plans passed by R.D.C.: Dwelling-house for Mr. P. George, Danlau, Llandissilio; and bungalow for Mrs. S. Janes, Temple Bar, St. Issell's.——The R.D.C. is commissioning Mr. Edward Morgan, architect, Pendine, to draw plans for two new bridges to be erected at Vicar's Mill and Maenclochog Mill.

NELSON.—The Corporation have decided to purchase a Fordson tractor and a stone-crushing machine and power plant on the recommendation of their Water Engineer; also small tipping Jubilee wagons, steel girders, and coping stone for the new road and bridge at Barley. Tenders are to be obtained for the laying of a new 18 in. main from Ridgaling to Railway-street, a distance of about 5,000 yards, and for repairs to the overflow channel at Walverden Reservoir. Tenders are to be obtained for painting six cottages belonging to the Corporation in Every-street. Application is to be made to the Ministry of Health for sanction to borrow £50,459 for renewing and relaying light railway track.——Plans passed by the Corporation: For Memorial Institute off Wickworth-street, for Messrs. J. Nelson, Ltd.; layout of portion of Scholefield Estate, for executors of Mr. G. Proctor; bungalow off Halifax-road, for Mr. J. Loxham; shop front in Market-square, for Mr. A. Ashworth; two bungalows in Barkenhouse-road, for Mr. H. Ratcliffe; additions to workshop, for Messrs. Fryer & Co.; shop front, 213, Every-street, for Mr. J. Houldsworth; offices and garages in Scotland-road, for Mr. J. Judson.

NEWPORT (MON.).—The Works Committee of B.C. are preparing road improvement schemes for early carrying out. The Newport Trades Council is urging the Corporation to dispose of housing sites to speculative builders. The Corporation has assented to British Manneswaun Tube Co. erecting 12 houses at Ysptitty-lane and has adopted plans for erection of four houses at Chepstow-road, and houses at Hubert-road and Allt-yr-yn-road.

NEWTON HEATH.—Messrs. R. & J. Dempster, Ltd., Chapter-street, Newton Heath, have had plans prepared in their drawing office for a manager's room, rest room, and lavatory accommodation as an addition to their works.

NORDEN.—The D.C. has approved a recommendation of the Improvements Committee to build new Council Offices on land adjoining the existing accommodation.

OLDHAM.—The Board of Education have approved plans for the Oldham E.C. for the erection of a new school on a site in Heron-street, with accommodation for 400 children. The building is being planned so as to provide for extensions as the need arises.

PANGBOURNE.—A pavilion is to be built at the Nautical College as a memorial to the late Mr. P. J. de Paravicini.

PEMBROKE.—Plans passed by R.D.C.: Proposed memorial hall at Castlemartin, and for bridge to be erected at Quoit's Mill.——Mr. A. J. Howell, School-house, Lamphey, has applied to R.D.C. for grant assistance towards proposed new dwelling-house to be erected for him.——The Council is applying for sanction to borrow £10,000 for road works, chief of which are: Scoveston-Milford-road, £3,750 (estimate), and Freshwater-Lamphey-road, £4,625 (estimate).

PENARTH.—Negotiations are reported to be near completion for acquisition by the U.D.C. of the pie and rights of owning company. The Council entertain repairs and rebuilding at a cost estimated at betwee £7,000 and £9,000.

PONTARDAWE.—The R.D.C. has decided to make grant of £100 in respect to each house erected b private enterprise.

PRESTON.—The Grammar School Governors hav decided on a scheme for an extension to the schoo Plans are being prepared by the Borough Surveyo Mr. J. C. Bullough, A.M.I.C.E., for an addition seven class rooms and the necessary cloak-room an lavatory accommodation. No contracts have yet bee placed.——Preston Library Committee is adoptin the "open access" system at the lending library and tenders are to be invited for the re-installa tion the electric lights and laying of floor coverin g neces sitated by these alterations.

ROCHDALE.—Plans have been approved by th Watch Committee for structural alterations to th Theatre Royal, including sanitary accommodatio which were a condition of the granting of an exci licence.

SANDBACH.—For relieving unemployment durin the winter the U.D.C. has decided to undertake th sewering of Cold Moss Heath and Back-lane, estimate to cost £1,600.

SCARBOROUGH.—At a meeting of the T.C. in com mittee, matters relating to housing were dealt with an it was decided to adopt a scheme to encourage th erection in Scarborough of houses by private enterpris under the provisions of the latest Government policy Failing the erection of houses by private enterprise th Corporation will erect them. it is proposed tha altogether 288 houses shall be built, 118 on the Seamer road estate, and 170 on the Klondyke estate, the land adjoining the new road from Manor-road to Scalby-road

ST. ANNE'S-ON-SEA.—The T.C. has decided t enlarge the St. Anne's Council School, which is over crowded, and has given instructions for plans to b prepared.

STOURBRIDGE.—Plans passed by T.C.:—House Eggington-road, for Mr. E. R. R. Tooby; house, Unwin crescent, M. H. O. F. Webb; bungalow, Ridge-street Mr. J. R. Perks; alterations to the "Barley Mow" Inn, High-street, Wollaston, the Wolverhampton an Dudley Breweries Ltd.; house, Bridle-road, Mr. Lans ford; garage, "The Croft," Hagley-road, Major King house in Ham-lane, Mr. B. Dunn; new boiler seatin at Stourbridge Model Laundry, Hagley-road.

SUNDERLAND.—The contract for the constructio of the Mill Hill reservoir, near Easington, has bee given to Messrs. Brims & Co., Ltd., of Newcastle, an 2, Victoria-street, Westminster. This is the larger o two service reservoirs to be constructed for Sunderlan & South Shields Water Co., and will hold 12,000,00 gallons.

SWANSEA.—The Council has decided to advance to public utility society under the Housing Act 90 per cen of the cost of building 250 houses at Winchewa Swansea; 100 houses are to be commenced at onc The employees of the Swansea Vale Spelter Compan are especially being provided for.

THURLSTONE.—The U.D.C. has approved of a pla for a house at Hornthwaite Hill, for Mr. B. Marsh.

TREDEGAR.—Estimates for road and bridge work i connection with new Tredegar-Talybont-road ha now been presented and approximate on £80,00 A joint local authority committee has the matter hand.

WALTHAMSTOW.—Plans passed by U.D.C.:—Offi and workshop, St. Mary-road, S. W. Robinson; alter tions, Tower Hotel, Hoe-street, W. A. Lewis; garag Byron-road, H. Butler; two dwelling-houses, Gordo avenue, H. H. Iles; extension to saloon with lavato accommodation, Higham Hill Tavern, S. A. S. Ye three dwelling-houses, Bromley-road, West Bro & Pettitt; dwelling-house, garage and store, Aubre road, R. J. Paul; dwelling-house, 40, Beulah-roa J. C. Meadows; house and shop, corner of Billet-ro and Folly-lane, R. J. Paul; garage, Lea Bridge-roa R. J. Paul; alterations, "Nag's Head" P. H., Ster

WAREHAM.—Plans passed by T.C.:—Cottage Mr. Churchill.

WEYMOUTH.—Having completed the Greenh Gardens extension scheme, the Corporation is n considering other big town improvement schemes. has been decided to build a new concert pavilion in t Alexandra Gardens, and also to widen the esplana leading to the gardens and pavilion, at a cost of £10,0

WHITWORTH.—The Parochial Church Commit has decided to proceed with rebuilding the Lloy street Schools, recently burnt down. Mr. W. Arch the District Surveyor, has been asked to prepare plan

FIRES.

BRADFORD.—Damage estimated at £50,000 has be caused by fire at the mill belonging to Messrs. Broo banks, Horton-road, a portion of which was sublet Messrs. Lister & Co., Ltd., silk spinners, of Manningh Mills.

BATTLE.—A serious fire has occurred at Beaup Park, Battle, the residence of the late Sir Archib Lamby.

COGGESHALL.—A fire has occurred which has grea damaged the seed warehouses of Messrs. E. W. K & Co.

EDINBURGH.—A serious fire has occurred at works of Messrs. William M'Ewan & Co., Ltd., Fount Brewery.

GLASGOW.—An outbreak of fire occurred in premi at 71, Mitchell-street, Glasgow, occupied by Francis Smith, cabinetmaker and upholsterer.

LONDON.—A serious outbreak of fire occurred Saturday at the Wells Club, Old Bond-street.

SALTBURN.—Damage estimated at £4,000 was d by a fire which occurred at Lune-street. A mo garage, which belonged to Harold Brown, mo engineer, was gutted and the Workmen's Constitutio Club premises adjoining were much damaged.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

ABERAYRON.—For erection of Memorial Hall, for the fund guarantors :—

*Calways, Ltd., Swansea £3,379

ABERDEEN.—For constructing the section of the new aqueduct between Banchory and Crathes, for the T.C. :—

*T. Piggott & Co., Ltd.—Steel pipes	£35,118	0	0
*Macfarlane, Strang & Co., Ltd. Special pipes	3,078	0	9
*William Tawse, Aberdeen—Laying pipes	24,973	4	10
Total	£63,169	5	7

ABERDEEN.—For building scheme at Schoolhill and Blackfriars-street in connection with Art Gallery extension, for the T.C. :—

	Memorial Court.	Cowdray Hall, &c.	Gallery Extension.	Total.
*Geo. Hall's Trust—*Mason*	£17,958	£11,785	£7,931	£37,674
*R. & J. Reid, Ltd.—*Carpenter*	1,109	2,399	2,788	6,296
*Geo. Farquhar—*Slater*	13	269	230	512
*Fleming Bros.—*Steel*	157	846	573	1,576
*Scott & Sons, Ltd.—*Asphalte*	143	—	28	171
*Roger & Baxter—*Plasterer*	459	656	328	1,443
*Youden & Son—*Marble*	1,679	1,347	—	3,026
*Roger & Baxter—*Concrete*	2,405	1,114	866	4,385
*A. M'Robb—*Plumber*	190	562	434	1,186
*James M'Laren—*Painter*	145	241	253	639
*Claud Hamilton, Ltd.—*Heating*	677	536	374	1,587
*James C. Laing—*Electrical*	245	194	136	575
	£25,180	£19,949	£13,941	£59,070

ANDOVER.—Erection of secondary school for girls, for the Southampton C.C. :—

†W. E. Chivers & Son £10,326

BATLEY.—For the erection of new offices for Messrs. J. T. & J. Taylor, Ltd., at Blakeridge Mills. Mr. W. Hanstock, Architect, Batley :—

*Goodall Bros., Batley.

BEDFORD.—For alterations and new staircase as approach to rooms in tower of the Boys' Modern School, for the Governors of the Harpur Trust. Mr. George P. Allen, F.R.I.B.A., architect and surveyor, 79, High-street, Bedford :—

Mr. H. Bowler	£160
Mr. S. Foster	149
*J. Corby & Son	129

All of Bedford.

BEDFORD.—Alterations and decorations, &c., to the Moravian Buildings, Bedford School, for the Governors of the Harpur Trust. Mr. George P. Allen, F.R.I.B.A., Architect and Sureyor, 79, High-street, Bedford :—

Mr. S. Foster	£522	18	6
J. Corby & Son	516	14	0
Mr. W. Laughton	510	0	0
§Mr. H. Bowler	499	10	0

All of Bedford.

BEDFORD.—For new demonstration and science benches and other work in connection with same at the Girls' High School, for the governors of the Harpur Trust. Mr. George P. Allen, F.R.I.B.A., Architect and Surveyor, 79, High-street, Bedford :—

Mr. S. Foster	£275	0
*J. T. Hobson & Co.	232	10

All of Bedford.

BLACKPOOL.—For the erection of a new secondary school for girls :—

*J. Parkinsons (Blackpool), Ltd.

BRADFORD.—Erection of 270 houses on Odsal housing site, for the T.C. :—

C. Roper & Sons—

104 in blocks of 2, Class "A," rough cast above first floor string level, at £344 each	£35,776
46 in blocks of 2, Class "A," faced with brick full height, at £339 each	15,594
8 in blocks of 4, Class "A," rough cast above first floor string level, at £344 each	2,752
60 in blocks of 4, Class "A," faced with brick full height, at £339 each	20,340
12 in blocks of 2, Class "A2," rough cast above first floor string level, at £329 each	3,948
12 in blocks of 2, Class "A2," faced with brick full height, at £324 each	3,888
16 in blocks of 2, Class "B," type No. 1, rough cast above first floor string level, at £409 each	6,544
12 in blocks of 2, Class "B," type No. 2, rough cast above first floor string level, at £404 each	4,848
270	£93,690
Extra length of electric main to above houses, at £3 per house	810
Total	£94,500

BRADFORD.—For asphalting work at Woodroyd and Lorne-street Schools, for the T.C. :—

*W. Ingram & Co. £761 2 6

BRADFORD.—For supply of boilers to various schools, for the T.C. :—

*S. Parsons & Co. £513

BRADFORD.—For (*a*) heating installation; and (*b*) electrical installation, at Myopes School, Daisy Hill, for the T.C. :—

*(*a*) F. & H. Mears £405 0
*(*b*) Smith & Croft 113 7

BRIDGWATER.—Erection of Wesleyan Sunday School and Memorial Hall. Messrs. Samson & Colthurst, Architects :—

*C. Bryner, Jun., Bridgwater.

BUXTON.—For alterations to the Buxton and District Cottage Hospital. Mr. Chas. Flint, architect, 5, The Quadrant, Buxton :—

J. Robinson, Buxton	£4,887	14	6
Redyard & Son, Ashton-under-Lyne	4,775	0	0
H. Boar & Son, Ltd., Sheffield	4,340	10	3
E. Marshall & Son, Ashton-under-Lyne	4,300	0	0
*H. Robinson, Buxton	4,290	0	0

CRANBROOK.—For carrying out Goudhurst drainage scheme, for the R.D.C. :—

*T. Ashenden, Hawkhurst £442 12 2

CRIGGLESTONE.—For the erection of two houses for Messrs. Massie & Holdsworth :—

*J. Crossley, Jun.—*Builder.*
*T. Craggs—*Joiner.*
*H. & W. Parker—*Slater.*
*T. E. Senior—*Plasterer.*
*T. Bradley—*Plumber.*
All of Wakefield.

DERBY.—For the erection of new headquarters, for the Derbyshire Territorial Association, at Mansfield :—

*Rogers & Crookes, Mansfield £7,364 2

DEWSBURY.—For the erection of a new imbecile block at the Staincliffe Institution, for the B.G. Mr. Hanstock, Architect, Batley :—

*Hinchliffe Oldroyd, Ossett—*Mason.*
*S. Armitage & Son, Dewsbury—*Joiner.*
*J. Iredale & Son, Birstall—*Plasterer.*
*J. F. Rispin, Batley—*Electrical engineering.*
*F. Newsome, Ltd., Dewsbury—*Plumber.*
*J. Kellet, Morley—*Slater.*
*J. Shepley, Dewsbury—*Painter.*
Total cost £6,500

DONCASTER.—For the erection of 75 houses, for the Corporation :—

*W. & A. Forsdyke, Ltd., Sheffield .. £27,800

DONCASTER.—Extension of Balby Workhouse Infirmary, for the B.G. :—

*T. Jenkinson & Son £6,189

EDGWARE (MIDDLESEX).—The development of the Edgware Manor Estate, Edgware, is proceeding, and the following tenders have been accepted :—

For eight shops and flats over, adjoining the new tube station—

*Miskin & Sons, Ltd., St. Albans £21,382

Roads and sewers (Section 1)—

*Howard Farrow, Golders Green 2,691

FLIXTON.—For reconstruction of "Greyhound" Hotel, Flixton, for Messrs. Threlfall's Brewery, Ltd., Salford :—

*J. T. Hollinworth & Son, Patricroft.

GATESHEAD.—For the erection of a new library in Prince Consort-road. This was the lowest of thirteen tenders :—

*Alex. Pringle, Ltd., Gateshead £22,208

GLASGOW.—Erection of Queen's Park bowling and tennis pavilion, for the T.C. :—

*J. Porter & Son—*Excavator and brick work*	£613	19	9
*G. Eaglesham—*Carpenter and joiner works*	470	9	5
*P. White & Co.—*Slater and roughcasting works*	78	11	11
*J. Anderson & Co.—*Plumber work*	96	12	6
*W. Reid & Sons—*Plaster work*	38	0	8

GLASGOW.—For (*a*) 30 in. gas main to Dawsholm Gasworks; (*b*) foundations of same, for the T.C :—

*(*a*) Ashmore, Benson, Pease & Co.	£3,795	0	0
*(*b*) Grays Ferro-Concrete Co.	662	7	1

GLASGOW.—For electric lighting installation at lairage extensions at Merklands Cattle Wharf, for the T.C. :—

*Haddow & Co. £347 11

HALIFAX.—For conversion of premises into electricity showrooms, in Town Hall-street East, for the Corporation :—

*J. Lees & Son, Halifax £1,333 19

HAMPSHIRE.—For annual repairs and painting at schools, for the Southampton C.C. :—

Hythe.
*E. J. Kingham £186 9
Ringwood.
*Barrow Bros. 170 3
Totton.
*Creighton & Son 268 0

KEITH.—For the erection of houses, for the T.C. Mr. G. J. Lobban, Architect, 2, Station-road, Keith :—

*Chas. Webster & Son, Newmill, Keith—*Mason work.*
*John Cormack & Son, Keith—*Carpenter work.*
*Chas. Dickie & Son, Tunriff—*Slater work.*
*Angus Joss & Son, Keith—*Plumber work.*
*Geo. Hume & Son, Keith—*Plaster work.*
*John Symon, Keith—*Glazier work.*
Type plans altered. Schedule rates accepted.

LEATHERHEAD.—For (*a*) repairs to Surrey House; and (*b*) central heating, for the U.D.C. :—

*(*a*) Leatherhead Building Co. £386 7 6
*(*b*) Blaker Bros. 107 15 1

LEATHERHEAD.—For making up Poplar-road for the U.D.C. :—

*R. & D. Swinford, Woking £936 4 3

LEEDS.—For the erection of a new temperance hall at Rawdon, for the Temperance Council. Messrs. Braithwaite & Jackman, Architects, South Parade, Leeds :—

*L. Harpham, Leeds.

LEEDS.—For the erection of new agricultural departments block at the University of Leeds fronting University-road. Mr. Paul Waterhouse, Architect, London :—

*Armitage & Hodgson, Leeds.

LEEDS.—For the erection of a new telephone exchange at Chapeltown, for the Commissioners of H.M.O.W. :—

*Arthur Mitchell, Ltd., Leeds—*Construction.*
*Tunstalls' Rock Asphalte Co., Leeds—*Asphalter.*

LEEDS AND LIVERPOOL CANAL.—Eleven tenders were submitted for construction of a ferro-concrete bridge over the Leeds and Liverpool Canal, in Carr-road :—

*Yorkshire Hennibique Contracting Co., Ltd.

MANCHESTER.—Tenders accepted by the Corporation :—

For patent combined charging and discharging machine, for Bradford Gas Works : *Messrs. Drakes, Ltd., Halifax.
For 12 in. solid drawn steel tubes and special castings : *The Engineering Supplies Co., Ltd., London.
For supply of galvanised pipes, &c., to the Elm-street Cold Air Stores : *H. B. White & Co., Manchester.
Steelwork, &c. : *Hall & Pickles, Ltd., Manchester.
For removal and re-erection of footballers' hut in Heaton Park : *Forshaw & Co., Manchester.
For supply of pitch and creosote oil : *Hardman & Holden, Ltd., Manchester.
For draining, curbing and flagging (artificial flags), and paving with granited rock asphalte, various roads in Levenshulme and Withington : *Bethel & Son, Bale.
For draining, curbing and flagging (natural flags), and paving grit sets, Ford-street and Orchard-street, Burnage : *Thomas Wilson, Pendleton.
For draining, curbing, paving, &c., passages behind Ford-street and Orchard-street, Burnage; and Mount-road and Balmoral-road, Gorton : *G. Clark & Son, Hulme.
Supply of ironwork for twelve months : *H. Hughes & Sons, Failsworth.
For electric light installation at Davyhulme Sewage Works : *Hall & Stinson, Ltd., Sheffield.
For supply, delivery, and erection of double sand-drying apparatus at Hyde-road Depot : *Vickers, Ltd., London.
For supply of vacuum cleaner for cleaning tram cars : *Dod Bros., Manchester.
Special track work (Contract No. 23) : *The United States Steel Products Co., Ltd., London.
Welsh granite setts : *Penmaenmaur and Welsh Granite Co., Ltd., Liverpool.
Welsh granite setts (subject to approval of samples in bulk) : *H. Griffith, Blaenau, Festiniog.
Norwegian granite setts : *Isherwood Bros., Ltd., Manchester.
For alterations to dwellings, &c., at Pollard-street Fire Station : *W. Richardson & Co., Manchester.
For electric light installation at houses on following estates—Blackley, Clayton, and Catterick Hall : *W. Spreadborough, Manchester; Newton Heath : *E.L. Bellhouse, Manchester; Anson : *J. V. Pyatt, Manchester.
Construction of ducts for hot-water supply, Blackley Estates : *Geo. Longden & Son, Ltd., Swinton.

MELTON MOWBRAY.—For constructing large reservoir, storage tank, new high level tower and tank, and other appurtenant works, for Waterworks. Messrs. W. R. Radford, of Nottingham, are the Council's consulting engineers :—

*The Monnoyer British Construction Co., Ltd.

MILL HILL (SUNDERLAND).—For the construction of the Mill Hill reservoir, the larger of two service reservoirs to be built for the Sunderland & South Shields Water Co. The reservoir will hold 12,000,000 gallons, and will be completed early in 1925 :—

*Brims. & Co., Ltd., Westminster.

NELSON.—For a reinforced concrete retaining wall at Brierfield Works, for Nelson Corporation (six tenders were received) :—

*Simplex Pipes, Ltd., London.

Steam roller for tarmacadam road :

*Aveling & Porter, Rochester.

NEWBIGGIN.—For erection of 20 houses, for the U.D.C. : —

*J. T. Bell £7,086

OAKHAM (RUTLAND).—For the erection of Rutland Cottage Hospital (memorial to officers and men of the county who fell in the Great War) :—

*Higgs & Sons, Oakham £7,099

ROMSEY.—For repairs and alterations at Council School, for the Southampton C.C. :—

*W. G. Chivers & Sons £457

ROTHERHAM.—For the erection of two houses on the East Dere Estate, for the T.C. :—

*Hanwell & Co., Rotherham..... £1,050

SALFORD.—For extensions to Adelphi Iron Works, Salford, for Sir James Farmer & Sons. Messrs. Wood & Sellers, architects, 78, King-street, Manchester :

*J. Gerrard & Sons (1920), Ltd., Swinton.

SOMERTON (NEWPORT).—For the erection of 38 new houses at Somerton, Newport, for the Corporation :—

*Unit Construction Co., Ltd. £14,120 15

STAFFORDSHIRE.—For completion of administrative block at Prestwood House Sanatorium, for the Staffordshire, Wolverhampton and Dudley Joint Committee for Tuberculosis :—

*J. E. Tooby, Wolverhampton..... £7,649

STAFFORDSHIRE.—For installation of electric light at Groundslow Sanatorium, for the Committee :—

*Smith & Bellhouse, Wolverhampton.. £575

WAKEFIELD.—For the erection of new block at St. John's Nursing Home. Mr. W. Harold Watson, Architect, Barstow-square, Wakefield :—

*W. Kitson & Son—*Mason.*
*M. Broadhead—*Joiner and Carpenter.*
*M. Sedgwick—*Slater.*
*W. Gillott—*Plumber*
*T. Senior—*Plasterer.*
All of Wakefield.

WAKEFIELD.—For the erection of two houses in Aberford-road, for Messrs. Massie & Holdsworth :—

*J. Lazenby—*Builder and Joiner.*
*H. Gillott—*Plumber.*
*T. E. Senior—*Plasterer.*
*C. Turner & Son—*Painter.*
All of Wakefield.

WAKEFIELD.—For the erection of bungalow at Chapelthorpe, for Messrs. Massie & Holdsworth :—

*J. Marshall & Son—*Builder.*
*W. Bramald—*Joiner.*
*T. E. Senior—*Plasterer.*
*J. E. Crossley—*Plumber.*
*C. Turner & Son—*Painter.*
All of Wakefield.

WANTAGE.—For repairs to roof of Victoria Cro Gallery, for the U.D.C. :—

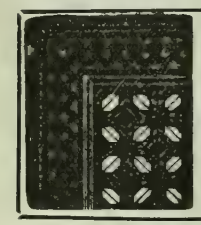
*British Challenge Glazing Co.....£250

YORK.—For the erection of 50 houses at Tang Ha Estate, for the Housing Committee :—

*J. Gleeson, Sheffield £18,997

Adelaide House.

In the advertisement of Messrs. Scaffoldi (Great Britain), Ltd., on page ix of our issu of August 10, the name of the contractors und the block showing the heavy suspended scaffo at Adelaide House was inadvertently given Messrs. John Mowlem & Co., Ltd. This shoul of course, have read Sir Robert McAlpine Sons.



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A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXV.—No. 4203. AUGUST 24, 1923

THE NEW HOUSING ACT.

THE Housing, &c., Act, 1923, is now law, and although we have strongly criticised its defects, and more especially its omissions, we sincerely hope that everyone concerned, including the local authorities, will co-operate to make it a success. We recommend to those interested a perusal of the Ministry of Health's official circular (*see p.* 291), in which the Act is explained, and which contains instructions and advice as to construction, density, planning, and amenity generally. The principal changes made in the Bill during its passage through the House include :—

(*a*) The maximum area of houses or flats eligible for subsidy has been increased from 850 square feet to 950 square feet in the case of two-storied cottages, and from 780 to 880 square feet in the case of one-story cottages, bungalows, or flats.

(*b*) Where a local authority satisfies the Minister that, having regard to the special circumstances of its area, there is a need for houses of smaller dimensions, he may permit houses of smaller size than the normal minimum to rank for financial assistance. Such permission will be granted only for such limited number of houses for a particular area and subject to such conditions as the Minister may determine ; the minimum sizes in these special cases will be 570 square feet for two-storied houses, and 500 square feet for flats or one-storied houses.

(*c*) Every house or flat to be eligible for subsidy must be provided with a fixed bath unless the Minister, on the recommendation of the local authority, approves otherwise.

Amendment (*a*) is, of course, designed to admit the parlour house, and we hope the Ministry will refrain from any attempt at cutting out the parlour by circuitous methods. Public opinion has made it abundantly clear that it considers the parlour an important adjunct to the working-class house ; and where there is a demand for the parlour the Ministry will be ill advised if it attempts to stifle it. We emphasise this point because it appears that friction has already set in. The second amendment, which allows of reduction in the size of the already small houses to be subsidised, can no doubt in certain circumstances be used beneficially, principally by the larger bodies such as the London County Council ; but it will need the most careful scrutiny on the part of the Ministry to prevent this relaxation being abused by certain smaller and less responsible bodies who may be tempted to build inadequate houses merely because they are cheap. As to the provision of the fixed bath, this is now recognised as a necessity, and it does not redound to the credit of the Ministry that no such condition was originally included. Local authorities would, however, be wise to satisfy themselves that baths are not fixed in overcrowded sculleries, which would constitute an evasion of the spirit if not of the letter of the Act.

Section 12 empowers the Minister, in order to facilitate the erection of dwelling houses, to prescribe a code of by-laws with respect to the level, width and construction of new streets ; and provides that any local authority may by resolution adopt the prescribed code in whole or in part in substitution for such of its by-laws or provisions in any local Act as may be specified. The local authority is required before passing its formal resolution to give notice in the local press, and within seven days after passing its resolution to send a copy to the Minister. The code of by-laws to be prescribed is now in preparation. Section 13 re-enacts section 44 of the Housing, Town-Planning, &c., Act, 1909, amended in accordance with the recommendation of the Departmental Committee on Building By-laws ; and provides that the Minister may revoke any by-laws which, in his opinion, hinder or are likely to hinder the erection of buildings.

The above paragraph, taken from the Circular, explains how the new Act will affect the by-laws. In one respect it leaves us little better off than we were before, because, while a sympathetic local authority will be given a free hand to exercise common sense, those authorities who have shown themselves lacking in initiative, and who still apply their by-laws exactly as they did in 1910, will be able to go on in exactly the same way, knowing that appeals to the Minister are so cumbrous and take up so much time that nine out of ten have not the energy to face them. Section 24 of the Housing, Town Planning Act, 1919, although quite clear in its wording and intent, has too often been disregarded by local authorities to the delay or even abandonment of schemes. This, however, is not the fault of the Ministry, and we suggest that the Royal Institute of British Architects and the National Federation of House Builders should seriously take up complaints on this score from their members.

While the Ministry has, in our opinion wrongly, refrained from stipulating any maximum density for these State-aided houses, a lead is given in the Circular to the effect that "a density of approximately twelve houses per acre represents a desirable standard, and as a general rule a local authority should not approve the building of more than twenty houses on any one acre." The Ministry was no doubt influenced in its decision by the undoubted fact that, where there is a real and legitimate need for extra small houses, it is possible to build them satisfactorily, with care and knowledge, at a density rather greater even than twenty to the acre. But such freedom as is here allowed is so easily abused that it would have been wiser to make it compulsory on all authorities who proposed to build at a greater density than twenty to obtain special sanction from the Ministry, and we do not see how the Ministry can evade the charge that it has produced an Act of Parliament allowing public money to be spent on subsidising houses at fifty to the acre, and to do this is not consistent with being a "Ministry of Health," whose essential function should be to safeguard public health, and not to trust to luck or unknown bodies. This Act transfers a tremendous responsibility from the Ministry to the shoulders of the local authorities, large and small, and it is sincerely to be hoped that the Ministry's confidence will be proved justified.

NOTES.

Housing Trouble Begins.

We know no more than what has been published in the dispute between the Maldens and Coombe Urban District Council and the Ministry of Health, but we see it is alleged by the Council that the Ministry refuses to subsidise three hundred houses erected by the Council on the ground that the Minister is not satisfied that the need for houses could not be met without assistance. It is further alleged that the Ministry is now confining the subsidy to houses of the non-parlour type. In our original criticism of the Bill we pointed out the unfairness of placing the onus on the local authority of proving that the need for houses "cannot be met" without assistance, and we added that such a proviso was likely to cause endless bother and argument. We give the Ministry's case on p. 300, but we cannot help being biassed against a Government Department that deliberately worded an Act to give itself practically unlimited and autocratic powers of deciding where houses may be built but did not consider it necessary to maintain a worthy standard.

Subsidies for Parlour Houses.

Experience has taught us that Government control too often means that the Government says one thing in public and does another in private, and we should not be in the least astonished to find that it does not intend to allow parlour houses to receive assistance, even though it had to give way in principle owing to pressure of public opinion. It seems that the method it has in view to evade the obligation of subsidising parlour houses is to say that "the Minister is not satisfied that the demand for parlour houses cannot be met without assistance," and this excuse can be used with impunity anywhere. Public opinion has clearly shown that the people of this country believe that the working-class house includes the parlour house, and it is not for the Ministry of Health to take up the line that it does not. We hope that local authorities will at once make public any attempt on the part of the Ministry to get behind the spirit that Parliament intended should operate under the Act.



Fig. 1.—Bench-end at St. Mary's, Mortehoe, N. Devon.

Town Planning.

The model clauses recently issued should act as a fillip to the preparation of town-planning schemes. It is of immense importance that the country as a whole, and more particularly the districts specially concerned, should be acquainted with what is being done, and we would urge those Councils who have made definite progress to use every endeavour to interest the community at large by publishing particulars of their schemes in the lay Press. It is hard to see why the local paper should not regard the progress, or lack of progress, in its town planning as matter for "copy." It should at least be as interesting as most of the available material, on the collection of which considerable time and ingenuity has to be expended every week.

Methods of Building.

The organisation of employment at the time of the building of the Bank of England, as described in our last week's issue by Mr. A. T. Bolton, offers an interesting commentary on the vast changes in the method of employment since that time. Instead of the independent groups of tradesmen working under the architect, the organising contractor has taken their place. If this former method of building secured "the high evel of workmanship to which the durability of the Bank is a witness," as noted by Mr. Bolton in his very illuminating account, it is a thing to ponder over whether these large corporations supply anything like the scope and freedom of initiative secured by the former, and we may ask ourselves whether present methods are at all the last word in building construction.

Co operation.

In writing to us on the subject a correspondent says: "In drawing a number of independent groups of tradesmen, working harmoniously, together, we see that there is another sort of unity and discipline other than that of 'militarism,' and a freedom which those who, like Mr. Maxwell Aylwin, uphold this latter view are compelled to deny. Results are more practical guides than theories, and my own view leads me to favour a co-operation formed on more natural lines. The development of the small industry and the co-operation between independent workers is less machine-like than the more centralised method, and it cannot be objected to on the score of inefficiency, seeing the beautiful work which has been the result of it. And this should direct us to give all encouragement to the small workshop and that better kind of co-operation, the result of true freedom, instead of more coercive methods; a co-operation wherein the worker is so much nearer to his work and in more direct control of its efficiency. Standardisation gives us standardisation, as witness recent buildings in London, but it detaches the human interest, and offers us a mask instead of life itself. Sculptural or other ornament when added to such construction has a strange and unattached appearance, for it is seen not to grow out of and be the flowering of it, but is a contradiction of its whole purpose. If we accept standardisation for architecture it appears to me better to keep anything more personal away from it altogether."



Fig. 3.—Bench-end at St. Mary's, Mortehoe, N. Devon.

Plan and Elevation.

Lord Sumner made a point in his recent lecture, when he said he failed to see why the exterior aspect of a building should explain the interior construction. He said, "I see no point in requiring that a building should carry out in its elevation some arbitrary code about its interior moral character." His remarks on architecture were stimulating and useful, but even his sensible and often trenchant comments might be taken in a way not

altogether satisfactory. For instance, it is easy to write down "styles," or the love of the picturesque, but architecture is too complex a matter to be summed up in statements entirely positive or negative. To estimate the value of style we have only to consider the many modern attempts at originality, where hardly an echo of any style has appeared, to realise that the term style does mean something. We urged last week a better consideration for modern design, but we can well understand that people may feel satisfied and safe in the purchase of old Tudor, Jacobean or French furniture, whilst they eschew the many curiously uncomfortable looking things which modern thought has evolved, and particularly so much of what appeared in the Arts and Crafts Exhibitions—odd, costly, and "precious." With all his discrimination and enthusiasm, Lord Sumner can say, "Even the Victorian age, in spite of the Houses of Parliament and the Victoria Tower, had its great architects." We wonder what this means. A very good critic once said that the Victoria Tower was the one outstanding fine thing in London. It is well for a clear speaker like Lord Sumner to tell the public what he thinks about our hideous shop fronts, our Hotel Cecils, our uncontrolled misuse of advertising names and devices, and the terrible jumbles at Charing Cross and Cannon-street, or the lamentable failure at the Marble Arch, which had such great possibilities. What we want is the will and opportunity to take such criticism seriously and *do* something. What is being done now to bring into real action those qualities of forethought and design, the lack of which filled London with lost opportunities?



Fig. 2.—Bench-end at St. Mary's, Mortehoe, N. Devon.

Bench-ends in Mortehoe Church, North Devon.

The ancient and interesting church of St. Mary, Mortehoe, near Ilfracombe, possesses a very remarkable series of beautifully carved bench-ends along the seating of the nave and one of the aisles. The Rev. T. F. Daffen, vicar, enables us to reproduce a few typical examples, from which the excellence of the carving and the quaintness of the art may be gathered. Fig. 1 belongs to a series illustrative of the Passion of Our Lord, and shows the "thirty pieces of silver" on a shield in one panel, and an object resembling a lantern in another, also on a shield. The date appears to be towards the end of the fifteenth or commencement of the sixteenth century. Another of this series (Fig. 2) shows the ladder and the hammer, implements also connected with the proceedings carried out at the Crucifixion. The shape of the shield is reminded of that which occurs on seals and carvings of the period of the decline of Gothic details in English architectural work. Figs. 3 and 4 show remarkable costume subjects, which are worthy of notice. In Fig. 3 it is curious to find a cross pendant attached to a necklace or band worn by a Blackamoor, and the embroidery of his apparel, the tassels of his headgear and collar, cannot fail to attract the student of historical costume. In Fig. 4 the treatment of the beard and whiskers and the patterns of the cap rim, vest and coat, testify to the exuberance of the artistic feelings of the engraver.

About Glass Painters.

We feel quite inclined to accept the statements of Mr. Knowles as to the mediæval artists which he made in his lecture (*see page* 294), nor are we much perturbed to know that they sometimes fell short of perfection, as it is a little tiresome when everything, just because it is mediæval, is sacrosanct and become rather a superstition. But it would also be a pity if a wrong impression was gained from the discovery that mediæval glass-painters were men like ourselves, very far from perfect, ready to use their old cartoons in some cases, when they should have made new ones, and laying themselves open to the charge of pot-boiling on occasions, while their subject matter was very much in the hands of the political parties of the time. All this may be true, yet we should woefully misread the inference to be properly gained from it if the modern commercialist in glass were to lay the flattering unction to his soul that such attributes in the old work established his own equal claims as only doing like unto them. There is an adage of particular appositeness in this connection, which says that "while one man may steal a horse another cannot look over a wall." And if we take the work of the mediæval glass-painters as a whole, we find that general intimacy of treatment and endowment which belongs to the real artist, whatever his peccadilloes, always pushing through in evidence of delight in his work, and so we may forgive him the rest. But if we have no delight, and stained glass is merely the rechauffé of old patterns and types, a dull round of plagiarism only, fastened to outworn conceptions, such work is not raised to the level of mediæval glass because it has all the faults and none of the virtues.



Fig. 4.—Bench-end at St. Mary's, Mortehoe, N. Devon.

The Housing Act.

We recommend builders who are anxious to understand the new Housing Act, but who have not perhaps the time or energy to master the Act itself or its accompanying official Circular (which we abstract on p. 291) to study the summary issued, with notes on the preparation of building schemes under the Act, by the National Federation of House Builders, of 57, Victoria-street, S.W.1. The whole Act and its application are here condensed into eight short pages, and the pamphlet should be of the greatest assistance in making the possibilities and conditions of assistance widely known.

GENERAL NEWS.

Professional Announcement.

Mr. P. T. Walters, P.A.S.I., chartered quantity surveyor, of Vernon House, Sicilian-avenue, W.C.1, has opened an office at 57, High-street, Oxford. (Telephone: Oxford 795.)

A Decorators' Exhibition.

A Decorators' Exhibition is to be opened on October 17, at the Holland Park Hall, London, W. It will contain exhibits of wall-papers, cretonnes, wall finishes, and other materials for house decorating.

A.A. School of Architecture.

A special visit was made last week by a number of architects to the Exhibition of A.A. School work, at 34 & 35, Bedford-square. The party was met by the Director of Education (Mr. Robert Atkinson), the Principal (Mr. H. M. Robertson), and some of the masters, who explained in detail the principles of training adopted at the Architectural Association Schools. Amongst those present were Sir John Burnet, A.R.A.; Mr. J. Alfred Gotch, P.R.I.B.A.; Mr. Maurice E. Webb; Mr. E. C. P. Monson; and Mr. H. M. Fletcher.

Northumberland Archaeological Society.

About fifty members participated in the third tour of the season of the Northumberland Archæological and Architectural Society. The route was through the southern portion of the County of Durham; and Mr. W. H. Wood, of Newcastle, acted as guide.

Clitheroe War Memorial.

Clitheroe Castle and estate of ten acres, which have been purchased by public subscription for £9,500 for presentation to the town of Clitheroe (Lancs) as a war memorial, were formally handed over to the Corporation on Saturday. A cenotaph erected in the grounds was unveiled.

The Archbishop's Palace, York.

The Archbishop of York, in a letter to the diocese, explains the object of a loan from the Ecclesiastical Commissioners. His Grace says the object of the loan is to pull down a number of useless stables, which will make it easier to meet the already heavy cost of maintaining Bishopthorpe Palace. It will involve removal of parts of the old building, but the central part will remain, with all its old features.

Newcastle Housing.

Newcastle Corporation Housing Committee, at a meeting held on August 16, resolved to erect an additional 60 houses on the Pendower Estate, and to invite tenders.

The meeting also decided to propose to the City Council that a subsidy of not more than £100 per house be given to private builders, the houses to be within 950 superficial feet for two stories, and 880 superficial feet for flats or bungalows, the subsidy to be subject to conditions as to approval of plans, &c., which are at present being attended to.

Sketching Tour in Normandy.

A sketching tour in Normandy is being organised, in which architects and their friends are invited to participate. The party will leave London on the evening of September 10, returning on Saturday morning, September 22, The cost will be £15 15s., including first-class on steamer, second class on rail in France, third in England, and hotel accommodation, but exclusive of wines, &c. Further particulars may be obtained from Mr. G. A. T. Middleton, A.R.I.B.A., Hartley, Cranbrook, Kent.

Obituary.

Mr. Charles Steward Smith, J.P., F.R.I.B.A., of Reading, died on Sunday, after an operation. Mr. Smith, who was born in 1858, was the eldest son of the late Mr. Charles Smith, J.P., F.R.I.B.A., of Reading, a well-known local architect and surveyor, and twice mayor of the borough, and on becoming qualified to practise as an architect carried on business first with his father and afterwards with his father and Mr. Harry Hutt, A.R.I.B.A., under the style of Charles Smith & Son.

The A.A. Excursion.

The following arrangements have been made for the Architectural Association Excursion to Avignon and District, from September 6 to 18. The headquarters will be at the Hotel du Louvre, Avignon:—

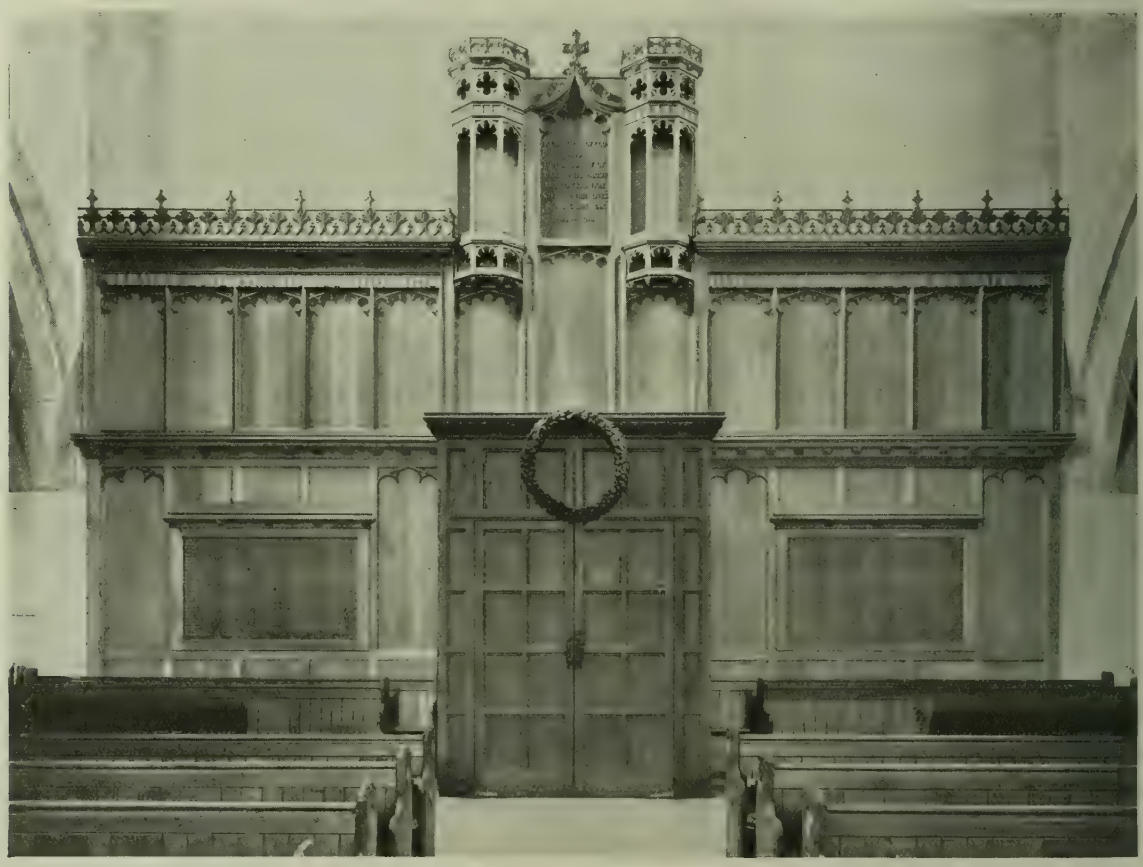
Thursday, September 6.—Meet at Victoria, Continental Platform, at 7.30 p.m. The party will leave Victoria at 8 p.m. and travel *via* Dover and Boulogne to Paris (5.15 a.m.). Train leaves Paris, Gare de Lyons, for Avignon at 8.35 a.m., arriving at Avignon at 7.34 p.m. Carriages will be reserved and arrangements made for the transport of the party across Paris.

The party will leave Avignon on the morning of Monday, September 17, by the 10.41 a.m. train, arriving in Paris at 10 p.m., and leaving Paris, Gare du Nord, at 11.45 p.m., arriving in London on Tuesday morning, September 18, at 9.48 a.m.

In Avignon particulars will be issued of the most important places to be seen in the neighbourhood, together with details of trains, fares, &c. Members will be free to make their own arrangements, but excursions will be organised from day to day according to the wishes of members. Particulars as to cost, &c., may be obtained from Mr. F. R. Yerbury, Secretary of the Association, 34 and 35, Bedford-square, W.C. 1.

COMPETITION NEWS.

Competition news this week is on p. 280.



War Memorial, St. John's Church, Southall.

Mr. C. G. Miller, Lic.R.I.B.A., Architect of the Church.

[This memorial was recently unveiled by Commander Burney, C.M.G., M.P., and dedicated by the Archdeacon of Middlesex.]

MORE ÆSTHETIC THEORY.*

"The author is a friend and disciple of Mr. Ouspensky, and his works should be considered in relation to *Tertium Organum* as a companion to it. This is, perhaps, the best book dealing exclusively with the mystical and mathematical basis of the arts of design, particularly architecture. The first essay is philosophical and historical. The following three essays are devoted to the formulation of 'the rhetoric of the language of form,' the discovery of those universal and unchanging laws to which every worker in the arts of design must needs submit himself. The final three essays are devoted to the mathematics of design" (Prospectus).

"*The Beautiful Necessity* was first published in 1910. . . Fifteen years elapsed between its beginning and completion. . . Confronted now with the opportunity to revise the text again, I find myself in the position of the surgeon who feels that the operation may harm more than it can help. . . . I feel that any injection of my more mature and less cocksure consciousness into this book might impair its unity—that I never could recapture the first fine careless rapture. . . *The Beautiful Necessity* contains nothing that I need repudiate or care to contradict. Its thesis is that art in all its manifestations is an expression of cosmic life, and that its symbols constitute a language by means of which this life is published and represented. Art is at all times subjected to the *Beautiful Necessity* of proclaiming the world order. In attempting to develop this thesis it was not necessary to link it up in so definite a manner with theosophy . . . its removal now might seem to imply a loss of faith in the fundamental tenets of theosophy. . . The one important influence that has operated to modify my opinions concerning the mathematical basis of the arts of space has been the discoveries of Mr. Jay Hambidge, with regard to the practice of the Greeks, and named by him *Dynamic Symmetry*. In tracing everything back to the logarithmic spiral (which embodies the principle of extreme and mean ratios) I consider that Mr. Hambidge has made one of those generalisations which reorganises the old knowledge and organises the new. . . . *The Beautiful Necessity* represents my own prospecting; *Dynamic Symmetry* represents his. . . If he convicted me of error his work would remain the greatest justification of my contention—that art is an expression of the *world order* . . . and susceptible of mathematical analysis." (Preface.)

"One of the advantages of a thorough assimilation of what may be called the theosophical idea is that it can be applied with advantage to every department of knowledge; like the key to a cryptogram, it renders clear that which before seemed obscure. . . Everything is the expression of the self in terms of sense. . ." (Chapter I.)

"Architecture (like everything else) has two aspects: it may be viewed from the standpoint of utility, that is as construction; or from the standpoint of expressiveness, that is decoration. No attempt has been made to deal with its first aspect, and of the second (which is again twofold), only the universal, not the particular expressiveness, has been sought. . . The inductive method has not been honoured by due observance. . . With the acceptance of the Ancient Wisdom the inductive method becomes no longer necessary. Facts are not useful in order to establish a hypothesis; they are used rather to elucidate a known and accepted truth. When theosophical ideas shall have permeated the thought of mankind this work, if it survives, will be chiefly remarkable by reason of the fact that it was among the first in which the attempt was made again to unify science, art, and religion as they were unified among those ancient peoples when the Wisdom swayed the hearts of men." (Conclusion.)

The seven essays are entitled:—I, The Art of Architecture; II, Unity and Polarity; III, Changeless Change, Trinity, Consonance, Diversity in Monotony, Balance, Rhythmic Change, Radiation; IV, The Bodily Temple; V, Latent Geometry; VI, The Arithmetic of Beauty; VII, Frozen Music.

There are many diagrams having schematic lines (mostly triangles, squares, and circles), some with a musical notation, and others with elucidatory remarks ("7 as 3 and 4," "7 as 2, 2 and 3"). "The column, the entablature and the arch correspond to lines vertical, horizontal and curved." In the text are dissertations on "In and Yo in their myriad manifestations"; "the sacred syllable *Om*, which epitomises all speech"; "Number which is the within of all things—the first form of Brahman," etc.

The author writes from Rochester, New York, and has also published "Four-dimensional Vistas: A sincere and reverent effort to throw the light of the mathematical concept, called 'The Fourth Dimension,' upon the mystic depths and feeling from which spring action, morality, aspiration." It has seemed better to give an account of this volume in its own words rather than attempt any ordinary reasoning about it. The title is founded on a fine saying by Emerson—"Let us build altars to the Beautiful Necessity." To which the reviewer would add—and the sooner the better without more unnecessary words.

W. R. Lethaby.

* "The Beautiful Necessity: Seven Essays on Theosophy and Architecture." By Claude Brogden. F.A.I.A. (London: Routledge 8s. 6d. net.)



Memorial Tablet in the Chapel, Giggleswick School, Settle, Yorks.
Designed and carved by Mr. John E. Hyett.

Northern Architectural Association.

There was a good attendance of members of the Northern Architectural Association at their outdoor meeting, held at Durham last week. The assembly included several from the recently formed Tees-side branch, which is making excellent progress. The party first visited the Castle, where the President (Mr. W. T. Jones, F.S.A., F.R.I.B.A.) conducted them around the buildings and explained the history of the Castle and the numerous points of architectural interest. Subsequently, tea was partaken of at the invitation of the President, to whom a cordial vote of thanks was accorded.

CORRESPONDENCE.

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

The Conduct of Competitions.

SIR,—Now that competitions are again being so freely instituted their right conduct is of much importance. It seems to me that there is a very confused idea as to the object of a competition, more especially amongst the promoters. If the object is to discover a satisfactory design it is often enough a failure, but if the object is to discover a capable architect it is often enough a success. The two recent competitions for pleasure houses at Bournemouth and Tunbridge Wells have shown how poorly an architect appreciates the appropriate treatment of the subject, but in both cases the result of the competition has led to the selection of a capable architect. If the result has shown what is not wanted (and that so often happens!), it has disclosed able plans and architects who ought to be able to give right expression to them. I, for one, do not believe in the collective wisdom of the jury system. I have sat on too many committees to believe in that! I would prefer to trust myself to the ability and honesty of a capable assessor. The competing architects ought themselves to be the best judges, and it would be both instructive and interesting to try the experiment of the competitors' agreement as to the second best design.

"AN OLD HAND."

London.

Tunbridge Wells Pavilion Competition.

SIR,—With reference to the article by Mr. Howard Robertson in your issue of July 13, I think the assessor's awards in the recent Tunbridge Wells Pavilion Competition call for further comments on the present methods of adjudication.

In the first place it is obvious that the arrangements for the majority of competitions are the result of numerous meetings of public or other bodies, and I do think that in the judging of the various designs sent in at least one member of such committees should act in the capacity of co-adjudicator, together with an architect who specialises in the particular class of work put out for competition, and, to form a complete jury, a third person of sound practical and constructional experience.

Second, I am of the opinion that the names of the assessors should not be divulged until the awards have been made; and third, as regards the actual conditions of competitions, it would be much better if the clause relating to questions and answers be ruled out completely. The conditions could, and ought, to be drawn up in such a manner as to obviate the necessity of any questions by the competitors.

As a competitor in the Tunbridge Wells scheme, I venture to state (with all due respect, and without prejudice either on the part of assessor or competitors) that the assessor has omitted to take into consideration in making his awards the conditions as drawn up, and his answers to the questions in conjunction with them.

One particular clause in the conditions states that the stage should provide accommodation for 60 to 80 performers with dressing rooms for artists on each side. In the answers to the questions it will be observed that the dressing accommodation should only provide for from 12 to 15 persons of each sex. This is just one item taken at random to illustrate my point, but there are a host of others.

Another bad feature in the conditions of this particular competition was the clause relating to the cubical contents of the main hall and accessory rooms, which was made far worse, in my opinion, by the published extract from the assessor's report. Here it was stated that the first premiated design was cubed by the assessor's quantity surveyors and found to be the only one of the selected designs that could be executed to-day within the stipulated amount of £25,000. Now, any person with a fair amount of experience will agree that it is an utter impossibility to arrive at even an approximate cost of a building such as desired in this competition on the basis of cubical contents, and even if this were the case of the first premiated design, the assessor has very evidently omitted to take into account the excessive cost that would be required in preparing and completing the site for this particular scheme. When a figure is stated in the conditions it is generally assumed to be the amount of the total outlay, unless specifically mentioned otherwise. A study of the contour of the land on the southern side of the building would reveal that for a greater part of its length the elevation would be spoilt and the light considerably blocked by the necessity of a substantial retaining wall. Further, a great amount of work would be required in excavation and laying out of the terraces surrounding the band stand.

There are many other features particular to this competition which clearly illustrate and confirm the views of Mr. Howard Robertson.

Referring to your article in this connection on the question of design, had your representative been granted a view of some of the other designs sent in it probably would not have been essential for you to publish and convey to your readers (and the assessor in particular) the fundamental principles in exterior design as called for in the conditions and more in keeping with the surroundings.

Here let me say that you were wrongly informed when told that the rejected designs were on their way back to their respective owners, as, at the present time, my plans are not yet to hand, but are still in the keeping of the Tunbridge Wells Council.

London. G. T. MORRIS.

COMPETITION NEWS.

Hull.

The assessor, Mr. Stanley Hamp, F.R.I.B.A., has made the following award in the Hull Cenotaph competition:—

First premium (£150): Mr. T. H. Hughes, A.R.I.B.A., 28, Ashton-terrace, Glasgow.

Second premium (£75): Messrs. H. G. Hall and R. G. Cox, 4, Balliol-road, North Kensington.

Third premium (£50): Messrs. Hendry & Schooling, AA.R.I.B.A., 43, Doughty-street, London.

The following are highly commended:—Mr. R. W. Dening, F.R.I.B.A., Orchard-street, Bristol, and Mr. C. T. Pledge, A.R.I.B.A., 88, Algernon-road, London, S.E. 13.

Eastleigh and Bishopstoke.

FOR THE U.D.C.—Designs for an assembly hall and extension of municipal buildings. (See advertisement this week.)

Chiswick.

FOR THE U.D.C.—Designs for constructing and laying-out a river embankment. Premiums: 100, 50 and 25 guineas. Sending-in day, October 15. Further particulars from the Clerk to the Council, Town Hall, Chiswick. *Banned by R.I.B.A.*

Swansea.

The sending-in date for designs for Swansea Masonic Hall competition is October 3.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Singapore College (Jan. 1, 1924; March 30). Greenwich Baths (Aug. 25; May 4). Hull Art Gallery (Nov. 5; May 4). Mint competition for plaques (Sept. 30; May 25). Birmingham Masonic Temple (Sept. 12; June 22). Colour scheme (Sept. 30; June 29). Memorials to the Missing (Jan. 1, 1924; Aug. 3). Wirral Infirmary (*Banned by R.I.B.A.*) Halifax Lay-out (*Banned by R.I.B.A.*).

INDIAN ART.*

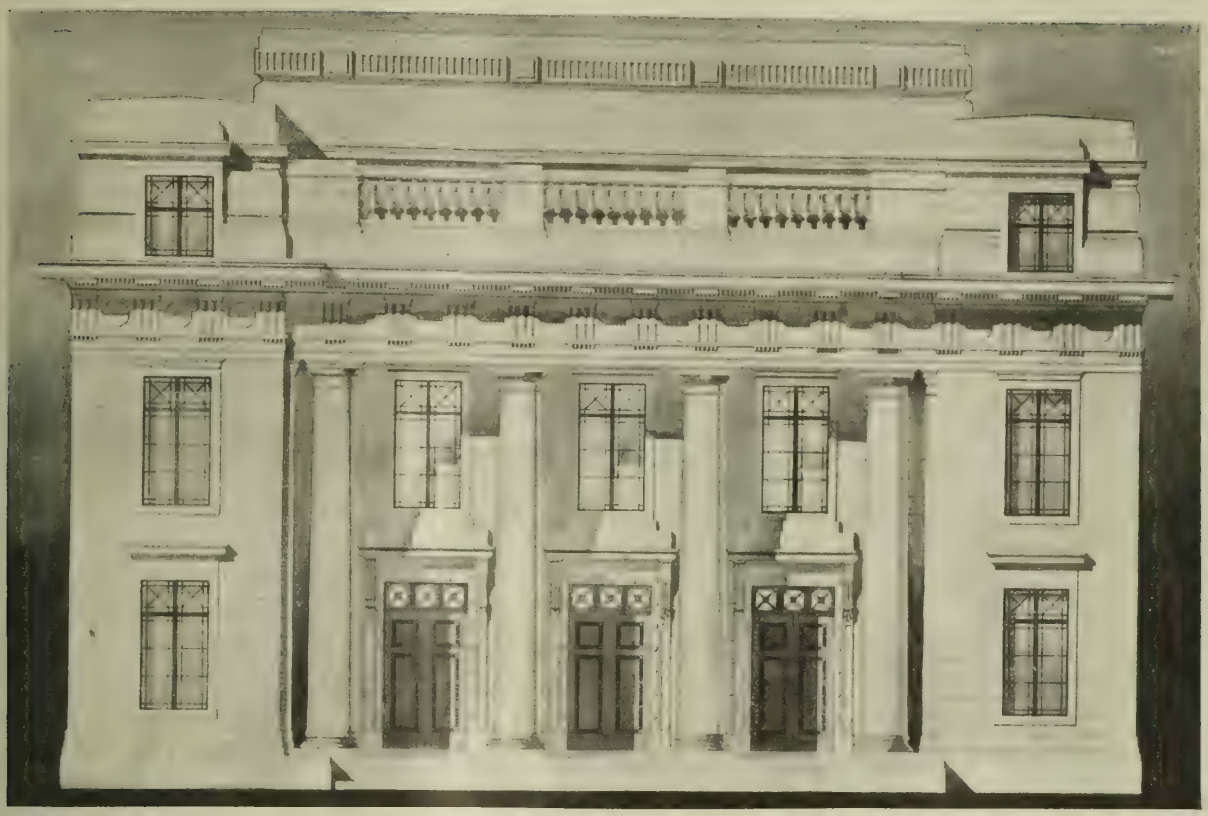
So much is included in the word "Indian" that a popular description of Indian art naturally presents some extraordinary contrasts in text and illustration, for Buddhist, Hindu, and Mohammedan peoples all have separate styles of architecture and decorative art which obey arbitrary rules concerning subject, proportion and treatment. On one page a photograph of a mosque indicates the Saracenic love of plain surface and carefully considered contour, the striking use of large masses of shadow in recessed doorways and of delicate gradations of shade on domes; on another page a temple may exhibit the application of carved ornament in such high relief as destroys all sense of continuity of surface and seriously disfigures the silhouette of the building when considered as a mass against the sky. In the minor arts the same extraordinary variety is presented. From certain designs human and animal figures are rigidly excluded, in others they constitute the chief interest or are included as adjuncts to monstrous mythological beings possessed of arms, legs or heads in addition to the normal quota. Mr. Blacker makes no pretence of adjudicating between the claims of these incompatibles, but describes each object in connection with a brief account of the religion under which it has come into being.

This complexity has undoubtedly prevented Indian art being understood in England, and collectors have hitherto paid far higher prices for Japanese and Chinese works than for objects of Indian manufacture. Exception was made in the case of Kashmir shawls, and these really beautiful textiles enjoyed a brief vogue in Europe when Queen Victoria made a custom of presenting them to the ladies of her Court. The fame of Oriental weaving is world-wide, and some of the tissues produced are marvellously fine and soft. The custom in the East which insists on women veiling the face over head and eyes creates a demand for materials of such gossamer slightness as would be quite unfit for any ordinary use in Western costume. Instances are quoted of muslins which "became invisible when spread upon the grass and subjected to the dew."

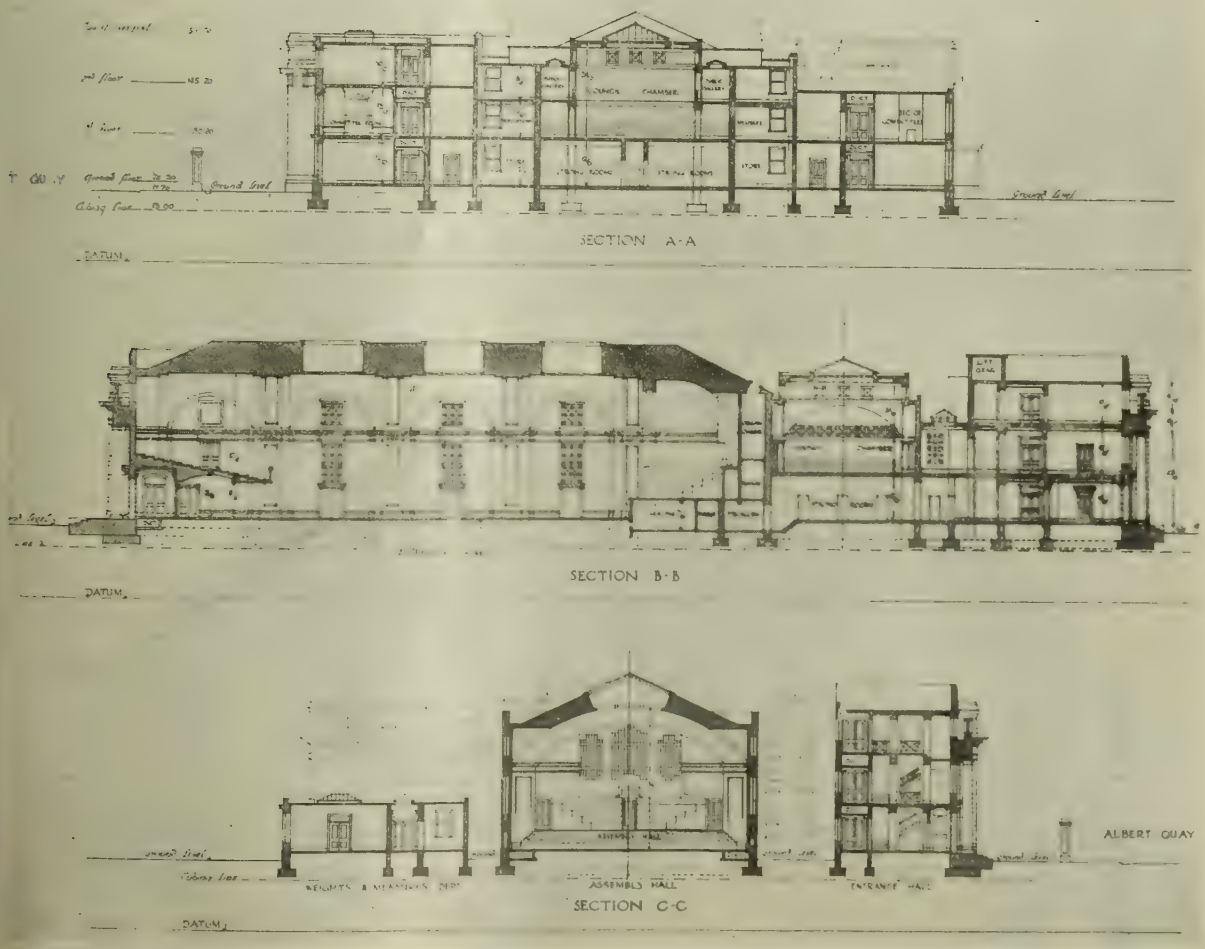
In regard to "Delhi, the Imperial city," Mr. Blacker writes: "Delhi, the old capital of India from the time of the Slave Kings, has come back to its rightful position as the new capital. . . . The new buildings will, no doubt, be worthy of praise, but we hope that Indian sentiment with regard to their architecture will find due place, and we could have wished that the native architects might have been associated with their construction." The principal buildings are being carried out from the designs of Sir Edwin Lutyens and Mr. Herbert Baker, and although the sentiment of Indian architecture for India's capital may be very attractive it is doubtful whether the existing arrangements could be improved upon without a radical upset of all established methods of procedure and the snipping of a great deal of Departmental red tape. Damascening and inlay, enamels, furniture, jewellery and lacquer receive attention in turn.

The remains of Indian paintings in the Ajanta caves are compared with fourteenth-century European paintings by Italian artists, the same concentration upon truthful rendering of detail being observed in the Indian paintings and in those beloved by the Pre-Raphælite Brotherhood. The fluency of direct line drawing is remarkable in these colossal mural and ceiling decorations, though Indian art also includes, at the other end of the scale, the miniature works of the portrait painter and book illuminator carried to the utmost perfection of delicacy. Some sale prices of Indian works given in Chapter XXX show the low figures which these articles have brought in recent European auctions. The author gives collectors the advice to pick their bargains with discretion now, and wait for the change of fashion in artistic taste to enhance the value of their purchases.

*"The A B C of Indian Art." By J. F. BLACKER. (London: Stanley Paul & Co. Price 15s. net.)



Half-Inch Detail.



Cork Town Hall and Municipal Buildings Competition.
First Premiated Design, by Messrs. Jones & Kelly. (*See also pp.* 286–7.)

THE DOME: ITS HISTORY AND CONSTRUCTION.—I.

By SIDNEY TOY, F.S.A.

In the four articles it is proposed to devote to this subject the dome will be treated mainly from a constructive point of view. The principles of construction adopted by the Romans, the Byzantines, the mediæval builders of Western Europe, the Saracens, and the architects of the Renaissance and of modern times will be briefly reviewed in succession. At all periods the restraints imposed upon the builders by the necessity for the employment of local materials and of workmen accustomed to local methods of construction have been of themselves productive of progressive steps in architectural development, since the difficulties thus presented have stimulated inventive genius, and in no case is this more evident than in that of the evolution of dome construction. Though it is not possible here to treat the subject extensively, it is hoped to examine the most salient features in this evolution.

The advantages of forming a roof by means of a dome were appreciated from the remotest periods, and although in such works as the Treasury of Atreus at Mycenæ, dating from about 1180 B.C., the principles of construction employed are in their earliest forms, it is doubtless from such types that the Roman, Persian, Syrian, and Byzantine forms were developed. In countries subject to frequent earthquakes, such as those of the Levant, it was of the first importance to discover a form of roof which should offer the greatest resistance to seismal disturbance, and the domical form was found to be the best suited to that purpose. That the conclusion of the Levantine builders was correct is amply proved by the great number of ancient domes which still remain and by the observations of a modern architect and writer, M. Auguste Choisy, who, on visiting a town in Asia Minor some months after the occurrence of a disastrous earthquake, was struck by the fact that the mosques which were roofed with domes remained intact while the surrounding buildings were in ruins.

Domes such as those at Mycenæ and Menidi were built on circular foundations, had their springing line near the pavement level, and, assuming a beehive form, were built throughout of stone in horizontal courses. Since the rise is rapid each succeeding course projects only slightly beyond that immediately below, and it is probable that the inside face of the structure was cut plain after the whole was built, as indicated by the shaded portions in Fig. 1, from the subterranean chamber known as the Treasury of Atreus at Mycenæ.

Little development in the construction of domes occurs before the period of the Roman Empire, and one of the earliest and most conspicuous examples of that period is the Pantheon at Rome, built about A.D. 123. This



Fig. 3.—The Temple of Minerva Medica, Rome.

dome forms the roof of a circular building, 142 ft. 6 in. internal diameter, and is constructed of brickwork in a most ingenious manner (Fig. 2). As shown on the right-hand side of the figure, a series of brick arches, which extend through the full thickness of the dome, and ribs form the skeleton or framework of the structure, while the main body of the work is composed of horizontal brick courses with bed joists inclined slightly outwards. The great arches at the springing of the dome occur above the recesses in the main wall of the building, and immediately below these are three arches which abut above the columns in those recesses. It has been often asserted that the dome of the Pantheon is built of concrete, but the actual construction as described above and outlined by Piranesi in his engravings of the building made during repairs in 1747, was clearly revealed by the investigations of M. Chedanne, who was granted special facilities for examining the Pantheon by the Italian Government, and presented his report, accompanied by a series of drawings, to the Académie des Beaux Arts in June, 1892. Owing to this method of construction in horizontal courses, and to the weight of the mass of brickwork at the haunches, little or no thrust is exercised on the walls, and the resulting pressure is vertical, but that the skeleton framework has not become so much a part of the general mass as to lose entirely its structural importance was demonstrated by M. Chedanne, who observed that where some of the lower arches had been cut into in 1747 cracks had developed in the superstructure. A coffered face of brick framework and stucco or light concrete infilling covers the dome internally, as shown on the left-hand side of Fig. 2. It is possible that this coffered portion was the first part of the dome to be built, the vertical ribs between the coffers resting on corresponding ribs of a timber centering, and that, when this was complete, the main mass of the vault was constructed upon it. The method of lighting adopted here, by means of a circular eye 27 ft. in diameter at the crown of the dome, was not pursued either by the architects of Rome or of Constantinople, and it was not until the period of the Classic renaissance that the principle was developed. This eye is still bordered with a bronze cornice, and the whole dome was originally covered with bronze-gilt tiles, but the latter were removed to Constantinople in A.D. 662.

The edifice called the Temple of Minerva Medica at Rome was probably built at least two centuries after the Pantheon. Here the dome, shown in Fig. 3, rises from a decagonal base and rudimentary pendentives are employed at the angles of the base to support the circular dome where it passes across them. This dome, the whole crown of which fell down about 1828, was composed of a series of ribs, springing from the pendentives and converging towards the crown, and of infilling masonry bonded together at intervals by brick lacing courses. Each of the main ribs consists at the springing of five members; but only the three middle members were carried beyond the haunches, the reduction doubtless being made on account of the diminished distance between the ribs as they converge towards the crown. In the centre of each panel between the main ribs are brick arches flanked by other ribs, all embedded in the general masonry. Buttresses are placed at the angles of the building so that they might receive the thrusts from the great ribs directly at the points at which they are exer

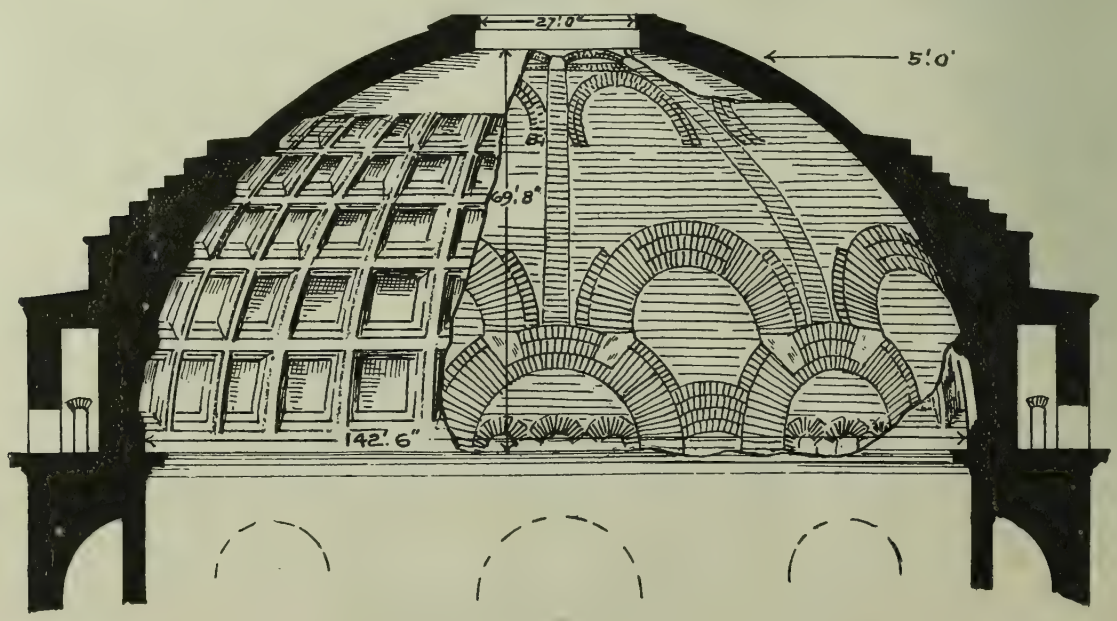


Fig. 2.—The Pantheon, Rome.

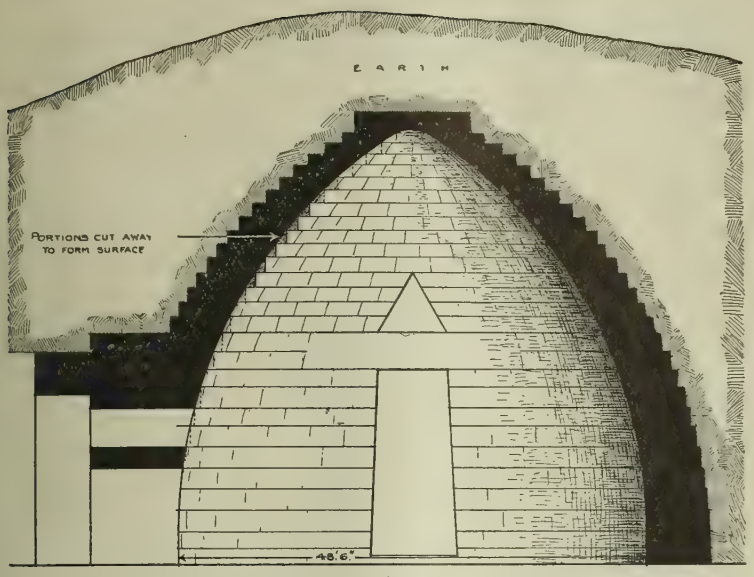


Fig. 1.—Treasury of Atreus at Mycenæ.

cised, thus manifesting a considerable development in scientific construction. This is probably the earliest existing example of the application of the principle of placing buttresses directly opposite points of concentrated thrust.

The bricks used by the Romans are flat and vary in size from 1 ft. 2 in. by 6½ in. to 2 ft. by 1 ft. on face, and are from 1½ in. to 1¾ in. thick; they are embedded in mortar joints of about the same thickness as the bricks themselves. The infilling work usually consisted of alternate layers of cement and broken stone or pebbles, bonded at intervals of about 3 ft. by brick lacing courses. Large earthenware jars were incorporated in the substance of the dome of the Torre Pignattara or tomb of S. Helena on the Via Labicana, near Rome, built about the early part of the fourth century. These jars were doubtless used here simply to lighten the material of the dome itself, but there are indications where they are found in similar positions elsewhere that such jars were also employed to impart resonance to the edifice in which they were built, and represented an adaptation of the use of acoustic vessels as mentioned and elaborated by Vitruvius. In a ruined cupola at Nicæa large earthenware jars have been found buried in pairs in the substance of the material, with their necks directed towards the interior.

At Nocera de Pagani, near Salerno, is a baptistry which was probably built in the latter half of the fourth century, about fifty years after the tomb of S. Costanza at Rome, to which it bears considerable resemblance in plan (Fig. 4). Here the central space is surrounded by an ambulatory and covered by a dome which rises in an ovoid form above a circular arcade with twin columns. This dome is built of stone courses, the bed-joints of which are horizontal in the lower part but inclined in the upper part of the shell. It is pierced by a row of windows immediately above the haunches. A circular drum, carried up externally from the haunches, enables the dome itself to be covered in by a timber roof and this is probably the earliest example of a principle of construction which was extensively adopted by the Italian architects in later buildings of a similar character, and in its wider application to vaulting generally became the accepted rule throughout Europe.

Ashlar masonry was very little used in the construction of domes. The dome of the round temple at Baalbec, dating from A.D. 273, and several cupolas at Djerach of about the same period, were built of ashlar. In these examples the bed-joints of the voussoirs radiate towards a centre within the dome, much in the same manner as in modern work of this character, and must have been built upon substantial centering. But ashlar domes, the stones of which were accurately cut and fitted together—in some cases without mortar—were too expensive for general use and were rarely adopted.

PROTECTIVE TOWN-PLANNING.

By EWART G. CULPIN.

Town Planning has been discussed from many points of view, and its advocates have demonstrated how its application will ensure convenience and safety of traffic movements, how public health will be benefited, how the future town may be made more desirable by proper grouping of buildings and by the fixing of building lines and site planning, how monstrosities in building may be prevented, how noxious trades may be kept from harming a population, and how ease of development will be combined with economy. There is one aspect which does not so often come into the public eye, but it is one which, none the less, deserves attention, and which has great importance for a certain class of town, and especially for small towns.

There are many places in the country which rely for their chief asset and charm upon the natural beauty of their setting or upon some historic association. Some towns and places, such as Stratford-on-Avon, are examples of this. They do not attract the crowd which wants the noise and bustle of a Blackpool to give it pleasure. They do not rely upon the incursions of char-a-banc loads of trippers to provide a living for their tradesmen. And if they are wise they will never attempt to secure these things. Blackpool, which is the Mecca of many, is hatefulness itself to others; but bad as it may be for some a second-rate Blackpool would be infinitely worse. The places now under consideration, these jewels of nature's setting, perched on uplands, reposing in valleys, keeping guard on sea and moor, spell rest and recreation, inspiration and health to the nature lover and the beauty seeker. The tiny stream, plashing its way over Devon rocks or meandering through fern-clad vales, gives more pleasure to contemplative minds than the river laden with its pleasure craft packed to suffocation with a crowd of merry souls, and it often makes the attractiveness of a town and takes the place of a "chief industry" in providing the bread-and-butter of the townsfolk. And yet one selfish owner, one unthinking builder, may irretrievably ruin a natural picture because no step has been taken to protect the town's interests. The cutting down of a noble group of forest trees may change the aspect of a countryside; an obtrusive advertisement hoarding may make hideous the most perfect sylvan sweetness.

It is, therefore, well to remember that these things may be guarded at trifling cost by a properly conceived town-planning scheme. The initial cost of preparation is very little. It is much less than individual residents would be willing to pay as an insurance against these other things happening. And it has been found in practice that the sums to be paid as compensation to owners are very little indeed. With some tact, and by exercising the extensive powers provided for constant conference with all sections of the community as the plan proceeds, agreement can, in most cases, be arrived at as to what should be preserved in the best interests of the town, for landowners no less than others realise that the destruction of natural beauty depreciates the value of their own land.

The blessed word "amenity" may cover a good deal, and the "model clauses" recently issued from the town-planning department of the Ministry of Health will be found most helpful in dealing with this problem. It is recognised that to prohibit any cutting down of trees might be unfair to owners, so the authority is required to register any tree or group of trees whose preservation appears desirable, and it then becomes an offence to destroy such trees. In most towns where this question is urgent there is usually a body of public-spirited individuals who have had this matter under consideration and whose help will be very useful to the authority.

The regulation of hoardings for advertisements is combined with some decision as to the character of the advertisement, and this will be very valuable, wisely used. Another protective clause, which may prevent many an eyesore, is the power to secure that private gardens and open spaces shall be reasonably maintained in good order, and the man whose garden is an affront to the neighbourhood and produces only crops of weed seeds may find that the job of keeping things decent and tidy has been done for him, and that he has got the bill to pay.

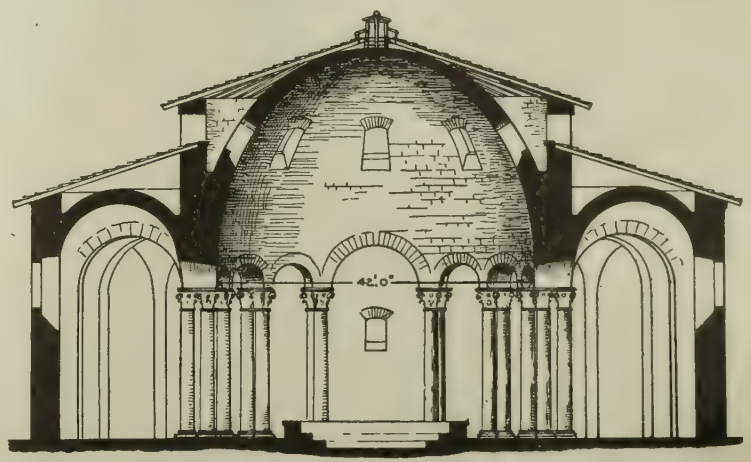


Fig. 4.—Baptistry, Nocera de Pagani.

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ILLUSTRATIONS.

Design for a Repertory Theatre.

This design, by Mr. C. H. Hutton, was awarded first prize for the best set of working drawings made at the Liverpool University School of Architecture during the year in the competition inaugurated by Messrs. Holland & Hannen and Cubitts, Ltd. The set of twenty drawings was submitted for a thesis for the B.Arch. Degree with Honours in construction, and was awarded a First-Class in July this year.

Shepherd's Bush Pavilion.

Mr. Frank Verity, F.R.I.B.A., is the architect of this new cinema theatre, which was opened last week. It is claimed to be one of the largest theatres in Europe; the width across the parterre is 100 ft., and from the rear wall to the orchestra is 160 ft.; the height of the ceiling above the auditorium is nearly 75 ft. The ceiling consists of three sections, the section uniting with the proscenium being formed to represent a vaulted arch. Our illustration is from the exhibit at this year's Royal Academy Exhibition.

House near Watford.

The house now being built has been considerably altered from the original plan; in fact, it is a new plan. The present house consists of a living-room, hall, dining-room, kitchen, scullery, and offices, with four bedrooms, garage, and terrace. Messrs. J. Laing & Son, of Carlisle and London, are the contractors, and the fireplaces, ironmongery, &c., are being supplied by the K.C.B. Foundry Co., of Mount-street, Grosvenor-square.

The architects are Messrs. Courtenay M. Crickmer, F.R.I.B.A., and Allen Foxley, M.A., of 1, Lincoln's Inn Fields, W.C. 2.

Cork Municipal Buildings and Town Hall Competition.

We illustrate the successful design in this competition by Messrs. Jones & Kelly, of 17, South Frederick-street, Dublin, who will carry out the work, which is to cost approximately £120,000. The second premium of £200 was awarded to Messrs. Donnell & Dixon, 20, Elyplace, Dublin, and the third premium of £100 to Messrs. Bryne & Son, of 20, Suffolk-street, Dublin. The competition was confined to Irish architects. Mr. Lucius O'Callaghan, F.R.I.A.I., A.R.H.A., was the assessor.

Exeter War Memorial.

With reference to the illustration and description of Exeter war memorial, given in *The Builder* of August 3, the bronze figures at the base, representing the sailor, the soldier, the nurse, and the prisoner of war, were cast by Wm. Morris & Co. (Westminster), Ltd., at the Morris Art Bronze Foundry, Rochester-row, S.W.

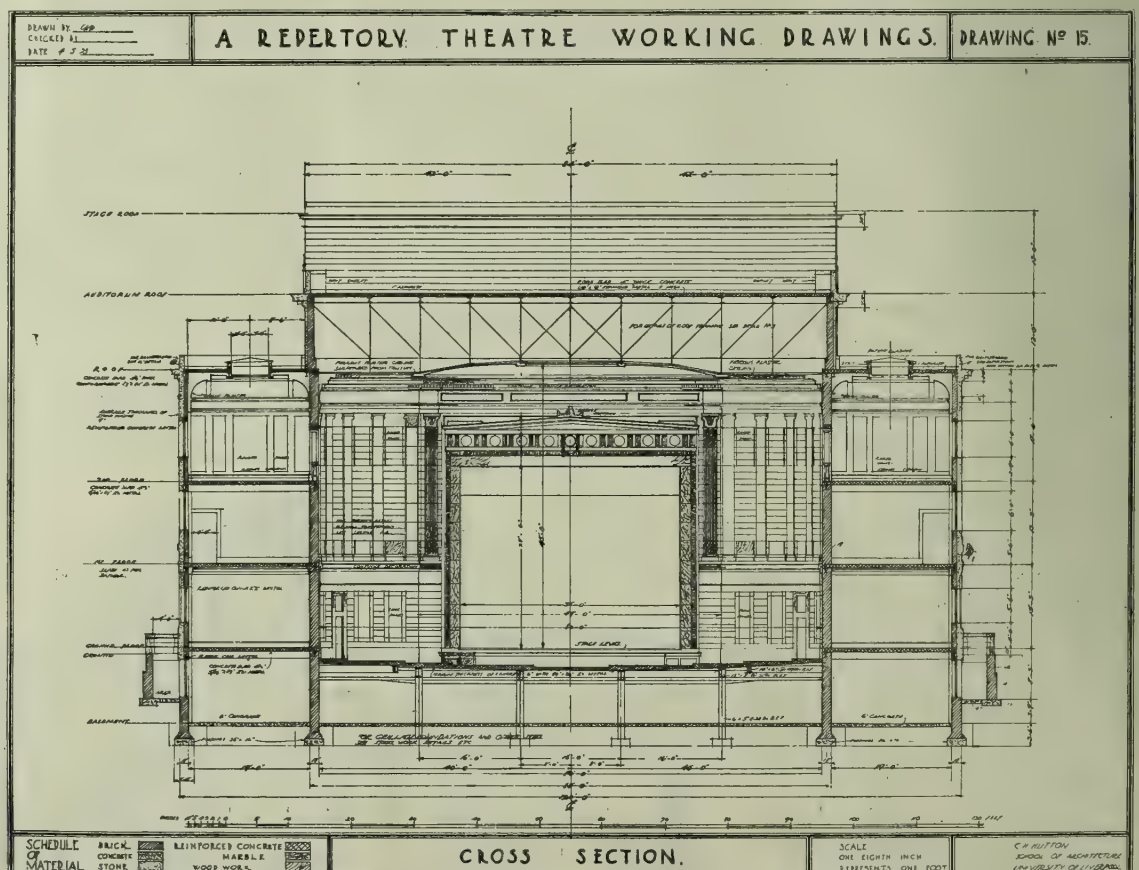
EXHIBITION NOTES.

TWENTY-ONE GALLERY.

Excellent colour is a dominant feature of the small pictures at the Twenty-one Gallery Summer Exhibition, and this applies to varying methods of expression such as the prevailing notes of grey against the blue sky in Bernard Sickert's "The Gantry at the Toll Gate" (32), the mellow tone in "The Flowered Gown," by F. Ernest Jackson (31), or the brilliant colouring in "The Yellow Boat" and "The Pool," by Alfred Palmer. Though the subject is depressing enough the colour and light make a very telling result in Walter Sickert's "Interior" (38). The "Tetuan Street" (35), by Henry Bis op, is an admirable little picture in tone and colour. A delightful little flower painting is "Anemones," by R. Heriot. "On the Dart near Totnes," by H. A. Stevens, presents something of the reality of light effect over the river. The little picture, "Romance" (34), by W. E. Webster, with its setting of a graceful figure against a dusky background, takes us really a little way into the region of romance. "The County Bridge, Barnard Castle" (29), by Chas. Bathurst, gives a sympathetic picture of old English buildings and their surroundings. Altogether this small exhibition is good to see, and shows that notwithstanding so much crazy effort is at work in the picture world we still have artists who are capable and willing to please us.

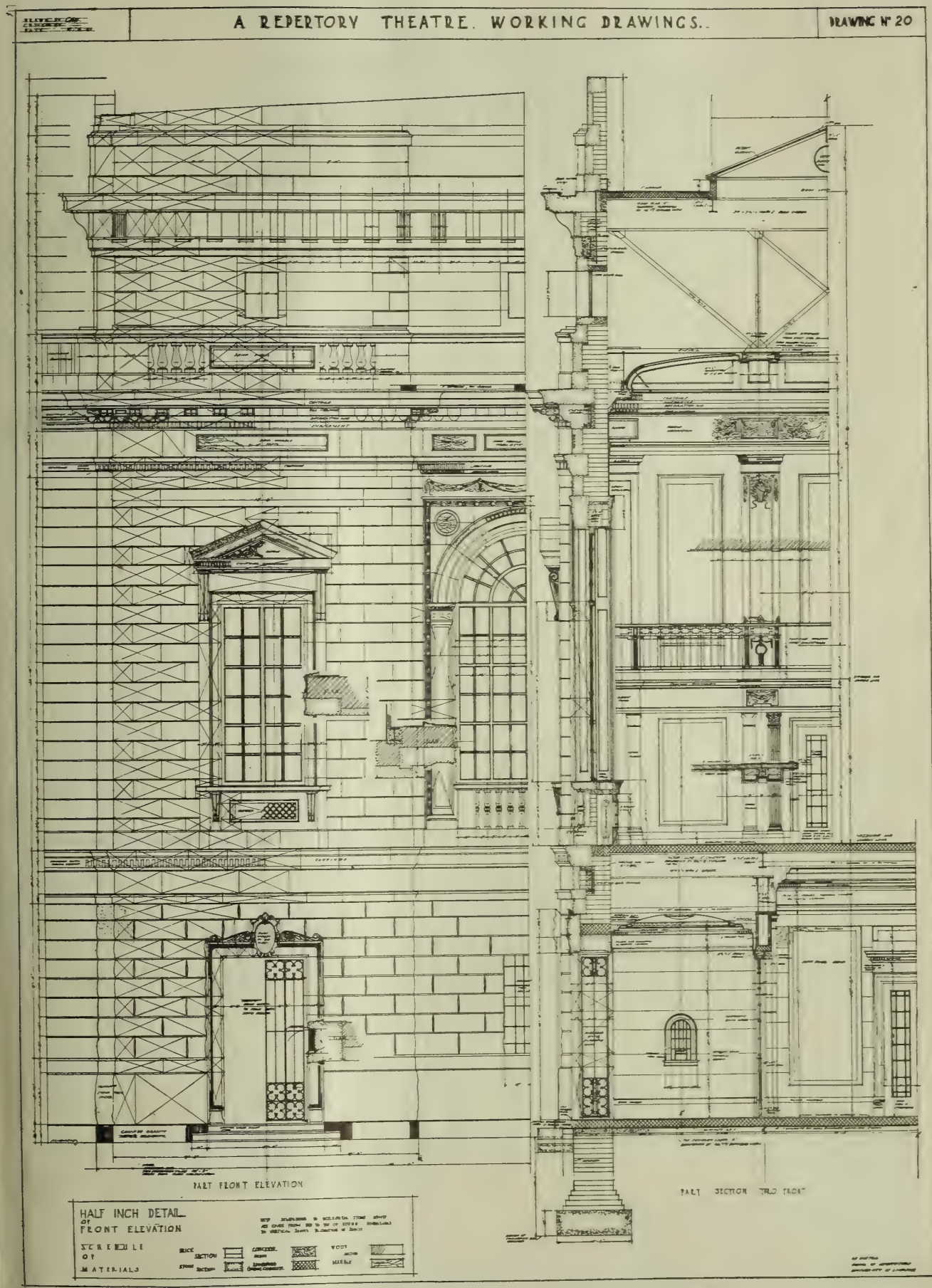
HOLIDAY SKETCHES.

An exhibition of holiday sketches will be forthcoming this autumn, we hope, for nothing affords more pleasure than the spontaneous jottings of form and colour which appeal to us in a holiday mood. The essential and salient characteristics which are seized in this way have a significance and value so often lost in elaborate work. The sketcher is not always the best judge of what makes an appeal to others, but we are sure a discriminating searcher for subjects would find ample material for an exhibition of very great interest.



Liverpool School of Architecture Students' Work.

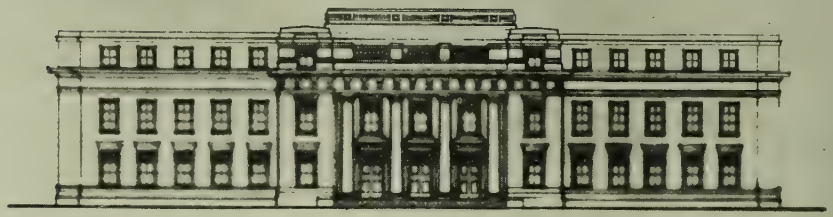
Design for a Repertory Theatre. By Mr. C. H. Hutton (awarded First Prize in the Holland & Hannen and Cubitts Competition).



Liverpool School of Architecture Students' Work.

Design for a Repertory Theatre.

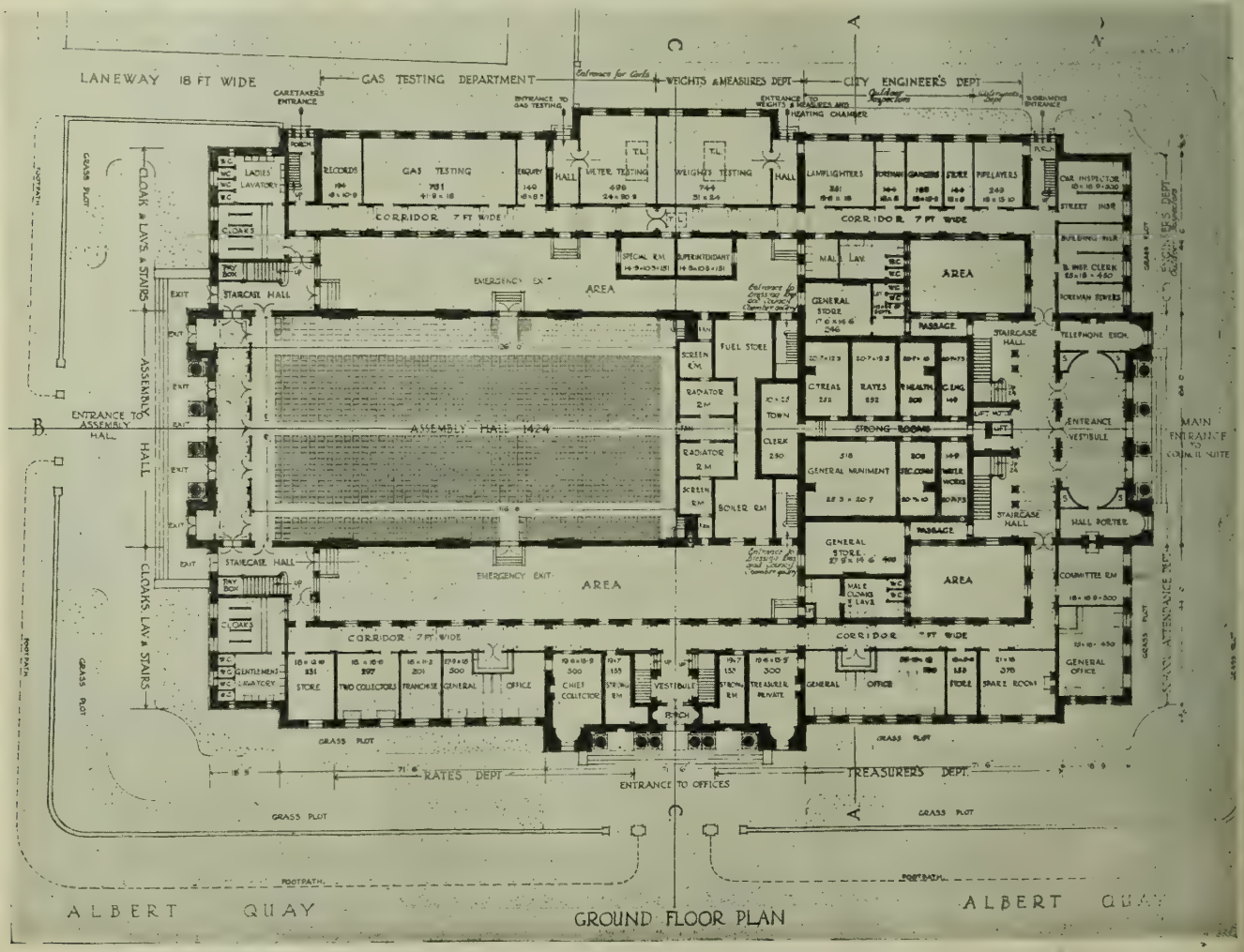
By Mr. C. H. Hutton (Awarded First Prize in the Holland & Hannen and Cubitts Competition).



ELEVATION TO ANGLESEA STREET



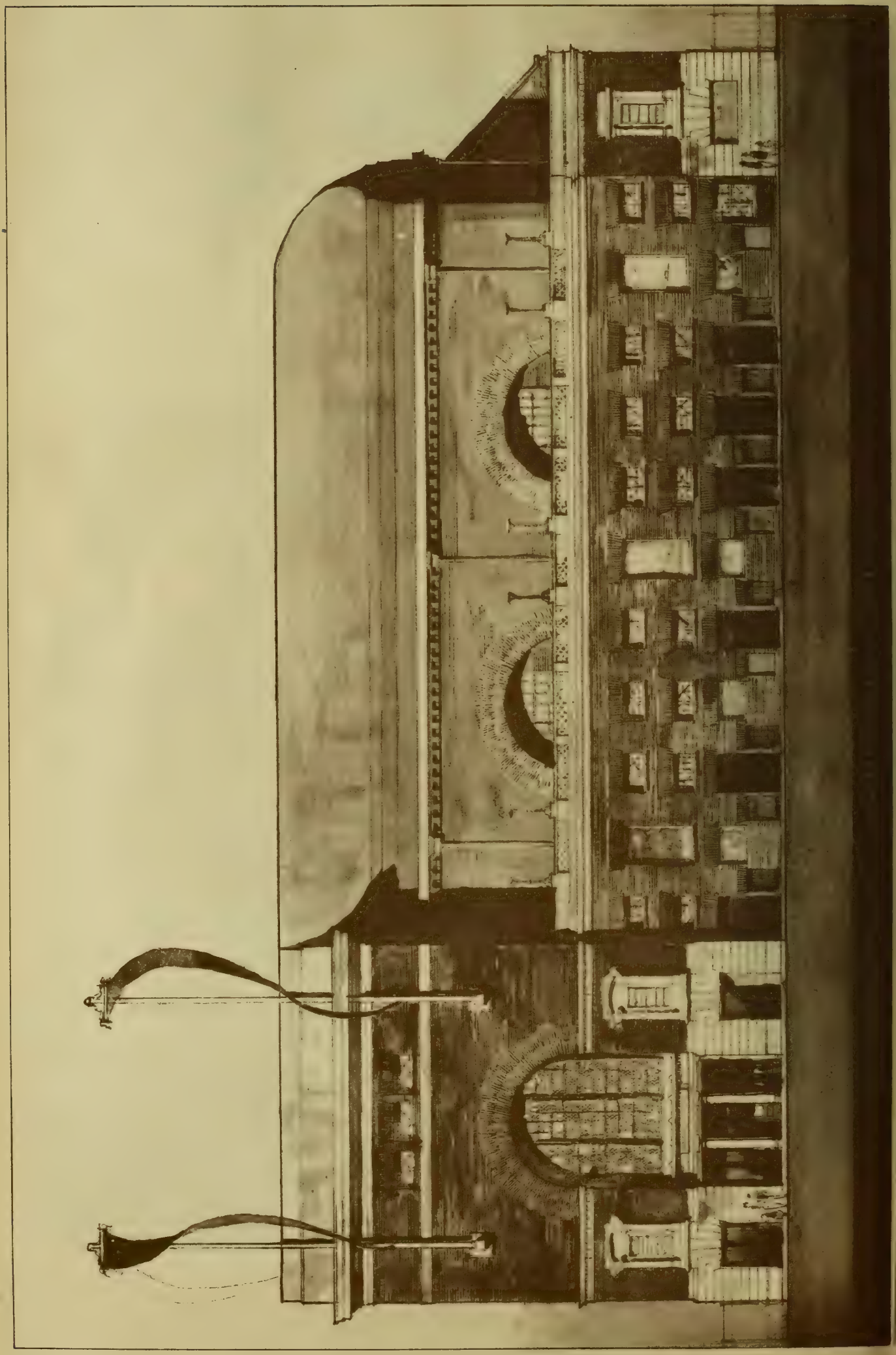
ELEVATION TO ALBERT QUAY



Cork Town Hall and Municipal Buildings Competition,

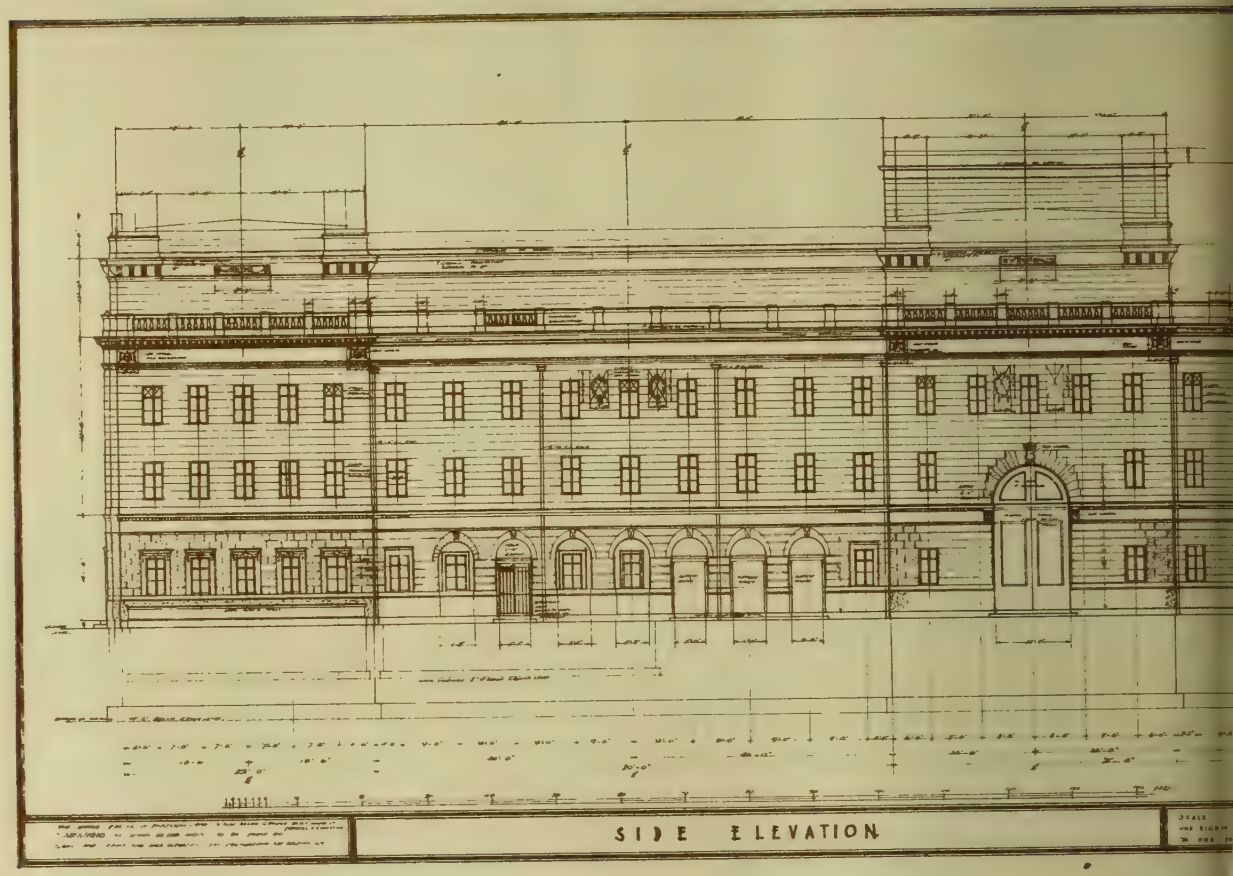
First Premiated Design, by Messrs. Jones & Kelly.

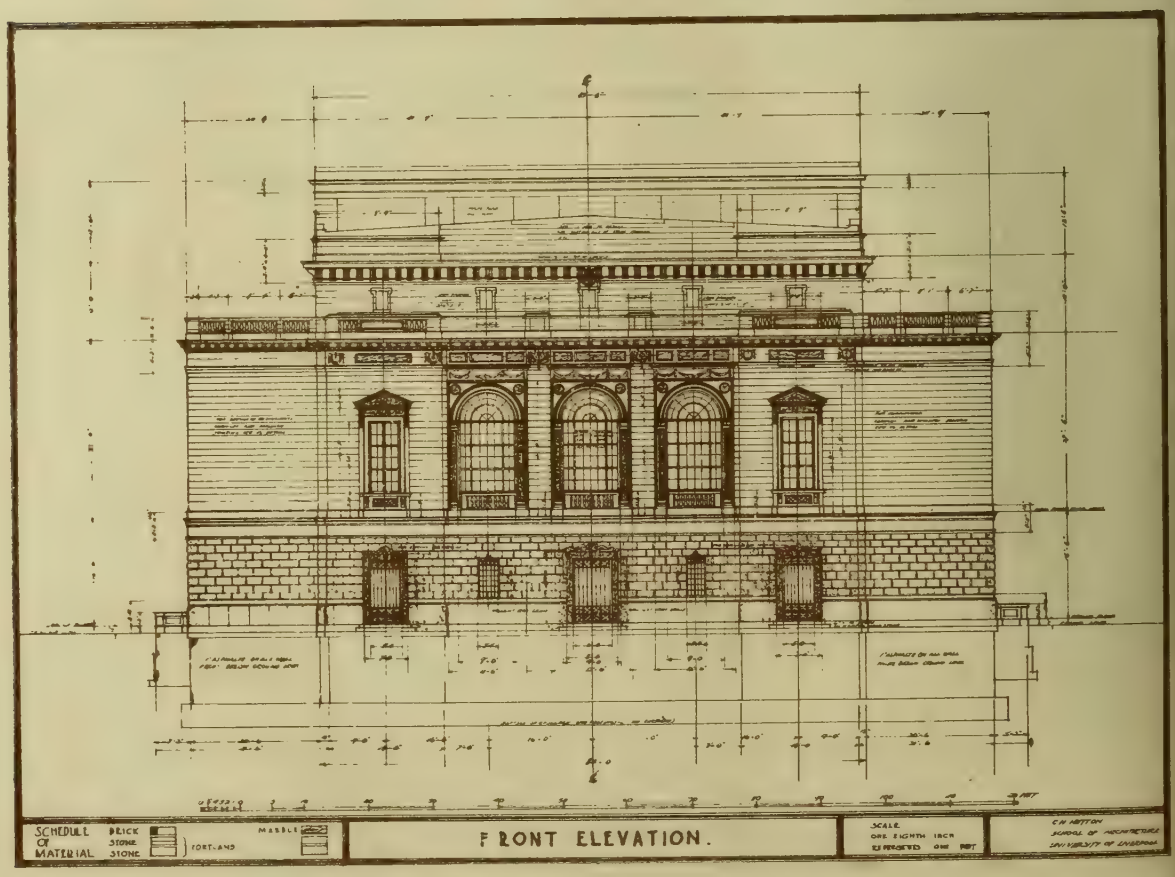
(*See also p.* 281.)





MESSRS. C. M. CRICKMER, F.R.I.B.A., & ALLEN FOXLEY, M.A., ARCHITECTS.



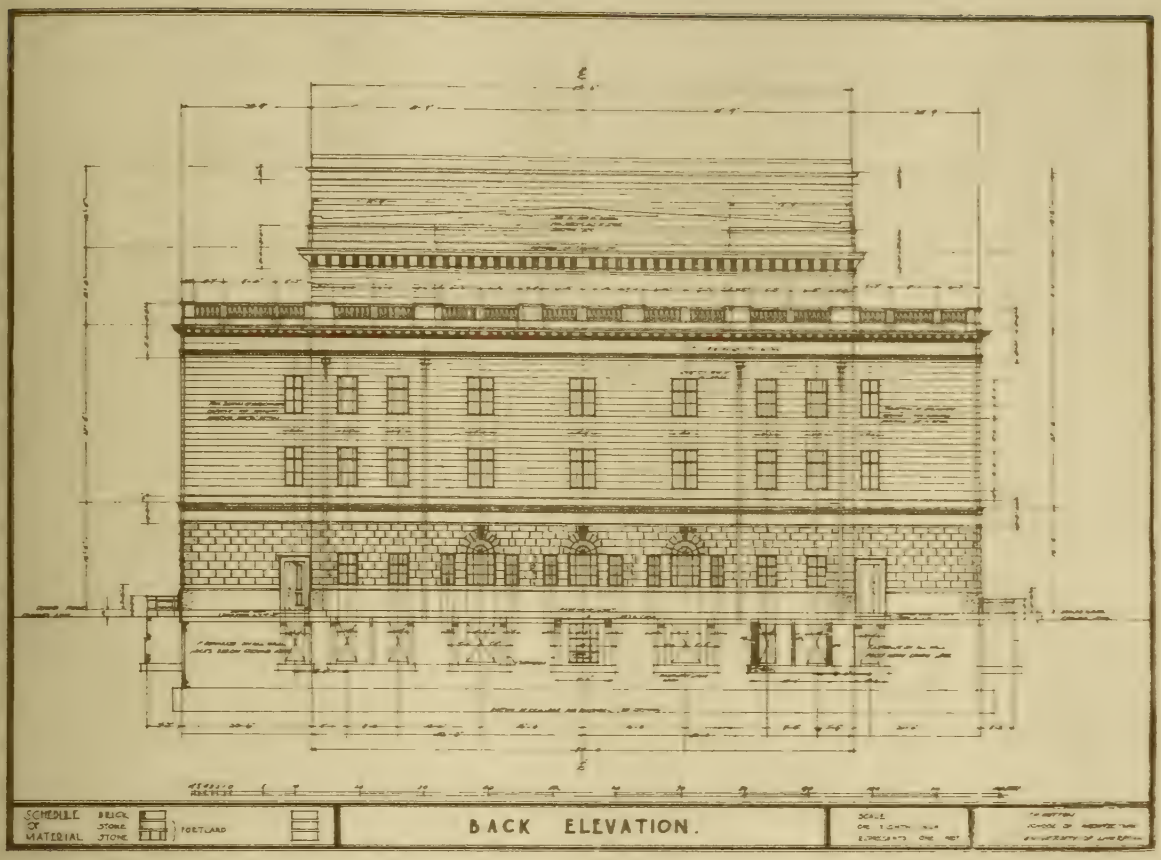


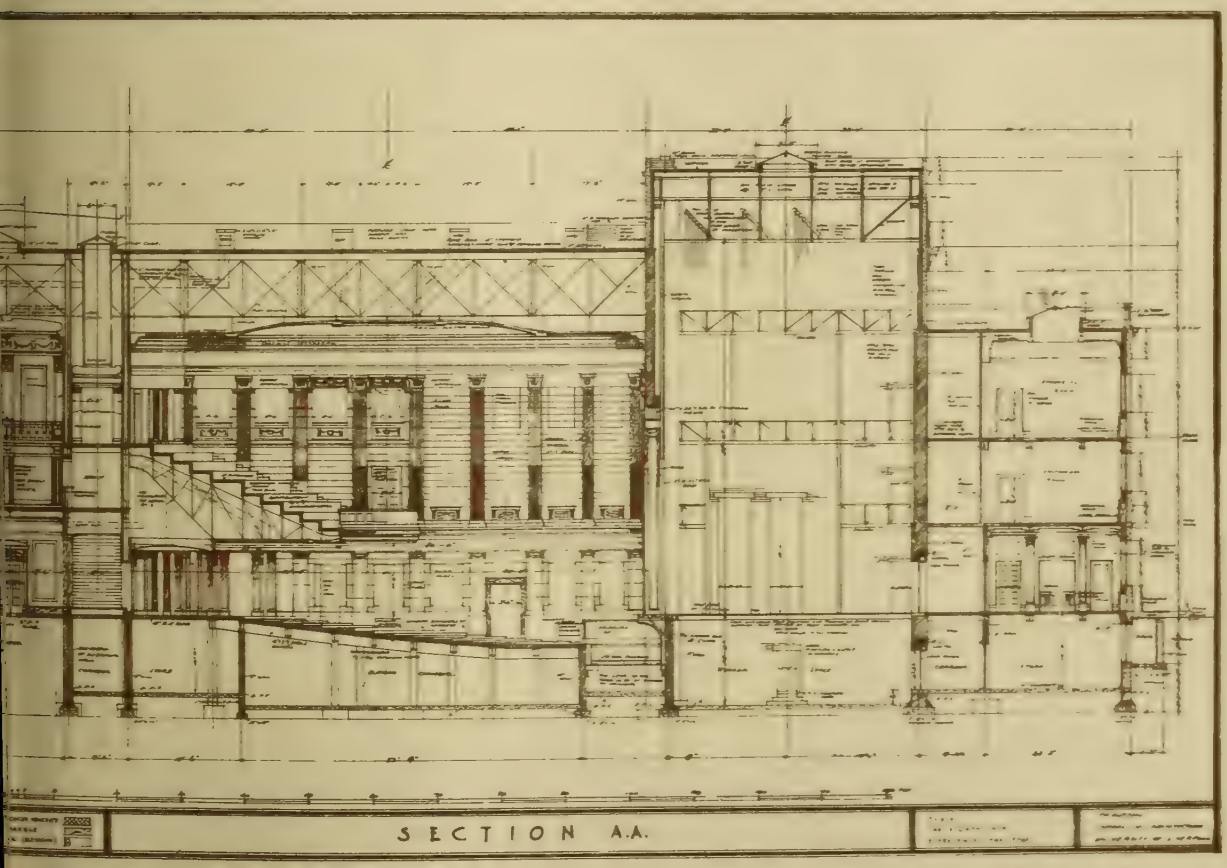
LIVERPOOL SCHOOL OF ARCHITECTURE STUDENTS' WORK.

DESIG

BY MR. C. H. HUTTON (AWARDED F

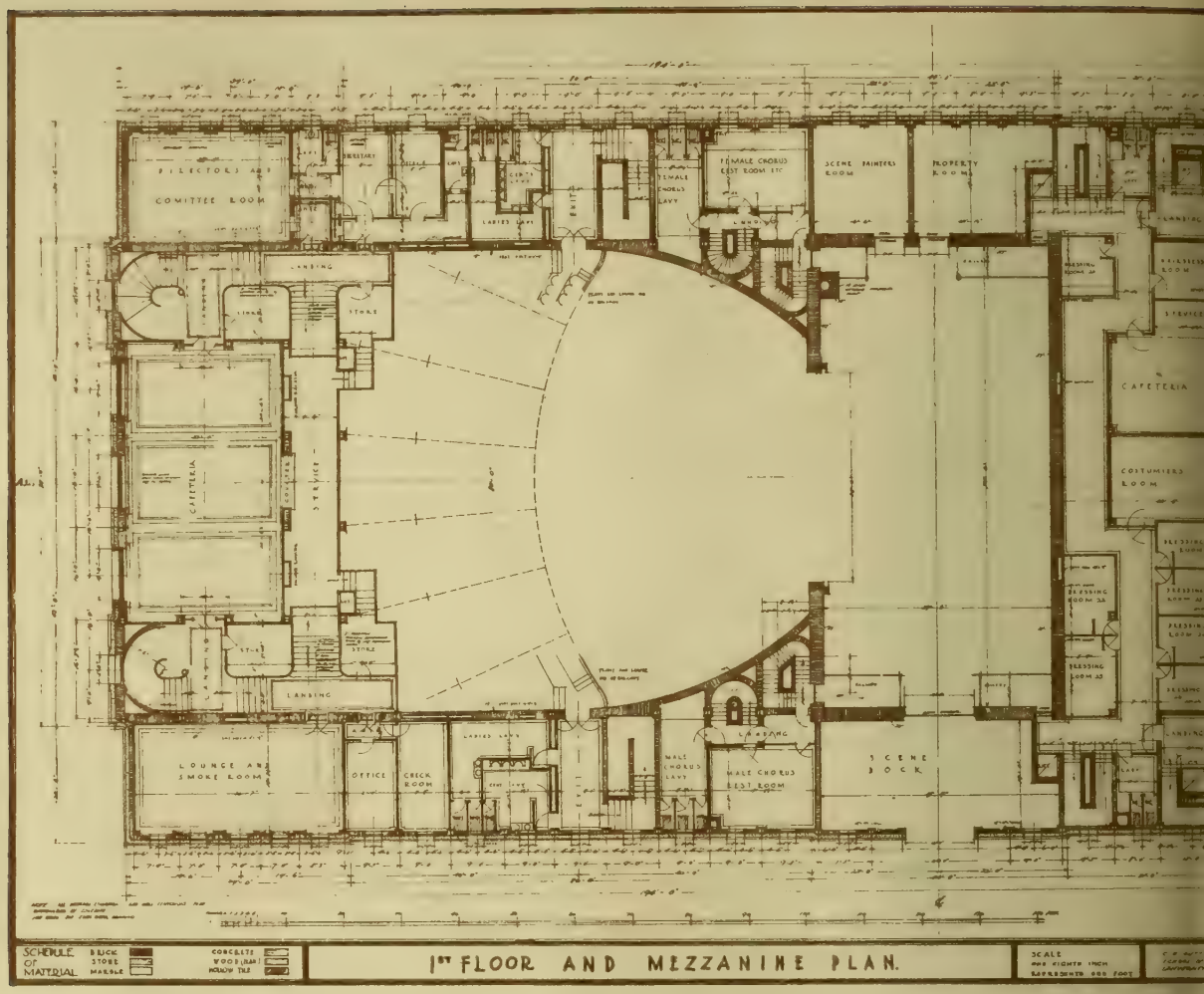
1923.

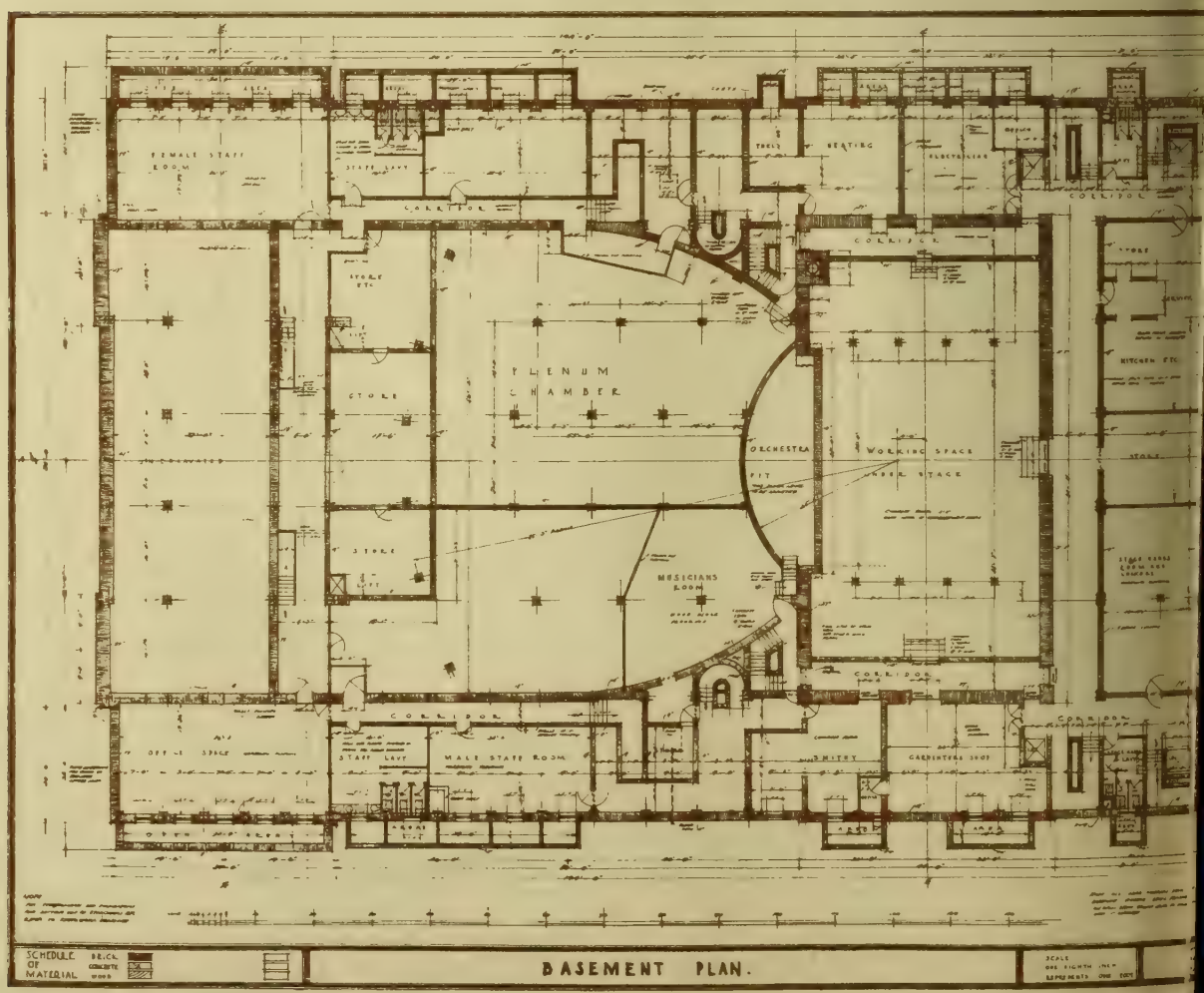




EATRE.

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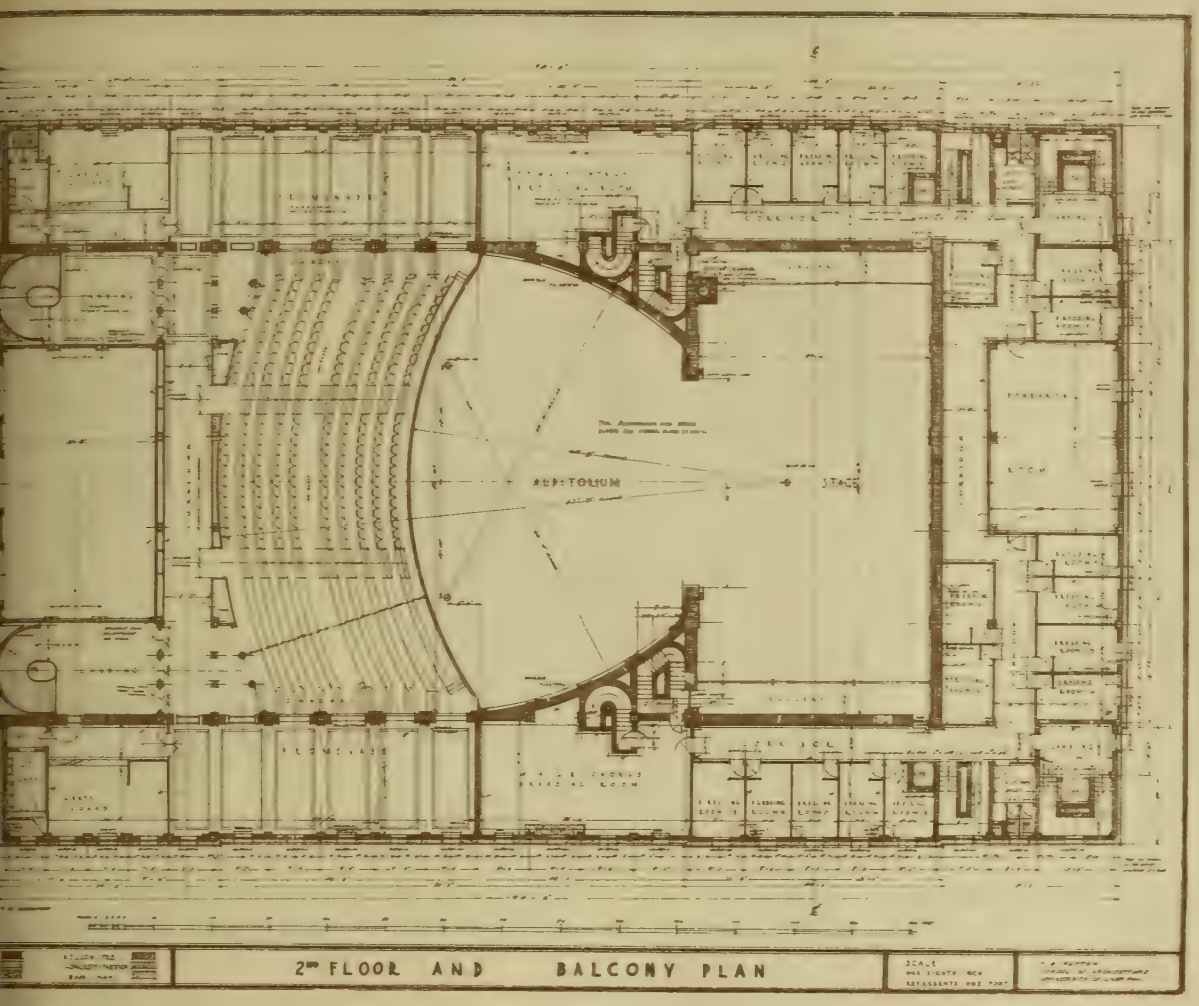


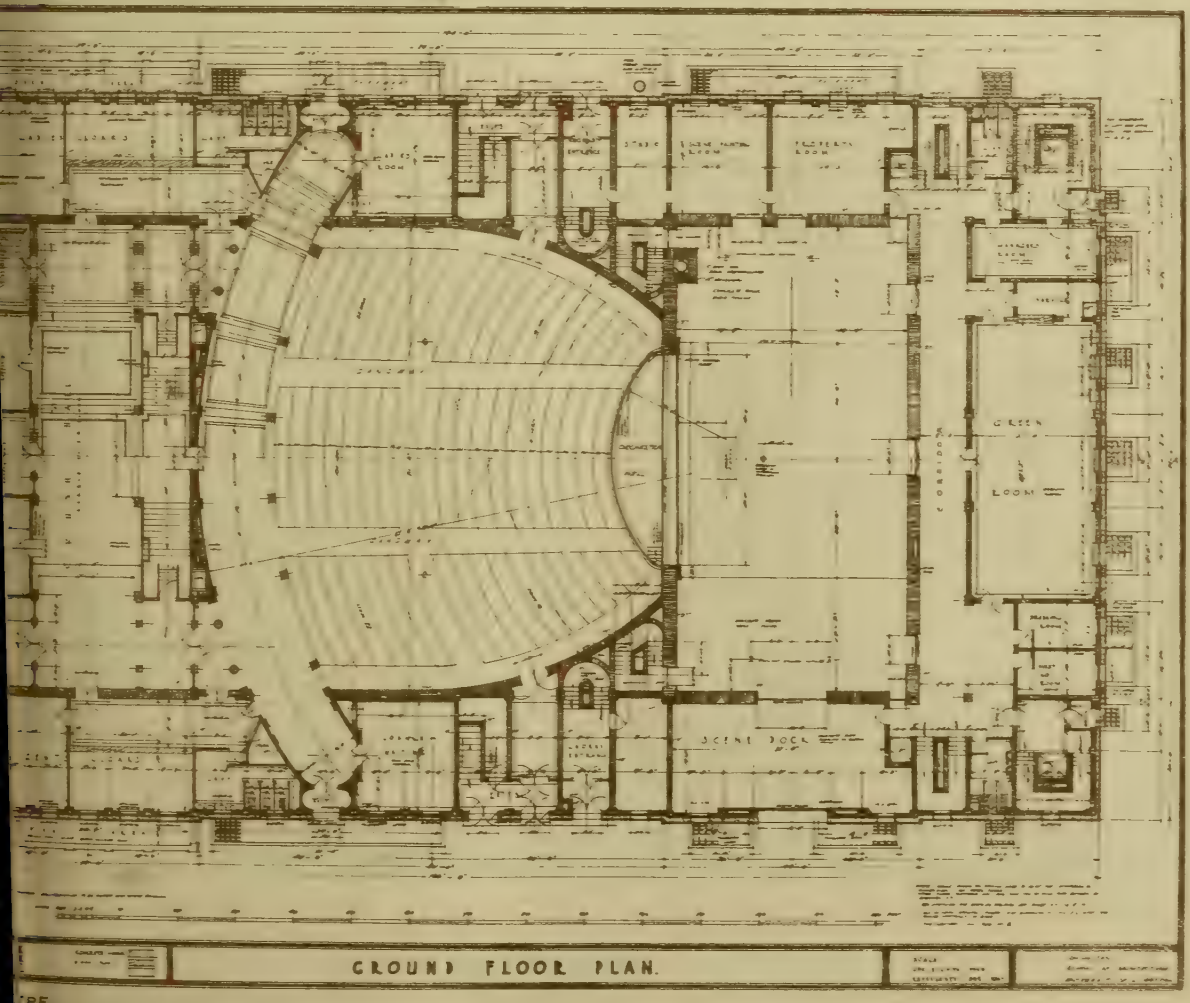


LIVERPOOL SCHOOL OF ARCHITECTURE STUDENTS' WORK.

DESIGN

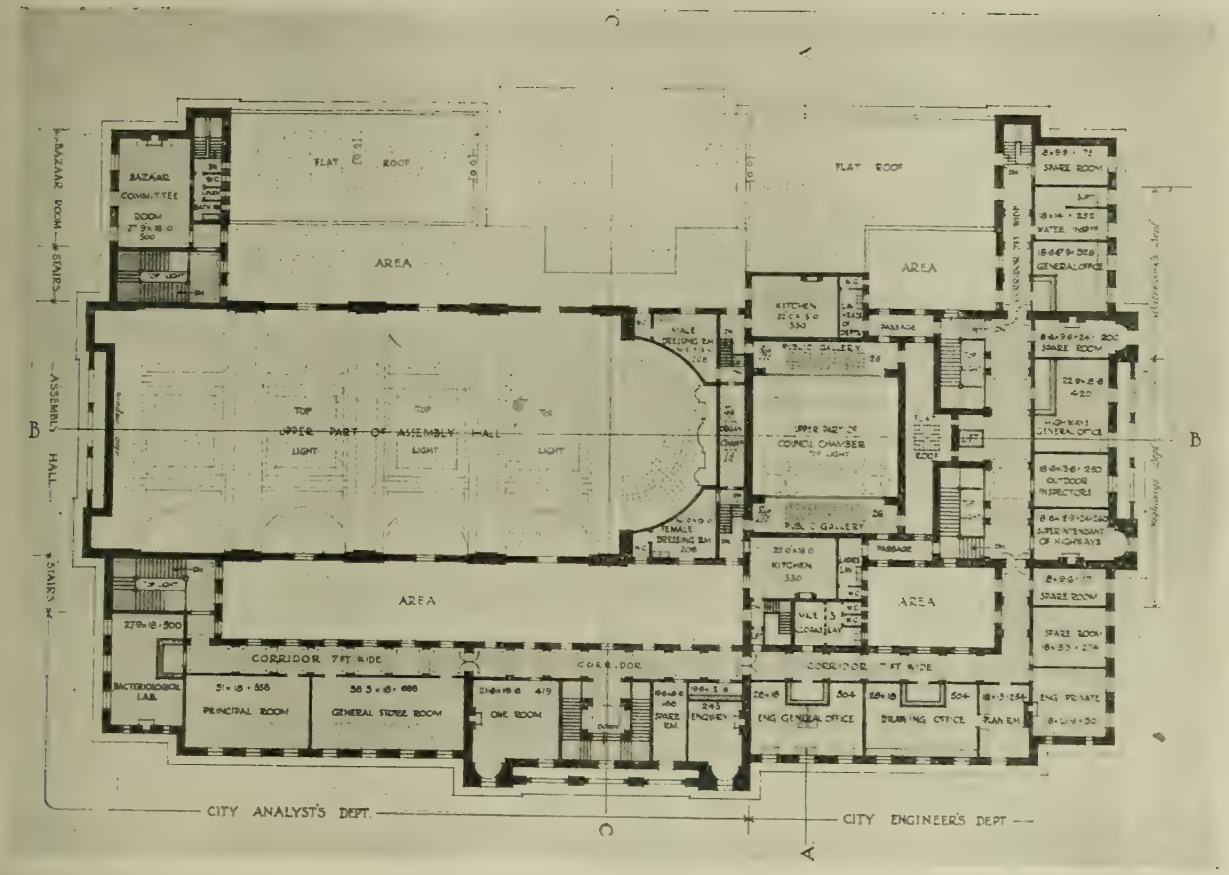
BY MR. C. H. HUTTON (AWARDED FIR



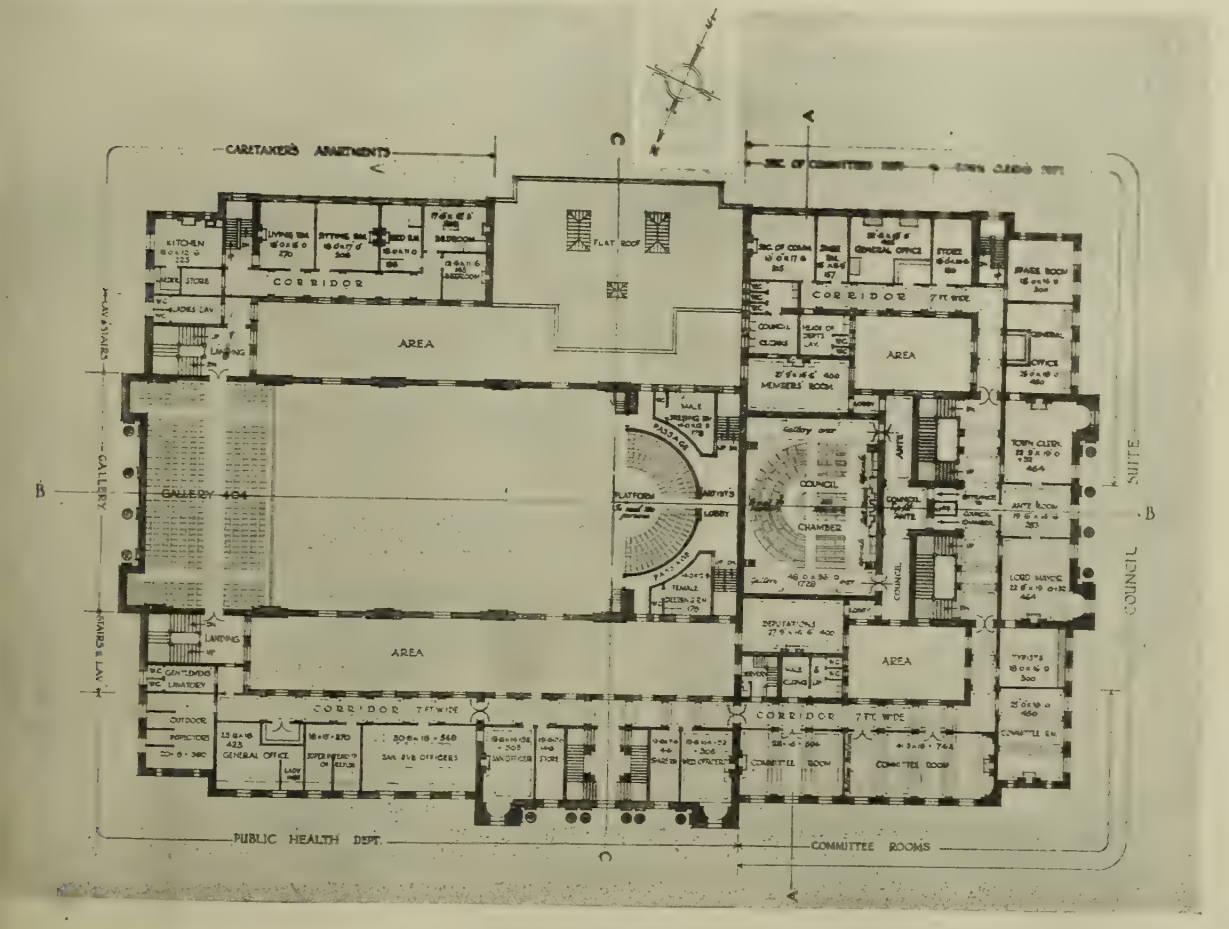


TRE.

NNEN AND CUBITT COMPETITION).



SECOND FLOOR PLAN.



FIRST FLOOR PLAN.

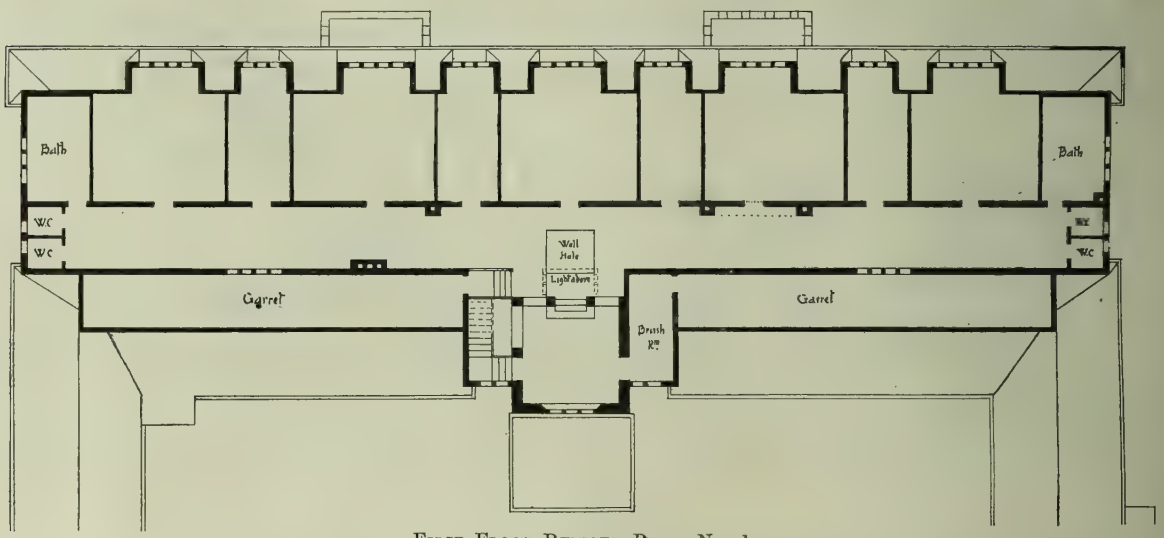
Cork Town Hall and Municipal Buildings Competition. First Premiated Design, by MESSRS. JONES & KELLY.

PROPOSED HOUSE AT HELENEUTHAL, IGLAU, CZECHO-SLOVAKIA.

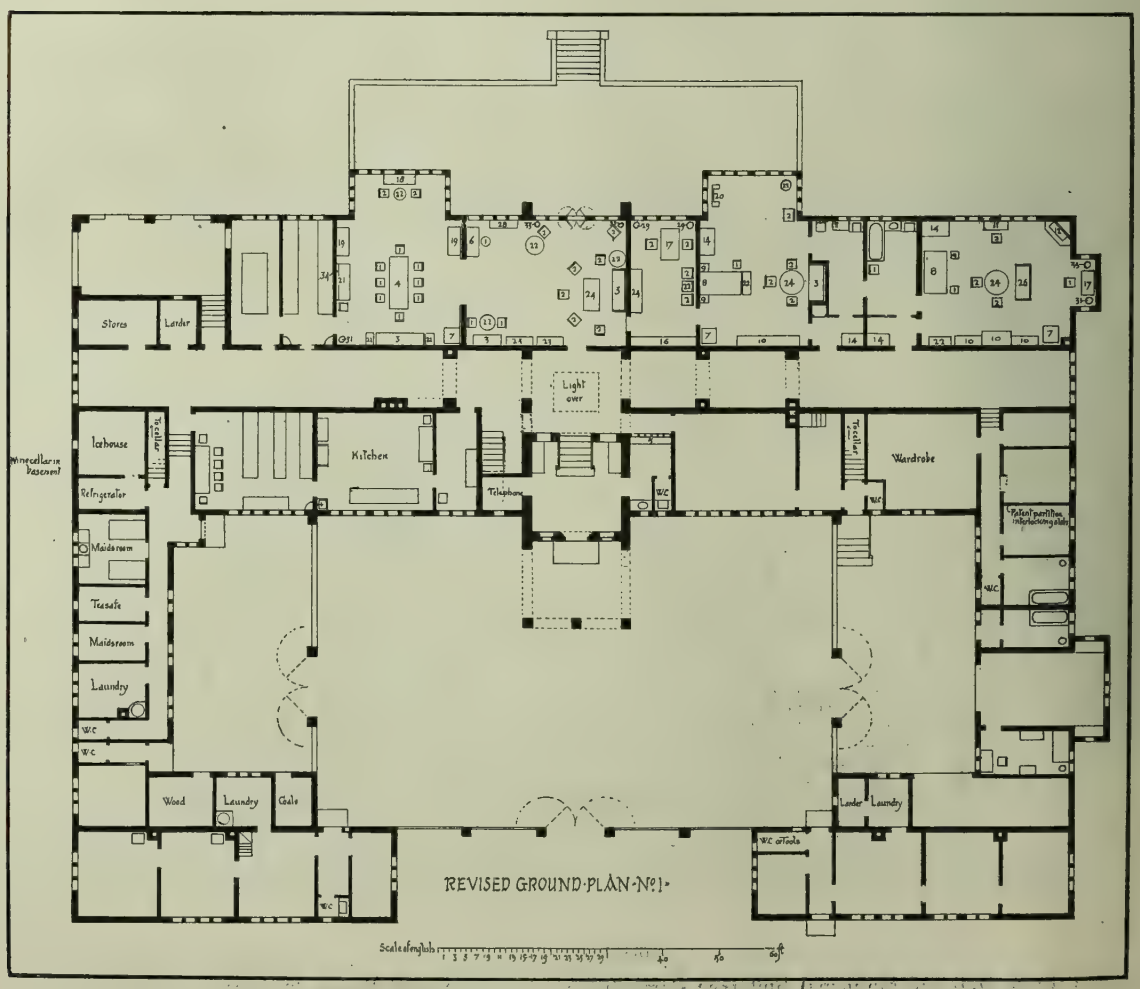
This house is to be built in brick, cement roughcast, and roofed with oak shingles. All the joinery and furniture is to be in oak left free from stain or polish. Gun-metal double casements, both opening outwards, are provided. Halls, passages, loggia, and terrace are to be paved with dark grey stone slabs. All windows are local grey granite. The floors of rooms are solid concrete floated over with cement and carpeted all over up to walls with hand-made tuft carpet in plain colour free from all pattern. No blinds are to be allowed, but windows will be fitted with plain thin silk curtains. The walls where not panelled in oak are to be finished in hard rough plaster, distempered white. Staircase and landings panelled in oak, the stairs being left without carpet. All skirtings where walls are plastered to be in 6 in. by 3 in. green glazed tiles laid on edge flush with the plaster. The whole house is heated by hot water. Mr. C. F. A. Voysey, of 73, St. James's-street, S.W.1, is the architect.



SECTION·THROUGH·ENTRANCE·REVISED·PLAN·No1·



First Floor Revised Plan, No. 1.



REVISED·GROUND·PLAN·No1·

Proposed House at Heleneuthal, Iglau, Czecho-Slovakia. Mr. C. F. A. Voysey, Architect.

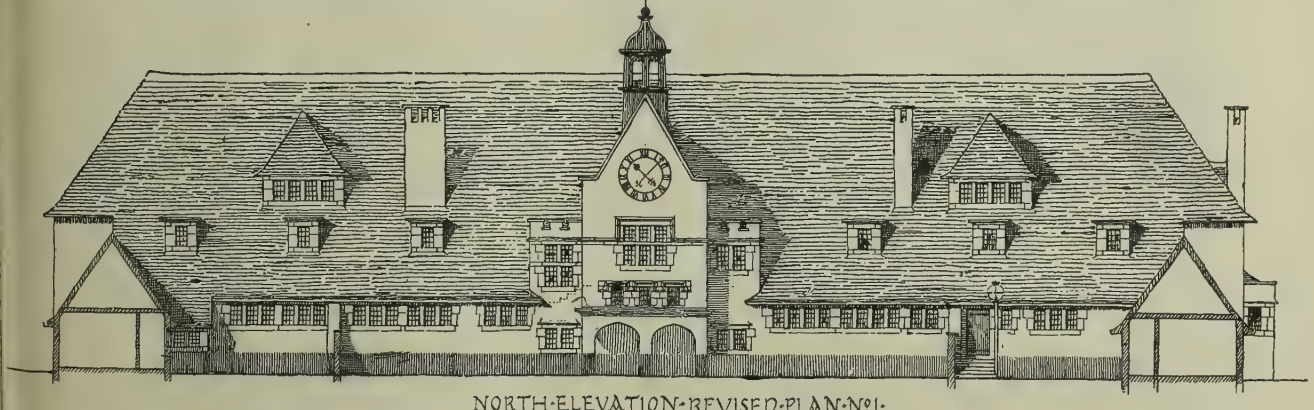


SOUTH·ELEVATION·REVISED·PLAN·No1·



EAST·ELEVATION·REVISED·PLAN·No1· × This window should be the same as west end of corridor

HOUSE·AT·IGLAU·CZECHO-SLOVAKIA·C·F·A·Voysey.·Archt·73.St James's.S.W.1



NORTH·ELEVATION·REVISED·PLAN·No1·

(See page 288.)

MONUMENTS FOUND AT ST. PAUL'S, CLAPHAM.

Very few antiquaries who are interested in the past fortunes of the London suburbs are cognisant of the existence of a somewhat remarkable and almost unknown group of monumental effigies belonging to the church of St. Paul, Wandsworth-road, Clapham. The church itself stands on the site of the original parish church dedicated to St. Mary, which is believed to have existed as long ago as the twelfth century.

This old church was demolished in 1775, with the exception of the north aisle and a transept, which were left for the celebration of burial services. A view is given in the *Gentleman's Magazine* of December, 1815, pt. 1, p. 489, in which year it was completely destroyed, and on its site the present church of St. Paul arose as a chapel of ease, erected by Act of Parliament, cap. 86, May 21, 1813, Geo. III. Then it was that the entombment of these monuments, rightly called by the late Mr. J. W. Grover, F.S.A., an architect of no mean merit, an "act of vandalism," took place

They consisted of (1) a black marble tomb outside the church, on supports of black and white marble, to mark the spot of the interment of the bodies; (2) a marble monument inside the church, consisting of two recumbent effigies of Sir Richard Atkins and his lady, adorned with heraldic bearings on shields and descriptions on the base, and probably surrounded with iron railings; and (3) a monument of their three children against the east wall, stated to be "a very noble work, surmounted by an arch of white marble," standing on Corinthian columns of the same material, and furnished with an inscription commemorating the deceased: Henry, Annabella, and Rebecca.

Mr. Grover conjectured that when St. Mary's Church was entirely destroyed, in 1815, the remains of these fine examples of sepulchral statuary were thrown into the same grave as the bones of those to whose memory they had been erected. There they remained in the darkness of the vault for seventy years, until by his exertions they were rescued from oblivion and decay.

By consent of the authorities, Mr. Grover set on foot an investigation by excavating, in 1885, a wall, which proved to be the outside of a flight of steps leading to the actual vault, but externally there was no clue to direct the energies of the searcher. "On entering the vault," stated Mr. Grover, "the sight which met the eye by dim candlelight was truly astonishing, . . . compared . . . to a magician's cave and to the dream of fairyland. . . . At the entrance of the vault stood the statue of Sir Richard Atkins, Lord of the Manor of Clapham, Knight and Baronet, Sheriff of the County of Bucks in the days of the Commonwealth, in white marble," habited in a suit of seventeenth-century armour, adorned with a sash, wearing a peruke, and displaying, after a custom of his time, a short-clipped moustache somewhat resembling eyebrows. Behind this stood a charming figure of his child, Rebecca, nine years of age, "a perfect gem of art and in exquisite preservation," holding in her frail hands, after the morbid taste of the time, a skull. The slab underneath the figure records her death, in her ninth year, June 10, 1661.

Opposite the statue of the father sat the effigy of Henry, his eldest son, who died in the twenty-fourth year of his age, February 15, 1677. He was represented as clad in Roman costume, but also adorned with a wig. Mr. Grover calls this statue the *chef d'œuvre* of the group: the pose superb, the back of the right hand resting on the knee, and the limbs, which are bare, are most finished pieces of sculpture; one finger alone was wanting. Further on, the effigies of the two ladies were seen: Rebecca, the dame, recumbent, with handsome fine bold features, double chin, and wearing a veil; beside her the figure of the elder daughter, Annabella, who died in Paris on January 1, 1670, in the nineteenth year of her age. She wears a gown with ample sleeves, a light low bodice the hair short in front and curled, holding book in the left hand, and having a finge between the leaves.

The marble effigy of the dame, a heav block weighing nearly one ton, had bee "with cruel irreverence placed upon two c the leaden coffins, which were crushed flat by the superincumbent sculpture. The in scription relating to the baronet records tha he died on August 19, 1689; that his dam and relict was "heir of Sir Edmund Wrigh otherwise Bunckley, of Swakeley, co. Middle sex, Knt."; and that there were ten childre of the marriage. Sir Richard appears t have been grandson of Henry Atkins, phy sician to King James I, who purchased Clap ham Manor for six thousand pounds, derive from royal gifts bestowed on him for hi attendance on the royal infant Charles, whor he fortunately cured of a fever in Scotland.

Grover after some time rescued these fin specimens of seventeenth-century sculptur from the obscurity in which they had so lon languished, and had the satisfaction of seein them safely set in a convenient resting-place a mortuary kindly lent by the Burial Boar for the purpose, situate in the churchyard As works of art and as specimens of por traiture they deserve all praise; they are, too with few exceptions, in excellent preservation being made of the finest marble. Clapham is indeed, to be congratulated as having to show such an interesting record of that period. I was proposed to re-erect the group in th north transept of the church where they la concealed so long a time.

The expense connected with this matter wa undertaken by the Rev. F. W. Atkins Bowyer lord of the manor, late rector, and the repre sentative of the family. It is not known wh the artist was who designed and executed th work, but whoever it was it is worthy of high praise and admiration.

By the kindness of the Rev. S. Allnutt Vicar of St. Paul's, we are able to illustrate the foregoing remarks with a photograph showing the relics, which have now been safely erected in a suitable position in the church where they can be conveniently seen and become the subjects of that admiration which they well deserve.



Atkin's Monuments in St. Paul s Church, Clapham

THE NEW HOUSING ACT.

The Housing, &c., Act, 1923 (which is discussed in our leading article this week) has now been published.

The provisions in the Act for the assistance of new construction, and the proposals of the Minister for the administration of the scheme, may be summarised as follows :—

Assistance Provided under the Act.

The assistance provided for in section 1 of the Act takes the form of an annual contribution, which will be paid, subject to certain conditions, towards expenses incurred by the local authorities. The local authority's proposals may take the form of assistance to private enterprise, or of the provision of houses by the local authority itself. Where the local authority undertakes the erection of houses, or where the assistance granted to private enterprise is not less than the equivalent of £6 a year for 20 years, the Government contribution will be a fixed annual payment made to the local authority* of £6 a year for 20 years, in respect of each house completed within the prescribed period. Where, however, the total assistance in respect of a house built by private enterprise is less than the equivalent of £6 for 20 years, the Government contribution will be the equivalent of the total assistance actually granted, and will be paid to the local authority either in the form of an annual sum for 20 years or a sum of £6 a year for a period of less than 20 years.

Under the terms of the Act the houses must be completed, ready for occupation, before October 1, 1925. The Act provides, however, for an extension of the date to June 1, 1926, if the Minister is satisfied that the construction of the house or necessary work of development on or about the site preliminary thereto was begun within reasonable time, and the failure to complete the house before October 1 was due to circumstances over which the person constructing the house had no control.

As regards houses provided by private enterprise the Minister is required before giving his approval to proposals made to him by local authorities to satisfy himself that the need cannot be met without assistance, It will be for the local authority in the first instance to satisfy itself that the houses proposed to be built would not be provided unless financial assistance were forthcoming, and to determine what the minimum assistance is which will induce private enterprise to build.

The annual sum of £6 for 20 years is the Exchequer contribution towards the expenses incurred by local authorities where the total assistance given is the equivalent of £6 for 20 years or more. The local authority is empowered to give more or less than this according to the requirements of the locality, and it is for the local authority to determine in the first instance what minimum sum is required, whether more or less than the equivalent of £6 for 20 years, to induce private enterprise to proceed.

The lump sum equivalent of £6 for 20 years depends on the terms on which the authority may borrow.

In the case of houses provided by private enterprise, it will not be open to the local authority to give assistance except in respect of houses the construction of which is begun after the proposals of the local authority have been approved by the Minister.

Under the terms of Section 2 of the Act assistance by the local authority to private enterprise may take one of three forms, viz. :—

(*a*) a lump sum grant per house ;

(*b*) an annual payment for a period of not more than twenty years to the person by whom the rates are payable.

No payments under Section 2 may be made by a local authority for the assistance of private enterprise until after the completion of the house in respect of which the payments will be due.

Section 2 (4) of the Act enables a local authority to attach conditions to the payment of grant in respect of a house built by private enterprise. One of these conditions, the object of which is to prevent abuse of the subsidy, may be that during a specified period from the payment of the grant the house shall not be used otherwise than as a separate dwelling-house, and that no addition or enlargement shall be made without the consent of the local authority.

Section 2 provides that in the County of London the London County Council shall be the authority empowered to assist private enterprise to the exclusion of any other local authority.

Description of Houses which will qualify for Assistance.

A.—Type.

The houses may be—

(*a*) Two-story cottages† ; or

(*b*) One-story cottages, or bungalows ; or

(*c*) Houses built in flats, each flat being treated as one house.

B.—Area and Measurement.

Assistance will be available under the terms of the Act [Section 1 (2)] for houses having a superficial area within the following limits :—

For a two-story cottage—Minimum 620 super. ft. ; maximum 950 super. ft.

For a one-story cottage or bungalow, or for a flat—Minimum 550 super. ft. ; maximum 880 super. ft.

The Minister is, however, empowered to permit smaller houses to rank for subsidy where a local authority satisfies him that, having regard to special circumstances existing in their area, there is a need for houses of smaller dimensions. The minimum sizes which can be permitted in such cases will be 570 super. ft. for two-storied houses and 500 super. ft. for flats or one-storied houses. In every case permission will be given for such limited number of houses for the particular area, subject to such conditions as the Minister may determine.

Under the provisions of the Act no assistance can be granted in respect of any house whose area does not fall definitely within the above limits.

The rules for the measurement of superficial area will be as follows :—

(*a*) The area will be measured within the external or containing walls of the house (so as to include the area of chimney breasts, bay windows and similar space), and, in the case of two-story cottages, will be the combined areas, as so measured, of the two stories.

(*b*) In the case of houses built in flats the space occupied by a staircase will not be included in measuring the area of a flat.

(*c*) Habitable accommodation provided in an attic or story formed in the roof will be included without regard to the use to which it may be intended to be put. In determining whether accommodation is habitable regard should be had not only to its condition as shown in the plans, but also to the possibility of its conversion into habitable accommodation. The area of so much of the attic as is less than 5 ft. in height will be excluded in measuring the habitable accommodation.

(*d*) Cellars will not be included.

(*e*) Outbuildings will be excluded if they are not an essential part of the house, but will be included if they provide accommodation which is necessary to the occupation of the house or is usually included within the containing walls of the house. Outbuildings are buildings not communicating with the house which are outside the containing walls of the house, whether attached thereto or not. Examples of an outbuilding to be included are a w.c., coal-house or scullery. A tool shed, wood shed or bicycle shed would not be included. The area of an outbuilding to be included will be measured within the containing walls of that area.

(*f*) Covered area, such as the area of a verandah or porch, which is attached to but outside the containing walls of the house, will not be included as part of the area of the house.

Planning and Construction.

The Minister does not propose to prescribe a maximum density, and he considers that a discretion may properly be exercised in this matter by the local authority in view of the particular circumstances of its district. He is of opinion, however, that a density of approximately twelve houses per acre represents a desirable standard and that, as a general rule, a local authority should not approve the building of more than twenty houses on any one acre.

The houses must be of a type of construction for which a period of not less than 60 years would be allowed by the Ministry of Health for the repayment of a loan. The materials must be of good quality.

Under Section 24 of the Housing, Town-Planning, &c., Act, 1919, where a housing scheme has been carried out in accordance with plans and specifications approved by the Minister, the local by-laws do not apply to such scheme in so far as they are inconsistent with the plans, &c. Similar departures from the by-laws will be permissible in the case of houses which will be eligible for subsidy under the Act. In other respects the local by-laws must be complied with unless a consent is given by the authority under Section 25 of the Act of 1919.

Sections 12 and 13 of the Act provide for the revocation of existing by-laws and the making of new by-laws where in consequence of the existing by-laws the erection of buildings is or is likely to be unreasonably impeded.

The local authority may exercise discretion as to the sizes of rooms to be permitted having regard to the circumstances and the character of the plan, but the Minister points out that rooms of the folllowing sizes which have been regarded as affording a desirable standard can be obtained within the limits permitted :—Living room, about 180 sq. ft. ; first bedroom, about 150 sq. ft. ; second bedroom, about 100 sq. ft. ; third bedroom not less than 65 sq. ft. Where a parlour is also provided some reduction in the size of the living room may reasonably be permitted.

Section 1 (2) of the Act provides that, except where otherwise approved by the Minister on the recommendation of the local authority, every house or flat to be eligible for subsidy must be provided with a fixed bath.

Houses Which are Not Eligible.

Contributions will not be payable in respect of the conversion of an Army hut or similar building, or in respect of any house—(*a*) which is constructed by the conversion, adaptation, or extension of an existing building, or includes any part of an existing building other than the party wall of a habitable dwelling house ; (*b*) which contains or is constructed for occupation with an office, shop, business premises, garage, stable or similar building ; or (*c*) which is built to replace loss by fire.

Loans to Builders.

Section 5 of the Act gives new powers to the local authority for the advance of loans to builders and others for the construction of houses of which the estimated value does not exceed £1,500. Under these powers the local authority will be enabled to assist by way of loans persons desiring to build houses for their own occupation or to build one or more houses for sale or letting. It will also be open to a local authority under this power to lend money to public utility societies or other societies or bodies undertaking to build houses.

The loans will be secured by mortgage. The amount of the advance may not exceed 90 per cent. of the value of the interest of the mortgager in the property, but will otherwise be within the discretion of the local authority, subject to the approval of the Minister.

During construction the local authority is empowered to make advances up to 50 per cent. of the value of the work done, including the value of the builder's interest in the site. Loans

* Where houses eligible for subsidy are erected by a Metropolitan Borough Council under an approved scheme, the London County Council is empowered to supplement the contribution made by the Minister to the extent not exceeding £3 a year for a period not exceeding 20 years.

† An attic would be permitted in addition, subject to limits of area.

to persons having a leasehold interest will be permissible, but in such cases the unexpired period of the lease at the date of the advance of the loan must be at least 10 years in excess of the period fixed for the repayment of the loan.

Advances may only be made after a valuation duly made on behalf of the local authority. The rate of interest to be charged will be within the discretion of the local authority subject to the approval of the Minister. It is suggested that loans should ordinarily be repayable in 20 years, and be transferable to the purchaser of a house as required. Repayments may be made by monthly instalments. These powers are temporary and will be exercisable at any time up to October 1, 1926.

Provision is made in Section 22 for the amendment of the Small Dwellings Acquisition Acts so as to enable loans to be made within much wider limits to persons who desire to purchase a house for their own occupation. Advances may be made during construction up to 50 per cent. of the value of the work done, including the value of the interest of the borrower in the site. The Acts are made available for houses up to £1,200 market value, and the percentage which may be advanced will be within the discretion of the local authority subject to a maximum of 90 per cent. of value. The requirement that the purchaser shall be required to reside in the house will have effect for a period of three years only from the date when the advance is made or from the date on which the house is completed, whichever is the later, and it will be within the discretion of the local authority to dispense with this condition at any time.

In addition to the subsidies payable through building societies, the local authority will have power under Section 5 (1) (*b*), at any time up to October 1, 1926, to guarantee the repayment to a building society of an advance made to any of its members desiring to build or acquire a house having an estimated value of not more than £1,500. The object of both these provisions is to enable a building society to advance a larger proportion of the cost of a house than its rules would normally allow.

CONVERSION OF HOUSES INTO TENEMENTS.

In order to facilitate the conversion of houses into separate tenements (Section 5 (1) (*c*), it is provided that the local authority shall have power to refund during a specified period, not exceeding twenty years, the whole or part of the excess rates on each tenement over and above the rates which would have been payable if the tenement had been rated proportionately with the other tenements in the house on the basis of the rateable value before conversion. There is no restriction on the value of the house.

BOOK REVIEW.

The Records of St. Bartholomew's Priory and of the Church and Parish of St. Bartholomew the Great, West Smithfield. By E. A. WEBB, F.S.A. Vols. I and II. (London: Oxford University Press. Price 84s.)

The Priory Church of St. Bartholomew the Great, West Smithfield, is one of London's most precious architectural survivals, not only in respect to its age and historical interest, but in virtue of the intrinsic beauty of its massing and detail. The vaulted aisles and stout round pillars are subjects well known to artists, and date from a period before the line had been substituted for the surface as the chief element of architectural composition. The feeling for modelled form is strongly in evidence in the contrast of plain archivault with rounded shaft, and also in the intensely rational shape of scalloped capitals artistically marking their division while performing a structural function. These details which remain to us from the original building of the first Prior and founder, Rahere, belong in style not so much to Romanesque as to the elemental architecture of common sense all too seldom seen, but when seen certain to charm.

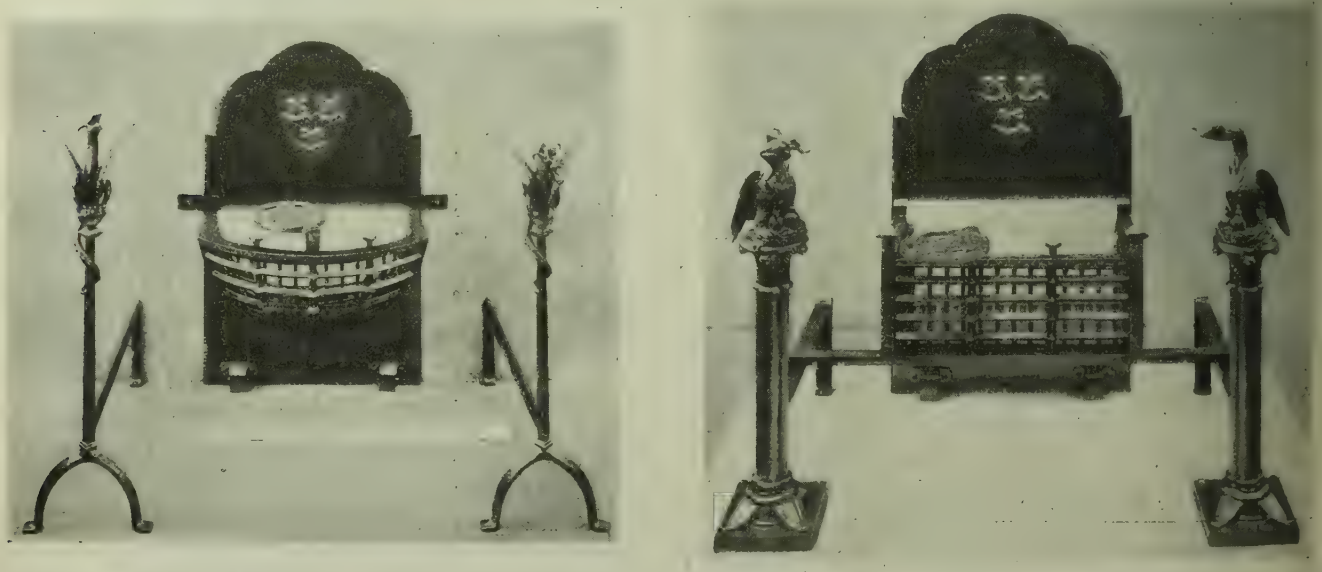
One of the many pleasant things to be found in Mr. E. A. Webb's monumental work, "The Records of St. Bartholomew's, Smithfield," is the assurance that the character of the founder was as delightful as the architecture that resulted from his pious exertions. As the ancient chronicler quoted by the author has placed on record, Rahere was capable of being all things to all men and could manage to enlist the sympathy of children and servants as well as of King Henry I and the Bishops: "When, however, Rahere had devoted his energies to the purging of the place and had decided to put his hand to the sacred building, not being ignorant of the wiles of Satan, he made himself a fool because he was constrained to do so (*quia coactus*) and outwardly putting on the appearance of a simpleton he began for a time to hide the secret of his soul and do his work more wisely the more he did it secretly. At length, with wonderful skill in games, he won to himself bands of children and servants, and by their help he easily began to collect stones and other things which should be profitable for his building. And he himself played with them and became in his own eyes even more vile from day to day, in order only that he might so much please the apostle of Christ, to whom he approved himself. And helped by his grace, when those things that seemed necessary had been prepared, he raised up an immense fabric, and now he began to openly to be and to be called not foolish as was being thought, but truly wise as was being concealed."

From King Henry I, whose merry courtier he had been in unregenerate days, Rahere obtained a most comprehensive charter, dated 1133, granting exceptional privileges to the intended house of Augustinian Canons, some of which exemptions from liability to civic duties were pleaded by the Protestant parishioners of St. Bartholomew's long after the monastery had suffered suppression.

From the author's text and from the many original documents quoted by him, a great deal may be learned about the internal economy of monastic establishments which will be of interest to all readers who desire to investigate the connection between the appearance and the purpose of works of architecture. The information is particularly appropriate at the present time, when a party in the Church of England is endeavouring to revive community life in the belief that it can still be of service as it was in the period succeeding the Norman Conquest.

In the first introductory chapter the general utility of such an establishment of Prior and Canons is outlined under the headings of "Service to the Realm," "Service to the Church," and "Service to the See of Rome"; the first-named service included the collection and payment of large sums of money to the King to enable him to carry on wars at home or abroad. The service to the people is difficult to appraise at its true worth in our altered state of existence here in England, but the duty of dispensing hospitality to travellers is still recognised in the religious houses of Palestine, for example, and is warmly appreciated both by pilgrims and tourists, who would otherwise feel the hardship of doing without suitable food and shelter. In the case of St. Bartholomew's the famous





Bronze Dogs for Fireplaces at Cardiff Castle. Designed by MR. H. SESOM-HILEY, late Architect to the Castle, in conjunction with the Carron Company. (*See p.* 293.)

pital formed part of the original foundation; hat the care of the sick poor was proposed n the beginning side by side with the estab- ment of a religious routine. The hospital, fact, formed the subject of Rahere's first oition as a reformed character, the Priory its church resulting from a dream revealed im on his return journey from Rome, where had been on pilgrimage.

he first volume of Mr. Webb's admirable k carries the history of the Priory to the date he second suppression in 1559, and deals with literary evidences other than the structure he Church buildings. Many documents are ted in full and lists of accounts and posses- s of the Priory form a great part of the book. he second volume treats of the structure and estoration, and is illustrated with numerous s and measured drawings made by members ir Aston Webb's staff as well as by historical wings of earlier date.

he general purpose of the work is well ressed in Mr. Webb's preface: "I offer these mes to all lovers of St. Bartholomew's (and they are many) as an honest endeavour to put into one book all that is known about it. As the majority of my readers will not be antiquaries, and may not have more knowledge of such matters than I had when I commenced my researches, I have ventured to give such explanations of antiquarian, historical, and legal matters as I myself had to acquire before I could fully understand the records before me." The result of this comprehensive method of attack is an admirable work of reference upon a delightful subject.

Books Received.

Stones of London. By J. Vincent Elsden and J. Allen Howe. (London: Colliery Guardian Co., Ltd.). Price 6s.

Historic Textile Fabrics. By Richard Glazier. (London: B. T. Batsford, Ltd.). Price, 21s. net.

Empire Forestry Journal. Vol. 2, No. 1. (London: The Empire Forestry Association). Price 4s. net.

BRONZE DOGS AT CARDIFF CASTLE.

We illustrate on p. 292 some bronze dogs at Cardiff Castle. The larger dogs for the day nursery are in the form of the Welsh Dragon encircling the andirons of armour-bright metal, surmounted with a copper ball; one is telling a story and the other laughing at it. The smaller dragons, for the boys' night nursery, are climbing the shaft of the andirons, to attain the zenith of their power, suggestive of Celtic ardour, humour and assertiveness.

For the girls' night nursery are the stork and its young, on clustered columns of armour-bright metal, emblems of maternity, harbinger of spring, &c. The basket grates and trivet with the dragon and shamrock interwoven, of armour-bright metal, are on castors, with the back plate bearing the arms (Bellingham) of the Marchioness of Bute. The dogs were modelled and cast by the Carron Co., Stirling, from the joint designs of their artist and Mr. H. Sesom-Hiley, late Architect to Cardiff Castle.



Barclays' Bank, Pall Mall East, S.W. Mr. Arthur Blomfield, M.A., F.R.I.B.A., Architect.

building, which is erected on a site leased from the Crown, and some 12,000 sq. ft., is of Portland stone, roofed with Westmorland slates. The major part of the ground floor and basement is occupied by Messrs. Barclays Bank, the upper floors being let to tenants as offices. The contractors for the work were Messrs. Trollope & Colls.]

THE YORK SCHOOL OF GLASS PAINTING.

In the course of a lecture delivered at the annual meeting of the British Archæological Society recently, Mr. John A. Knowles gave a general review of the York school of glass painting as a craft.

Glass painting, he said, had been practised at York from a very early period, and in the Minster was the earliest panel of painted glass in England. The subject was Christ in Glory from a Jesse Tree, and it was so extraordinarily like similar panels at St. Denys and Chartres that it was impossible to believe otherwise than that all three were derived from a common source, but whether English or Continental it was difficult to say. There was, at any rate, sufficient evidence to show that the connection between French and English work in glass at that time was close, and at any rate the York panel was, as the late N. H. J. Westlake pointed out, "The earliest piece of painted glass in England. Unfortunately, it is placed too far beyond the reach of the ordinary student for examination and it would be an advantage, for the purposes of study, if a more convenient, and yet secure, position could be found for it." Although that advice was given over forty years ago, the panel still remained in one of the most exposed positions in the north clerestory of the nave.

The two principal centres of mediæval glass-painting were London and York. Roughly speaking, London painted most of the windows for the south and York for the north. But though London and York designed and painted windows, they did not make glass, and practically all the coloured glass and most of the white had to be imported from the Continent. The lead, too, would be similarly transported by water. In fact, it was not too much to say that York would never have been a centre for glass painting were it not for the fact that it was situated on a river.

A few years ago, and even to a large extent at the present day, the opinion was very generally held that attached to cathedrals there was a stained glass department where windows were designed and painted. As far as the great east window at York was concerned that was absolutely true, that work being designed and painted in the Dean and Chapter's own shop with glass and lead bought and labour specially hired for the purpose. But apart from the great east window, there was no evidence that any of the others were done under that system.

One was liable to get an entirely erroneous notion from the account rolls of the men who were set down as receiving wages for working at the Minster. One read, for example, of "John Petty, glazier, working in the fabric for 77 days and being paid 43s. 6d. wages, and Thomas Drawswerd, being paid 32s. 11d. for painting the canopy carried over the feretory of St. William; with gold and colours." From these items we might conclude that Petty and Drawswerd were humble individuals, but in point of fact both of them were as important personages as the Dean himself. Sir John Petty, as he was afterwards known, was a very great man indeed. Eleven years before, he was Chamberlain of the city and he afterwards became Lord Mayor. Even in the Minster itself one of the panels of the St. William window depicted the Lord Mayor of York seated in a place of honour at Archbishop William's enthronization feast with his hat (the cap of maintenance) on, whilst everyone else was uncovered, a thing no other dignitary would have dared to do. Thomas Drawswerd was no less a personage. He was in a large way of business as a church furnisher, and was believed to have carved the screen at Newark in 1
He was M.P. for the city and twice Lord Ma

The work of the York School was dist
from that of others in material, design,
choice of subject, and local fashions in cost
and armour were frequent. A favourite
of subjects in York glass showed sanct
persons who were united in holy wedl
surrounded by their children. These
probably intended as a sly dig at the celil
of the religious orders. Across the botto
one of the windows of the nave were represe
a hunting scene; a fox running off with
goose whilst the wife threw the distaff aft
and the husband saddled the horse to
chase; and the funeral of a monkey. In Y
work members of noble families were freque
shown wearing on their heads chaplet
feathers or leaves, as in the St. William win
and in St. Denys Church. The frequenc
this feature in the east window of Great Mal
Priory was one of the reasons for believing
that window also was York work. Apart
stained glass only one other example, as fa
the lecturer knew, of those chaplets being
was known, that being on a brass, also in Y
shire, of Sir Thomas de St. Quentin, c. 142
Harpham. In armour also local variat
occurred.

York artists seemed to have obtained n
of their inspiration and many ideas of t
ment from where they obtained the glass,
the Rhenish provinces. A favourite schem
a window was to represent the patron saint
various guilds. The three most popular g
in York were those of Corpus Christi,
Christopher, and St. George. The Co
Christi procession and the pageants on
following day were one of the big events of
year in York life. Another popular holiday
that in honour of St. Christopher and St. Ge
and that explained why one frequently
in York windows figures of St. Christo
and St. George on either hand. In Holy Tri
Goodramgate, were these two with a Co
Christi subject in the middle.

Suns were very common in York glass,
had undoubtedly political reference.
appeared, however, long before the time
Edward IV, whose badge it was. The sun
also the badge of Richard II, who was a
friend to the city. Another Yorkist b
frequently to be seen in windows was the e
Lions and eagles were very common, and
to be seen in the window recently refixed in
south aisle of the Lady Chapel. Unfortun
this window had been put back with the p
in the same state of disarrangement as th
which they were left by a former glazie
plumber, with the result that two panels ex
alike were to be seen one on the top of ano
and the feet of the saints below were placed
above their heads at the top of the windo

There was a remarkably close relatio
between work at York and Winchester, or
exactly Oxford and Winchester, for most c
work in the latter city was executed at Ox
The Corpus Christi subject occurred at
chester, and lions and eagles were almo
common at Oxford and Winchester as at
The striking resemblance between the frag
tary Jesse Tree at York and the panels
Winchester, now at Ettington, trapped the lec
some time ago into assuming too hastily
without absolute proof that they both for
formed part of the same window, a t
which was disproved. Many features of
Oxford-Winchester and York design seem
have been derived from a common s
probably the Rhenish provinces. There
carved statue of the Corpus Christi subj
Cologne and the treatment of it in glass wa
like a painting by Charenton, French *pr*
dated 1398, now in the Louvre. The round t
so characteristic of the canopies at New C
Oxford, and the transitional window in the
Chapel at York were very like those in th
window at Altenberg, Germany. Other
of treatment, such as the hair leaded in sepa
from the face, the hands under the cloa
grasping the emblem through it, and the
like and vermicular pendant ends to the dr
all of which were common to both Yor



"THE MONKEY'S FUNERAL."



"FOX RUNS AWAY WITH THE GOOSE."



"HUNTING"

Stained Glass in North Aisle, York Minster. From drawings by Mr. J. W. Knowles.



A Religious Guild: St. Michael-le-Belfry Church, York. (The King's College Chapel, Cambridge, glass was executed in the same year.)

xford-Winchester work, seemed to be derived om German art. That treatment of drapery as to be seen in the brasses imported from the ontinent, probably from Lubeck, in King's ynn and elsewhere, and the narrow strip across e bottom, containing a hunting scene or hat not, might well have provided a model r the hunting scene and monkey's funeral in e window in the nave at York.

A criticism which could justly be levelled gainst the work of the York school, in archi-cture, carving and glass, was that there was ery little religious feeling about it. There was ot a carving of a religious subject anywhere out the Minster, if one excepted the bosses the nave roof where the carver was more terested in finding a subject which would the junction of the ribs of the roof than in cording the events of Holy Writ; but a fox the pulpit or a man shoeing a goose was mething he evidently relished doing; whilst atues of kings replaced figures of saints on e screen. If one excepted the great east ndow, there were in the chapter-house—secular building and unconsecrated—more enes from the life of our Lord and the Acts the Apostles than were to be found from e whole of the Bible in the rest of the Minster. e St. William window was nothing but a gantic hoarding to advertise the merits of e local saint and to attract some of the stream pilgrims passing through York on their way the far more famous shrines of St. Cuthbert Durham and St. John of Beverley, and the Cuthbert window was erected to advance political claims of the Lancastrian party a city which was strongly Yorkist in politics. n putting an approximate date on York k it was always wise to suggest a date ten wenty years later than one would ordinarily mate from the style and treatment. Thus west window at Altenberg, which, it was eved, inspired much of the Oxford-Winchester York work, was far in advance of any-g at York. Thomas of Oxford's canopy k in the remains of his Winchester College dow was more graceful and refined than n Thornton's in the great east window at k, which had many traces of Decorated tment about it, though it was fifteen years r in date. To put it bluntly, York was ind the times. An interesting sidelight in connection was shown by the fact that 292, when the monks of Beverley wanted ew shrine for the relics of their saint, and 377, when Durham Abbey wanted to place milar order for a shrine for St. Cuthbert, and also for the Neville screen, neither of them ordered the work in York, but in London, though they would have to pass through the city in order to do it, and also pay extra carriage, and that at a time when the York School was almost at the height of its power.

In common with all other schools of glass painting, York men practised extreme economy in the making of new drawings. Even in the St. William window, which was undoubtedly one of the greatest masterpieces ever done anywhere in glass painting, the number of times in which figures, groups or whole subjects had been used over again was surprising. Thus panel 68 represented a mother who had brought her sick child and propped him up against the shrine of the saint whilst she prayed for his recovery. A spectator pointed with forefinger at the child. By eliminating the figure of the child and painting spots all over the woman's face and hands, the same drawing had been made to represent a leprous woman recovered at the shrine, and the spectator in the background then pointed at nothing at all. Similarly, by eliminating the figure of a spectator, the drawing of a hump-backed boy cured at the shrine had been used for another panel representing the recovery of a drowned child. Drawings of single figures, such as bishops and saints, were, after being variously coloured so as to disguise the fact that they were all alike, used many times. Thus St. Thomas of Canterbury in the Parker window became St. Chad in the Wolveden window next to it, and someone else at Bolton Percy Church; St. William of York, in the Parker window, became St. Nicholas in the Wolveden, and an Archbishop at Bolton Percy, and so on. So far as could be judged from the floor, the eight westernmost clerestory windows of the choir were practically identical, and he thought it would be found that, with one or two changes, those consisted not of eight distinct figure designs, but of one design repeated eight times.

Although the glass painters of mediæval times did not sign their works, he thought, provided large-scale photographs were available for study, the authorship of many of them could be determined with some degree of certainty, for there was no school of glass painting elsewhere where so much was known about the artists themselves. In later times, the glass painters had a method of signing their works which was little known, and this was by impressing their names on the lead. This was done by having the wheels of the lead-vice, which squeezed the square bar of lead into a section resembling the letter "H," instead of being toothed or milled in order to grip the lead engraved with the name of the glass painter.

York glass painters were at an early date incorporated into a craft guild, not so much perhaps because they would as because they must. Two sets of ordinances had been preserved, both of which made it perfectly plain that repressive regulations were drawn up by the city. So far from the mediæval craftsman taking such a pride in his job that he put his best work where no one would see it, the reverse was the case. There was as much scamping as there was to-day, and probably more; and that glass painters were no exception to the rule was shown by the minute stipulations in contracts that the paint should be fired on in the kiln and not merely mixed with oil.



St. William received by the King of Sicily: Shows typical York Heads. St. William window, York Minster.

ENCOURAGEMENT OF THE CRAFTSMAN

By REGINALD HALLWARD.

A thoughtful letter, contributed to *The Times* recently, called attention to the difference between the merely antique craze of to-day and the work of fine contemporary craftsmen. As the writer says, "at present we are suffering under the erroneous idea that anything which is new is not the æsthetic equal of that which is old." Such a view reacts disastrously on the modern craftsman and its falsity needs exposing.

It has been pointed out before in *The Builder* how the traffic in antiques and "old masters" is anything but evidence of the country's care for art, and is rather to be regarded as the joint product of snobbery and commercialism. I am therefore glad to see attention called to the claims of the living craftsman, whose disabilities are very great; so well known, in fact, that they need no emphasising here. A disinterested love of his work has not seldom left him struggling amid the competition of more commercial tendencies, and he is unable to compete with them. As is said in an article in a contemporary, "a plea for living craftsmen is therefore a plea for much more than a revival of particular trades, and any purchaser who bans imitation and gives an opportunity for creative workmanship does service to the community far beyond the limits of his own purchase."

All this is well said, and the point to which I wish to give special emphasis is the first-hand approach of the craftsman; that we should go to him direct, shunning the spoon-fed directions for our taste, the thousand organisations, commissions, and other bodies by which that direct contact is obstructed. Away from this one fundamental need of going to the craftsman direct, may we not feel doubtful of the usefulness of the vast organisation which now encircles the arts, so far removed from this first essential requirement?

As we begin to understand more about art and the mystery of its unfolding, we are becoming more uncertain of the doctrine that art can be encouraged, or high standards of craftsmanship and design secured, by multiplying bureaucratic organisations. There is a more direct way than all this, and one, strange to say, which has never yet been properly tried. It is the way advocated in the letter to which I have referred. If we want fine craftsmanship, let us seek the fountain head. If we want to encourage art, go direct to the craftsman—to the doer of it—and, in seeking him out, we must distinguish the real from the counterfeit, the lover of his work from the trafficker in it. No committees, associations or commissions can secure the prospects of fine craftsmanship in any way to equal this direct approach. Yet it is in danger of being disregarded just because it is so simple.

Excess of organisation is not favourable to art. Its excess at the present day is symptomatic rather of a stage in the birth of democracy, at present little able to realise its own needs, which lie so much in an enlarged self-respect, not content to delegate its responsibilities to others or to the dead momentum of bureaucratic organisation; which, applied to art, promotes its sterility, because it enforces a dependence and servitude to officialdom fatal to its own freedom and expansion. What, then, is the alternative?

It is to have more faith in ourselves; that art belongs to all and that we need to believe more in life, to be more truly democratic, if its beauty is to enclose our lives. It is not sufficient that the public should feel this direct and undelegated responsibility, it is even more urgent for the craftsman to extricate himself from the superstitions which lead him to subject his freedom to the yoke of this control. It behoves each one of us who believes this in no way to yield or give adherence and support to organisations which mistake the greater for the less, or to let the herd instinct usurp the nobler one of vocation and freedom. In no other way can the gates that lead to the heavenly courts of beauty be kept open.

Let the artist pray at all costs towards Jerusalem in the face of all societies which would reform his ways. Let him who would be really distinguished at this day keep himself from such—and I am glad to see the organisation of small bodies of craftsmen, guilds, and such like, making no claim but their work and going about it in quiet independent ways. A short while back an artist friend sought counsel of me as to whether he should join a certain art society. The question revealed the doubts in his mind even without my previous knowledge of them. And yet, in one way, it seemed so natural to respond to such a proposal as had been made to him. In consulting me, he was conscious of doubts which I felt as to the service to art of much of present organisation.

Did it strengthen the artist, or only a certain kind more able than the rest to make use of its machinery? Was the artist wiser in trusting to himself, to his own work, to the future, than to such recognition which also involved acquiescence in much that he doubted? I could but answer that my own experience led me to think that the advantage lay in trusting his work and his time, and that his independence brought more recognition and prestige with it than the diplomas of societies. For the artist will never know his own strength until he rests on himself and the herding instinct yields to the nobler one of feeling his life inspired, and trusting the future. I heard only recently of an artist who, so I was told, in proof of his getting on, was on speaking terms with nearly every Academician. It sounded so dreary. The cost seemed so tremendous.

But to return to the letter in *The Times*, which led me to the consideration of the salutary benefits in a direct approach of the craftsman, I was much impressed by the writer's statement in speaking of the ancient craftsmanship—"Their works can only have been due to their belief in the spirit to produce them. If t belief is there, the thing will be produced."

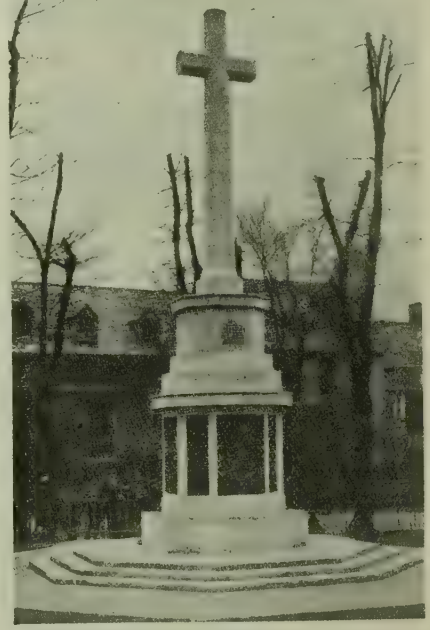
Such a statement grants little to machine and all the cunning with which we have s snares for art over the last sixty years or s Is it really, then, all so much more simp and paramount organisation merely superfluou I am concerned here with the future, not disregard what to many has seemed for t benefit of art in recent times. The co pass is turning now in other directions, a the artist is revealed against the residue organisation in sharper definition apart fro it all than when entangled in it. He is strong in standing alone.

This return to a self-respect which leav more to faith and the belief in life will le more than Academies to the restoration of a If the craftsman of art can now accumulate whole alphabet of letters after his name a depends so much on their aid, what is it b that he feels so little in himself and suffe poverty without such embellishments? This not the democracy of art, but its grief and undoing. So meanly endowed do we fe without these supports that we yield to the as a means of impressing others, feeling so litt in ourselves. In such dependence, such serv tude, the finest adventures in art will nev mature.

It is for this reason that the direct approa of the craftsman is so important. It is bett for the public to go to the craftsman direct a independently than to yield to the thousa advisers who would direct him, and he is in greater danger of making mistakes than if called in all the directors of all the public galleri of the nation to advise him; not because despise their office, but because the caution a timidity of committees and the fashion of t time so often directing them are a less sure gui than the unassuming intelligence of the avera citizen.

We shall make mistakes, but it is better make them in a right and manly way than in t "safe" and dependent way of a cowardly cautio How shall I soften the edge of this stateme better than by saying that what I am advocati is more in touch with the sources of strength the mediæval world than in any revolt authority? Discipline and authority are inhere in all freedom, but it depends on whence it derived.

The discipline I endorse is not one born out weakness, but out of strength. What is it b that belief which inspires us above the dominan of circumstances, the control of machinery The mediæval craftsman enjoyed more of t freedom because in the end he felt his relatio ship to be divinely guided, and found strength not in "being on speaking terms wi all the Academicians," but because his hea was pure.



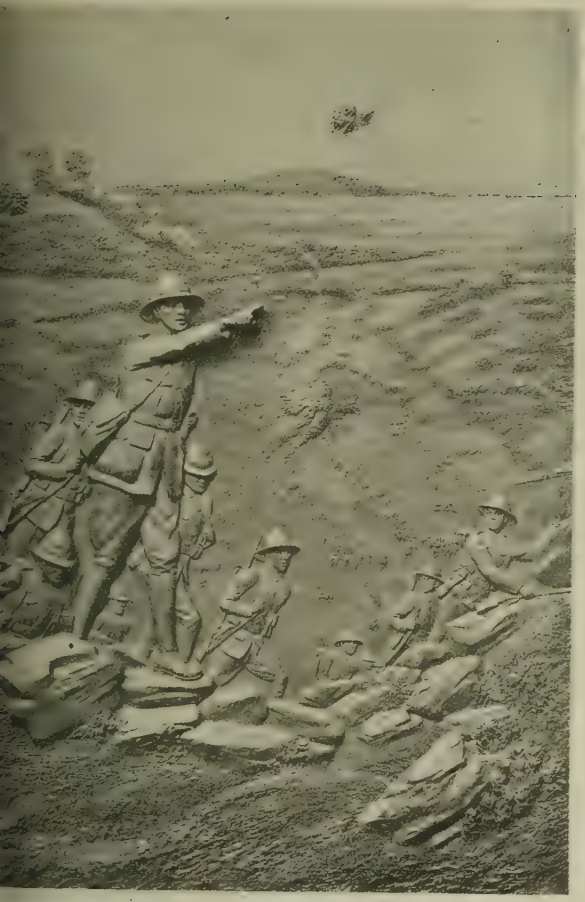
Gloucestershire Yeomanry War Memorial.
Messrs. Cash & Wright, Architects; sculpture panels by Mr. Adrian Jones, R.A.
[The panels were executed by Messrs. R. L. Boulton & Sons, Cheltenham. The panels are illustrated on page 297.]

Bristol-Birmingham Waterways Scheme.

A scheme costing £3,750,000 for improvi the waterways between Birmingham a Bristol was considered at a meeting in Birmi ham last week of the National Council Inland Waterways. It was decided that Birmingham and Worcester section offe immediate practical possibilities for devel ments which would mitigate unemploym during the winter and stimulate trade. Minister of Labour is to be invited to a c ference in Birmingham, when the project be discussed.

Proposed Severn Bridge.

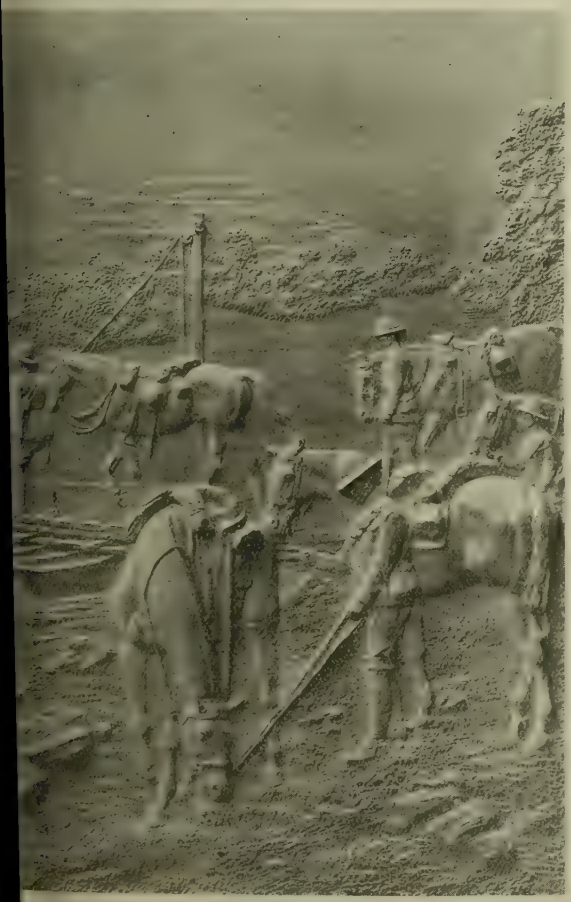
It is proposed to construct at Beachley, Monmouthshire village on the banks of Severn, where the Government shipyard established during the war, a combined r and rail bridge, which would bring Lon forty miles nearer to South Wales, and Bri the Midlands, the West of England, and So ampton seventy miles nearer. At present, road bridge nearest the sea is at Glouce which means a detour occupying three-an half hours for the great volume of motor tr between Bristol and South Wales.



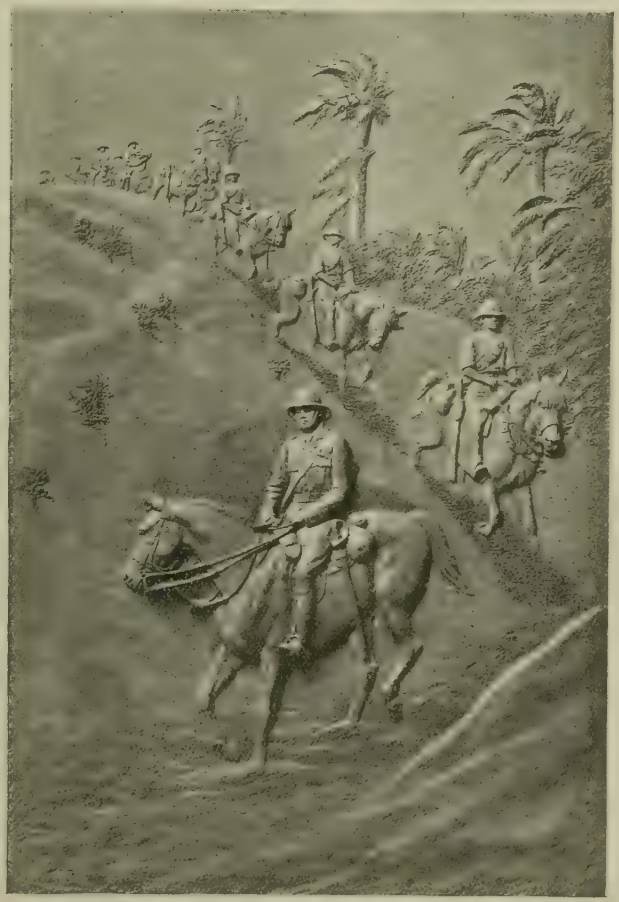
"Gallipoli."



"Syria."



"Palestine" (Crossing the Jordan).



"Sinai."

Sculpture Panels, by Mr. Adrian Jones, R.A., on the Gloucestershire Yeomanry War Memorial.
Messrs. Cash & Wright, Architects. [The memorial is illustrated on p. 296.]

THE ROYAL SANITARY INSTITUTE.

ANNUAL CONGRESS—III.

Two papers, entitled, "Regional Planning, Drainage, and Sanitation," by Mr. T. H. Johnson, and "Compulsory Town Planning: Should it be Extended," by Mr. J. A. Rosevear, were taken as read, and discussed together.

REGIONAL PLANNING.

Mr. Johnson's paper stated that in regional planning as understood and practised at the present day a Regional-Planning Committee was usually formed, made up of a number of local authorities, from county boroughs to rural councils, acting as a Regional-Planning Committee, and it would appear at first sight that the various conflicting interests likely to be involved would make it impossible to produce a coherent scheme of such a character as would commend itself to the general body of the members of the Committee. In practice, however, that was found to be usually the reverse. The various surveyors and clerks were generally enthusiastic for the work, as they realised the importance of united and concerted action.

The cost of regional planning must necessarily vary very much, and as only one regional survey had yet been made in England no definite figures were forthcoming on which any basis of cost could be calculated. It might be taken, however, that the larger the area to be dealt with the lower would be the cost in proportion. It would appear that the fairest way of apportioning the cost of the preparation of a regional-planning scheme was by basing each authority's contribution on its rateable assessment.

A regional-planning scheme was not only of benefit to the inhabitants of the area regionally planned, but had far-reaching effects in addition. It should be borne in mind that a short length of a regionally-planned road often not only served the interests of the surrounding community, but might so shorten a through line of traffic as to become a national asset of great importance.

In deciding on the extent of a regional-planning scheme regard should be had to the character of the district and the community of interest both commercial and social of the various co-adjoining authorities. Generally speaking, a regional-planning scheme to be effective should be as large as possible without becoming unwieldy. Circumstances, such as the existence of a valley, or the presence of a wide river, alone determined the extent and scope of a regional-planning scheme. It would be no part of the duty of the regional committee to interfere with the individual town-planning schemes of the various authorities forming the Joint Committee.

The Joint Committee would determine details, but broadly speaking a regional-planning scheme should deal with:—Communications by road, railway, and waterways; the zoning of areas for housing, manufacturing (including specific trades if necessary), and recreation; the preservation of features of local and historical interest and beauty; the health of the population; water supply; industry and motive power; any special problems peculiar to the district, such as coal mining and its attendant difficulties; drainage; and sanitation.

It was impossible to travel far in any direction in industrial England without seeing how the want of zoning and a proper appreciation of some form of guidance of commercial development in the past had caused most valuable sites for industrial purposes to be used for housing, and, on the other hand, most suitable land for housing was being used for works purposes. There could be no question as to the advisability of selecting the very best and highest sites for housing purposes; the economy of a gravitation sewage scheme as against that of a sewage scheme requiring pumping was obvious. The health of a population housed on high ground made for efficiency. A population living on a low damp site must contain a large number of inefficients, with a consequent loss to industry.

The provision of an unlimited supply of pure water was of the greatest importance to any community, and became more difficult as time passed. There was no doubt that in the past an unfair advantage had been taken by the large cities, who had been able by reason of their wealth to tap large and far-distant gathering grounds, taking water out of one valley into another and frequently depriving the inhabitants of their fair share of water gathered in their own valleys. The time appeared to have now arrived when the water resources of the whole country should be dealt with on proper regional lines. The result would undoubtedly be the saving in the future of an enormous sum in costly litigation. The feeling that a wealthy Corporation could force the pace and anticipate its wants to the injury and loss of the less fortunate and poorer authority would be done away with. More and stringent powers were necessary to allow of the impounding of supplies of gathered water now used for industrial purposes, and the substitution of water obtained from wells, and the reduction in the amount of compensation water sent from many of the reservoirs which in so many cases is made little, if any, use of. Many industrial areas were at the present time using water up to the extreme limit of their supplies, and as practically every watershed had been earmarked by some authority or other water in the future must be obtained from bores or additional bores, and again it was quite impossible in many cases for local authorities to obtain suitable water from bores in their own areas. The formation of regional water boards and the pooling of the resources of the various valleys appeared to be the only solution for the future water supply to the population of industrial England.

SHOULD TOWN PLANNING BE EXTENDED?

Mr. Rosevear's paper stated that the need or town planning at the present juncture appeared to be all-compelling and insistent in view, first, of the large amount of private building now taking place in and around cities and towns, and, in fact, in all parts of the country; and, second, the new housing schemes about to be commenced by local authorities, with the assistance of the Government, under the new Housing Act.

In considering the case of undeveloped areas in county, urban and borough areas, it had to be remembered that Clause 16 of the Housing, &c. (No. 2) Bill, 1923, extended the time from three to six years within which local authorities who were under the compulsory powers, had to prepare and submit schemes. That, he considered, if passed into law, would be a retrograde step and play further into the hands of dilatory authorities. It seemed to him it would have been better policy to stipulate that the preliminary statement or draft scheme should be prepared and submitted within three years, and the final scheme within the extended period of, say, six years, if necessary. That would have ensured some steps being taken in the near future.

Many rural areas were in close proximity to busy cities and towns, and in order that a proper main road system, including securing the necessary widths, might be established, it was most necessary that compulsory powers be applied to such areas, which frequently were a bugbear to their more progressive neighbours. The predominant use to which such areas would be put should also, so far as possible, be fixed at an early date in order that user of the adjoining areas might be co-ordinated with such and not be mutually destructive. Thus far schemes in such areas should proceed within, say, three years, leaving detailed schemes to be prepared at a later date when the necessity arose.

The problem of built-up areas was not a new question by any means. Instances of the need of control at the present time occurred on every hand, more especially in districts where the ground leases were falling in and the freehol reconstructing or rebuilding, in many for quite a different type of user, which w tend to alter the character of the parti area and might in fact very materially depre the surrounding property. Also, frequentl such rebuilding a larger area was covere buildings, and so further congestion occurr those central portions of the town. Prov the new buildings complied with the by-laws, speaking generally, no contro objection could be exercised or sustained b local authority, whatever the use to which buildings might be put. It would be real therefore, that in course of time in a parti locality the outskirts might be planned developed upon the best possible lines proper allocation of industrial, residential business areas, and with adequate open sp but at the same time the central portions m be a mass of congestion and ill-assorted b ings, used for many and varied purposes, wit any regard to the amenity or convenienc the occupiers, and that state of affairs w yearly grow worse.

It was suggested that compulsory powe regard to the town planning of such areas necessary, and to bring built-up areas into such powers should by Statute have t exercised by local authorities within a pe of three to six years. The first necessity w be to zone the built-up area as regarded pre user and to control the future redevelopm both in relation to and forming a part of comprehensive town plan for the locality. S powers would enable the clearance and re struction of unhealthy and congested area be carried out as an integral part of the t planning scheme.

Similar powers over the whole town, centre and outskirts, had been exercised in United States for some time, and the busi community and those especially acting property interests were the most enthusi in support, recognising that not only the munity but the individual benefited from ordered control in the long run.

Discussion.

Mr. A. J. Martin said it was pitiful to see difficulties caused by the lack of co-opera between different local authorities. If feeling against joint action could be overc it would be a very great benefit to community.

Mr. Campbell (Edinburgh) urged regional and town planners should not be ir great a hurry, as ideas on the subject continually changing. For instance, a few y ago it was thought better to start planning the centre of a town and work to the outsk ideas had now completely altered, and it thought better to work from the outl districts towards the centre. Also, a few y ago many town planners advocated planning schemes, but it was now gene accepted that the more elastic the scheme better.

DOMESTIC USES OF ELECTRICIT

A paper by Mr. W. A. Vignoles, M.I. Borough Electrical Engineer of Grimsby "Hygienic Aspect of Electricity in the Ho was taken as read.

It was pointed out in the paper that elect to-day was used in the home for lighting, ir cleaning and for power purposes as well heating and cooking, while satisfa apparatus for providing hot water by the electricity was now being put on the mar

The widest use was, of course, for lighting poses, and the massed public opinion was electricity was without a rival for this pu owing to the absence of products of combu He thought it needless to labour that poi he felt they would all agree, and though h heard many ingenious arguments from interested in other methods of illumin these undoubtedly carried very little weig

With electric light, the paper continu was possible to have rooms of a less heigh with other methods of illumination, and, cubic space must remain constant owing

ost, it followed that if electricity was used the oor-space could be increased with considerable enefit to the occupiers. That was a point hich was not always appreciated.

Until comparatively recent years electricity as practically confined to lighting, but when ectric irons were introduced they rapidly btained a hold, and were now very largely used. he iron gave the housewife some indication of hat electricity could do to help her. If she as provided with an iron and an electric asher, the terrors of washdays had gone.

With the old method of washing the woman ood for hours over the tub, wearing out the rength which she required in order to look ter her children and her husband. With the lp of electricity she could fill her washer with othes, put in the hot water, set the machine work, and then go upstairs to do the beds hile the machine did the work for her. As to pense, a shilling per week would, under most riffs, pay not only for the power used in the achine, but would also heat the water required.

The domestic vacuum cleaner was a great set to the home. It was the only reasonable stem for removing dust from the house. weeping only stirred up more dust, while the ister must be about the most inefficient achine that was ever thought of. The vacuum eaner removed the particles of dust—each rhaps with a number of microbes clinging to —from the house, and enabled them to be nveyed in comfort to a suitable receptacle.

A great deal of dirt could be avoided by the e of electric heaters instead of coal fires. ith any other method of heating a flue must provided and a large amount of heat was cessarily wasted up the chimney, whereas ith an electric heater the whole of the heat veloped could be usefully applied. The ater being set just at the point where it might wanted, the net result was that for occasional ating, such as for bedrooms, dining-rooms, or her places used intermittently, electricity uld be used not only conveniently but onomically. Probably the best solution, in a all house, was to use one coal fire, which could o be arranged to provide the necessary hot ter during the winter months, and then to electricity for the occasional heating required other rooms and for providing hot water ring the summer time.

In the last few years great advances had been de in electric cooking, and it had now been veloped to such an extent that it was possible undertakings to hire out cookers at rentals about 10s. a quarter, and with electricity at rice of 1½d. per unit downwards electric king became a serious practical proposition— only for the rich man, but also, and perhaps e particularly, for the housewife who did own work. With the development of the tric cooker, which could be used in any tion, as no flue was required, housing design simplified, and a number of houses now g built were arranged for electric cooking , the stoves being eliminated and the cost of flues saved. Enough data had been ered to enable the cost to be ascertained y closely, and it was generally considered for a household of four 28 to 30 units of tricity per week would be consumed if all cooking were done electrically; at 1¼d. nit that would work out at 3s. 1½d. per week. ideal for a house was one where there was m that was generally fitted with a fire to h the hot-water cistern was connected, e electricity was used for lighting, cooking or the heating required in other rooms than ne mentioned, and as an auxiliary for the ater supply. With such an arrangement, with an electric washer and iron, it would erfectly possible for a woman to do the work of the house under the best condi- and with enormously increased comfort mpared with the ordinary methods of y.

Discussion.

A. J. Martin (London) referred to the ce of products of combustion in a room d and lighted with electricity, and said it had been abundantly shown that the air in a room heated by gas or coal was purer than that in a room lighted by electricity.

Mr. W. B. Smith (Glasgow) said the Departmental Committee on Smoke Abatement could only guardedly recommend the adoption of electricity for small houses on account of the high cost. In Glasgow they charged 4½d. per unit for domestic lighting and 1d. per unit for other purposes, and that price was sufficient to make it a paying proposition. In some of the new houses at Glasgow they were supplying electricity for power purposes in small houses at ½d. per unit, and, although the Corporation did not desire to make a profit, there would be no loss. He thought electricity was ideal for cooking purposes, but the electricity undertakings would have to reduce their charges; supply undertakings could very well do that, because the cooking was done at times other than the peak-load periods.

Mr. H. D. Searles-Wood, F.R.I.B.A., said architects often complained about the position of electric plugs on walls; personally, he preferred plugs in the floor, where they would not be so much in evidence and where children would not be so able to get their fingers into them so easily.

Mr. Watson (Birmingham) said he had found difficulty in measuring electricity so as to reduce the cost of meters as much as possible. He had tried putting one meter to serve a row of cottages and dividing the cost amongst several tenants, but it had not been really successful because he had found that one of the tenants had put in a cooker and was getting more than his share.

Mr. Edward Willis, M.Inst.C.E. (Chiswick), said he had found one little difficulty in using electric irons, as one in use in his house had been put down after use without being disconnected, with the result that a fire had been caused.

In replying to the discussion, Mr. Vignoles said it had been claimed that the air was purer in a room where products of combustion were discharged, but he had never been satisfied that the evidence was sufficient to prove that that was so; in a room 9 ft. or 10 ft. high lighted by gas it would be found that the air near the ceiling was a great deal polluted. The question of fuses blowing was a difficulty, but it could be overcome. The continual working of an electric iron would fray the flexible cord, but a spring connection at the end of the cord would prevent the twisting from affecting one point only. With regard to the price of electricity, some of the supply undertakings were not doing as much as they should to promote the use of electricity in small houses. There were, however, a great many undertakings which were now supplying power for heating and cooking in the neighbourhood of 1d. a unit; at Grimsby the price was 1¼d. a unit. At such a price nothing could touch electricity as a medium for heating and cooking on the ground of cost. It would hardly be economical for heating water, but a separate coke-fired boiler would overcome that problem. With electric cooking the amount of food wasted was very much less than by any other method. The reason was that in cooking a joint by electricity the oven could be started at a high temperature so that none of the juices in the meat would be lost, and then switched off altogether for a time until the proper temperature was reached. The position of plugs and switches was a matter in which electrical engineers required the assistance of architects. He did not like to put plugs in the floor because dust dropped into them. He thought all plugs should be controlled by switches, and that would obviate the danger of children getting a shock through putting their fingers into the sockets. One great advantage of electric radiators was that there was no need to have a flue, with a resulting saving in building costs. In Grimsby they were supplying a number of houses at an inclusive charge of 1s. 6d., a week for lighting only; no meters were fitted, but there was a limiter to prevent more than a certain amount of electricity being taken at one time. He thought the danger of the switches of electric irons being left on could be avoided by installing a small signal lamp which would be alight whilst the iron was in use and be switched off when the iron was not in use. One iron on the market was fitted with a switch in the handle so that the electricity would only be "on" when the iron was actually in use, but the disadvantage to that was that someone had to hold the handle until the iron became hot.

PERCOLATION IN CHALK.

A paper by Mr. George F. Carter, M.Inst.C.E. (Borough Engineer of Croydon), stated that a geological section taken across the London basin showed the chalk strata in a trough-shaped form made by elevation of the sides or depression near the centre. Where the chalk was exposed at its outcrop near the overlying tertiaries there were fissures or crevices allowing water to pass freely into the mass. There were no streams or rivers in the outcrop except at times when the level of the surface in a valley or depression happened to be below the water level or level of saturation, when temporary streams or bournes were formed. The water, however, which passed into the chalk must have an outlet, if not underground into the sea, and it was returned to the surface by overflowing at the junction with some impervious stratum. Where water overflowed the chalk on to the impermeable clays or rocks there were streams or rivers.

Below the tertiaries the chalk was generally hard and compact, due to the superincumbent pressure, and consequently not freely permeable. Even in the open chalk its character likewise varied and at depths of, say, exceeding 200 ft., might be hard and contain few water-bearing fissures. It was the fissures in the chalk which contained the useful water, that in the body of the chalk or water of capillarity being of no avail for waterworks purposes. Useful water for public supplies, at all events in the South Metropolitan area, must generally be looked for even on the chalk at moderate depths, generally within 200 ft. of the surface.

In South London the outcrop of the chalk near the tertiaries was at a level of about 100 to 200 ft. above ordnance datum and at the escarpment the surface of the chalk varied from about 400 to 800 ft. above ordnance datum. If the chalk were freely permeable under London, so long as any water showed at its junction with the tertiary beds as it generally did—as the source of permanent rivers—there would be no deficiency in the London wells, but experience proved that the water level in those wells was constantly falling regardless of seasons and occasional copious bourne flows.

Several wells in Croydon for trade supplies had been bored through the tertiaries to great depths within half a mile of the chalk outcrop and only resulted in small yields of 4,000 to 20,000 gallons daily, and in many cases the owners had given them up and resorted to the public supply. That was the more startling, as just in the outcrop of the chalk only a short distance away were wells giving one to three million gallons daily.

Mr. Baldwin Latham had stated from his observations that water obtained from wells under London, although such wells were bored into the chalk, was not water abstracted direct from the chalk. The chalk under the tertiaries being hard and compact, water passed along the Thanet sand over the chalk and it was the water conveyed in this manner that was taken. He mentioned as proof of that theory the softer nature of these waters compared with that abstracted from the chalk.

There was an area of chalk which was first defined by Mr. Baldwin Latham of about 23 sq. miles, taking a part of Croydon and the district to the west and south, and from observations that were first made by him and carried on by the lecturer there was reason to believe that a fair computation of the yield of that area can be obtained by recording the water passing into the River Wandle and the quantity pumped from the wells of the Croydon Corporation and the East Surrey Water Company. It was submitted that from that area the balance of the

water not pumped at those wells drained into the bourne culvert (purposely constructed to receive subsoil water) connected to the River Wandle and partly through springs in or near the river and could be gauged. There was also an average of one million gallons daily passing away as subsoil water on to the Beddington Farm. Practically very little water passed away under the tertiaries at that place due to the hard, close nature of the chalk. The paper concluded with tables showing the rainfall, evaporation, and chalk percolation for the years 1918, 1919, 1920, 1921 and 1922, and a diagram showing the rainfall, percolation, and water accounted for in the Croydon chalk area from 1913 to 1922.

The following are interesting passages from papers read before other sections :—

Problems of Municipalities.

Mr. Ernest J. Elford, M.Inst.C.E., Borough Engineer and Surveyor of Wandsworth, in his presidential address to the Section of Engineers and Surveyors to Sanitary Authorities, dealt with those problems which he thought would present the most serious municipal problems in the future. These were sewage disposal, refuse disposal, and housing. Dealing with sewage disposal, he said : Notwithstanding the fact that sewage effluents of high standard, certainly good enough for all practical purposes, were being consistently produced, a number of important problems still remained to be solved. Perhaps the most difficult was the question of the treatment and disposal of sludge, and its profitable utilisation. The activated sludge process appeared to mark an appreciable advance by (1) facilitating purification, (2) reducing the smell and fly nuisance, and (3) by producing a sludge of higher manurial value. The discovery of some simple, economical method of dewatering sludge would materially assist in the solution of most of the outstanding problems.

On the question of refuse disposal, he pointed out that the disposal of refuse from the Metropolis was a problem of great difficulty, principally because of its magnitude. The quantity involved was over 1¼ million tons per annum, and at the present time practically the whole of it was dumped upon land in surrounding districts. That that method of disposal was open to serious objection was admitted, he said, and the regulations issued recently by the Ministry of Health, although involving increased cost, had been generally approved. There was no doubt that the time must soon come when local authorities concerned would be compelled to adopt some improved system of disposal.

His view was that the housing problem was more important and pressing than any of the others to which he had referred. The new Government Housing Bill was intended primarily to stimulate and encourage private enterprise ; it must be borne in mind, however, that private enterprise could not at present profitably build working-class dwellings to let—in fact, very few houses of any class had been built to let for some years past. The majority of those whose need was greatest were not in a position to purchase a house, even with the assistance available under the new Housing Bill. It was obvious, therefore, that as working-class dwellings were not an economic investment there was little chance of their being provided unless local authorities continued their building operations until conditions were more favourable. That conclusion might be very unpalatable, but it was a fact, and it was in the public interest that it should be boldly faced.

Smoke and Tuberculosis.

In a paper read before the Section of Sanitary Science, on "The Prevention and Cure of Pulmonary Tuberculosis," Dr. Percy Hall, M.R.C.S., L.R.C.P., called attention to the importance of housing conditions in the prevention of tuberculosis, and gave his opinion that if the present wasteful methods of fuel consumption which resulted in a smoky and fog-laden atmosphere were superseded, and electricity developed as a means of heating, lighting, and cooking, we should go a long way towards stamping out the disease.

ENGLISH CATHEDRAL CITIES *

These delightful handbooks on the cathedrals are of convenient size for reference in the buildings themselves, and are written and illustrated in a way to appeal to non-technical readers as well as to students of architecture and construction. Each volume deals with one cathedral and is composed by an author whose learning and interest in his subject guarantee its serious treatment.

In the case of Chichester Cathedral, by Mr. Hubert C. Corlette, F.R.I.B.A., the history and the structure of the building are followed step by step in a manner that shows an intimate knowledge of the building, its detail, and of contemporary events at the time of its erection. The speed of the early builders is remarked upon in connection with the spread of building methods and of architectural style. Canterbury choir, "commenced and completed between the years 1174 and 1184," is used as argument to supply an approximate date for the execution of the nave vaulting at Chichester after the fire of 1186 and before the rededication of the building in 1199.

We are apt to think that before the invention of steam-driven machinery great speed in building construction was impossible, but our machinery is, after all, only a substitute for hand-work, and while the output of a machine is strictly limited, that of a building gang may often be increased by the employment of more men.

The whole development of vaulting is affected by its introduction into English Gothic buildings as a means of resisting the spread of fire to the timbers of the roof, and at Chichester the high vaults were only designed as an afterthought when the original flat wooden ceiling had been burnt down. Many of the features of building construction peculiar to our Gothic architecture can be traced to this super-addition of vaulting to buildings originally designed for lighter ceilings of wooden beams, which pressed in a more nearly vertical direction upon their supports. The ancient Romans and the Orientals of the present day manage to erect vaults without the aid of an external skeleton framework of buttresses and flying buttresses that were made necessary when vaults were built in Gothic times on piers and walls too high and too thin to carry them without some extra provision to keep the lateral thrust of the vault in equilibrium.

Speaking of the rebuilding of the central tower and the arches of the crossing, Mr. Corlette says : "Bishop Ralph Neville died in 1244, so it is concluded that the work in which he was so interested was none other than the central or bell tower of the Cathedral, and that the earlier tower, with its supporting arches, must have fallen, else it is not likely that the work would have been rebuilt from below the spring of these arches before the new superstructure could be added ; for we are obliged to take the customs of mediæval builders into consideration in any attempt to sift the evidence concerning their work—and they were before all things practical. The claims of structure, the motives of common sense, rather than abstract æsthetic ideals of beauty, were the prime causes at work in the evolution of their great art." The tale of the collapse of this tower after it had carried itself for five hundred years and borne the addition of a tall spire is retold in the words of Professor Willis, which record the futile efforts of the carpenters to shore up the falling structure between February 17 and February 21, 1861. The heroism of this lost endeavour is indicated in Professor Willis's sentences : "On Wednesday crushed mortar began to pour from the old fissures, flakes of the facing stone fell, and the braces began to bend. Yet the workmen continued to add shoring until three hours and a half past midnight." At an earlier period the spire had been repaired by Sir Christopher Wren and furnished with a gigantic pendulum to stabilise it when subjected to violent gusts of wind. A great deal of information is also imparted by the photographic views illustrating the series, and the vigour and grace of our early Gothic art could hardly be better exemplified than in the two pictures of the retro-choir at Chichester, where the circular pier, with its four satellite shafts, is shown against a background of beautifully proportioned arches and dainty sculpture.

* "Chichester," by Hubert C. Corlette ; "Durham," by E. Bygate ; "Lincoln," by A. F. Kendrick ; "Peterborough," by the Rev. W. D. Sweeting ; "Winchester," by Philip W. Sergeant ; "Wells," by the Rev. Percy Dearmer. Bell's Cathedral Series, new editions. (London : S. Bell & Sons, Ltd.) Price 2s. each.

MALDENS AND COOMBE HOUSING SUBSIDY.

With reference to the complaint that the Ministry of Health had refused a subsidy for parlour houses for the Maldens and Coombe area, reported in last week's *Builder*, the Minister of Health states that "the Ministry is not withholding subsidy under the new Housing Act in the case of houses with parlours, or discouraging the provision of parlours. Such suggestion is entirely without foundation. As a fact, in many cases, proposals for subsidising the erection of parlour houses have already been approved. The Housing Act requires that, before approving proposals submitted to him, the Minister shall be satisfied that the need for such houses cannot be met without assistance under this Act. In the case cited the Minister was not satisfied that the need for the proposed houses could not be met without assistance. On the contrary, clear evidence was submitted to him that builders in the district could obtain a fair profit for these houses without any subsidy at all."

PEDESTRIAN RIGHTS.

"Experto Crede" writes :—

Sir,—With the passing of horse traffic and the innovation of mechanical traction, drivers are filching, either by ignorance or design, the use of the crossing and continuous footway of the pedestrians, who have by remote custom a pre-emptive right to its use.

As to pedestrians on public rural roads, it seems fatuous that any able man should be unemployed, and in receipt of a dole, when hundreds of miles of roads, many extremely narrow, are without footpaths, as also are main roads, with much of the space lying in absolute waste and covered with open water gaps to conduct the water from the road surfaces into the ditches, the pedestrian now being compelled to exercise his agility in crossing them if he elects to leave the roadway. With a 6-ft footway three 4-in. stoneware pipes would permit these gaps to be levelled, and the footway being formed above the road level the pedestrian would preferably keep off the road, or at least be induced to do so. Where roads are of a narrow width and of a special nature legislation should immediately be applied with compulsory powers to acquire abutting land for giving a minimum width of 30 ft. to any public road (18 ft. to the road, with 12 ft. to the footways preliminary ; one footway of 6 ft. being first provided for public use, and where it is found of sufficient size and capacity, it could remain until necessity arose for the use of the other one, the decision of adoption being left to local authorities. There are many roads within 2 miles of London dangerously narrow, with hedges and banks on each side, that require a footway for public safety. Motorists would be much relieved by this work being carried out, and this could be a simple stock job for the unemployed in every locality. Where abutting owners have erections, orchards, gardens, or cultivated land out to the limited boundary of any road, and there is a difficulty of providing the necessary width, a local tribunal could be formed to adjust any alternative proposition or by arbitration decide any compensation claim thereon, or arrange any slight diversion to avoid unnecessary cost or inconvenience. The road repair fund and the dole saved should suffice to cover the cost.

THE BUILDING TRADE.

HOURS IN THE BUILDING INDUSTRY.

The Arbitrator's Award.

The following Award, made by Sir Hugh Fraser as arbitrator on the question of working hours in the building industry, was issued on Monday evening by the National Federation of Building Trades Employers and the National Federation of Building Trades Operatives, the parties to the Arbitration :—

"I award and direct as follows :—

"1. That the present rule whereby 41½ hours per week are worked during December and January be rescinded, and that the working time of 44 hours per week shall proceed throughout the year, except during the period of summer time as determined by statute (approximately twenty-one weeks, for example, for 1923, on and from April 23 to September 17), when the working time shall be extended to 46½ hours per week by adding half-an-hour to each of the first five working days of the week.

"2. In December and January, on works where artificial light can be reasonably supplied, the interval of one hour for dinner shall be observed, but in those two months, on works where artificial light cannot be reasonably supplied, the interval for dinner shall be reduced to half-an-hour, so that work may terminate during those two months at 4.30 p.m. If, however, on any such works where artificial light cannot be reasonably supplied the majority of the operatives request that the interval of one hour for dinner may still be maintained throughout December and January, and that the working hours during that period may be consequently reduced to 41½ hours per week, the employer shall be at liberty to arrange accordingly, such shortened working hours thus becoming an occasional exception and not a general rule, as at present.

"3. Nothing in this Award shall prevent employers and operatives in any town or area from maintaining by mutual consent the 44-hour week throughout the year.

"4. As it is not desirable to interrupt the existing working hours for a brief period of a few weeks during the present summer, this Award shall not come into operation until September 17, 1923."

The assessors in the arbitration (Mr. B. I. Greenwood and Mr. A. G. Cameron) and the representatives of the respective parties in the arbitration have signed a statement calling for the loyal observance of the award by all parties interested throughout the country. It is officially announced that the award will be presented to the next meeting of the National Wages and Conditions Council when instructions will be issued to all parties concerned regarding the application of the conditions contained in it.

THE COST OF BUILDING MATERIALS.

The second interim report of the Inter-Departmental Committee on the Prices of Building Materials, published last week, states that, with regard to pig iron, the raw material for light castings, the price of No. 3 Cleveland on July 17 was 107s. 6d. a ton, as against 115s. a ton on June 27.

As to the supply of bricks, the report states :—"In Scotland there was a surplus of bricks, and in England and Wales—with the exception of London and the south-east—the supply appears to be adequate. In London and the south-east, owing to the bad outlook of trade last winter, the output of bricks has not been as large as events have proved to be desirable, and there may at the moment be cases of local shortage. The general supply is, however, likely to increase in the near future ; this year's output of stocks is already in part available and a larger supply should shortly be forthcoming. In the meantime the Fletton output is steadily increasing ; the production of Flettons for the month of June was 38,000,000, as against 33,500,000 for the month of May, and 23,000,000 for the month of January. In view of these facts, we think purchasers should hesitate to pay increased prices for prompt and preferential delivery."

The report of the Chairman (Sir Halford J. Mackinder) to the Minister of Health points out that in the last two months there have been a good many local fluctuations which extended to almost all of the materials under consideration. Common bricks have increased in price in one locality by as much as 6s. per thousand, and have decreased in another by as much as 5s. In the main there has been a tendency slightly to increase the price of bricks. Timber, except flooring, and lead have been somewhat easier in price and, for the remainder, the fluctuations by way of increase and decrease have approximately balanced. Schedules attached to the report give the prices of building materials in different centres in the United Kingdom ; the Schedule relating to London is given on this page, and others on pp. 302–3.

BUILDING TRADE CONDITIONS.

At the annual conference of the National Federation of Building Trade Operatives at Ilfracombe, last week, a resolution was carried instructing the Executive to do their utmost to establish one big union for the building industry. The Executive will report to an amalgamation committee, which will hold a meeting in the near future.

Mr. Thomas Barron (Amalgamated Society of Woodworkers) was elected President of the Federation for the ensuing year, in succession to Mr. George Hicks, who had resigned.

The question of the co-ordination of the affiliated societies' organisers under the National Federation was discussed, and it was decided to defer the whole matter to the emergency committee.

The question of a guaranteed full week for building trade operatives was also discussed at considerable length, and the following resolution was passed :—"That this conference of building trade operatives, believing in the justice of payment for lost time through stress of weather, hereby directs the National Federation and the representative on the wages and conditions council to press for the establishment of a guaranteed full week for all building trade operatives, to come into operation as soon as possible."

The conference discussed matters relating to the gasfitters' dispute at Nottingham, and decided that the Federation should confer with the National Union of General Workers with the view of arranging a conference with the Nottingham Gas Committee.

The "inadequacy of the mess-room accommodation on building jobs" was referred to the Executive for negotiation with the Labour Party with a view to legislation.

The conference decided to make national and international inquiries as to the establishment of a trade union bank, as it was suggested that trade unions were too much in the hands of joint stock banks.

Dover Harbour Development.

Pending developments at Dover Harbour include additional wet and dry-dock accommodation adequate for dealing with large vessels. The estimated cost of the new works is a million-and-a-quarter sterling, and application is being made to the Trades Facilities Committee for a guarantee.

LONDON COUNTY COUNCIL.

Prices of Building Materials.

Materials.	Description.	Unit.	April, 1923.	June, 1923.	July, 1923.
Bricks.					
Common	Fletton	1,000	49/3	52/–	52/3
Facing	Picked stock	1,000	65/–	65/–	65/–
Lime and Cement.					
Portland Cement	English	Ton	47/10	44/–	44/–
Lime	Grey stone lump	Ton	43/10	43/10	43/4
Lime	Chalk ground	Ton	38/6	37/6	37/6
Timber					
Carcassing	7″ × 2″ Swedish red (4th quality)	Standard	£18 12 6 to £19 12 6	£19 2 6	£21 7 6
Flooring	Swedish white, 1″ plain	Square	18/10 to 19/9	19/5	—
Lead.					
Sheet	British manufacture	Ton	£32	£32	£28
Piping	British manufacture	Ton	£32	£32	£28 10
Cast Iron.					
R.W. pipes	3″ dia. ⅛″ metal	Yd. lin.	—	1/6½	—
Soil pipes	3½″ dia. 3/16″ metal	Yd. lin.	3/1	3/1	—
Bath	5′ 0″ Greenstone enamel with a 2″ roll with feet but without fittings	Each	—	£3 17 6	—

All prices relate to special purchases made for the L.C.C. for their housing scheme and are for delivery on site except those for facing bricks, timber and cement, which are for "in barge alongside private jetty."

From the Report of the Departmental Committee.

THE RENT ACT AS FINALLY PASSED.—I.

As the Rent Bill, now known as the Rent and Mortgage Interest Restrictions Act, 1923, was amended in the House of Lords, it may be well to consider the Act in the light of our former articles showing what alterations were effected after the Committee stage in the House of Commons. Section 1 is unaltered, and, subject to the provisions of this Act, it continues the Rent Act, 1920, until June 24, 1925.

Where Possession Excludes Restriction.

Section 2, subsection (1), remains unchanged. Its effect is that, where a landlord at the time of the passing of this Act (July 31, 1923) is in possession of the whole of a dwelling-house to which the Rent Act, 1920, applies, or comes into possession of it at any time after the passing of this Act, then the principal Act shall cease to apply to that house. There are two provisos to this—(1) Where part of the house is lawfully sublet, and that part is also a dwelling-house under the principal Act, the principal Act will not cease to apply to the part so sublet, but if the landlord comes into possession of any part not so sublet, the principal Act shall cease to apply to that part. (2) If a landlord comes into possession under an order or judgment made after the passing of this Act on the ground of non-payment of rent, then, notwithstanding the foregoing provisions, the principal Act shall not cease to apply.

Leasing Houses.

Subsection (2) is unaltered. Its effect is where, after the passing of this Act, the landlord of a house to which the principal Act applies leases, or agrees to let, a house for a term ending at some date after June 24, 1926, not being a term of less than two years, the principal Act shall, as from the commencement of the term, cease to apply to that house, and nothing in the principal Act shall affect the payment of any agreed sum as part of the consideration for such lease or agreement, but, if at that time part of the house is lawfully sublet, the principal Act shall continue to apply to that part. Subclause (3) in the Bill, which dealt with licensed houses, has been removed to section 4 in the Act, and a new subsection takes its place; that subsection is "For the purposes of this section" (*i.e.*, section 2) "the expression 'possession' shall be construed as 'actual possession,' and a landlord shall not be deemed to have come into possession by reason only of a change of tenancy made with his consent."

We now come to section 4, which is new, and which we set out in full: "Where, before the passing of this Act, the landlord of a dwelling-house to which the principal Act applies has granted to the tenant a valid lease of the dwelling-house for a term ending at some date after June 24, 1923, or has entered into a valid agreement with the tenant for a tenancy of such a term and the rent thereby reserved is reserved at a rate which after, but not before, such last-mentioned date exceeds the standard rent and the increases permitted under the principal Act or this Act, the landlord may, by three months' notice in writing, expiring not earlier than December 21, 1923, and not later than March 31, 1924, determine the said lease or tenancy, provided that if within a month of the receipt of such notice the lessee or tenant shall give to the landlord notice in writing that he elects to abide by the said lease or agreement and the terms thereof, then the said lease or agreement shall remain in full force and effect in every respect, including the amount of the rent thereby expressed to be reserved, unaffected by the principal Act."

Restrictions on Possession.

Section 4 of the Act now represents clause 3 of the Bill, and for convenience, as that clause introduced many amendments into section 5 of the principal Act, the whole of this section is now reproduced in the Act as amended, but we shall only refer to the amendments which have been introduced. The Bill amended paragraph (*b*) of section 5, subsection (1), and this paragraph appears in the Act unaltered from how it stood in the Bill, and it will be remembered that the paragraph provides that possession can be claimed where any person residing with a tenant or lodging with him or being his subtenant has done the acts specified in the paragraph, been a nuisance, committed waste, etc., but where the person is a lodger or subtenant, the Court has to be satisfied that the tenant has not taken such steps as he ought reasonably to take for the removal of the lodger or subtenant.

Paragraph (*d*) was the next paragraph amended, and in the Act this paragraph remains the same as in the Bill, save for the provisions as to alternative accommodation, that is to say, the house must be reasonably required by the landlord for himself or for a son or daughter over 18, or for some person *bona-fide* residing with him, or for some whole time employee of himself or of his tenant, or with whom a contract conditional on housing accommodation has been entered, "and (except as otherwise provided by this subsection) the court is satisfied that alternative accommodation is available which is reasonably suitable to the means of the tenant and to the needs of the tenant and his family as regards extent, character, and proximity to place of work, and which consists either of a dwelling-house to which this Act applies, or of premises to be let as a separate dwelling on terms which will afford to the tenant security of tenure reasonably equivalent to the security afforded by this Act in the case of a dwelling-house to which this Act applies."

Paragraph (*h*), added to the subsection, stands as in the Bill, making it a ground to claim possession if a tenant, without the consent of the landlord, has after July 31, 1923, assigned or sublet the whole of the dwelling-house or sublet part, the remainder being already sublet. There is a new paragraph here inserted in the subsection numbered (*i*) allowing possession where "the dwelling-house consists of or includes premises licensed for the sale of intoxicating liquors, and the tenant has committed an offence as holder of the licence or has not conducted the business to the satisfaction of the licensing justices or the police authority, or has carried it on in a manner detrimental to the public interest, or the renewal of the licence has for any reason been refused."

We now come to those paragraphs in the section (4) which deal with cases where alternative accommodation is not a condition of an order for possession being made, but it is to be observed that alternative accommodation is not made a condition in all the cases

MANCHESTER.

MARKET PRICES OF BUILDING MATERIALS.

Materials.	Description.	Unit.	April, 1914.	April, 1923.	June, 1923.	July, 1923.
Bricks.						
Common	Wire cut	1,000	28/–	60/–	60/–	55/–
Facing	Local red semi-plastic.	1,000	50/–	97/6	97/6	73/–
Aggregate.						
Ballast	Pit gravel	Yd. cube	5/–	9/–	9/–	10/–
Sand	Pit	Yd. cube	4/6	6/6	6/6	6/6
Lime and Cement						
Portland cement	English	Ton	30/–	63/–	63/–	65/–
Portland cement	Foreign	Ton	—	52/–	52/–	54/–
Lime	Blue lias	Ton	18/–	48/–	48/–	51/6
Timber.						
Carcassing	7″ × 3″, equal to 2nds. N. American white spruce.	Standard	£14	£22	£22	£22
Joinery...	Selected 2nds red deal, White Sea or Swedish.	Standard	£17	£24	£24	£24
Flooring	Swedish white, 1″ plain.	Square	14/6	20/3	20/3	21/–
Tiles and Slates.						
Slates	20″ × 10″ 2nds Velinhelli.	Mille of 1,200	£8	£24	£24	£22
Roofing tiles	Bridgewater ...	1,000	£5 10	£15 6	£15 6	£15 6
Lead.						
Sheet	British manufacture.	Ton	£20	£36	£36	£32
Piping	British manufacture.	Ton	£21	£36	£36	£32
Cast Iron.						
R.W. Pipes	3″ dia. $\frac{1}{8}$″ metal ...	Yd. lin.	1/5	1/11½	2/2	2/2
R.W. gutters ...	4½″ half-round $\frac{1}{8}$″ metal.	Yd. lin.	11½*d.*	1/3½	1/5½	1/5½
Soil pipes	3½″ dia. $\frac{3}{16}$″ metal	Yd. lin.	2/7	3/6	3/10½	3/10½
Sink	Glazed fireclay buff and white 24″ × 18″ × 10″, with 1½″ waste, plug and chain.	Each	20/6	41/–	41/–	41/–
Glass ...	15 ozs. 3rd quality	Ft. sup.	2½*d.*	3½*d.*	3½*d.*	3½*d.*
White Lead	—	Cwt.	26/–	57/4	57/4	54/–
Linseed Oil ...	Boiled	Gal.	2/3	4/6	4/6	4/11
Turpentine	—	Gal.	4/–	8/–	8/–	10/11

All prices are for delivery on site within an average of 1 mile from a local railway station.

(*See p.* 301.

dealt with in the foregoing paragraphs. It is only necessary for us to refer to paragraph (iv), as in the Act this has been recast, and now forms two paragraphs as follows: (iv) "Where the landlord or the husband or wife of the landlord became the landlord before June 30, 1922, and the dwelling-house is reasonably required by him for occupation as a residence for himself or for any son or daughter of his over 18 years of age." (v) "Where the landlord or the husband or wife of the landlord did not become the landlord before June 30, 1922, and the dwelling-house is reasonably required by him for occupation as a residence for himself or for any son or daughter of his over 18 years of age, and the Court is satisfied that greater hardship would be caused by refusing to grant an order or judgment for possession than by granting it."

In the Act all the subsections of section 5 of the principal Act are reproduced, but it is only necessary to refer to subsection (6). In the Bill certain amendments were only indicated, and they now appear in the Act as follows: Subsection (6) "Where a landlord has obtained an order or judgment for possession or ejectment under this section on the ground that he requires a dwelling-house for his own occupation, and it is subsequently made to appear to the Court that the order or judgment was obtained by misrepresentation or the concealment of material facts, the Court may order the landlord to pay to the former tenant such sum as appears sufficent as compensation for damage or loss sustained by that tenant as the result of the order or judgment." Subsection (7), a new subsection, provides "The provisions of the last preceding subsection shall apply in any case where the landlord has, after July 31, 1923, obtained an order or judgment for possession or ejectment on any of the grounds specified in paragraph (*d*) of subsection (1) of this section, and it is subsequently made to appear to the Court that the order or judgment was obtained by misrepresentation or concealment of material facts, and in any such case the Court may, if it thinks fit, in addition to making an order for payment of compensation by the landlord to the former tenant, direct that the dwelling-house shall not be excluded from this Act by reason of the landlord having come into possession thereof under the said order or judgment, and if such direction is given this Act shall apply and be deemed to have applied to the dwelling-house as from the date mentioned in such direction."

Increases of Rent and Repair.

Clause 4 in the Bill is now section 5 in the Act. It relates to the suspension of increase of rent on the ground that the premises are not in a reasonable state of repair, and there has been no alteration in the clause as passed by the Committee.

Amending Notices of Increase.

Clause 5 in the Bill, now section 6 in the Act, has been altered. It now reads: "The County Court, if satisfied that any error or omission in a notice of intention to increase rent, whether served before or after the passing of this Act, is due to a *bona-fide* mistake on the part of the landlord, shall have power to amend such notice by correcting any errors and supplying any omissions therein which, if not corrected or supplied, would render the notice invalid, on such terms and conditions as respects arrears of rent or otherwise as appears to the Court to be just and reasonable, and if the Court so directs, the notice as so amended shall have effect and be deemed to have effect as a valid notice." The form of notice in the First Schedule to the principal Act is amended by the substitution of the words "date of service of this notice" for the words "date of this notice." It may be convenient here to notice section 8 of the Act, which did not appear in the Bill: "No increase of rent which becomes payable by reason of an amendment of a notice of increase made by order of the county court judge under this Act shall be recoverable in respect of any rental period which ended more than six months before the date of the order."

Limitation on the Recovery of Payments.

Subsection (2) is as follows: "Any sum paid by a tenant or mortgagor which, under subsection (1) of section 14 of the principal Act, is recoverable by the tenant or mortgagor, shall be recoverable at any time within six months from the date of payment, but not afterwards, or, in the case of a payment made before the passing of the Act, at any time within six months from the passing of this Act but not afterwards." Subsection (3) is: "Nothing in this section shall affect the operation of the Rent Restriction (Notices of Increase) Act, 1923."

Subtenancies and Increased Rent.

There are some alterations in clause 6 of the Bill, now section 7 of the Act. This relates to permitted increases of rent in the case of subtenancies where the part of the house sublet is also a dwelling-house under the principal Act, and it is a complicated section: "Where part of a dwelling-house to which the principal Act applies is lawfully sublet, and the part so sublet is also a dwelling-house to which the principal Act applies, then, in addition to any increases permitted by paragraphs (*a*) to (*e*) of subsection (1) of section 2 of the principal Act, an amount not exceeding 10 per cent. of the net rent of the dwelling-house comprised in the subtenancy shall be deemed to be a permitted increase in the case of that dwelling-house, and an amount equivalent to 5 per cent. of the net rent of the dwelling-house comprised in the subtenancy shall be deemed to be a permitted increase in the case of the dwelling-house comprised in the tenancy." So far the Act follows the Bill, but the following is new: "Subsection (2) of section 3 of the principal Act shall not apply as respects any increase permitted under this section," and there is the following subsection (2): "Where part of any such dwelling-house is so sublet the tenant shall, on being so requested in writing by the landlord, supply him within 14 days thereafter with a statement in writing of any subletting, giving particulars of occupancy, including the rent charged; and, should the tenant, without reasonable excuse, fail to do so, or supply a statement which is false in any material particulars, he shall be liable on summary conviction to a fine not exceeding £2." Subsection (3) is: "In subsection (6) of section 2 of the principal Act the expression 'landlord' shall in relation to a subtenancy be taken to include not only the person who is immediate landlord of the subtenant but also the landlord of that person."

Charges for Furniture, etc.

Clause 7, now section 9 of the Act, has been altered, and is now as follows:—"Subsection (1). Where the purchase of any furniture or other articles is required as a condition of the grant, renewal, or continuance of a tenancy or subtenancy of a dwelling-house to which the principal Act applies, the price demanded shall, at the request of the

HAMPSHIRE.

Market Prices of Building Materials.

Materials.	Description.	Unit.	April, 1914.	April, 1923.	June, 1923.	July, 1923.
Bricks.						
Common	Red bricks from approved kiln.	1,000	33/7	80/-	80/-	80/-
Facing	Picked stock	1,000	44/3	100/-	100/-	100/-
Aggregate.						
Ballast	Pit gravel	Yd. cube	4/6	7/-	7/-	7/-
Sand	Pit	Yd. cube	5/-	6/-	6/-	6/-
Lime and Cement.						
Portland cement	English	Ton	38/3	66/6	66/-	66/-
Portland cement	Foreign	Ton	32/-	62/-	62/-	62/-
Lime	Grey stone lump	Ton	18/3	36/6	36/6	36/6
Timber.						
Carcassing	Av. for 8" × 3", 8" × 2" and 7" × 2", selected Swedish red, 3rd quality.	Standard	£14 10	£26 16 3	£26 16 3	£26 16
Joinery	Swedish white, prepared, 3rd quality. Av. sizes required for cottage building.	Standard	£16	£38	£38	£38
Flooring	Swedish white, 1" plain.	Square	17/-	—	28/9	29/10
Tiles and Slates.						
Slates	20" × 10" blue Bangor.	Mille of 1,200	£10 17 6	£27	£27	£27
Roofing tiles	Best Broseley machine-made.	1,000	£2 10	£6	£6	£6
Lead.						
Sheet	British manufacture.	Ton	£25	£36	£36 10	£38
Sheet	Imported	Ton	£23	£34	£32 10	£34
Piping	British manufacture	Ton	£20 10	£34	£34	£36 10
Cast Iron.						
R.W. pipes	3" dia. ¼" metal	Yd. lin	10½d	2/0½	2/0½	2/0½
R.W. gutters	4½" half-round ⅛" metal	Yd. lin.	9d.	1/4½	1/4½	1/4½
Soil pipes	3½" dia. ⅛" metal	Yd. lin.	2/2	3/8	3/8	3/8
Kitchen range	36" portable range "Boston" or "New Leader" pattern.	Each	£2 15	£4 10 6	£4 10 6	£4 10 3
Glass	15 ozs., 3rd quality	Ft. sup.	3d.	5d	5d	4d.
White Lead		Cwt.	31/-	59/9	59/9	59/9
Linseed Oil	Boiled	Gal.	3/5	4/9	4/9	4/6
Turpentine		Gal.	3/3	8/7	8/7	8/-

All prices are f.o.r. Eastleigh, except those for timber, which are "delivered to site."

(See *p.* 301.)

person on whom the demand is made, be stated in writing, and if the price exceeds the reasonable price of the articles, the excess shall be treated as if it were a fine or premium required to be paid as a condition of the grant, renewal, or continuance, and the provisions of section 8 of the principal Act including penal provisions shall apply accordingly." Subsection (2): "Where a tenant who, by virtue of the principal Act, retains possession of a dwelling-house to which that Act applies, requires that furniture or other articles shall be purchased as a condition of giving up possession, the price demanded shall, at the request of the person on whom the demand is made be stated in writing, and if the price exceeds the reasonable price of the articles the excess shall be treated as a sum asked to be paid as a condition of giving up possession and the provisions of subsection (2) of section 15 of the principal Act (including penal provisions) shall apply accordingly."

The remaining provisions contained in this part of the Act, Part I, remain the same as in the Bill. They are section 10, which relates to houses let with use of furniture, attendance, etc.; and section 11, which relates to the power of a county court to determine questions as to standard rent, and gives the Lord Chancellor power to make rules. The Act deals with matters of great complication, but we have in the present article refrained from any comment, our intention being merely to try and give a general idea of the provisions of the new Act as settled in its final form.

BUILDING TRADE WAGES.

Eastern Counties Regrading.

The Eastern Counties Area Joint Centre Council for the Building Trades has recommended to the National Wages Council, through the Grading Commission, the following regrading of towns in the Eastern Counties area:—

To take effect forthwith.—Regraded, B3 to A3: St. Albans (raised to 1s. 5½d., 2d. increase). Regraded, B3 to B: Brentwood (raised to 1s. 5d., 1½d. increase).

To take effect from November 2, 1923.—Regraded, B2 to B1: Norwich (raised to 1s. 4½d., ½d. increase). B3 to B1: Bedford, Cambridge, Chelmsford district, Clacton, Frinton and Walton, Harpenden, Hatfield, Hemel Hempstead, Hertford and Ware, Hoddesdon, Hitchin, Ipswich, Letchworth, Luton, and Stevenage (raised to 1s. 4½d., 1d. increase).

Regraded, B3 to B2: Colchester, Dovercourt, Felixstowe, Great Yarmouth, Lowestoft, and Newmarket (raised to 1s. 4d., ½d. increase).

Regraded, B3 to C1: Chatteris, Wymondham, and Saxmundham district (except Southwold, which remains in Grade B3), reduced to 1s. 3d., ½d. decrease).

The cases of Colchester, Leiston (in the Saxmundham district), and Wymondham come up for further consideration in January, 1924.

All the other towns in the area are to remain in their present grades, including those from which applications had been received:—In Grade B3, Aylsham, Cromer, Dunstable, King's Lynn, and Southwold.

With the exceptions of Colchester, Leiston, and Wymondham (or any special case considered by both sides to need attention), the grading, as amended above, is to remain stabilised until the July meeting, 1924.

Except St. Albans and Brentwood (where the changes should take place forthwith), the changes in grading to take effect on and from November 2.

All other business on the agenda—a revision of the area working rules, to incorporate the new national rules and other alterations, and the possibility of joint action to strengthen and extend the Council's control of the industry—were referred to the Committees of the Council. The question of Welwyn Garden City was left, to allow Messrs. Ginn (for the employers) and Hubbard (for the operatives) to interview the Welwyn builders and joiners and report again to the Council.

RATES OF WAGES IN THE BUILDING TRADE

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Bedford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4	
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½	
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Cambridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Chatham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Chelmsford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Colchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1 0½	
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0	
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½	
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Great Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0	
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Ipswich	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Lancaster	1/6	1/6	1/6	1/6	1/6	1/3	1/6	1/1½	
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4	
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½	
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Luton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Maidstone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Norwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Oxford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1 1½	
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Reading	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Rochester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
St. Albans	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Scarborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	1/2½	
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0	
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	0/11½	
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/0½	
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½	
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½	
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½	
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½	
Windsor	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½	
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
York	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	

(For rates of wages in the Building Trade in Scotland, see page 305.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk e advertised in this number. Certain conditions beyond those given in the following information e imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any nder; that a fair wages clause shall be observed; that no allowance will be made for tenders; and at deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names those willing to submit tenders, may be sent in; the name and address at the end is the person from whom place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING

UGUST 25.—**Abersychan.**—HOUSES.—For erecting houses on Manor-road site, for Abersychan U.D.C. o for construction of necessary roads and sewers in nection with houses (separate tenders). The Archi- ts to the Council, Co-operative Wholesale Society, Mary-street, Cardiff.

UGUST 25.—**Bridlington.**—HALL, &C.—Erection of nnasium and assembly-hall at the Bridlington ool. Mr. John Bilson, architect, 23, Parliament- et, Hull. Deposit £1.

UGUST 25.—**Dewsbury.**—PAINTING.—For painting outside woodwork of the Springfield Chapel and ool buildings in Halifax-road. Mr. B. Mickle- aite, 42, Plevna-terrace, Savile Town, Dewsbury.

UGUST 25.—**Ebbw Vale.**—HOUSE.—Erection of ton's house at Ebbw Vale Cemetery, for the U.D.C. P. I. Davies, Surveyor, Ebbw Vale.

UGUST 25.—**Edinburgh.**—HOUSES.—Erection of n single and two double tenements, comprising in 66 houses, at St. Clair-street, Easter-road, for the . Messrs. Morham & Brotchie, 29, Hanover-street, nburgh.

UGUST 25.—**Milnrow.**—WAR MEMORIAL.—For cting a war memorial on a site in the Mill-yard, the War Memorial Committee. Surveyor to the . Council, Council Offices, Milnrow. Deposit 3s.

UGUST 25.—**Percy Main.**—HOUSES.—Construction wo dwelling houses at Low Row, Percy Main, for Tyne Improvement Commissioners. Mr. Richard hton, General Manager, Tyne Improvement Com- ion Offices, Bewick-street, Newcastle-upon-Tyne. osit £2 2s.

UGUST 25.—**Portrush.**—HALL.—Erection of Masonic . Mr. A. J. Clarke, architect, 11, Kerr-street, rush.

UGUST 27.—**Bodmin.**—BUNGALOW.—Erection of galow, at Cooksland, Bodmin. Mr. M. Oliver, itect, Bodmin.

UGUST 27.—**Burton-on-Trent.**—STRONG ROOM.— tion of strong room at Union Offices, for the B.G. R. S. Litherland, 10, High-street, Burton-on- t.

UGUST 27.—**Dover.**—PAINTING.—For painting at ation Hospital, for the T.C. Borough Engineer, er.

UGUST 27.—**Edinburgh.**—VARIOUS WORKS.—For ous works in connection with the extension of stores he Royal Blind Asylum and School, Edinburgh. rs. J. L. Hill, Dougal & Co., W.S., Secretaries, 18, -street, Edinburgh.

UGUST 27.—**Greenock.**—TENEMENTS.—Offers are ted for various works in connection with the tion of ten three-story tenements (four sites), isting of two and three-apartment houses for the oration. Mr. A. Nimmo, Town Clerk, Municipal- dings, Greenock. Deposit £1 1s.

UGUST 27.—**Hailsham.**—BATHROOM.—Erection of bathroom at Poor Law Infirmary, and conversion store-room in the Institution into a bathroom, for B.G. Engineer, Institution, Hailsham.

UGUST 27.—**Merthyr Tydfil.**—DECORATING.—For uring, &c., the interior of Wesley Chapel, High- t, Merthyr. Rev. E. Tegryd Davies, Trefychan, Grove, Merthyr Tydfil.

UGUST 27.—**Sheffield.**—PAINTING.—For internal external painting, Tinsley Car Depot; and nal painting, King Edward VII. Hospital. Rivelin, he C.C. Mr. F. E. P. Edwards, City Architect, n Hall, Sheffield.

UGUST 27.—**West Houghton.**—CONVERSION, &C.— conversion of Hindley's farmhouse into two houses. for filters and settling tanks at sewerage works. G. Hayes, Surveyor, Town Hall, West Houghton. osit £2 2s.

UGUST 28. — **Beaconsfield.** — POST OFFICE. — tion of a new Sub-Post Office at Beaconsfield. racts Branch, H.M. Office of Works, King Charles- t, S.W. 1. Deposit £1 1s.

UGUST 28.—**Cape Town, South Africa.**—MEDICAL OOL.—Erection of a new Medical School and other ngent works at Groote Schuur, near Cape Town, he Council of the University of Cape Town. High nissioner for the Union of South Africa, Trafalgar- re, London, W.C. Deposit £2.

UGUST 28.—**Ealing.**—ALTERATIONS.—Alterations, tions, repairs, &c., to Ealing Telephone Exchange, H.M. Office of Works. Contracts Branch, H.M. e of Works, King Charles-street, S.W. 1. Deposit s.

UGUST 28.—**Evenwood.**—REROOFING.—For the fing of the Congregational Sunday School, wood. Mr. John Allinson, The Green, Evenwood.

UGUST 28.—**Hammersmith.**—REBUILDING.—For lding the frontage at Grove-road, Hammersmith, ng Office, for H.M. Office of Works. Contracts ch, H.M. Office of Works, King Charles-street, 1. Deposit £1 1s.

UGUST 28.—**Inverness.**—HOUSES.—Erection of two ling houses at Fort Augustus, and one block of houses at Gorthleck, for the Inverness C.C. Mr. rant, architect, 6, Queen's-gate, Inverness.

UGUST 28.—**Leeds.**—HOUSES.—For the erection of uses at Middleton and 50 houses at Crossgates, for Corporation; all trades, brick or concrete; con- ors must state number of houses they are prepared ect. Town Clerk's Office, Great George-street, s. Deposit £1.

AUGUST 28.—**Leeds.**—SHELTERS AND CONVENIENCES.—For construction of shelters and conveniences, at Beckett Park, Leeds, for the T.C. Mr. W. T. Lancashire, City Engineer, Municipal Buildings, Leeds.

AUGUST 28.—**Morley.**—PAINTING.—For painting exterior at Working Men's Club. Mr. J. Asquith, Secretary, Morley.

✱AUGUST 28.—**New Southgate, N.**—ALTERATIONS AND ADDITIONS.—Alterations and additions at the Club premises in accordance with plans and specification prepared by the architects for the New Southgate and Friern Barnet Liberal and Radical Club, Ltd. Messrs. N. E. Mackey and F. H. Shearley, 1, Featherstone-buildings, High Holborn, W.C.1. Deposit £2 2s.

AUGUST 28.—**Newport (Mon).**—HOUSES.—Erection of six houses in Corporation-road. Borough Engineer, 8, Corn-street, Newport. Deposit £2 2s.

AUGUST 28.—**Rotherham.**—HOUSES.—Erection of 48 houses on Sections "D" and "E" of the Eastdene Estate, for the T.C. Mr. Chas. A. Broadhead, Housing Architect, St. George's Hall, Rotherham. Deposit £2 2s.

AUGUST 28.—**Wakefield.**—HOUSES.—For erection of 60 houses (full trades) at Fitzwilliam, near Wakefield, for Messrs. South Kirby Featherstone & Hemsworth Collieries, Ltd. Garside & Pennington, architects. Ropergate, Pontefract. Deposit £2 2s.

AUGUST 29. — **Blyth.** — HOUSES. — Erection of 50 houses, for the T.C. Borough Engineer, Municipal Buildings, Blyth.

AUGUST 29.—**Eyemouth.**—HOUSES.—Erection of six houses in three blocks, for the T.C. Messrs. Charles Mitchell & Telfer, architects, 2, Randolph-crescent, Edinburgh. Deposit £1.

AUGUST 29.—**London.**—PAINTING, REPAIRS, &C.—For cleaning painting, repairs, &c., at Fountain Temporary Mental Hospital, Tooting-grove, for the Metropolitan Asylums Board. Offices, Thames Embankment. Deposit £1.

AUGUST 29.—**London, N.W. 3.**—ALTERATIONS.—Sundry alterations at the North Western Fever Hospital and Ambulance Station, Lawn-road, Hampstead, N.W. 3, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

AUGUST 29.—**Trowbridge.**—ROOF WORK.—Reglazing and reroofing Market Hall, &c., for the U.D.C. Surveyor, Town Hall, Trewbridge.

AUGUST 30.—**Abercynon.**—REPAIRS.—Repairs at Forward Movement Hall, Abercynon. Messrs. Thomas & Morgan & Partners, architects, Pontypridd. Deposit £1 1s.

AUGUST 30.—**Bradford.**—ALTERATIONS.—For alterations, &c., at the Conditioning House, for the T.C. City Architect, Town Hall, Bradford.

AUGUST 30.—**Littleborough.**—PAINTING.—For painting at offices of the Gas Co. Mr. A. Halliwell, Secretary, Littleborough.

AUGUST 30.—**Washington.**—HOUSES.—Erection of 32 houses on the Council's Spout-lane site. Mr. R. J. Swaddle, Architect, Council Chambers, New Washington. Deposit £3 3s.

AUGUST 30.—**Washington.**—PAINTING.—For the painting of the external wood and iron work of the 42 Council houses, Washington Village. Mr. R. J. Swaddle, Surveyor, Council Chambers, New Washington.

AUGUST 31.—**Barking, Essex.**—SHEDS.—Completing the erection of two open resting sheds, at their Faircross Elementary School, in their district. One shed is about 90 ft. × 30 ft. in two spans; the other about 55 ft. × 15 ft. in one span, each consisting of cast-iron columns and light fir-framed roofs covered with corrugated asbestone, for the Barking Town U.D.C. Mr. C. J. Dawson, Clock House Chambers, Barking.

AUGUST 31.—**Barking, Essex.**—BUILDING.—Erection of a Centre for Domestic Instruction, about 43,000 cub. ft., at the site of the Westbury School in this district. Quantities, &c., on and after August 21, at the office of the Council's Architect, Mr. C. J. Dawson, F.R.I.B.A., Clock House Chambers, Barking. Deposit £2 2s.

AUGUST 31.—**Brynmawr.**—HOUSES.—For erecting, for U.D.C., 60 houses (22 parlour type, and 38 non-parlour type) at Twyncynghordy, Brynmawr. No sublet of contract or piece workmanship agreed to. Contracts may be for whole or not less than 10 houses. Mr. Henry Waters, M.S.A., Waungoch House, Beaufort. Deposit £2 2s.

AUGUST 31. — **Carmarthen.** — EXTENSIONS. — For building for the B.G. a disinfecting house adjacent to Poor Law Institution. Mr. John Saer, Clerk, Guardians Office, 7, Hall-street, Carmarthen.

AUGUST 31.—**Loughborough.**—NEW OFFICES AND FITTERS' SHOP.—Clearing site and erection of new offices and fitters' shop for the Gas Department, for the Gas Committee of the Borough of Loughborough. Messrs. G. H. & A. M. Barrowcliff, Town Hall Chambers, Loughborough. Deposit £2 2s.

✱AUGUST 31.—**Penybont (Glam).**—TWENTY HOUSES.—For erecting, for the Penybont (Glam) R.D.C., 20 houses at Sam Housing Site. Mr. J. Simon Davies, F.S.I., 8, Wyndham-street, Bridgend. Deposit £2 2s.

AUGUST 31.—**Singleborough.**—COW HOUSE.—Erection of a new cow house, fodder store, &c., at Mangland Farm, Singleborough, for the Bucks Agriculture Committee. Mr. G. M. Odam, County land agent, 21, Walton-street, Aylesbury.

AUGUST 31.—**Sutton-in-Ashfield.**—BATHS.—Erection of public swimming baths, for the Sutton-in-Ashfield Miners' Welfare Committee. Mr. L. Dodsley, architect, Bainbridge Chambers, Brook-street, Sutton-in-Ashfield. Deposit £2 2s.

AUGUST 31.—**Tenby.**—PAINTING.—For painting of Carswell Farm buildings, &c., for trustees of Tenby Church and Charity Estates. Mr. J. A. Bancroft, St. Julien-street, Tenby.

✱SEPTEMBER 1.—**Alton (Hants).**—KITCHENS, &C., AND ALTERATIONS.—Erection of new kitchens and laundry and for other alterations at the Alton Poor Law Institution, at Alton (Hants), for the Guardians of the Alton Union. Clerk to the Guardians, 46, High-street, Alton (Hants). Deposit £3.

SEPTEMBER 1.—**Barnsley.**—STREET WORKS.—Tenders are invited for the making and completing of—Henshall-street and Milnes-street, Barnsley; back road, between Hawthorne-street and St. George's-road, and Longcar-lane, Barnsley; back road, between Keir-street and Summer-street, Barnsley. PAINTIN

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick-layers.	Car-penters, Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Brick-layers' Labourers.	Plas-terers' Labourers.
Aberdeen	1/7	1/8	1/7	1/7	1/8	1/8½	1/4½	1/-	
Airdrie	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/5	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/7	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Fort William	1/7	1/6	1/6	1/6	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 304.

—Tenders are invited for painting the following:—External work of the Public Baths, York-street, and Race-street, Barnsley; external work at Locke Park, Town End Recreation Ground, and St. Mary's Disused Burial Ground. Public Conveniences.—Erection of new public conveniences at Locke Park, Barnsley. Housing.—For the erection of 82 non-parlour houses at the junction of Pontefract-road and Grange-lane, Barnsley. Mr. H. Taylor, Fairfield House Offices, Barnsley.

September 1.—**Bourne.**—Houses.—Erection of 8 houses (4 parlour type and 4 non-parlour type), for the U.D.C. Mr. A. W. Plowright, surveyor, Meadowgate, Bourne. Deposit £1 1s.

September 1.—**Brentford.**—Convenience.—Erection of a public urinal at the Recreation Ground, St. Paul's-road, for the U.D.C. Mr. W. J. W. Westlake, Clifden House, Brentford.

September 1.—**Royston, near Barnsley.**—Houses.—Tenders are invited for the erection of 12 houses, for the U.D.C.; also the roadmaking and laying of sewer. Messrs. Dyson, Cawthorne & Coles, 10, Regent-street, Barnsley.

September 3.—**Bournemouth.**—Lodge.—Erection of gate lodge at North Cemetery, for the T.C. Borough Engineer, Bournemouth. Deposit £1 1s.

September 3.—**Bristol.**—Convenience.—Erection of public convenience at Greville Smyth Park, for the T.C. Mr. L. S. McKenzie, City Engineer, Bristol. Deposit £2 2s.

September 3.—**Dartford.**—Houses.—Erection of 24 houses at Ship-lane, Sutton-at-Hone, for the R.D.C. Mr. Eustace J. Hobbs, Clerk, Council Offices, West Hill, Dartford. Deposit £2 2s.

September 3.—**Failsworth.**—Shelters, &c.—Construction of wood shelters, conveniences, tool-house, and septic tank installation, for the U.D.C. (Unemployment Relief Works). Mr. J. W. E. Brown, Engineer and Surveyor, Town Hall, Failsworth, near Manchester.

September 3.—**Fordingbridge.**—Bridge Repairs.—For the repair of a small masonry bridge known as Roaches County Bridge on the Fordingbridge-Ringwood main road, about 1 mile from Fordingbridge Station, for the Southampton C.C. Mr. W. J. Taylor, County Surveyor, The Castle, Winchester. Deposit £1 1s.

September 3.—**Goodmayes.**—Cottages.—Erection of two cottages at Mental Hospital, Little Heath, Goodmayes, for the T.C. Borough Engineer, Town Hall, West Ham, E. 15. Deposit £1.

September 3.—**Guildford.**—Houses.—Erection of 12 non-parlour houses on the Newark-road Site, for the R.D.C. Mr. John Anstee, Architect, Council Offices, Commercial-road, Guildford. Deposit £2 2s.

September 3.—**Norwood, S.E.**—Extension.—For an extension of the playroom at The Children's Home, "Cumberlow," Goat House Bridge, Norwood, S.E., for the Guardians of the Poor of the Lewisham Union. Guardians' Offices, 394, High-street, Lewisham, S.E. Deposit £1 1s.

September 3.—**Pontefract.**—Infirmary Block.—Erection of an Infirmary Block at Poor Law Institution, for the Pontefract B.G. Messrs. Tennant & Smith, architects, Ropergate, Pontefract. Deposit £3 3s.

September 3.—**Rochdale.**—School.—Erection of open-air school at Brownhill, for the T.C. Borough Surveyor, Town Hall, Rochdale.

✱September 4.—**Aberdare.**—Post Office and Telephone Exchange.—Erection of a new Post Office and Telephone Exchange at Aberdare, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s., payable to the Secretary.

September 4.—**Birmingham.**—Repairs, &c.—Execution of ordinary works and repairs at the Beacon and Lickey Hostels, Birmingham, for H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit 10s. 6d.

September 4.—**Cardiff.**—Painting.—(1) External painting, City Lodge, East; (2) external painting, City Lodge, West, for the B.G. Mr. R. Stephenson, Clerk, Union Offices, 11, Park-place, Cardiff.

September 4.—**Dromore.**—Additions.—For additions to Town Hall, for the U.D.C. Mr. A. F. Wright, Town Clerk, Dromore, Ireland.

September 4.—**Hampton, Middlesex.**—Houses.—Erection of 24 houses on the Priory-road site, Hampton, for the Urban District Council. Mr. Sidney H. Chambers, Surveyor to the Council, Public Offices, Hampton, Middlesex. Deposit £2 2s.

September 4.—**Thame.**—Staircases, &c.—Erection of two staircases and minor alterations to the Infirmary block, for the B.G. Mr. C. Simmons, Clerk, 2, High-street, Thame.

September 4.—**Various Places.**—Ordinary Works and Repairs.—Execution of ordinary works and repairs at the buildings in the charge of the Commissioners of H.M. Office of Works, at various places. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit 10s. 6d. in each case (payable to the Secretary).

✱September 5.—**Clacton-on-Sea.**—Houses.—Erection of twenty houses in Central-avenue, Clacton-on-Sea, for the Clacton U.D.C. Council's Surveyor, Council Offices, Station-road, Clacton-on-Sea.

✱September 5.—**Clavering, Essex.**—Cottage.—Erection of a cottage at Coldhams Farm, Clavering, Essex, for the Small Holdings and Allotment Committee of the Essex County Council. Mr. Jno. Stuart, F.R.I.B.A. County Architect, Springfield Old Court, Chelmsford.

✱September 5.—**Dunmow, Essex.**—Cottage.—Erection of a cottage at Cooper's Farm, Dunmow, for the Small Holdings and Allotments Committee of the Essex County Council. Mr. Jno. Stuart, F.R.I.B.A., County Architect, Springfield Old Court, Chelmsford.

September 5.—**Greasborough.**—Bungalows.—Eight bungalows in blocks, four of two each, for U.D.C. Mr. James Totty, architect, Moorgate-street, Rotherham.

✱September 5.—**Hendon.**—Enlargement.—Enlargement of the Union Offices, near Edgware, for the Guardians of the Hendon Union. Mr. F. J. Seabrook, Clerk to the Guardians, Union Offices, Edgware.

✱September 5.—**London, S.W. 18.**—Removing Chimney Stacks, &c.—Removing chimney stacks and for alterations to two wards at the St. John's Hospital, St. John's Hill, S.W. 18, for the Guardians of the Wandsworth Union. Mr. F. J. Curtis, Clerk, Union Offices, St. John's-hill, Wandsworth, S.W. 18.

September 5.—**Manchester.**—School.—Erection of Higher Ormond-street Municipal School. Education Offices, Deansgate, Manchester. Deposit £1 1s.

September 5.—**Twickenham.**—Houses.—Erection of 16 "A" type houses on the Prospect-crescent Site, Whitton, for the Twickenham U.D.C. Surveyor to the Council, Town Hall, Twickenham. Deposit £2 2s.

September 6.—**Salisbury.**—Conversion.—For converting outbuildings into engine room, &c., for the B.G. Messrs. J. Harding & Son, architects, 65, New-street, Salisbury.

September 6.—**Surbiton, Surrey.**—Pump House.—Construction of a pump house, alterations to existing boiler house, boiler setting, &c., and other contingent works, at their Surbiton Pumping Station, in the county of Surrey, for the Metropolitan Water Board. Mr. Henry E. Stilgoe, Chief Engineer, Offices of the Board, New River Head, 173, Rosebery-avenue, E.C. 1. Deposit £5, to Accountant to the Board.

✱September 8.—**Hampstead, N.W. 3.**—Sundry Works and Alterations.—Sundry works for alterations to existing buildings for the Guardians of the Parish of St. John, Hampstead. The Clerk, Guardians' Offices, New End, Hampstead, N.W. 3. Deposit £2 2s.

September 10.—**Glasgow.**—Various.—Offers are invited for the (1) excavator, brick, &c., works, and (2) carpenter and joiner, &c., works, in connection with the erection of the Mearnskirk Sanatorium, Mearns, Renfrewshire. Deposit £10 10s. each trade.

✱September 11.—**Brierley Hill.**—Alterations and Additions.—Alterations and additions to the Post Office, Brierley Hill, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

September 11.—**Manchester.**—Washhouse.—Erection of public washhouse, at Ardwick, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

September 11.—**Rhondda.**—Houses and Roads.—For undertaking for the Rhondda U.D.C. following works:—(*a*) Building of fifty (50) non-parlour type houses, and, alternatively, fifty (50) parlour type houses on the same site, near the Ferndale Cemetery, Mardy-road, Ferndale; (*b*) The construction of roads and sewers in connection with the houses. Mr. E. Taylor, Engineer and Surveyor, Council Offices, Pentre (Rhondda). Deposit for (*a*) £5 and for (*b*) £2.

✱September 11.—**Southgate, N.**—Houses.—Erection and completion of ten houses at Nursery-road, Southgate, for the U.D.C. Engineer and Surveyor to the Council, Town Hall, Palmer's Green, N.

September 12.—**Woolwich, S.E.18.**—Painting, &c.—Painting works, &c., to the premises Furze Lodge, Plum-lane, Plumstead, for the Guardians of the Woolwich Union. Messrs. Whincop & Channer, architects, 42, William-street, Woolwich.

✱September 13.—**Ilford.**—Hospital Buildings.—Erection and completion, under one contract, of the following buildings at the Isolation Hospital, Grove-road, Chadwell Heath: (1) New administration block; (2) the raising of roof over two large wards and the conversion of rooms on first floor into two large wards; (3) new staircase block for access to last; for the Ilford U.D.C. Mr. H. Shaw, Engineer and Surveyor to the Council, Town Hall, Ilford. Deposit, £5 5s.

September 13.—**Keswick.**—Houses.—Erection of sixteen Class "A 2" houses, in blocks of two, for the U.D.C. Surveyor, Town Hall, Keswick. Deposit £2 2s.

✱September 14.—**London, E.**—Bronze Unit.—Reconstruction of Bronze Unit at the Royal Mint, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

September 17.—**Laleham, Middlesex.**—Engine House, &c.—Construction of the superstructure for an engine house, boiler house, elevated coal bunkers, chimney shaft, fitters' shop, stores, ash hoist building, sewage disposal plant, and other contingent works, at the Littleton Reservoir, in the Parish of Laleham, in the county of Middlesex, for the Metropolitan Water Board. Mr. Henry E. Stilgoe, Chief Engineer, Offices of the Board, New River Head, 173, Rosebery-avenue, E.C. 1. Deposit £10, to Accountant to the Board.

✱October 1.—**Hertfordshire.**—Police Cottages.—Erection and completion of 22 detached cottages at various places in Hertfordshire, for the C.C. County Surveyor and Architect, County Surveyor's Office, Hatfield. Deposit, £1 1s.

No Date.—**Aboyne.**—Various.—Offers are invited for all the trades in connection with the erection of a villa to be erected in Aboyne. Messrs. G. Sutherland & C. George, architects, 26, Crown-street, Aberdeen.

✱No Date.—**Bath.**—Chapel.—Erection of a chapel at Monkton Combe, Bath. Mr. Beresford Pite, Royal College of Art, S.W.7.

No Date.—**Buckhaven.**—Houses.—For the various works of 60 two-roomed houses, at Buckhaven, and 40 similar houses at Methil, for the T.C.; each contract let separately. Mr. T. L. Brown, Burgh Engineer, Buckhaven. Deposit £1 1s.

No Date.—**Dewsbury.**—Shops and Offices.—Erection of two shops and offices in Kingsway, Dewsbury (plumbers' and painters' work excepted). Mr. Henry Stead, architect, Heckmondwike.

No Date.—**Fleetwood.**—Cementing.—For cementing front and gable of Pilling-lane School and Schoolmaster's house. Rev. D. Schofield, Stalmine Vicarage, Preesall, Fleetwood.

No Date.—**Halifax.**—Maternity Ward.—For erection of a maternity ward at the Infirmary. Messrs. Walsh & Maddock, architects, 10, Harrison-road, Halifax. Deposit £1.

No Date.—**Hull.**—Alterations.—For certain alterations and additions to premises, Spencer-street, Hull, for Messrs. Bladon's, Ltd. Mr. Arthur Easton, architect, 1, Manor-street, Hull.

No Date.—**Killin.**—Village Hall.—Tenders are required for the erection of a village hall, Killin. The architects are Messrs. Collcut & Hamp, 20, Red Lion-square, London, W.C. Deposit 10s.

No Date.—**Old Kilpatrick.**—Various.—Offers are invited for various works in connection with the erection of 24 houses at Old Kilpatrick for the Eastern District Committee of the County of Dumbarton. Mr. J. Weekes, architect, 88, College-street, Dumbarton. Deposit £1 1s.

No Date.—**Petersfield.**—Vestry.—Erection of a vestry at Steep Church, Petersfield. Mr. Gerald Cogswell, 3, St. James'-terrace, Winchester.

No Date.—**Potter's Bar.**—Houses.—Erection of several detached houses on the Potter's Bar Estate. Mr. W. H. Chandler, Estate Office, Potter's Bar Estate.

No Date.—**Roundhay.**—House.—All trades, except decorating, for house, West Park-crescent, Roundhay. Mr. S. Hodgson Doyle (Fredk. Doyle & Sons, architects,) 14, Park-row, Leeds.

No Date.—**Southport.**—Shops and Offices.—For rebuilding shops and two-story block of offices over, at Southport, for Messrs. Rawcliffes, Ltd. (building faced with Portland stone). Messrs. Lumb & Walton, architects, 19, Clifton-street, Blackpool. Deposit £1 1s.

FURNITURE, MATERIALS, etc.

August 25.—**Beddington.**—Materials.—For supply of road materials, tools, &c., to the U.D.C. . I. S. F. R. Carter, Surveyor, Wallington.

August 25.—**Esorick.**—Materials.—Supply of slag and tar to the R.D.C. Mr. J. R. Hudson, surveyor, 4, Heslington-road, York.

August 27.—**Aberystwyth.**—Materials.—For supply of materials, furnishing, to Infirmary and Cardiganshire General Hospital. Mr. Jones, Secretary, Infirmary, Aberystwyth.

August 27.—**Bacup.**—Materials.—For supply of kerbs, channels, flags, &c., to the T.C. Mr. W. H. Newton, Borough Engineer, Municipal Offices, Bacup.

August 27.—**Bermondsey.**—Materials.—Supply of various materials to the B.C. Mr. Fredk. Ryall, Town Clerk, Town Hall, Spa-road, S.E.

August 27.—**Chatham.**—Kerb.—Supply of granite kerb and setts to the T.C. Mr. R. L. Honey, Borough Engineer, Town Hall, Chatham.

August 27.—**Johannesburg.**—Paint.—Supply of 200 gallons of aluminium paint to the T.C. Department of Overseas Trade, 35, Old Queen-street, S.W.

August 27.—**Leeds.**—Granite Setts.—Supply of granite setts to the West Riding C.C. West Riding Surveyor, County Hall, Wakefield.

August 28.—**Lambeth.**—Granite Setts.—Supply of 720 tons of granite paving setts to the B.C. Mr. O. Cattlin, Borough Engineer, Town Hall, Brixton, S.W.

August 31.—**Tranent.**—Tarred Metal.—For supply of 250 tons of 2½ in. tarred metal, for roads, for the T.C. Burgh Surveyor.

August 31.—**Warrington.**—Stores.—Supply of stores for twelve months to the Gas Dept. Mr. W. S. Haddock, General Manager, Gas Offices, Warrington.

September 1.—**Trowbridge.**—Materials.—Supply of road materials, tools, &c., to the Wiltshire C.C. Mr. J. G. Powell, County Surveyor, Trowbridge.

September 3.—**Hammersmith.**—Materials, &c.—Supply of stores and materials to the B.C. for six months. Borough Engineer, Town Hall, Hammersmith, W.

September 3.—**St. Marylebone.**—Materials.—For supply of materials for various depts., for six months. Mr. J. Paget Waddington, Borough Surveyor, Town Hall, Marylebone, N.W.

September 4.—**Newport (Mon).**—Supplies.—For supply for period of three or six months to the Board of Guardians of following materials:—Paints, paint brushes, electrical fittings, ironmongery, and tinware engineers' stores, brushes, oils, rubber utensils, disinfectants, soap, steam coal, house coal, leather, drugs &c. Mr. William Dowler, Clerk to the Guardians Union Offices, Queen's Hill, Newport, Mon.

September 12.—**Macclesfield.**—Supplies.—Supply of furnishing materials, paints, &c., to Cheshire County Mental Hospital, Macclesfield. Mr. W. G. F. Turgay Clerk, to the Hospital.

September 17.—**Worthing.**—Timber.—Supply of fifty squares of 1½ in. pitch pine floor boarding to the T.C. Borough Surveyor, Worthing.

September 18.—**Merthyr Tydfil.**—Supplies.—For supply in bulk for period of six months from October next, for the Poor Law Institutions at Merthyr and Trecynon and the Cottage Homes, Aberdare, for the Merthyr Tydfil Board of Guardians, of the following supplies:—Building materials, haulage, straw, electrical fittings, earthenware, oils, paints, glass, ironmongery, shoemaking materials, leather, boots, &c. drugs. The Clerk to the Guardians, Union Office High-street, Merthyr Tydfil.

ENGINEERING, IRON AND STEEL

August 25.—**Wigan.**—Gas Plant.—For supply carbonizing plant at Gasworks, for the T.C. Mr. Bentley, Gasworks, Wigan. Deposit £4.

August 25.—**Hamilton.**—Gas Holder.—Erection of a spiral guided gasholder and steel tank of approximate capacity of 1¼ million cubic ft., for the T. Mr. David Robb, Engineer, Hamilton Gas Works.

August 27.—**Exmouth.**—Pipes.—Supply of tons of 4 in. spigot and socket water mains to t U.D.C. Mr. S. Hutton, Borough Surveyor, Exmout

August 27.—**Glasgow.**—Heating and Ventilati —For heating and ventilating work at Partick Pul Library, for the T.C. Office of Public Works, C Chambers, 64, Cochrane-street. Deposit £1 1s.

August 27.—**Old Romney.**—Bridge.—Erection o steel girder and concrete bridge over the south part White Kemp main sewer, on the road from Old Rom to Lydd, for the Commissioners of Sewers for the le of Walland Marsh and Elderton's Innings. Messrs T. Weldon & Charles Stokes, Joint Clerks, 11, Ba street, Ashford, Kent.

AUGUST 28.—**Oulton and Wakefield.**—BRIDGES.—(1) Croft Bridge, Oulton: Partial reconstruction of arch (2 ft. span) in reinforced concrete, and other repair works; (2) Woolley North Bridge, Wakefield: Partial repairs, in stone, to east elevation, and rebuilding of parapet walls. West Riding Surveyor, County Hall, Wakefield. Deposit £1 each contract.

AUGUST 29.—**Beverley.**—REPAIR TO TANK.—Repair of overhead water tank at East Riding Mental Hospital, Beverley. Mr. C. Smith, Clerk and Steward, Hospital.

AUGUST 29.—**Handforth.**—STEAM ENGINE.—Supply of one 40 B.H.P. vertical steam engine to the Styal Cottage Homes, Handforth, near Manchester, for Manchester B.G. Mr. Hargreaves, Superintendent of Works, Union Offices, All Saints, Manchester.

AUGUST 29.—**London, S.W.**—PATENT GLAZING.—Patent glazing, &c., to covered ways at Tooting Bec Mental Hospital Extension, Church-lane, S.W.17, for the Metropolitan Asylums Board. T. Cooper, Engineer-in-Chief, Office of the Board, Victoria-embankment, E.C.4. Deposit £1.

AUGUST 29.—**London.**—WEIGHBRIDGES.—For providing and fixing a new 20-ton weighbridge at each of the following institutions: Northern Fever Hospital, Winchmore Hill; Queen Mary's Hospital, Carshalton; Parenth Training Colony, Dartford; Tooting Bec Mental Hospital Extension, Tooting, S.W., for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit, £1.

AUGUST 31.—**Chile.**—HARBOUR WORKS.—**Extension of the mole of the Port of Valparaiso and complementary harbour works, depots, &c., for the Chilean Legation in London.**

AUGUST 31.—**Sheffield.**—BRIDGE.—Designs and tenders for reinforced concrete bridge over River Don at Leppings-lane, for the T.C. Surveyor, Town Hall, Sheffield. Deposit £5.

AUGUST 31.—**Tottenham, N. 15.**—REFUSE DESTRUCTOR.—Dismantling certain cells, boilers, economiser, &c., and the substitution of a modern refuse destructor plant at the Refuse Destructor Works, Down-lane, Tottenham, N., for the Tottenham District Council. Engineer of the Council, Town Hall, Tottenham, N. 15. Deposit £1 1s.

SEPTEMBER 1.—**Enfield.**—TELEPHONES.—For maintenance of telephones at Hospital of the Enfield and Edmonton Joint Hospital Board. Surveyor, Public Offices, Enfield.

SEPTEMBER 3.—**Dublin.**—STEELWORK.—Supply of steelwork for bridge for the Midland Great Western Railway of Ireland Co. Chief Engineer, Broadstone Terminus, Dublin. Charge 4s.

SEPTEMBER 3.—**Dundee.**—BRIDGE.—Erection of plate girder railway bridge over Kingsway, for the T.C. Mr. G. Baxter, City Engineer, Dundee. Deposit £5.

SEPTEMBER 6.—**Salisbury.**—HEATING INSTALLATION.—For installing boiler and heating plant at the Workhouse. Mr. E. Mould, Clerk, 48, Blue Boar-row, Salisbury. Deposit, £3 3s.

SEPTEMBER 10.—**Hornsey.**—Low tension switchgear, for T.C. Borough Electrical Engineer, Tottenham-line, Hornsey. Deposit £1 1s.

SEPTEMBER 14.—**Nottingham.**—PIPING, &C.—Manufacture and erection of steam water and other pipework, valves, tanks, &c., at the Power Station, for the T.C. Messrs. Preece, Cardew & Rider, 8, Queen Anne's Gate, Westminster, S.W.1. Deposit £5.

SEPTEMBER 15.—**Manchester.**—PUMPS.—For one set of electrically driven high-pressure centrifugal pumps, to deliver 1,000 g.p.m. against a pressure of 120 lb. per square inch. Secretary, Waterworks Offices, Town Hall, Manchester. Deposit £2 2s.

SEPTEMBER 17.—**Farnworth.**—ELECTRICAL PLANT.—For a 50 K.W. rotary converter, complete with transformer, switchgear, &c., for U.D.C. Chief Electrical Engineer, Mr. A. J. Hutchinson, Electricity Works, Farnworth, near Bolton. Deposit £1 1s.

SEPTEMBER 17.—**London.**—MACHINE TOOLS.—Supply of machine tools, for the Council's Tramway Central Repair Depot, Charlton. General Manager, London County Council Tramways, Victoria-embankment, W.C. 2. Deposit £2.

SEPTEMBER 19.—**Fulham.**—FILTRATION PLANT.—Supply and erection of filters and plant at the Fulham Public Baths. Superintendent and Engineer at the Baths, Walham Green, S.W.6.

SEPTEMBER 27.—**Chelsfield.**—RESERVOIR.—Construction of covered service reservoir at Chelsfield, Kent, for the Metropolitan Water Board. Mr. H. E. Stilgoe, Chief Engineer, 173, Rosebery-avenue, E.C. Deposit, £5.

SEPTEMBER 27.—**Chile.**—PORT IMPROVEMENT.—Improvement of the Harbour of Constitucion, for the Chilean Government. Chilean Legation, 22, Grosvenor-square, W. 1.

OCTOBER 9.—**Toronto.**—Alternating current generators for T.C. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

NOVEMBER 1.—**Siam.**—BRIDGES.—Supply of superstructures of steel railway bridges to Siam State Railways. Messrs. C. P. Sandberg, 40, Grosvenor-gardens, S.W. 1. Charge 28s.

NOVEMBER 30.—**Sydney.**—BRIDGE.—Construction of the superstructure and substructure of a cantilever bridge across Sydney Harbour; also an alternative tender for the construction of the superstructure and substructure of an arch bridge across Sydney Harbour. Agent-General for New South Wales, Australia House, Strand, W.C.

DECEMBER 3.—**Sydney.**—High tension switchgear for Municipal Council. Department of Overseas Trade (Room 52), 35, Old Queen-street, S.W.1.

NO DATE.—**Manchester.**—MOTOR WAGON AND WEIGHBRIDGE.—For supplying and fixing one combined motor wagon weighbridge, capacity 30 tons, and one motor wagon weighbridge, capacity 20 tons. Chairman, Paving, &c., Committee, Town Hall, Manchester.

ROAD, SANITARY, AND WATER WORKS.

AUGUST 25.—**Isle of Thanet.**—SEWER.—For laying sewer for the R.D.C. at Westgate-on-Sea. Surveyor, Messrs, Birchington.

AUGUST 25.—**Middlewich.**—WATER WORKS.—(1) New borehole; (2) extension of pumping station buildings; (3) new pumping plant, for the U.D.C. Mr. F. W. Stocks, Engineer, Town Hall, Middlewich. Deposit £2 2s.

AUGUST 25.—**Newbury.**—ROADS.—For re-surfacing of Andover-road, for the T.C. Borough Engineer, Municipal Buildings, Newbury.

AUGUST 25.—**Southgate.**—SEWER.—Construction of surface water sewer and foul sewer, for the U.D.C. Mr. R. Phillips, Surveyor, Town Hall, Palmers Green, N.

AUGUST 27.—**Bishop Auckland.**—SEWER.—Construction of about 2,000 yards of 12 in. and 9 in. stoneware pipe sewer. Messrs. Willcox & Raikes, Union Chambers, 63, Temple-row, Birmingham. Deposit £5 5s.

AUGUST 27.—**Woodford.**—ROADS.—(*a*) kerbing, channelling, &c., in Snakes-lane; and (*b*) repairs to wood block paving, &c., High-road, for the U.D.C. Mr. William Farrington, Surveyor. Council Offices, Woodford Green.

AUGUST 28.—**Bradford.**—SANITARY.—For clearing of middens, &c., in Tong Village and North Bierley and Idle districts, for one year. Mr. Call, Superintendent, Hammerton-street Depot, Bradford.

AUGUST 28.—**Glasgow.**—ROADS.—Construction of roads and sewers at Cathcart-road, for the T.C. Mr. J. Lindsay, Town Clerk, Glasgow.

AUGUST 28.—**Lambeth.**—ROADS.—Supply and laying of creosoted deal paving blocks in Knight's-hill, South Lambeth-road, and High-street, for the B.C. Mr. O. Cattlin, Borough Engineer, Town Hall, Brixton, S.W.

AUGUST 28.—**London.**—ROADS.—For the formation of roads and paths at the Camberwell Housing Scheme, Sunray-avenue, Denmark-hill, S.E., for H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit, £1 1s.

AUGUST 28.—**Thorne.**—SEWERS.—Construction of 2,583 lin. yds. of pipe sewers, from 9 in. diameter to 18 in. diameter, in parish of Stainforth, for the R.D.C. Mr. E. J. Silcock, 10, Park-row, Leeds. Deposit £5.

AUGUST 29.—**East and West Molesey.**—SEWER.—Construction of 682 ft. of 9 in. main sewer, for the U.D.C. Surveyor, Council Offices, East Molesey.

AUGUST 29.—**London, S.W. 17.**—TAR PAVING.—Providing and laying tar paving to paths, &c., at Tooting Bec Mental Hospital extensions, Church-lane, S.W. 17, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

AUGUST 29.—**Penybont (Glam).**—ROAD IMPROVEMENT.—For widening and improving of road at Aberbaiden, to include excavating, filling and fencing. Mr. E. Jenkins, M.Inst.M. and C.E., Nolton-street, Bridgend.

AUGUST 29.—**Wembley.**—SEWAGE OUTFALL WORKS.—Construction of percolating filters, Detritus tanks, screening chambers, pump well, &c. Mr. Cecil R. W. Chapman, Engineer and Surveyor, Council Offices, Wembley. Deposit £5 5s.

AUGUST 30.—**Benton.**—FENCING.—Provision and erection of 620 yards creosoted military fencing at Benton, for Northumberland C.C. Mr. J. A. Bean, County Surveyor, The Moothall, Newcastle-on-Tyne.

AUGUST 30.—**Penybont (Glam.).**—SEWERS.—For laying 170 lin. yds. 9 in. diameter stoneware pipe sewer and 40 lin. yds. 6 in. diameter stoneware sewer piping, with junctions, manholes and vent columns, &c., at Litchard terrace, Bridgend. The Sanitary Surveyor, Penybont R.D.C., 8, Wyndham-terrace, Bridgend. Deposit £1 1s.

✱AUGUST 31.—**London, E.2.**—DRAINAGE AND SANITARY WORK.—Reconstruction of the drainage systems and sanitary work in connection therewith at St. Leonard's House, and Hospital, Kingsland-road, E.2, and Hoxton-street, N.1. for the Guardians of the Poor of the Parish of St. Leonard, Shoreditch. Guardians' Architect, Mr. F. Danby Smith, F.R.I.B.A., Parliament Mansions, Victoria-street, Westminster, S.W.1. Deposit £5 (Bank of England Note).

AUGUST 31.—**York.**—ROADS.—For making up seven streets, for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £1 1s.

SEPTEMBER 1.—**Chapel-en-le-Frith.**—SEWAGE WORKS.—For construction of sewage disposal works at Bamford, for the R.D.C. Messrs. Brady & Partington. Engineers, Town Hall, Chapel-en-le-Frith. Deposit £5.

SEPTEMBER 1.—**Langton Matravers.**—ROADS.—Widening and resurfacing of the "Valley-road," Langton Matravers, about 3½ miles in length, for the Dorset C.C. Mr. W. T. Fletcher, County Surveyor, County Offices, Dorchester. Deposit £2 2s.

SEPTEMBER 1.—**Netherton.**—ROAD.—Making-up of Netherton Colliery approach road, Netherton, for the Bedlingtonshire U.D.C. Mr. J. W. Pooley, Surveyor to the Council, Bedlington.

SEPTEMBER 1.—**West Riding of Yorkshire.**—ROADS.—For various road works in the districts of Saddleworth, Stanley, Birstall, Castleford, and Pontefract, for the C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

SEPTEMBER 3.—**Mitcham.**—ROADS.—For the making-up of Lewis-road, for the U.D.C. Surveyor's Office, Broadway House, London-road, Lower Mitcham.

SEPTEMBER 3.—**Romford.**—SEWERAGE.—For construction of sewers, for the R.D.C. Mr. W. Fairley, Parliament-mansions, Victoria-street, S.W. Deposit £3 3s.

SEPTEMBER 3.—**Stirling.**—ROADS.—Re-surfacing of the roadway from Larbert Cross to Carron Iron Works with clinker or slag asphaltic macadam, for the C.C. Mr. Alexander Linlay, Joint Road Surveyor, District Office, Falkirk.

SEPTEMBER 3.—**Tiverton.**—ROADS.—For steam rolling of district roads, for the R.D.C. Mr. J. F. Puggsley, Clerk, Tiverton.

SEPTEMBER 3.—**Uckfield.**—SEWAGE WORKS.—Construction of sewerage and sewage disposal works at Waldron, for the R.D.C. Mr. J. Taylor, Henley House, Uckfield. Deposit £3 3s.

SEPTEMBER 3.—**Ventnor.**—ROADS.—For widening of Newport-road, for the U.D.C. Mr. D. V. Howard, Surveyor, Town Hall, Ventnor, I.W.

SEPTEMBER 4.—**Morecambe.**—STREETS.—For making up streets within the borough, for the T.C. Mr. Percival Holt, A.M.Inst.C.E., Borough Engineer and Surveyor. Deposit £1 1s.

SEPTEMBER 7.—**Bexhill.**—SEWERS.—For construction of sewers, for the T.C. Mr. G. Ball, Borough Surveyor, Bexhill. Deposit, £1 1s.

SEPTEMBER 7.—**Southwold.**—ROAD.—Making up of Field Stile-road, Southwold, for the T.C. Borough Surveyor, Town Hall.

SEPTEMBER 8.—**Tynemouth.**—ROADS.—Construction of road and six bridges, for the T.C. Mr. J. F. Smillie, Borough Surveyor, Tynemouth. Deposit, £2 2s.

SEPTEMBER 10.—**Blofield.**—SEWER.—About 3¾ miles of 6 in., 7 in., and 9 in. sewer, a pumping station, and 1,100 yards of 8 in. cast iron rising main, at Thorpe Saint Andrew, for the R.D.C. Office of the Rural District Council, 17, Prince of Wales-road, Norwich; or Messrs. Martin & Roberts, MM.Inst.C.E., 44, St. George's-square, Westminster, S.W. Deposit £3 3s.

SEPTEMBER 12.—**Middleton.**—SEWER.—Reconstructing (*a*) the joint Middleton-Chadderton sewer, and (*b*) the Middleton branch sewer. Unemployment Relief Works, for the T.C. Borough Engineer, Town Hall, Middleton, Lancashire.

SEPTEMBER 15.—**Bedwas.**—SEWERS.—For constructing, for the Bedwas and Machen U.D.C., subsidiary sewers at Bedwas, Machen and Maesycwmmer, work to include providing and laying of stoneware pipes, with manholes, and all incidental work. The work will be in three separate contracts. Mr. A. S. V. Taylor, Queen's Chambers, Orchard-street, Neath. Deposit, £2 2s.

SEPTEMBER 21.—**Bognor.**—ROADS.—For making up Bassett-road, for the U.D.C. Mr. A. O. Bridge, Surveyor, Bognor.

NO DATE.—**Bearpark.**—ROAD WORK.—Fill up holes, tar spray, and top dress with tar macadam, portion of public footpath for the Bearpark Parish Council. Mr. W. G. Newton, Clerk, 43, Hallgarth street, Durham.

NO DATE.—**Headingley.**—TENNIS COURT.—For laying down, &c., hard court for Tennis Club, Headingley. Hart, 18, Park-lane, Leeds.

NO DATE.—**Plumstead, S.E.**—TENNIS COURT.—For laying-out two all-weather hard tennis courts. Mr. W. C. Eastwood, Tennis Secretary, Silverley's Club, 63, Macoma-road, Plumstead, S.E.18.

Competitions.

(*See Competition News, page* 280.)

Auction Sales, Tenders, etc.

✱AUGUST 28 & 29.—**Ascot, Berks.**—Messrs. Chas. R. Davis & Co. will sell under a D/A, *re* F. W. Charman (trading as H. Charman & Son), by order of the Trustees, at the yard and workshops of High-street, Ascot, Berks, stock-in-trade plant and machinery of a builder and contractor, comprising a large stock of builders' ironmongery and plumbers' brass foundry, &c. Auctioneers, 285, Borough High-street, S.E.1.

✱AUGUST 29.—**Kent.**—Messrs. Veryard & Yates will sell at Foots Cray, Kent (near "Black Horse," Sidcup) at Mr. Readhead's Farm, Mount Culver, Foots Cray (by kind permission), as above, useful building materials, timber, and fittings. Auctioneers, 365, Norwood-road, S.E.27.

SEPTEMBER 4, 5, AND 6.—**Sussex.**—Mr. F. H. Clark will sell, without reserve, the whole of the huts and building material contained in South Camp, Seaford, Sussex. Auctioneer, Railway Wharf, York-road, Wandsworth.

✱SEPTEMBER 5.—**Rotherhithe, S.E. 16.**—Messrs. J. T. Skelding & Co. will sell, without reserve, at Appleby's-yard, Silwood-street, Rotherhithe, S.E. 16, the valuable well-seasoned dry stock of timber, including 2,900 ft. cube dry English oak, &c. Auctioneers; 48, Gresham-street, Guildhall, E.C. 2.

✱SEPTEMBER 6.—**Hastings.**—Messrs. Veryard & Yates will sell without reserve, building materials arising from demolition of old East Sussex Hospital. To clear site for new music pavilion, Hastings (on seafront facing pier), timber, fittings, and building materials. Auctioneers, 365, Norwood-road, S.E.27.

✱SEPTEMBER 11.—**Suffolk.**—Messrs. Veryard & Yates will sell at "Oakley Hall," near Eye, Suffolk (on Norfolk and Suffolk borders, 4½ miles from Diss Station, L. & N.E. Rly.) building materials and fittings arising from demolition of the above important mansion. Auctioneers, 365, Norwood-road, S.E.27.

Public Appointments.

AUGUST 28.—**Dorset.**—TEMPORARY ARCHITECTURAL ASSISTANT.—Temporary architectural assistant for general county work by the Dorset C.C. County Architect's Department. Mr. E. A. Ffooks, Clerk to the County Council, County Offices, Dorchester.

AUGUST 31.—**Wandsworth, S.W. 17.**—ARCHITECTURAL ASSISTANT AND QUANTITY SURVEYOR.—Required in Borough Engineer's Department, a first-class architectural assistant and quantity surveyor, experienced in the design of public buildings. Mr. Ernest J. Elford, Borough Engineer, Metropolitan Borough of Wandsworth, 215, Balham High-road, S.W. 17, endorsed "Architectural Assistant."

✱SEPTEMBER 3.—**Grays, Essex.**—Housing Assistant in the offices of the Engineer and Surveyor required by the Grays Thurrock U.D.C. Mr. Herbert S. Goodall, Engineer and Surveyor, Council Offices, Grays.

SEPTEMBER 3.—**Middlesex.**—Architect or Building Surveyor required by the Justices of the Gore Division of Middlesex to examine the plans of alterations, &c., proposed in licensed premises, and to advise them thereon. The Clerk to the Justices, Edgware, by enclosing a stamped addressed envelope.

✱SEPTEMBER 4.—**London, N.E.**—VISITING TEACHER.—Visiting Teacher of building construction and drawing required by the London County Council at the L.C.C. Hackney Institute, Dalston-lane, N.E., for one or two evenings a week. Apply Education Officer (T 1 (*a*)), The County Hall, S.E.1 (stamped addressed foolscap envelope necessary) for form.

SEPTEMBER 8.—**Portsmouth.**—ASSISTANTS.—One temporary and two permanent assistants to the Borough Engineer, with Municipal experience, required by the County Borough of Portsmouth. Mr. Arthur W. Ward, Borough Engineer, Town Hall, Portsmouth, with covering envelope, marked "Borough Engineer's Assistant."

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERAYRON.—Capt. Evans Hazeltine is to build a further eight houses, at an estimated cost of £480 each, at Llyswen, and the Council has passed plans and will support application for Government grant.

ABERDEEN.—Plans (total cost, £8,325) passed by T.C. include: Bungalow on south side of Queen's-road, £1,100; dwelling house, Anderson-drive, £1,500; and dwelling house in Queen's-road, for Major A. L. Mackinnon, £2,500.

ARNOLD.—Plans have been passed by the Council for the erection of 12 houses by private persons.

AUCKLAND.—The R.D.C. has approved plans for a new cinema hall at Witton Park.

BEACHLEY, NEAR CHEPSTOW.—A scheme is again being brought forward for a bridge across the Severn at Beachley.

BELFAST.—Plans passed by T.C.: Additions to Royal Victoria Hospital, new wards, operating rooms, &c. (architects, Messrs. Young & Mackenzie; builders, Messrs. McLoughlin & Harvey, Ltd.); dwelling-house, Kincora-avenue, for Mr. S. McCune (architect, Mr. James Scott); alteration to motor garage, Antrim-road, for Mr. W. J. McCrum (architect, Mr. J. W. C. Porte); dwelling-house, Divis-drive, for Mr. Thomas Melvin (architect, Mr. George Watson); shop and dwelling-house, Hillview-street, for Mr. James McDonagh (architect, Mr. W. J. Convery); two dwelling-houses and motor house, Ormiston-crescent, for Mr. J. Carson (architect, Mr. L. H. Hodgins); workshop, shop and offices, Mill-street and King-street, for Mr. John Adams (architects, Messrs. Hobart & Heron); alterations to premises, Gargoyle-street, for Messrs. Madden Bros. (architects, Messrs. E. & J. Byrne); dwelling-house, King's-road, for Mr. W. J. Pollock (architects, Messrs. Blackwood & Jury); additions to premises, Albertbridge-road, for Mountpottinger Y.M.C.A. (architect, Mr. C. D. Patterson); additions to Cathedral, Donegall-street (architect, Mr. R. M. Close); two dwelling-houses, Quarry-road, for Mr. D. C. Lindsay (architects, Messrs. Blackwood & Jury); two dwelling-houses, Kensington-road, for Mr. R. J. Kerr (architect, Mr. Hugh Gault); new premises, Sydenham-road, for Mr. Hamilton Bodel (architect, Mr. W. Crook); additions to premises, Federation-street, for the Belfast Co-operative Society (architect, Mr. S. Stevenson); motor garages, Bawnmore-road, for Mr. Francis Curran (architect, Mr. C. McAlister); boiler house, North Queen-street, for the Belfast Charitable Society (architect, Mr. Godfrey W. Ferguson); alterations to bank premises, King-street, for the Belfast Savings Bank (architect, Mr. John Johnston); dwelling-house, Downshire-avenue, for Messrs. R. Seeds & Son (architect, Mr. John Seeds); lecture hall and school, Chlorine-gardens, for the Committee of Fisherwick Church (architect, Mr. R. Ferguson); dwelling-house, Newtownards-road Upper, for Mr. W. Allen (architect, Mr. James McAlery); alterations to offices, &c., Albertbridge-road, for Mr. D. Hollywood (architects, Messrs. Taggart & Silk); memorial hall, York-road and Pittsburg-street, for the Vestry of St. Paul's Church (architect, Mr. Henry Seaver); dwelling-house, Antrim-road, for Mr. J. E. Byrne (architect, Mr. R. Ferguson); dwelling-house, Innisfoyle-road, for Mr. R. Lowry West (architect, Mr. James Hunter); alterations to shop and store, Newtownards-road, for Mr. James Caswell (architect, Mr. T. Callender); dwelling-house, Osborne-gardens, for Mr. F. Curley (architect, Mr. C. McAlister); additions to pavilion on Ballygomartin-road, for Woodville Cricket Club (architects, Messrs. Munce & Kennedy); two dwelling-houses, Luxor-gardens, for Mr. T. Lalzell; large stables, Connswater-road, for the British Petroleum Co., Ltd.; shop and dwelling-house, Newtownards-road Upper, for Mr. John Rea; six dwelling-houses, Kensington-road, for Messrs. R. & J. Pearce; shop and house, Springfield-road and Whiterock-road, for R. Cullinan; two houses, Luxor-gardens, for F. W. Hall; conversion of dwelling-house into shop and dwelling-house, Lisburn-road, for G. Fletcher; shop and house, Newtownards-road Upper, for R. McIlroy; conversion of two dwelling-houses into students' hostel, Townsend-street, for Queen's University; four houses, Bloomfield-road, for J. McMaster; house, North-road, for S. Nelson; shop and dwelling-house, Agnes-street and Ariel-street, for P. J. Campbell; fourteen houses, Glandore-gardens, Glandore-street and Glanworth-drive, for H. Turtle; house, Windermere-gardens and Grasmere gardens, for Mrs. E. M. Penprase; four houses, Broadway, for W. J. Ervine; two houses, Chichester-park, for Mrs. W. T. Bennett; workshop and motor garages, University-road, for Methodist College; workshop and stores, Charlotte-street, for W. Coates & Son, Ltd.; dwelling-house, Stranmillis-road, for R. A. Rutherford; four houses, Belmont-road, for W. & J. Robinson; conversion of dwelling-house into bakery premises, Marlborough-avenue, for W. Munn & Co.; Pavilion, Woodvale-road, for Forth River Football Club.

BLACKPOOL.—The Corporation having agreed to give a bulk supply of electricity to Lytham St. Anne's, have applied to the Electricity Commissioners for sanction to borrow £10,000, the estimated cost.——It is proposed to erect a new golf club house at Fairhaven. Mr. Wm. Thornley, architect, Blackpool.——The address of Messrs. Owen & Co., who are erecting houses at Bispham, is 16, Bishop-street, Moss Side, Manchester, and not Talbot-street, as stated.

BLACKWELL.—At the last meeting of the R.D.C. a large number of plans for new houses were passed, including 80 for the Stanton Coal and Iron Co. to be erected at Pleasley.

BRAINTREE.—Plans passed by the U.D.C.: Six bungalows, Mr. Hunnable; two semi-detached villas, Mr. Brand.

BRECONSHIRE.—The Ministry of Health has held a public inquiry into the proposal to spend £4,000 on constructing new mart at Talgarth, by Hay R.D.C.——The Ministry of Health has sold Maenddu building site to Brecon T.C. for £280, and the Surveyor has been instructed to submit a utilisation scheme.

BROMSGROVE.—At a meeting of Bromsgrove U.D.C. a scheme for the extension of the sheep market, at an estimated cost of £1,120, was approved. A tender was also accepted for the erection of wholesale and retail market hall for £7,100.

BURTON-ON-TRENT.—The Corporation will proceed immediately with the widening of Trent Bridge, at a cost of over £50,000.

BURNLEY.—Trustees of the Clayton Bequest propose to erect a training centre and workshop for blind persons at Tarlton House.——An inquiry has been held by the Ministry of Health into T.C.'s application for sanction to a loan of £30,000 for extending the retorts at the gas works, and for steam plant.

CANNOCK.—Plans approved by U.D.C.: Twenty houses for Littleton Collieries, Ltd.

CHADDERTON.—Messrs. T. Partington & Son, builders and contractors, of 8, Victoria-street, are proposing to erect 11 houses in Denton-lane, and eight houses in Westfield-street. Plans have been approved for eight houses to be erected by the Council on a site off Whitegate-lane.

CHEADLE.—Negotiations are in progress with landowners concerned in the proposed extension to the Council's sewer in Birdhall-lane. The plans and estimates have been approved.

CHEETHAM.—Plans prepared by H.M. Office of Works, Storey's Gate, London, S.W.1, have been approved for the erection of workshops for H.M. Prison, Southall-street, Strangeways.——Messrs. J. H. Maybury & Son, architects, 19, Chapel-walks, have prepared plans for alterations to premises, 220, Bury New-road, and Ashworth-street, for Mr. Carlson.

CHESTERFIELD.—A scheme is being prepared for the R.D.C. to deal with the sanitation at Staveley.

CHORLTON-CUM-HARDY.—The Chorlton Land and Building Co., Ltd., Longford-road, propose to erect 16 houses on a site in Newport-road, to plans prepared in their office by Mr. M. Woodall. The houses will be semi-detached, brick built, slated roofs, of two stories, fitted up with modern equipment.——Messrs. W. Parnall & Co., Ltd., shop fitters, Dutton-street, Strangeways, Manchester, have prepared plans for alterations to premises 82–84, Barlow Moor-road, for Mr. F. J. Withers. The work will be carried out by their own staff.——A portion of the recreation ground in Beech-road is being set apart for the provision of a new bowling green.

CLAYPOLE.—A draft scheme and estimates for provision of a water supply for Claypole and Shipton are to be prepared.

CLITHEROE.—Mr. Booth, Surveyor to the Croston R.D.C., is preparing plans and estimates for road improvements at Dusty Clough and Slater's Farm in the Chipping district.

CUDWORTH.—U.D.C. proposes to erect 94 houses in Sidcop-lane. Particulars will be available shortly.

DARTON.—Plans approved by U.D.C.: Four shops, with ballroom above, for Mr. P. Hamblin.——U.D.C. has decided to construct two reservoirs.

DONCASTER.—Application is to be made by the R.D.C. to the Ministry of Health for permission to erect a public convenience at Askem.

DOWNHAM.—Application is to be made by the R.D.C. for a grant towards a road scheme, the total cost of which is estimated at £5,000.

DUBLIN.—Plans passed by T.C.: Additions to factory, Grand Canal-quay, Messrs. Wm. Clarke & Son; conversion of premises into tobacco factory, Marrowbone-lane, Messrs. W. D. & H. O. Wills; factory or warehouse, Balfe-street, Mr. H. A. P. Taylor; shop, rear 33, Hamilton-street, Mrs. Graham; shop, 49, Sheriff-street, Mr. Cosgrove; bungalow and garage, Vernon-avenue, Clontarf, Mr. J. Fitzpatrick; conversion of building into school, City-quay, rear of presbytery, the Very Rev. P. J. Early, Adm.; garage, 173-174, Parnell-street, Messrs. Walden & Co.

EAST DEREHAM.—The U.D.C. is submitting a scheme for 32 houses to the Ministry of Health.

FALKIRK.—Warrant has been granted at the Dean of Guild Court, on a petition of Marion Jackson or Thomson, Blinkbonny Lodge, Falkirk, for the erection of a dwelling-house at Drossie-road, Falkirk.

FARSLEY.—Plans passed:—Six sanitary conversions in Armstrong-street and Eddison-street, for Messrs. Pickering & Parkinson, and two sanitary conversions in Providence-street, for Mr. W. Dowgill.

FYLDE.—Plans approved by the R.D.C.: J. H. Boardman, greenhouse, Straights-road, Marton; Mrs. Howarth, bungalow, James-avenue, Marton; Mrs. Ledgard, wooden stable, Hawes Side-lane, Marton; J. Cartmell, cow shed, Moss Farm, Marton.

GLASGOW.—Plans passed by the Dean of Guild Court: Governors of the Victoria Infirmary, buildings at Battlefield-road (£1,375); J. & B. Stevenson, renovations and alterations at Cranstonhill bakery (£2,368); Savings Bank of Glasgow, alterations to premises at Bridgeton Cross; Corporation Halls Department, halls for Woodside Ward at Granville-street, off St. George's-road, at an estimated expenditure of £20,040; Robert Hunter, bungalow and garage at Fernleigh-road; Hoggenfield Parish Church, church hall at Cumbernauld-road (£1,656); Maryhill Hibernian Football Club, pavilion and barricade at Argyle-street, Maryhill (£527).

GOODWICK.—The U.D.C. is considering laying out Duffryn Fields as a recreation ground.

GORTON.—Messrs. T. Worthington & Son, architects, 178, Oxford-road, Manchester, have prepared plans for the erection of a dwelling-house in Melland Playing Fields for the Manchester and Salford Playing Fields Association.

GREAT HARWOOD.—A sub-committee has been appointed by the Great Harwood U.D.C. to consider provision of a mortuary.

HALIFAX.—It is proposed to erect a new Wesleyan Chapel at Triangle, near Halifax, at an estimated cost of £3,000. Messrs. Glendenning & Hanson, architects, Halifax.

HAMPSHIRE.—Figures put before the C.C. at its last meeting included construction of bridge at Bursledon, £35,000, and new macadam roads, eight miles, £160,000.

HASLEMERE.—Applications have been made for a subsidy in respect of 14 houses to be built by private persons.

HAZEL GROVE AND BRAMHALL.—Plans passed by U.D.C.: Four houses, Nevill-road, for Messrs. Oakes & Kidd; shop and house, Buxton-road, for Messrs. Bancroft & Pixton; house, Douglas-road, for Mr. J. Moss; house, Carr Wood-road, for Mr. W. G. West; house, Bosden Fold-road, for Mr. J. Smith; thirty-four houses, North Park-road and Glyn-road, for Residents, Ltd.; ten houses, Offerton-lane, for Mr. A. Frost; house, Buxton-road, for L. M. & S. Railway; new roads, Midland-road and North Park-road, for Messrs. Venables, and Ladythorn-grove, off Ladythorn-crescent for Messrs. Brocklehurst; six houses, Grenville-road, for Messrs. Oldham & Hallworth; house, Offerton-lane, for Mr. W. Swann.

HENDHAM.—Mr. H. S. Fairhurst, architect, 90, King-street, Manchester, has prepared plans for offices at Hendham Vale Works, for Messrs. Small & Parks.

HUDDERSFIELD.—The T.C. has decided to erect a further 17 houses on the Hollin Carr Estate. Tenders are to be invited.

HYTHE.—Mr. M. K. North, for the Ministry of Health, has held an enquiry into the application of the Council to borrow £3,680 for converting the present baths building into a shelter and refreshment room.

KEARSLEY.—Plans have been approved by the Licensing Justices for structural alterations to the "Wagon and Horses," Bolton-road.

KING'S LYNN.—Plans passed by T.C.:—House, Kettlewell-lane, for Mr. A. F. Foreman; garage, 17, Railway-road, for Mr. E. E. Colman.

LEAMINGTON.—The T.C. has approved a recommendation to lay a river water main in certain roads, cost estimated at £400.

LEEDS.—The Sundial House Estate in Hunslet-road has been sold. The premises are to be demolished and new business premises to be erected thereon for Messrs. E. Pickett & Co., glass merchants, Hunslet.

LEIGH.—As an incentive to private enterprise, Leigh T.C. has decided to grant Leigh and District Master Builders' Association a lump sum of £100 for every house erected by them, and 50 houses will be commenced at once.——The T.C. has resolved that the Housing Committee consider obtaining tenders for the erection of 500 houses.

LITTLEBOROUGH.—Approval has been obtained from the Ministry of Transport for the reconstruction of Featherstall-road and New-road, estimated to cost £14,600. The Ministry of Health are being asked for the necessary loan.

LLANELLY.—The G.W.R. Co. has given notice that it will provide financial advance assistance for the erection of some 200 houses for local employees. Two sites are being investigated by local employees committee.

LYTHAM.—The Ministry of Transport has sanctioned the following loans:—£17,135 for purchase of 10 new covered top tramcars; £4,380 for the purchase of a new motor omnibus and erection of a petrol store; £8,111 for extensions to Tram Depot, and £530 for a tramway shelter at Woodlands-road.——It is proposed to erect a new institute and reading room in St. Alban's-road, also to provide extensions to the Council School. Tenders for both contracts are to be invited.

LIVERPOOL.—Plans passed by the Corporation (name of architect in parenthesis):—Ten houses, South Hill-road, and four houses, Beloe-street, for E. Russell Taylor & Son (owners); two houses, Rathmore-avenue, Mr. W. J. Williams (R. Owens & Son); alterations, Hoghton-street, for Mr. L. R. Doyle (J. Duthie & Son); garage, 97, Newsham-drive, for Mr. A. Gibson (owner); alteration to shop front, 17A, Church-road, Wavertree, for the British Argentine Meat Co. (owners); house, Dudlow-lane, for Sealey & Lucas, (owners); house and garage, Menlove-gardens, for Mr. J. W. Jones (owner); garage, 47, Rice-street, for Mr. Alf. Greenland (owner); garage, 50, Onslow-road, for Mr. A. Forshaw (Mr. J. H. Taylor); garage, 31, Church-road, for Mr. D. Spoo (Mr. F. Smith); factory, Edge-lane-drive, for R. & Donkin & Co. (Mr. Harold C. Davies); garage, 5 Greenfield-road, for Mr. W. H. Robinson (Mr. W. A. Scott); garage, Rock Mount, for Mr. C. H. M. Store (Murray & Fowler); welfare room, Dryden-road, for the Fairfield Biscuit Works (Mr. A. Hunter Crawford); four houses, Aysgarth-avenue, for Mr. P. J. Harle (Messrs. G. Bradbury & Sons); two houses, Belvoir road, for the Mersey Building Co. (owners); rifle range and small hall, Green-lane, for the Stoneycroft Rifle Club (A. Baze & Sons); garage, 103, Garmoyle-road for Dr. W. G. Roberts (R. Owens & Son); garage, 3 Alexandra-drive, for Mr. B. S. Bernstein (Mr. G. J. Desoer); rebuilding "Gardeners' Arms," Broad Green road, for P. Walker & Son (Prescott & Davis); factor Paul-street, for the Liverpool Saccharine Compa (Mr. Herbert Johnson); house and garage, Menlo avenue, for Mr. J. W. Jones (owner); three one-sto shops, 204, Breck-road, for Greenall Whitley (R. Owe & Son); eight houses and ten shops, Northway, a eight houses and ten shops, Waldpore-road, for Lew & Smith (Mr. G. S. Powell); house and shop, Pric

, for Mr. G. C. Clegg (Kenneth Miller); two houses, ston Old-road, for Williams & Jones, (R. Owens on); tank, Garston, for Molasses Co. (Mr. R. H. n); warehouse, Long-lane, for W. P. Hartley, (Mr. F. W. Nicholson); four houses and shops, nsend-lane, Griffiths, Sons & Cromwell (Brown nides); six houses and shops, Allerton-road, and e and shop, Carsdale-road, for Mr. G. E. Williamson Owens & Son); house, Beech-lane, for Mr. F. J. nsley (J. Clarke & Son); house and garage, ove-gardens, for Mr. J. W. Jones (owner); house, -lane-drive, for Mr. R. B. Donkin (Mr. H. C. es); four houses and garage, Mersey-road, for Mr. ughes (R. Owens & Son); workshop and garage, -street, for Mr. L. K. Virr (Medcalf & Medcalf); s and offices, St. Wilson-street, for Messrs. S. & A. ng (Fraser & Clayton); two houses and garage, elair-road, for Prickett & West (Mr. T. Jones).

ACCLESFIELD.—The B.G. is proposing a scheme of ral heating at their institution and have recom- ded that the sub-committee be empowered to in tenders for submission at the next board ing.

AESTEG.—The U.D.C. has passed plans for laying pen-air swimming baths for Garth Welfare Com- ee, and have decided to investigate the proposed ing of retaining walls around the recreation nd.

ANCHESTER.—The Fine Cotton Spinners and plers' Association, St. James'-square, Manchester, ad plans prepared in their drawing office for a new pmiser house to Lloydfield Mills, Masonic-street, ats.——Mr. F. Fenn, architect, Chapel Walks, has ared plans for alterations to premises 191, Upper k-street and Nelson-street, for Mrs. Dauncey.—— nas Seymour Mead & Co., Ltd., grocers, Upper ock-street, have prepared plans for house and shop e corner of Montgomery-road and Beresford-road. sight.——Manchester C.C. has endeavoured to pur- e 35½ acres, the bulk of which is contained between age-lane and the 50 ft. town planning new road in course of construction from Green End to ood-road, Levenshulme. The negotiations having unsuccessful, the Council has applied for the com- ry purchase of the estate. A preliminary plan ared by the Housing Committee shows that three 50 ft. roads will eventually intersect the estate, that it is proposed to erect 850 houses in this ity at about 12 to the acre. The E.C. may require res of the site for a secondary school and playing for other schools in the neighbourhood. The new ne will encroach on the Heaton Moor Golf Club. The Hydro Lime Products, Ltd., are about to ire extensive premises at Middleton Junction.—— P. Hothersall, architect, 66, Mosley-street, has pre- l plans for the extension of the dancing academy in swick-street, Chorlton-on-Medlock, for Mr. E. Shor- s.——Mr. H. Booth, architect, 46, Chorlton-road, repared plans for the erection of a workshop at the of 56, Erskine-street and Cedar-street, Hulme, for W. J. Hollick.——Messrs. W. Johnson & Son, archi- . 27, Oldham-road. Miles Platting, has prepared s for additions to "The Gables," Manchester-road, ton-cum-Hardy, for Dr. Young.——A scheme is ot to provide an exhibition hall, at an estimated of £200,000.

ARKET HARBOROUGH.—Application for a grant in ct of 10 houses has been made by the Market orough Land Society. The U.D.C. has approved.

ARPLE.—Plans passed by U.D.C.: Two houses, for Goddard, at Hill Top; house, for Mr. Schofield, Green; house, Windlehurst-road, for Mr. haw; alteration of the Manchester and County Market-place; alteration of "Green Bank," rt-lane, for Mr. Sugden; engine house and green- Arkwright-road, for Mr. Dawson; garage, lane, for Mr. Hibbert.

LTON MOWBRAY.—Application has been made by .D.C. for grants towards a total sum of £1,750 ad works. For work to be carried out early next ,350 will be required.——The purchase jointly by .D.C. and the U.D.C. of a motor fire engine, to bout £1,500, is being considered.

ERTHYR TYDFIL.—Plans passed by T.C.: Lady l at St. Mary's Church, Merthyr, for Rev. G. O.S.B.; dairy at 2, Edward-street, for Mr. A. ; garage in Union-street, for Mr. F. Brodenham; at Henry Richard-street, for Mrs. Ford, Troedyr- rebuilding of Globe Hotel, for Messrs. Giles & p, High-street, Merthyr; wooden structure, 7, en-terrace, Penydarren, for Mr. D. M. Thomas; ions at 70, Twynyroden-road, for Mr. A. Wil- house, 7, Brynglas, Penydarren, for Mr. W. house at The Grove, Merthyr, for Mr. R. Ray- ——The T.C. has submitted an extensive road ement scheme at Heolgerrig, Dowlais, Troedyr- d Merthyr for grant.

SBURY.—The R.D.C. has decided to expend on reconstructing three roads, provided an loyment grant can be obtained.——The B.G. has to substitute electric for gas lighting at the ion; estimated cost, £370.

THAMPTON.—Plans passed by T.C.:—Additions ises, The Drapery, for the National Provincial ion Bank, Ltd.; house, Boughton Green-road, W. J. Prosser; house, Harlestone-road, for Mr. rfield; garage, Queen's Park Parade, for Mr. F. r; house, Woodland-avenue, for Mr. W. A. .; shop front and alterations, Abington-street, ssrs. Phillips & Sons; Ophthalmic Department, rnors, Northampton General Hospital; garage, vdon-road, for M. F. Fuller; garage, King -road, for Mr. H. C. Oakeshott; garage, Talbot- Mr. H. C. Oakeshott; addition to High School, t-street, for Convent of Notre Dame; two edar-road, for Mr. G. R. King; addition to Manor-road, Kingsthorpe, for Mr. C. Cheney; and stands, County Ground, Northampton, rthampton Town F.C.; additions to factory, street, for Messrs. A. & O. Miller Last Co.; additions to premises, Barrack-road, for Mr. J. W. Mitchell; house, Crescent-avenue, Delapre, for Messrs. A. R. & W. Cleaver; lift well, The Arcade, for Messrs. Church & Co.; bungalow, Crescent-avenue, Delapre, for Mrs. Warwick; house, The Drive, for Mr. J. T. Powell; two houses, King Edward-road, for Messrs. L. Passey and F. E. Roddis; billiard room and garage, Cliftonville, for Mr. W. Arnold; two houses, Sandringham-road, for Mr. W. A. Coppin; house, The Broadway, for Messrs. A. P. Hawten, Ltd.

OLLERTON (NOTTS).—The Butterley Building Co. are to build a new village, comprising 1,000 houses, and the Bolsover Colliery Co. are to sink a new shaft in the Forest of Sherwood.

OSAKA (JAPAN).—The Acting British Consul at Osaka reports that a well-known Japanese shipping company propose to erect new office buildings in Osaka, commencing operations during the coming autumn. The building will be eight or nine stories high, and will be the second largest in Japan. There is likely to be an opening for the supply of building materials of various kinds. Applications for further particulars should be addressed to the Department of Overseas Trade, 35, Old Queen-street, Westminster, S.W.1.

OSSETT.—Tenders amounting to £16,424 for 47 houses have been accepted by the T.C., and application for sanction to borrow is being made.——A site is to be secured by the T.C. for a new public elementary school at Gawthorpe.

PEMBROKE.—The T.C. is to lay a memorial road from Bush-street to Bush Lodge.

PENARTH.—The U.D.C. is to build 74 houses and have given notice to this effect for intending occupants. ——The G.W.R. Co. has informed Council of desire to erect 30-40 houses on municipal building plots and land is to be ceded.

PORTHCAWL.—It is reported that with the object of developing Porthcawl as a seaside resort, a syndicate, composed of South Wales and London business men, among whom are mentioned Lord Cowdray and Sir T. G. Jones, has completed negotiations for the purchase of a large tract of land extending from the centre of Porthcawl to the Ogmore River, with a sea frontage of nearly two miles. It is intended to lay the estate out with residences, shops, places of amusement, and recreation grounds.

POYNTON.—The Macclesfield R.D.C. have instructed their architect to prepare plans for the erection of an additional 24 houses to be erected in blocks of six on land belonging to the Council.

REIGATE.—Plans approved by the R.D.C.: Betchworth, house, Boxhill-road (Suburban Developments, Ltd.); Burstow, bungalow, Hathersham-lane (Mr. J. Cordery, Burstow); bungalow, Church-road (Mr. G. A. Lambert, Wallington); Charlwood, house, Poles-lane, Lowfield Heath (Mr. A. E. Perkins, Lowfield Heath); bungalow, Charlwood-lane (Mr. F. C. Smith, Wimbledon); Chipstead, house, Hollymead-road (Capt. G. A. Mant, Purley); Horley, two cottages, Vicarage-lane (Mr. R. B. Newnham, Horley); bungalow, Lonesome-lane (Mr. J. G. Heard, Horley); bungalow, Brighton-road (Mr. W. Hawes, Redhill); offices, Thorns-road (Messrs. Chaldecott & Cox, London); Kingswood, additions to Vicarage Club, house, Kingswood Warren Estate (Mr. G. Martin, Redhill); Merstham, house, Brighton-road (Mr. W. Cottage, Coulsdon); four cottages, Netherne Estate, for Surrey County Council; Nutfield, two houses, Mid-street (Mr. C. E. Pease, Nutfield). Additions to bungalow, Balcombe-gardens, Horley (Mr. H. Dench, Burstow).

ROCHDALE.—The Ministry of Transport has approved a scheme for the covering of the river from Wellington Bridge to Weir-street as work for relief of unemployment. The construction of an aqueduct for linking up the Reservoir at Blackstone Edge is being considered.

RUGELEY.—U.D.C. has approved of a scheme for erection of 20 houses by the Brereton Collieries, Ltd.

RUSHOLME.—Mr. E. W. Taylor, architect, 25, Longford-road, Chorlton-cum-Hardy, has prepared plans for four shops and houses in Beresford-road, and Farrar-street, for Mr. J. A. Booth.

ST. ANNES-ON-SEA.—Plans passed: Bungalow, Commonside-lane, for Mr. Slater; garage, Myra-road, Ansdell, for Mr. Clegg; motor-house, Elms-avenue, Ansdell, for Mr. W. Dearden; motor-house, Oxford-avenue, Ansdell, for Mr. A. Crawshaw; house, St. Annes-road East, for Mr. G. Jameson; motor-house, Chatsworth-road, for Mr. F. Speakman; sewer, Mayfield-road, for Mr. J. T. Clifton; motor-house, Oxford-road, for Mr. J. Sharratt; house, Bromley-road, for Mr. D. Brannan; workshop, Brookes-street, for Mr. J. Sawyer; workshop and smithy, Booker-street, for Mr. Sanderson; three motor houses, Booker-street, for Messrs. Sawyer, Hardman & Hardman & Poole; house, Links-road, for Mr. C. Crighton; house and shop, St. Annes-road, for Mr. L. England; eight pairs of semi-detached houses, Squiresgate, for Messrs. J. E. Myerscough, Ltd.; semi-detached villas, Boulevard, for St. Annes Building Co., Ltd.; motor-house, Balmoral-road, for Mr. H. Neville; motor-house, St. David's-road, for Mr. Parkinson; bungalow, Devonshire-road, for Mr. R. F. Christopher; detached house, Chatsworth-road, for Mr. T. Coop; alterations, Chatsworth-road, for Mr. G. T. Baker; conversion of house into shop and flats, Woodlands-road, for Mr. W. E. Garlick; pair of houses, Riley-avenue, for Messrs. J. & G. Duxbury, Ltd.; conversion of wash-house into garage, Stanley-road, for Mr. W. Cowcill; temporary buildings, Green-drive, for Lytham Golf Club; pair of houses, Bromley-road, for Mr. T. F. Swarbrick; house, Clifton Drive North, for Mrs. Blueitt; pair of semi-detached houses, St. Annes-road East, for Mr. A. Stewart; house and garage, Headroomsgate-road, for Mr. A. Ingham; garage, Freckleton-street, for Mr. S. Kinoshita; pair of houses, Norwood-lane, for Mr. F. Bunce; block of three houses; King's-road, for Messrs. J. E. Myerscough, Ltd.; pair of houses, Headroomsgate-road, for Mr. A. Ingham; and motor garage, Devonshire-road, for Mr. F. Walker.

ST. CLEARS.—Mr. R. W. Harries, Talog, electrical engineer, has submitted plans for turbine installation, &c., at Cleifon Wells, for St. Clears electric lighting scheme.

SCARBOROUGH.—Plans are to be prepared by the borough engineer for a public hall, dance hall, museum, &c.

SHREWSBURY.—The prospect of Battlefield, the scene of the battle of Shrewsbury, becoming a big industrial centre was mentioned at a meeting of the Atcham R.D.C. on Saturday. The Sanitary Committee reported that general approval had been given to plans submitted subject to further information. The matter has been kept a close secret, but it is said that huge steelworks are to be opened at Battlefield.

SILSDEN.—Plans passed:—Two houses in Skipton-road, Silsden, for Mr. Thos. Atkinson.

SOYLAND.—Plans passed:—Bungalow at Ripponden Wood for Mr. Hallas, and conversion of a cottage at Highfield into two houses, for Mr. W. Haigh.

STALYBRIDGE.—Though the housing question is very acute, no cottage dwellings have yet been erected in Stalybridge, but it is now announced that a beginning is to be made immediately. The T.C. has decided to apply to the Ministry of Health for sanction to borrow £3,621 to facilitate the erection of houses, on a plot of land belonging to the Corporation fronting Taylor-street, by a local builder.

STOCKPORT.—Messrs. Peter Pierce & Son, architects, 30, St. Petergate, is preparing plans for structural alterations to the "Greyhound" Inn, Adswood.

STRETFORD.—Plans passed by U.D.C.: Lock-up garages, Mitford-street, for Mr. George Fitton; lock-up shops, &c., Trafford-road, for Mr. D. Ajderian; extension of works, Elsinore-road, for Messrs. Switchgear & Cowans, Ltd.; assembly rooms, Newton-street, for the Stretford Central Market Co., Ltd.; motor repair workshop, Chester-road, for Mr. G. G. Tarver; store, Trafford Park, for the Metropolitan-Vickers Electrical Co., Ltd.; shop, Moss-road, for Mr. William Loftas; shop, Moss-road, for Mr. Hugh Buckley; conversion of two houses, 206, Upper Chorlton-road, for Mr. Thomas R. Day; Presbytery of St. Antony, Eleventh-street, Trafford Park, for Rev. Father Hughes.

THORNE.—Plans have been passed by the R.D.C. for the erection of 170 houses at Stainforth and bungalows at Thorne and Fishlake. Sanction has been received from the Ministry of Health to a loan of £5,300 for extending the sewers at Stainforth.

TREDEGAR.—The School Managers have obtained site for new school at Markham Village and are considering question of providing new infants' school at Argoed. It has been notified to the U.D.C. that Welfare Committee are endeavouring to obtain land at White Lion Inn district to lay out a recreation ground.

TRURO.—Plan passed by T.C.:—Bungalow, Daniell-road, for Mr. W. Bryant.

WAKEFIELD.—Plans passed by T.C.:—Mr. W. H. Ogden, motor garage in Brunswick-street, for Mr. W. Fotherby; Messrs. Moore & Crabtree, washing shed to Albion Mills, for Messrs. M. P. Stonehouse; Mr. Herbert Dobson, additions to Westgate Common Working Men's Club and Institute, Horbury-road, for the Committee; Mr. W. H. Ogden, house in Belgrave-Mount, for Mr. J. Auty; Mr. J. R. Lister, 12 houses in Agbrigg-road, for Mr. T. Ibbottson; Mr. S. H. Charles, house, Horbury-road, for himself; Mr. Herbert Dobson, house in Horbury-road, for Mr. W. L. Jackson; Messrs. Newbald & Hartley, five houses in Pinderfields-road and Selby-street, for Messrs. Kilkenny Brothers; Mr. J. P. Firth, additional story to wool warehouse in Alverthorpe-road, for Messrs. A. Haley & Co., Ltd.; Mr. C. E. Sutcliffe, new roof to maltkiln in Barnsley-road; Messrs. Massie & Holdsworth, house in Carr-lane, for Mr. C. J. Crocker; Messrs. A. Lockwood & Sons, house in Horbury-road, for Mr. E. Billcliffe; Messrs. Bell & Kay, house in Belgravia-road, for Mr. D. F. Martin.——The C.C. propose to purchase 68 acres of land at Lupsett Bar for housing purposes at an estimated cost of £5,250. Application for sanction to borrow this amount is being made.

WHITBY.—A large new café, restaurant, and dance saloon is being erected in Skinner-street, Whitby. Mr. A. E. Young, Whitby, is the architect.

FIRES.

BIRMINGHAM.—A disastrous fire has occurred at the premises of Brown's Cabinet Company.

GREENOCK.—Serious damage has been done by a fire in the foundry and engineering shop of Scott's Shipbuilding & Engineering Co., Greenock.

GUILDFORD.—Damage estimated at between £10,000 and £20,000 has been caused by a fire which destroyed the premises of the Godalming Sanitary Laundry Co. at Shalford, near Guildford.——Fire has seriously damaged Mr. Johnston's farm buildings, Cranleigh.

HIGH WYCOMBE.—A large furniture factory belonging to Bobby & Co., Basinghall-street, London, has been destroyed.

TREDEGAR.—The lock-up shop and premises of Mr. A. G. Hooper, The Circle, Tredegar, have been completely destroyed by fire.

Advances for House-Building.

In an order issued on Monday night the Ministry of Health fixes the rate of interest on advances made on and after August 14, under Section 1 of the Small Dwellings (Acquisition) Act, 1899, at 5 per cent.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge. £ s. d.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	2 15 3	Do. Bullnose	10 1 6
Do. Bullnose	3 8 3	Blue Wire Cuts	7 11 6

Best Stourbridge Fire brick:—

2½ in.	11 3 0	3 in.	13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
Headers	21 10 0	D'ble Headers	27 10 0
Quoins. Bullnose and 4½ in. Flats	28 10 0	One Side and two Ends	31 10 0
		Two Sides and one End	32 10 0
		Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. "	2 5	4 in. "	3 7

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	" "
Thames Sand	15 6	" "
Best Washed Sand	15 6	" "
¾ in. Shingle for Ferro-Concrete	14 0	" "
1 in. "	15 0	" "
¾ in. Broken Brick	10 6	" "
Pan Breeze	5 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement. British Standard Specification Test £2 18 0 to £3 3 6

51/- alongside at Vauxhall in 80-ton lots.

	£ s. d.
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 13 0
Keene's Cement, White	5 8 0
" " Pink	5 3 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 6
" Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

	s. d.
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over "	17/-
Sawn two sides "	27/-
Sawn three or four sides "	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London. s. d.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5¾
1¾ in. to 2 in. ditto, ditto "	1 3

HARD YORK—

Delivered at any Goods Station London.

	s. d.
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto "	6 0½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto. ditto "	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.

	s. d.
Plain per ft. cube	6 6
Moulded " "	7 9
Cills " "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	28 0	2 × 11	34 0
4 × 7	26 0	3 × 9	32 0
3 × 8	26 0	2½ × 9	32 0
3 × 7	25 0	3 × 4½	24 0
2½ × 7	24 10	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	20/-	1¼	33/6
⅞	23/-	1½	38/6
1	25/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	25/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	22/-
1	26/-

BATTENS s. d.

Inches	s. d.
¾ × 2	2 4 per 100 ft.

SAWN LATHS.

Per bundle	0 2 10

Dry Wainscot Oak, per ft. super, as inch	0	2	0	to 0	2 6
¾ in. do. do.	0	1	6	to 0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1	9	to 0	2 6
Cuba Mahogany	0	3	6	to 0	4 0
Teak (Rangoon, Moulmein or Java), per load	45	0	0	to 50	0 0
American Whitewood planks, per ft. cube	0	14	0	to 0	16 0
Best Scotch Glue, per cwt.	4	10	0	to	—
Liquid Glue, per cwt.	4	7	0	to 5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Hip and valley tiles (per dozen) Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
" Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅛ in. to ½ in.	13 10 0
⅝ in.	14 10 0	⅝ in. to 2⅞ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32 %	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¾	3½d.
4 in.	1/4	1/1¾	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5¾	3 3¾
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3¾	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.	£ s. d.
Common Bars	14 0 0 to	15 0 0
Staffordshire Crown Bars—good merchant quality	14 10 0 ..	15 10 0
Staffordshire "Marked Bars"	17 0 0 ..	18 0 0
Mild Steel Bars	13 10 0 ..	14 10 0

METALS (*Continued*).

	£ s. d.	£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 10 0 ..	14 10
Hoop iron, basis price	16 10 0 ..	17 10
" Galvanised	31 0 0 ..	32 0
Soft Steel Sheets, Black—Ordinary sizes to 20 g.	15 10 0 ..	16 10
" " " 24 g.	16 10 0 ..	17 10
" " " 26 g.	18 10 0 ..	19 10
Sheets Flat Best Soft Steel, C.R. & C.A. quality—Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0 ..	22 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0 ..	23 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0 ..	26 10
Flat and Galvanised Corrugated Sheets—Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0 ..	22 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0 ..	22 10
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0 ..	24 10
Sheets Galvanised Flat, Best quality—Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0 ..	24 10
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0 ..	26 10
Best Soft Steel Sheets, 26 g.	26 0 0 ..	27 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	21 10 0 ..	23 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/ to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	34 0 0 .. —
Pipe in coils	34 10 0 .. —
Soil Pipe	37 0 0 .. —
Compo pipe	38 0 0 .. —

NOTE—Country delivery, 30s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	21 10 0 ..	—
Do., ex country, carriage forward per ton	22 10 0 ..	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz

NEW RIVER PATTERN SCREW DOWN MAIN FERRULE

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
35/-	56/-	98/-	162/-	228/- per doz

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz
8 lbs. S. traps	35/-	45/-	66/-	126/- "

COPPER—	£ s. d.
Strong Sheet per lb.	0 2 3 .. —
Thin " "	0 2 4 .. —
Copper nails "	0 2 3 .. —
Copper wire "	0 2 4 .. —
TIN—English Ingots "	0 2 0 .. —
SOLDER—Plumbers' "	0 0 11 .. —
Tinmen's "	0 1 1 .. —
Blowpipe "	0 1 3 .. —

PAINTS, &c.

	£ s.
Raw Linseed Oil, in pipes per gallon	0 3
" " " in barrels "	0 3
" " " in drums "	0 3
Boiled " " in barrels "	0 4
" " " in drums "	0 4
Turpentine in barrels "	0 6
" in drums (10 gall.) "	0 6
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	55 10
GENUINE WHITE LEAD PAINT—"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	77 0
Red Lead, Dry (packages extra) per ton	42 0
Best Linseed Oil Putty per cwt.	0 16
Filocol per cwt.	0 15
Size, XD Quality fkn.	0 3

[*Concluded on next page.*]

* The information given on this page has b specially compiled for THE BUILDER and is copyri Our aim in this list is to give, as far as possible, *average* prices of materials, not necessarily the hig or lowest. Quality and quantity obviously a prices—a fact which should be remembered by u who make use of this information.

ICES CURRENT OF MATERIALS (*contd.*)

GLASS.

GLISH SHEET GLASS IN CRATES OF STOCK ES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft
oz. fourths	3½d.	32 oz. fourths.....	8½d
„ thirds	4½d.	32 „ thirds.....	10½d.
„ fourths	5d.	Obscured Sheet, 15oz.	4d.
„ thirds	6½d.	21 „	5½d.
„ fourths	6d.	Fluted 15oz. 6½d. 21oz.	9½d.
„ thirds.....	7½d.	En'lled 15 „ 5½d., 21 „	7½d.

ra price according to size and substance for ares cut from stock.

GLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
Rolled plate	4½d.
Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £	s.	d.
t Varnish	Outside	0	14	0
e ditto	ditto	0	16	0
e Copal	ditto	0	18	0
e Copal	ditto	1	0	0
e Copal Carriage	ditto	1	4	0
t ditto	ditto	1	12	0
or Varnish	Inside	0	18	0
e Pale Paper	ditto	0	18	0
e Copal Cabinet	ditto	1	2	6
e Copal flatting	ditto	1	0	6
d drying Oak	ditto	0	18	0
e Hard drying Oak	ditto	0	19	0
e Copal Varnish	ditto	1	0	0
ditto	ditto	1	2	0
t ditto	ditto	1	12	0
t Japan Gold Size		0	12	0
t Black Japan		0	12	0
t and Mahogany Stain (water)		0	12	0
nswick Black		0	9	0
in Black		0	14	0
otting (patent)		1	5	0
nch and Brush Polish		0	17	6
uid Dryers in Terebine		0	9	0
ass Black Enamel		0	7	0

TRADE NEWS.

n attractive illustrated booklet descriptive heir new electrically-driven heavy double-ed, roller-feed planing and thicknessing hine has been issued by J. Sagar & Co., Ltd., he Canal Works, Halifax. The machine has e speeds, and the motor is of 10 B.H.P.

essrs. H. Emanuel & Sons, Ltd., of 7–13, rge-street, Manchester-square, W., have ed an attractive catalogue illustrating their o-date sanitary fittings for modern houses. ul details are also added in connection the appliances illustrated to assist archi- and their clients to make a selection out unnecessary trouble.

e have received a copy of Pamphlet No. 5, ribing and illustrating the chief products of Expanded Metal Co., Ltd., of Westminster, 1. The uses of this firm's "Expamet" nded metal in reinforcement for concrete brickwork, lathings for plaster, &c., are in full, and the pamphlet, which runs to pages, and is well produced, should prove ble to all building constructors.

e Excel Asphalte Co., Ltd., of Ceslym s, Hammersmith, inform us that they ed out the asphalte work at Mount St. 's War Memorial College, illustrated in ssue for August 10.

Acquisition of Land.

. Howard Martin, Official Arbitrator, has d his award in a claim by Matilda Elizabeth lers and Albert Ernest Manders, executors bert Victor Manders, against the Leyton n District Council, concerning the Council's sition of two strips of land in Lea Bridge-Leyton, 795 ft. 7 in. and 35 ft. 1 in. tively in length. The acquiring authority pay the claimants £475 as compensation, he claimants are to pay the costs of the ring authority.

NEW COMPANIES.

The particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C. 2, from the documents available at the Companies' Regi try.

T. Millman, Ltd. (191,373). Registered July 17. 1A, Gloucester-road, South Ealing, W.5. Builders and general contractors, &c. Nominal capital, £1,500.

Henry Edwards, Ltd. (191,315). Registered July 14. 55, Blackpool-street, Burton-on-Trent, Stafford. Builders and contractors, now carried on by Herbert Bill Edwards, at 55, Blackpool-street, and at premises at rear thereof and of 52/54, Blackpool-street. and also at premises, off Branstone-road, Burton-on-Trent, under the style of Henry Edwards. Nominal capital, £5,000.

G. H. Carter, Ltd. (190,978). Registered June 28. 108, Hungerford-road, N.7. Builders, contractors, and engineers. Nominal capital, £3,000.

Hodgson & Co. (Clacton-on-Sea), Ltd. (190,999). Registered June 29. Builders' merchants, now carried on by Albert George Hodgson, at 1 & 2, High-street, Clacton-on-Sea, under the style of Hodgson & Co. Nominal capital, £5,000.

C. Oldridge & Sons, Ltd. (191,034). Registered July 2. 161, London-road, Kingston-on-Thames, Surrey. Builders, contractors, &c., now carried on by Charles Edward Oldridge, William Phineas Oldridge, and Harry John Oldridge, at 161, London-road, Kingston-on-Thames, Surrey. Nominal capital, £16,000.

Grinshill Stone Quarries, Ltd. (191,042). Registered July 2. 7, The Square, Shrewsbury. Quarry masters and stone merchants, now carried on by William Edwards and Richard Smith, at Grinshill, Salop, under the style of the Grinshill Stone Quarries. Nominal capital, £5,000.

Gorse Hall Construction Co., Ltd. (190,975). Registered June 29. Gorse Hall, Whittle-le-Woods, Lancaster. Builders and contractors, &c. Nominal capital, £2,000.

Selby Brick and Tile Co., Ltd. (191,112). Registered July 4. Camblesforth-road, Selby. Manufacturers of bricks, tiles, pipes, &c. Nominal capital, £5,000.

Park Farm (Folkestone) Brick and Tile Co., Ltd. (191,079). Registered July 3. 2, Wiltie Gardens, Folkestone, Kent. Brick and tile manufacturers, &c. Nominal capital, £3,000.

Hoad & Taylor, Ltd. (191,180). Registered July 7. 4, Market-square, Horsham. Builders and contractors. Nominal capital, £10,000.

NEW BUILDINGS IN LONDON.

Piccadilly.—Alterations.—Messrs. G. H. Carter, Ltd., of Holloway, have been selected to carry out alterations and decorations at the Cavendish Club, Piccadilly. Messrs. Knapp-Fisher, Powell & Russell, of Ebury-street, Westminster, are the architects.

Threadneedle-street.—Alterations. — Extensive alterations are being carried out at Merchant Taylors' Hall, Threadneedle-street. The old Court Room, which was erected about fifty years ago from the designs of Mr. Edward I'Anson, F.R.I.B.A., is being entirely remodelled. The oak panelling and the two marble mantelpieces are being pulled down, and also the moulded ceiling. The stonework of the windows is also being removed. The new Court Room is to be panelled in oak, and oak mantelpieces will take the place of those in marble. The entrance corridor is also being altered. The work is being executed from the designs of Sir Chas. Nicholson, Bart., F.R.I.B.A.

Central District.—Telephone Exchanges.—Orders are to be placed immediately by the Post Office for three large automatic telephone exchanges for the Central London district. The advantages of an automatic system are said to be reduced working costs, smaller buildings, and augmented efficiency.

NATIONAL FEDERATION OF CLERKS OF WORKS.

The third annual Council meeting of the National Federation of Clerks of Works and Builders' Foremen's Association was held in Bristol on August 18. Mr. W. Mitchell, of London, presided.

Mr. C. H. Trevelyan, President of the Bristol branch, extended a hearty welcome to the Council.

The Chairman said the Federation was binding together various interests, and he assured them, on behalf of the London Associations, that the greatest sympathy and kindliness prevailed there towards the provincial districts. They were all doing what they could to further the interests of clerks of works and foremen. They must not be too conservative and object to new implements in the building industry. They must keep in touch with all the ramifications of building construction and its allied work. The difficulties in the control of works were not easier to-day than 50 or 20 years ago, but were more exacting with cost keeping and other requirements. With the best impulse and interest they wanted to adapt themselves to modern conditions and make themselves more efficient to their employers. The introduction of reinforced concrete and engineering developments as applied to building kept them on the watch for further developments.

The annual report of the Executive Committee stated that endeavours had again been made to discuss with the London Master Builders the question of a minimum wage, but without avail. As they had not been able to get representation on the Industrial Council of the Building Industry, they made endeavours and were now represented on the Industrial League and Council, a Council of employers and employees established to discuss and promote better relations between employers and employed. Attempts had been made to start Associations at Northampton, Newcastle, and Manchester, to which the Birmingham Association had given much appreciated assistance, and Manchester started an association in February of this year with about 60 members. The Bristol Association made every possible effort to resuscitate the Cardiff Association, and the thanks of the Committee were extended to the Bristol Association for the help they gave in the matter. Membership of the Federation was increasing, the membership now being about 1,030. As they had not been able to stir up the Institute of Builders with regard to having examinations for building foremen, they had appointed a sub-committee to deal with the question and to report as soon as possible.

The report was adopted.

Housing in Belfast.

The Northern Ireland Government having made a grant of nearly £250,000 to liquidate its liability in respect of a portion of the rents under the Belfast housing scheme, the Belfast Corporation on Monday adopted a scheme for the sale of the houses to tenants. The effect of the scheme will be that houses which cost £885, and were being let at weekly rents of 17s., will be sold under the Small Dwellings Act at £450. The weekly repayments, which will include rates and ground rent, will be 15s. a week, or 2s. less than the amount at present paid in rent. The rent of houses let at 22s. will be reduced to 18s. 3d. for weekly repayments.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty cambor or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.

		1½"	1¾"	2"
Two-panel square framed	per ft. sup	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and	
Casement stays	1/2	making good	19/-
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	51	0
Do. Do. in flats	"	49	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

	½"	¾"	1"	1½"	2"	4"
Drawn lead waste per ft. run	10d.	1/6	1/9	3/1	3/10	
Do. service "	1/5	1/11	2/3	3/6		6/2
Do. soil "					3/3	8/2
Bends in lead pipe each						
Soldered stop ends "	1/2	1/8	2/1	2/10	3/6	
Red lead joints "	11d.	1/-	1/3	1/11	2/4	4/1
Wiped soldered joints "	2/10	3/6	4/-	4/11	6/6	9/6
Lead traps and cleaning screws "				14/7	19/6	
Bib cocks and joints "	6/4	9/7	15/4	41/-		
Stop cocks and joints "	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	
Do. Do. Sirapite	" "	2	
Do. Do. Keen's	" "	3	
Add sawn lathing	" "	1	
Add metal lathing	" "	2	
Portland cement screed	" "	1	1
Do. plain face	" "	3	
Mouldings in plaster	per 1 girth	0	
One-and-a-half granolithic pavings	per yard sup.	5	

GLAZIER.

21 oz. sheet plain	per foot sup.	0	
26 oz. Do.	" "	1	
Obscured sheet	" "	1	
⅛ in. rolled plate	" "	0	
¼ in. rough rolled or cast plate	" "	0	1
¼ in. wired cast plate	" "	1	

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	
Knotting and priming	" "	0	
Plain painting 1 coat	" "	0	
Do. 2 coats	" "	1	
Do. 3 coats	" "	1	
Do. 4 coats	" "	2	
Graining	" "	2	
Varnishing twice	" "	1	
Sizing	" "	0	
Flatting	" "	0	
Enamel	" "	1	
Wax polishing	per foot sup	0	
French polishing	" "	1	
Preparing for and hanging paper	per piece	2/-	to 4/-

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

NEW BUILDINGS IN SCOTLAND.

keith.— TENEMENTS. — The T.C. has ed estimates amounting to £6,200 for the on of a tenement of houses at Elmfield

nyrigg.—TENEMENTS.—The T.C. has de- to erect a tenement of from 20 to 24 houses. ames Gray has been appointed architect e scheme.

ndee.—HOUSES.—Plans have been pre- for Council houses in Kilberry-street, de-road, and Campbell-street. The fol- g plans will be submitted to the T.C. :— -street, Broughty Ferry, alterations to y for Goodfellow & Steven; Lammerton- e, house for James K. Anderson; Muir- rescent, alterations to house for James ; Park-road, house for Nelson T. Stewart; Victoria-road, fire escape, stairs, etc., for adybank Buildings' Trust.

nfrewshire.—DWELLINGS.—The Upper Ren- hire Buildings' Committee has approved of as follows :—House, Alder-road, Hillpark, ewood, for Mr. J. A. Laird, Merrylee Wood, nds; cottage at the Industrial School, y; double villa at Alder-road, Hillpark, ewood, for Bennie & Wilson, Mansewood; e cottage at Otterburn-drive, Giffnock, he Southern Building Co., Pollokshaws- Glasgow.

mbarton.—HOUSES.—The Dean of Guild has passed plans for 21 houses on a site ng Silverton-avenue, in the Newtown ct, for the Dumbarton Building Society,

nburgh.—VARIOUS.—The Dean of Guild has passed plans for the reconstruction of ooring in the Synod Hall and installation -up seats, at an estimated cost of £8,000. e last meeting 19 petitions were granted, ding the following :—The erection of two s of houses, at Longstone; two semi- hed houses in Cluny-gardens; two bun- s in Wardie-avenue; four bungalows at hall; and 12 flatted houses (villas) in West lban's-road.

kirk.—SCHOOL.—At a meeting of the ngshire Education Authority held recently were approved for a new school at Falkirk.

sgow.—VARIOUS.—At the last meeting of ean of Guild Court plans for the erection of halls in Woodside Ward were passed. The ing linings were also granted :—The nors of the Victoria Infirmary, to erect ngs at Battlefield-road; J. & B. Steven- akers, to carry out renovations and altera- at Cranstonhill Bakery; the Savings' of Glasgow, alterations to premises at eton Cross; Corporation Halls Dept., ct halls at Grenville-street, off George's- for Woodside Ward, at an estimated cost of 0; Mr. Robert Hunter, to erect a bunga- d garage at Fernleigh-road; Hogganfield Church, to erect a church hall at Cumber- road; Maryhill Hibernian F.C., to erect rilion and barricade at Argyle-street, ill.

gow.—HOUSES.—The T.C. has decided ite competitive offers for the erection of ouses in Campbell-street, Springburn.

rdeen.—MEMORIAL PAVILION.—Plans have assed by the Corporation Plans Committee value of £11,000. The plans include the en Grammar School former pupils' ial pavilion to be built at Harlaw-road, ted to cost from £4,000 to £5,000.

deen.—VARIOUS.—At the last meeting of ans and Sewerage Committee of the T.C. llowing plans were placed :—Erection of and garage in Anderson Drive, Aberdeen, . Henry Duncan, granite merchant, at a £1,200; bungalow for Mr. Charles Harper, engineer, on the south side of Queen's- t a cost of £1,100; dwelling-house for Mr. lie J. Henderson, C.A., in Anderson Drive, st of £1,500; dwelling-house to be erected en's-road, for Major A. L. Mackinnon, at a £2,500. Plans were also approved for a be built in Magdala-place, for St. Mark's pal Church, at a cost of £263.

PATENTS.*

APPLICATIONS PUBLISHED.

198,244.—K. Wettstein: Manufacture of moulded reinforced slabs, slats, and the like, of concrete.

198,284.—A. Hardoncourt: Building blocks or bricks.

198,293.—T. Hughes, W. P. Hughes, W. H. Hughes and I. E. Alderson: Windows.

198,381.—R. Smith and A. O. Smith Corporation: Apparatus and process for forming metal elements and fabricating them into unitary structures.

198,397.—Berry Hinge, Ltd., and G. W. Perry: Mechanism for the production of sheet-metal receptacles having a wireless hinged joint between the body and the lid.

198,448.—R. O. P. Theobalds: Door, box, and like fastenings.

198,457.—S. Booth & Co., Ltd., and H. Lee: Lavatory and like cocks or taps.

198,463.—W. Meese: Composition for fire bricks.

198,465.—J. Hill & Co., Ltd., and H. Tomkins: Locks.

198,498.—C. D. Monninger, Ltd., and D. T. Smith: Cutter-blocks for use in machines for planing and moulding wood.

198,517.—W. Wentzel and A. Weill: Wall cupboard with hand hole.

198,550.—D. M. Gibb and Parkinson Stove Co., Ltd.: Radiators for heating buildings.

198,562.—G. F. Davis and G. Jones: Stays for casement windows and other hinged or pivoted members.

198,607.—J. E. Tams: Manufacture of earthenware, china, and porcelain.

198,618.—L. Gaisman: Rubber-faced blocks for road paving and like purposes.

198,619.—A. Taylor and J. Linn: Surveyors' levels and like instruments.

198,624.—C. H. Lobban and C. A. Geneve: Reinforced concrete floors.

199,056.—T. Rigby: Processes and plant for the manufacture of cement.

199,061.—B. Percival: Hot water supply systems.

199,083.—Monarch Door Controller Co., Ltd., and G. B. Bowles: Means for locking door-fastening devices.

199,084.—L. Bille: Manufacture of pipes and tubes.

199,107.—British and Foreign Industrials, Ltd., and I. Cooklin: Extensible tables.

199,112.—E. M. Medway and T. Meacock: Escalators.

199,128.—H. C. Merrill: Concrete and cement walls.

199,136.—J. B. Dring: Folding boxes.

199,143.—D. Cameron and J. MacWilliam: Devices for delivering and applying paint.

199,160.—P. G. Hudson and Hudson, Scott & Sons, Ltd.: Means for securing together the parts of display stands and boxes.

199,162.—E. Robinson: Mechanism for cutting and shaping articles of wood.

199,163.—R. D. Bartlett: Method of construction of unit-type extending furniture.

199,182.—L. E. Cowey and L. T. Payne: Adjustable brackets.

199,183.—J. M. Strachan: Windows.

199,190.—M. A. K. Smith: Chair and settee seats.

199,197.—J. H. Dean and W. Green: Mould for the manufacture of building blocks.

199,205.—A. Taylor and Mather & Platt, Ltd.: Catch devices for fireproof doors.

199,208.—F. Pardee: Coal and stone breakers.

199,245.—J. A. Fleming: Subacqueous rock-breakers.

199,267.—D. Pilkington: Means for securing seats to floors.

199,269.—Manley & Regulus, Ltd., and W. Ashmore: Taps or cocks.

199,273.—H. Grass: Nail extractors.

199,291.—G. Lane: Furniture castors.

199,307.—Soc. Anon. Menuiserie Metallique du Sud-Est and G. Jalliffier: Casements.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

BIRSTALL.—Erection of 69 houses, for the U.D.C. on the Nova Scotia Estate. Mr. Norman Culley, architect, John William-street, Huddersfield :—

Mason and joiner—
*J. Akeroyd & Son, Birstall.

Plasterers—
*E. Wilson, Morley; J. Greenwood & Son, Batley; J. Akeroyd & Son, Birstall.

Plumber—
*W. Glover, Idle; J. Foster & Son, Batley.

Slater—
*Pickles Bros., Leeds.

Painters—
*J. Foster & Son, Batley; R. Robinson, Idle.

BRADFORD.—For structural alterations for Messrs. Margerison & Co., Ltd., Canal-road :—

Mason—
*J. Schofield & Sons (Wyke), Ltd.

Joiners—
*Sharp & Law, Bradford.

BROMSGROVE.—For sewerage extensions at Alvechurch and at Blakedown, for the U.D.C. :—

*J. & A. Brazier	£2,206 10 4
*A. B. Bent	89 12 0

DONCASTER.—For laying sewers at Rossington, for the R.D.C. :—

*Alf. Storey & Co., Doncaster—£605 18s. 6d. and £501.

EDGBASTON.—For reconstruction of St. Phillip's School, Oliver-road, Edgbaston, Birmingham. Mr. J. Arnold Crush, architect, 36, High Brow, Harborne, Birmingham :—

*H. M. Grant & Co., Ltd., King's Norton.

HAVERFORDWEST.—For erection of three houses at Stepney-terrace, Prendergast, for the Trustees of Sir John Perrott's Charity, Haverfordwest :—

John Jones, Haverfordwest	£2,300 0 0
Lloyd & Co., Milford Haven	2,135 0 0
E. Parry & Son, Prendergast	1,950 0 0
W. Roberts, Haverfordwest	1,807 14 0
J. O. Morgan, Prendergast	1,635 0 0
James & Davies, Haverfordwest	1,592 0 0
W. B. Griffiths, Prendergast	1,568 12 6
W. H. Fortune, Haverfordwest	1,440 0 0
*W. A. Elkington, Haverfordwest	1,364 0 0
The Surveyor's Estimate	1,271 0 0

HENLOW.—For erection of a Wesleyan Sunday School. Mr. Thomas Cockrill, architect, 7, St. Paul's-square, Bedford :—

J. Corby & Son, Bedford	£1,148
*C. Wright & Son, Langford	1,120

HEREFORD.—For rebuilding of the Victoria Hotel, for the Stroud Brewery Co., Ltd. Mr. E. P. Dromgole, architect, Stroud, Glos. :—

W. C. Bolt, Hereford	£5,578
Jacob Long & Sons, Ltd., Bath	5,398
Wm. Bowers & Co., Hereford	5,186
E. W. Wilks, Son & Peake, Hereford	5,088
P. Ford & Son, Stroud	5,075
Beaven & Hodges, Ltd., Hereford	4,788
*Gardner & Sons, Stroud	4,600

HOUGHTON.—For erection of 12 houses, for the U.D.C. :—

*H. Wilson, Fatfield — per house £324

HOUGHTON-LE-SPRING.—For the erection of 20 houses, for the R.D.C. :—

*F. W. Mole, Chester-le-Street — £6,406

INVERNESS.—For erection of seven blocks of houses at Bellfield Park, for the T.C. Mr. Alexander Grant, architect, Queensgate, Inverness. Quantities by Mr. John G. Chisholm, architect, 15, Union-street, Inverness :—

	Type 3.	Type 4.
Brick—		
*J. J. & P. Maclachlan, Larbert	£1,123 14 3	£1,593 1 6
Joiner—		
*J. J. & P. Maclachlan, Larbert	678 5 10	993 10 10
Slater—		
*W. Taylor & Son, Inverness	160 0 0	246 0 0
Plumber—		
*Wm. Urquhart, Inverness	432 0 0	616 2 0
Plasterer—		
*Peter Harle, Sunderland	235 17 6	337 11 8
	£2,629 17 7	£3,786 6 0

KEIGHLEY.—For the erection of new War Memorial, for the T.C. :—

Stonework—
*T. Moore, Alice-street, Keighley.

LANGFORD.—For erection of a dwelling-house, Station-road, for Mr. Wm. Wells. Mr. Thomas Cockrill, architect, 7, St. Paul's-square, Bedford :—

S. Redhouse & Son, Stotfold	£1,017
F. Newton, Hitchin	997
C. D. Woodward, Biggleswade	977
H. J. Bull & Son, St. Neots	913
*C. Wright & Son, Langford	900

MANCHESTER.—For brew house at Crown Brewery Renshaw-street, Hulme, for Messrs. Hardy's Crown Brewery Co., Ltd. :—
*T. Ryder & Co., Manchester.

MANSFIELD.—For painting the Poor-Law Institution, for the B.G. Messrs. Vallance & Westwick, architects, White Hart-street, Mansfield :—
*H. Millott, Mansfield..... £429 2 4

MIDDLESBOROUGH.—For the erection of 180 houses on the Marton Grove Estate, for the T.C. The contract is for the erection of 26 non-parlour houses, at a cost of £9,324, and 154 houses, with parlour and three bedrooms, at £58,186 :—
*J. F. Bainbridge, Redcar..... £67,510

RADCLIFFE.—For the erection of 30 houses on the Black-lane housing site, for the D.C. :—
*J. Gerrard & Sons (1920), Ltd., Swinton (revised tender), £12,300.

ROYTON.—For 24 additional houses, for the D.C., at Ooze Wood :—
*J. H. Bardsley, Ltd., Manchester.

STRETFORD.—For road works on Seymour Grove site, for the U.D.C. :—
*Geo. Clarke & Son..... £2,088 14 5

UPTON-ON-SEVERN.—For electrical installation at the Institution, for the B.G. :—
*Hall Bros., Malvern..... £147 16 9

WAKEFIELD.—For street works in Trinity-street and St. Catharine-street and part of Lawefield-lane, for the T.C. :—
*S. Porter & Son, Doncaster—
St. Catharine-street £1,094 11 5
Trinity-street 369 9 6
Lawefield-lane 543 18 8

WAKEFIELD.—For painting at the Town Hall, for the T.C. :—
*Wakefield Industrial Society £170

WALTHAMSTOW.—For installing new boiler and low-pressure hot water apparatus at the Higham Hill Junior Mixed School, for the E.C. Mr. H. Prosser, Architect to the Committee :—

T. A. Harris, London	£555 0
Russell & Co., London	447 10
John Grundy & Co., London	427 0
F. Davies, Leyton	409 0
National Heating Co., Ltd., London	398 0
Clark, Hunt & Co., Shoreditch	380 0
Wembley Heating Co., Wembley	378 4
Benham & Sons, Ltd., London	369 5
*Moorwoods, Ltd., London	297 0

WALTHAMSTOW.—For improvements to heating apparatus, Forest-road Boys' School, for the E.C. Mr. H. Prosser, Architect to the Committee :—
*Wilmer & Sons, Ltd., London.. £296 12 6

WALTHAMSTOW.—For work of exterior renovation at Markhouse-road School, for the E.C. :—

J. & J. Dean, Walthamstow	£348 0
E. Maffia & Sons, Walthamstow	324 5
J. Sands, Walthamstow	276 0
F. E. McBridge, Walthamstow	239 14
S. Blow, Ltd., Tower Hill	221 0
Lucas Bros., Walthamstow	219 0
*J. E. Ree, Leyton	202 15

WALTHAMSTOW.—For work of interior renovation at Pretoria-avenue Schools, for the E.C. :—

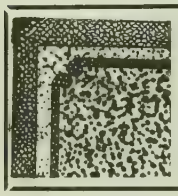
J. & J. Dean, Walthamstow	£571 0
J. Sands, Walthamstow	474 10
S. Blow, Ltd., Tower Hill. E.1	458 15
E. Maffia & Sons, Walthamstow	456 0
F. E. McBride, Walthamstow	419 7
Lucas Bros., Walthamstow	395 0
*J. E. Ree, Leyton	379 15

WALTHAMSTOW.—For sundry work of improvements at Pretoria-avenue Schools, for the E.C. :—

S. Blow, Ltd., Tower Hill	£160 0
J. Sands, Walthamstow	148 10
J. E. Ree, Leyton	134 0
Lucas Brothers, Walthamstow	125 0
F. E. McBride, Walthamstow	109 10
*J. & J. Dean, Walthamstow	98 0

WALTHAMSTOW.—For cleansing and limewhiting out-offices in the various schools in the four districts, for the E.C. :—

J. & J. Dean, Walthamstow	£239 0
J. Sands, Walthamstow	187 5
F. E. McBride, Walthamstow	164 2
J. E. Ree, Leyton	155 0
*Lucas Bros., Walthamstow	116 19
E. Maffia & Sons, Walthamstow	103 10


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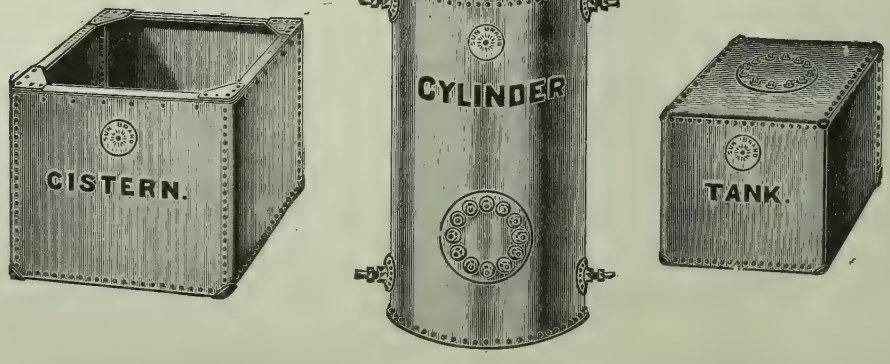
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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXV—No. 4204. AUGUST 31, 1923

ADVERTISEMENT AND SINCERITY IN ART.

T has been stated somewhere that more money is spent annually throughout the world for publicity, or advertising, than for any other purpose. It is the contention of commerce that it requires publicity, so that its products may be appreciated and taken advantage of by as many as possible. Advertisement writing has at different es been termed an art, a science, and a profession, and it y well be that these claims are sound, especially if the con- tion is that the public must be persuaded into buying some- ng which it does not want. This is obviously an exaggerated nt of view, though it must be admitted that the "effective" ertisement will attract the uncritical buying public. To con- t the hoarding into "the poor man's picture gallery" seems to a subtle and popular method of exploiting an argument based n sophistry. If we must have art on the hoardings, by all ans let it be the best that can possibly be obtained; but we d not assume a virtue of what is not an obvious necessity. is significant that, in many of the fashionable guessing npetitions, we are invited not to indicate the posters we , but what we think is likely to appeal to other people. this pleasant way we combine our appreciation of art with interesting form of intellectual snobbery. All the writing n the artistic value of advertising has not convinced the seholder whose view is obscured by a hoarding covered with way time-tables and notices of property sales. The Prince Wales, in the course of his admirable speech at the Royal demy of Arts, expressed his views in these words: "Decaice in art has always denoted degeneration in the com- nity at large, but health and virility in painting, sculpture, hitecture, music, or literature—health and virility in these are invariably a token that the outlook and ideals of a mmunity are sound." Upon the much debated question of relation of art to commerce he said: "I do not believe one moment that industrialism and artistic development are essarily antagonistic, and that, because a man has keen ness vision, he is artistically blind. On the contrary, I have ays been impressed by the fact that in the business and king community the artistic ideal is very much alive and needs an outlet for its expression." In admitting that ertisements are now recognised as a most necessary adjunct he business side of life, he considered that many a man had never given pictures a thought had had his interest hem stimulated by a casual study of a poster. No doubt e is a great deal of truth in this, but it is beyond all doubt the ideal community would ensure that industry as a whole rved the æsthetic refinements which affect the social welfare country. It is a cause for complaint that the art which is ned to the hoarding exists primarily for the disposal of s. There is nothing wrong in this, but it is significant all the art should be concentrated upon the selling depart- t of industrialism, where the rewards are apparently so ous.

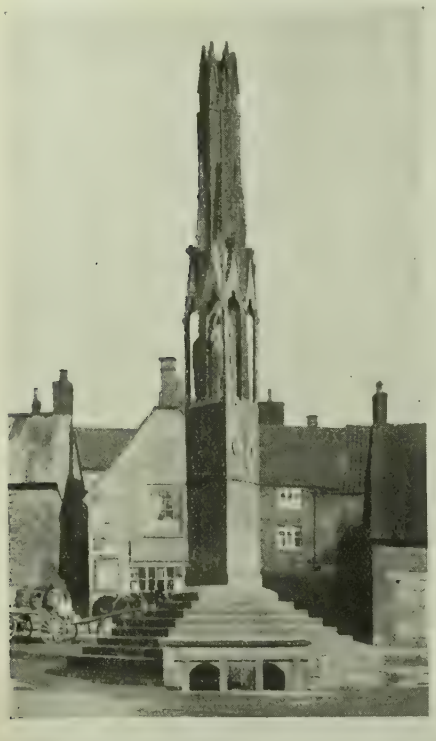
n our opinion, there is a simple test which can be applied e commercial "picture gallery," which would settle some e theories held upon art. The suggestion is that manu- rers should exhibit on the hoardings a photograph of their ries and surroundings, along with their claims for the y and health-giving properties of their commodities. It least a more sensible idea than the pretence that a portrait actress has any relevant connection with either the com- ty or the propagation of fine art. We might then safely it to the public to form its own judgment, though ear the reply of the sceptic, that there are some things h do not depend upon common sense. There are numerous ts for improvement if we are in the mind to be sincere in expressions upon art; the factories and workshops, the s, the desolate waste heaps, and the smoke and grime, ardly manifestations of a healthy community with ad- ed ideas upon art and the artistic development of industrial art. We cannot see that we are far on the way when we blacken our Northern industrial areas to produce the goods, and pretend we can brighten the streets of our cities by helping to sell the goods. It seems an unfortunate form of compromise, but, even if we make a distinction between manufacturing and selling, what is there to be said for the stream of unsightly advertisements running from the factory to the city and following us to the sea-side? We read with pleasure in a daily paper a few days ago that Lancashire has taken a definite stand in the matter, "and is taking steps to clear away the hoardings disfiguring the landscape in the Lancashire part of the Lake district."

It would appear that a healthy civilisation must in the end rely upon preventative measures, rather than place too much faith upon the sense of fitness and decency possessed by the average individual with freedom to think entirely on commercial lines. The "universally expressed wish of the great mass of the British public" does not tend towards a sense of real beauty and dignity; the dislike of ugliness and the inability to obtain beauty is not an excuse which can be defended. The national artistic sense can not only be measured by the steps it takes to prohibit what is ugly and harmful; it is also the measure of civilisation. There should be great possibilities in the future if architects turned their attention to the designing of factories and workshops, or perhaps it would be more correct to say, if they were given the opportunity to develop their ideas. Mechanical equipment, routine process work, and mass production belong to the province of the works manager and the engineer, but we cannot believe that the ideal factory can be evolved if we regard it as a mere building surrounding the machinery and plant set out on an engineer's blue-print. During the last year or two we have seen the publication of numerous books upon every phase of industrialism, ranging from economics to the scientific management of works. This is all to the good, but it is significant that the emphasis is invariably upon the physical well-being of the worker, leaving the outward appearance of things, apparently, to come under the heading of equipment. It is easy to write in vague terms about ideals in industry, but industrialism has its obligations, and we maintain that the outward manifestation of industrialism is something definite, and requires consideration from an ethical standpoint. Welfare work is now thoroughly established; canteens, rest and club rooms, ambulance, labour, and administration departments, ablution and changing rooms, are only a few of the factors which will form an essential part of the factory of the future. They will affect the general disposition and planning of the buildings, and suggest great scope for an imaginative architectural treatment. We have suffered much in the past from the bare bones of construction, the meretricious ornament, the sham turrets, and the affectation which attempts to disguise the factory. It is not paradoxical to say that the worst failures are those which do not look like factories. Factories will develop their own expression if they rely for their effect upon a straightforward expression of their structure and purpose, skilful grouping of masses, and carefully studied proportions of windows and general details. We believe that a fraction of the money spent on advertising in public places would materially help to soften the raw edges of the industrialism which we can see on the landscape of any manufacturing district. The sceptic tells us that beauty will come when it can be shown that it will pay and not till then, and that meantime the profits from advertising can be calculated to a decimal. The effective reply is that there are handsome returns in health and happiness which cannot be entered up in the cash book, and that virtue is its own reward. We are not arguing on the assumption that the essence of advertising is the misrepresentation of the quality of the goods; on the contrary, we merely say that it is a nice problem for the philosopher to work out our rewards and punishments, and ascertain what is the greatest service the manufacturer can render to a community.

NOTES.

Old Buildings in Oxford.

So much has vanished from Oxford that was precious both for its architectural and historic value; so much has taken its place that is not precious in any way at all, that we are glad to see attention called to the danger of any further mutilation or removal of its ancient buildings. And it is not only their destruction but the defacing of them in different ways that we have to deplore—ways such as filling them with modern windows and plastering the walls with advertisements. As stated in the *Times*, "The old houses in the Cornmarket have been fitted with modern windows and the sides of one disfigured with huge, ugly trade announcements." At a meeting of the Oxford Architectural and Historical Society, Mr. F. Madden, a past-president of the Society, said that "he and many others in Oxford agreed that attention should be drawn to these few remaining old houses of beauty and interest." We think, however, the tide is turning against the destruction which has already taken place not only in Oxford but throughout the country, and that a healthier growth of public opinion begins to see that there are other beside commercial interests which it is a claim on our citizenship to revere. We hope that the Oxford Architectural and Historical Society will use its best influence to prevent further destruction or injudicious renovations to these old buildings.



Geddington Cross.
(*See p.* 320.)

Village Signs.

Some three years ago there was an outburst of enthusiasm for the revival of the village sign, the idea having been initiated by the Duke of York at a Royal Academy banquet. Although the movement took on at the time, it seems unfortunately to have somewhat petered out. Nothing could so easily add to the interest of our villages as the reintroduction of the sign on a large scale, and we hope those locally interested in the brightening of village life will not overlook the merits of so simple and effective a measure. As we passed through many villages the other day on a long motor journey we felt strongly the need for some name identification of the villages through which we passed. The sign-post should provide this and so provide an added interest to road travel.



Oundle Church, South Porch.

St. James's Park.

After some six years of desolation London's most beautiful park is at last being restored to its inhabitants. The water is slowly refilling the lake, and the Government buildings that at one time covered its bed and overflowed into the Park on all sides, have finally vanished. In that neighbourhood there now remains, as a war legacy, only the monstrous weather-boarded erection on the Admiralty roof, and we hope that this will soon accompany the St. James's Park war buildings into the land of memories.

London's Traffic.

It looks almost as if the patient Londoner is about to turn upon those who are indirectly responsible for the chaos that reigns in the streets on all hands. Roads seem to be pulled up in the manner best calculated to render worse our already congested thoroughfares. But quite apart from the necessity of organising road repairs and avoiding needlessly tearing up the surfaces of t streets, conditions in the more crowde centres are rapidly becoming unbearabl the Mansion House, Ludgate Circus, a the Strand approach to Waterloo Brid are nuclei, at least one of which can guaranteed to cause ten minutes' dela to anyone travelling from the Bank Charing Cross. The present state affairs cannot be allowed to continue, a the public will, we hope, insist upon t institution of some central controllin body, one that could regulate the kind traffic allowed during crowded hours a who could employ some kind of orga sation and foresight where none exi at present.



Lead Urn, Drayton.

Road Hogs.

The outcry against Londo chaotic traffic coincides wi public indignation agai the toll of life that is co monly being exacted by thoughtle foolish and incompetent motorists. may well be that 95 per cent. of th using the roads are capable and care drivers, but a very small proportion of other kind is sufficient to constitute menace to public safety. It is legitimate for a motorist to claim that does not constitute a danger if peo behave sensibly. He ought to know t pedestrians often do not behave m sensibly than children, and he must le that their stupidity is not a suffici excuse for running them down. Accid are, of course, inevitable, but they ar much more frequent occurrence than t should be.

Size and Content.

With the number of l buildings recently built, in course of erection, at tion is likely to be dive from other qualities more intrinsic t size as an end in itself. Size is a qua an added dignity when seen in relatio

ent, but mere size in a building ld make no claim upon us. One ding is not better than another be- e it is larger, and proportions deter- e beauty more than scale. Yet it is oming customary to seize upon com- ations of size in denoting the claims building upon us, so we find a con- porary making use of headlines to mpany an article on a well-known ding, as follows: "Our greatest rch" . . . "Half as large again as St. l's," and so on. Our purpose is not nter into the merits of the building oted in these phrases, but to deprecate over-insistence of certain aspects to neglect of others much more impor- , and which dazzle only to obscure e certain and fundamental issues. lity—not extent—is the most im- ant, and mere size without the accom- iment of more intimate characteristics ften the poorest architecture. At the ent moment, when the contribution ision and vital craftsmanship is often ing in architecture, our larger buildings ain the poorer for the absence of this e corporate enrichment; the vision of single mind is not sufficient in itself. y when a building is fitted with a ificance commensurate with its scale it appeal to us by its greatness, and is no alternative to this require- t. Whether at Chartres or Amiens see the due proportion of significance vision expressing itself over the le, and this relation between extent content charges such buildings with ighty significance. Otherwise man is planted by materials, and size be- es not only a superstition but a strosity. We are inclined to ask t justifies such scale when we see e expansion without expression, when objects appear to be rents or mer- dise only, and architecture is made e only as a cloak to our avarice. We ot unite the real issues of beauty, and architecture includes more corporate ession it will retain the inevitable rty of the single mind.

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vention Fogs.

The report of the Public Control Committee, which has been presented to the London County Council, the increased use of electricity and or power, and at the same time gives ulars of four main causes of smoke ion, such as domestic chimneys, trial operations, railway locomotives, steam vessels. The opinion is ex- d that the question of smoke nuis- is one of great importance, not only ecting the health of the population, ecause of the destructive character action. It is also suggested that ng enactments should be revised odified in one self-contained statute, at at an early date the Government should undertake legislation to deal with the matter. We are glad to see in this evidence of the growth of public opinion on a matter so much affecting the national life. No one acquainted with city life, especially in industrial areas, can be regardless of the waste in health and wealth which the continuance of the smoke nuisance implies, and we welcome the proposal for Government action. In the past a difficulty has lain in the apathy of people; but that, happily, now no longer exists, and there is a healthy growth of civic feeling towards purifying our cities and making them more what they should be.

The Bank Rate.

The recent rise in the Bank rate from 3 to 4 per cent. is, we are told, primarily due to the continued depreciation of the pound sterling, which has fallen from over 4.72 to under 4.56 to the dollar in less than five months. Apparently, the Bank of England is afraid of the pound slipping too far away from the dollar and, presumably, the intention is to try to check the fall by raising the rate of discount. International adjustments of this nature may not mean anything to the average person; the only questions which concern him are to what extent the Bank rate affects industry, and the income he derives from industry. He is likely to remain indifferent when he reads that the experts do not agree on the matter. The theory that a low Bank rate has enabled business firms to borrow more cheaply than they otherwise would hardly seems to us to be a sound argument, when we consider that firms which are financially sound generally find they have too much money at their disposal when trade is bad. When trade is good their money is being used in manufacturing and in purchasing stock and in developing their buildings. There are invariably two sides to these problems, and if there is a fear that the raising of the Bank rate will accentuate the fall in prices we would point out that financial experts are unable to agree on the subtle question of whether the Bank rate controls the state of trade, or whether it is merely a reflex of the state of trade. In recent times we have proved that trade can thrive on a very high Bank rate, so that there seems little need to worry about any theories which we do not understand. We can all discuss in definite language certain matters which admit of no argument, but it is very evident that the connection of the Bank rate with our personal affairs is likely to remain obscure.



"The Inconsolable." Lorenzo Barlonini, Sculptor.

GENERAL NEWS.

Professional Announcements.

Mr. C. E. Hanscomb, A.R.I.B.A., architect and surveyor, has opened an office at Station-approach, Sanderstead, Surrey. (Telephone, Purley 1151.)

Mr. Richard Byrom, A.R.I.B.A., architect and surveyor, has commenced practice at 9, Victoria Buildings, Silver-street, Bury, Lancs., and would be pleased to receive manufacturers' catalogues and samples for filing purposes.

St. John's Church, Southall, War Memorial.

Messrs. John Daymond & Son, Ltd., Westminster, executed the war memorial at St. John's Church, Southall, illustrated on p. 278 of our issue for August 24.

Appointments.

The Boston District Council has appointed Mr. A. Barton to the position of Surveyor at a salary of £500 per annum.

Mr. Joseph Draper, late Surveyor to Thornaby-on-Tees District Council, has been appointed Surveyor to Bognor Town Council, and takes up his new duties on October 1.

Obituary.

Mr. Charles Steward Smith, J.P., F.R.I.B.A., of Reading, died on Sunday, after an operation. Mr. Smith, who was born in 1858, was the eldest son of the late Mr. Charles Smith, J.P., F.R.I.B.A., of Reading, a well-known local architect and surveyor, and twice mayor of the borough, and as an architect carried on busine first with his father and afterwards with h father and Mr. Harry Hutt, A.R.I.B.A., und the style of Charles Smith & Son.

Mr. George Yates Mills, architect, of Derb who died at the residence of his son-in-la Capt. Kendal, of the Surrey Docks, Londo was many years ago on the architectural st of the Midland Railway, but left to commen business upon his own account. Mr. Mills w the architect for many large local buildin and for Nestlé's Ashbourne and Tutbu factories.

The New Housing Scheme.

Several housing matters came before t Coventry City Council last week. The Housi Committee reported having discussed wi representatives of the Building Trades Employe Association various matters connected wi the erection of houses under the Act of 19 and recommended the Council to suppleme the Government assistance (equivalent to £ per house) by a further grant of £25, making total of £100 per house, subject to compliar with the approved conditions. The committ further reported it was not prepared to take ov unsold subsidised houses, and that the decisi not to assist houses erected outside the c be adhered to. The houses to be qualified assistance would be (1) two-story cotta (an attic permitted in addition), (2) one-st cottages or bungalows, (3) houses built in fla each flat being self-contained and treated one house, the superficial area to be: Tw story cottage, minimum 620 superficial fe maximum 950; one-story cottage, bungal or flat, minimum 550, maximum 880. Th minimum measurements might, for a limit number of houses, be reduced in the case o two-story house to 570 super. ft., and of a f or one-story house to 500 super. ft. The Cou gave unanimous consent to the recommen tions.



Architectural Association Schools Students' Work.

Design for a Campanile. By Mr. R. C. Erith (Second-year Student) (*See p.* 323).

COMPETITION NEW

Bergen.

The result of the competition organised the municipality at Bergen in connection w the building of a new bridge over the Nygaar strommen is as follows:—First prize (Kr. 10.0 —Dr. Moritz Ritter, engineer, of Budape second prize (Kr. 8.000)—Engineers: F. Seln of Christiania and the Harkort Co., Duisbu architects, L. W. Wilhelmsen & Crawfo Jensen, Christiania; third prize (Kr. 6.00 A–S Stoltz Rothing & Co., Bergen, and Harkort Co., Duisburg.

Manchester.

Messrs. The D.I.C. House (Cross-street), I of 16, John Dalton-street, Manchester, h invited a certain number of architects to sul designs for a new building in Cross-st Professor C. H. Reilly, F.R.I.B.A., is assessor.

Coatbridge.

Designs for a war memorial in West End P (See advertisement this week.)

Other Competitions.

**Other competitions still open include following (the dates given are, first the send in date, and second the issue of *The Build* which full particulars were given):—Singe College (Jan. 1, 1924; March 30). Hull Gallery (Nov. 5; May 4). Mint compet for plaques (Sept. 30; May 25). Birmin Masonic Temple (Sept. 12; June 22). C scheme (Sept. 30; June 29). Memorials t Missing (Jan. 1, 1924; Aug. 3). W Infirmary (*Banned by R.I.B.A.*) Halifax out—*Banned by R.I.B.A.* (Oct. 1). Sw Masonic Hall (Oct. 3). Eastleigh and Bi stoke Assembly Hall (Aug. 24). Chi Lay-out—*Banned by R.I.B.A.* (Oct. Aug. 24).

THE ASEPTIC HOME.

By NORA ROBERTSON.

The model home is becoming a cult. Few of us can hear it described without first experiencing a sense of guilt at the inadequacy of our own appointments, followed, if we have any spirit, by reaction and rebellion against its tyrannies. For, after all, who wants to live in a model home? And, indeed, can it be called a home at all, or is it anything in its chilly, hygienic self-consciousness but a model interior, the freak of didactic lecturers, generally well-informed ladies, who profess a monopoly as to what women want?

Armed with an order to view, let us go over one of these ideal maisonnettes in Spain. The philosophy co-relating the several parts is based upon the Idea of dirtphobia and the Will to fittings. It is also immoral to accumulate. The bedroom contains a bed, otherwise it has no furniture, and, in its awful pristine cleanliness so closely resembles a public lavatory that one would unconsciously leave a tip after washing in the laid-on basin. The various cupboards are fixtures, aggressively so; the dressing table, also a fixture, slides in or pulls out when required; boots are tightly parked in a boot locker concealed under a window seat, itself "inexpensively improvised by the village carpenter." The floor is bare and polished, carpets, of course, being taboo. The angles are rounded. The door surface is flush. There is no fireplace (really model homes are communally heated). The radiator is painted white, so is the pull-out table; the walls are distempered white; in fact, everything is white except the sheets, which are crude coloured checks "to break the insipid monotony of tradition."

Next door is the nursery. The nursery is peculiarly holy in the model home, and the details must be familiar to any visitor of recent exhibitions, where the charming notions of our young princesses are interpreted by enterprising tradesmen. Everything is the right height. There is an art frieze, no wall paper, no pictures, no corners, no microbes, and no character. We carry away the impression of acres of cork carpet, and a round table with a bowl of roses. The nursery we remember best had nothing model about it; it was a shameless hotch-potch, and it had a patterned carpet, invaluable to a generation that played marbles, a scrap screen, a solid square table, with an ink-stained chenille cloth with coloured bobbles, and enthroned on the table the family sewing machine. The place may have been full of microbes, but good ones no doubt were included.

The model bath-room is altogether satisfactory, so much so that we deplore the day when it in turn must be supplanted by the adjustable human nozzle, "so readily affixed to the electric vacuum cleaner."

We will not dwell in the sitting-rooms; they are ingenious; nearly every article of a few pieces of furniture can do three or four other things besides the one to which we are accustomed, and the scheme is never quite without colour or jazzingly full of it. Instead, let us hurry on, and, reverently removing our shoes, explore the kitchen. Here it is that the philosophy of dirtphobia achieves its logical triumph. Everything gleams with the high light of spotless virtue. Food in its crude state, or a cook, would be an anachronism. Note the absence of the familiar centre table; instead, there is "space" and a side pull-out. There are no beloved drawers containing hatpins, "Mrs. Beeton," and the screw of the mincing machine; in their place are glazed dust-proof shelves behind which are paraded the aluminium non-drip teapot, the hay box, mysterious chafing pans, and the other burnished surgical implements of refined no-handed cookery. Awed by the experience of our visit we return home and contemplate.

In theory, every feature of these carefully devised houses is logical, perfect and admirable, but the reiteration makes the sum of their achievement irritating to the ordinary, illogical human. For, even after making every allowance for the service difficulty, is there an immediate necessity to Americanise the details of our surroundings? Home to us here still means accumulations, generally traditional ones; it means compromise, it expresses the varying tastes, hobbies and moods of a family, and it cannot do all this and remain surgically clean. Probably the present aseptic house frenzy is a reaction from the fussy war of exhaustion which so many English housewives unsuccessfully wage against perfectly inoffensive dust.

If but an iota of that zeal were used to reinforce the campaign against the vile dirt of smoke pollution the gain to society would be immeasurably great and hours of energy would be saved. Let us preserve our homes as inherited, evolving them reasonably as the need arises. They are institutions that cannot be remodelled nearer to the heart's desire by the process of first being scattered to bits, and if, in defending their charm, we fail to keep them up as perfectly as we used, then let them rest a little dirty. The present writer, not being indigenous to this island, had never even heard of a spring-cleaning, much less submitted to one, until she left her own adjacent island. It may be unfortunately true that the matrons of England are not to be led so agreeably astray, and, after all, they have their reward; but the cleanliness that is next to godliness is a superfluous virtue in the other island that is claimed by the Saints, and where among its many mansions the model home finds no place.

Birmingham Archæological Society.

A two-day excursion to Kettering and neighbourhood was held last week by the Birmingham Archæological Society with an abundance of interest. Among the places visited were the Rothwell Holy Trinity Church, of Norman architecture, where there is a crypt said to have been used as a charnel-house containing the bones of some 4,000 persons, and Boughton House, the residence of the Duke of Buccleuch. The villages of Geddington, Brigstock and Lowick were visited, and at the latter the party were conducted over Drayton House, the home of Colonel Stopford Sackville, one of the oldest and most interesting houses in the country. It was built in the reign of Edward I. At Geddington, the Queen's Cross, built in 1290, in the reign of Queen Eleanor, was visited.

CORRESPONDENCE.

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Competitions.

Sir,—The recent correspondence in your columns on the subject of competitions has raised a further thought in my mind which may possibly be worthy of consideration. The point is: Do we not, as a rule, make our competition drawings far too elaborate, and could we not, by the process of general agreement, reduce much of this elaboration and so cut out a great deal of unnecessary work and expense without loss of efficiency? Of course, one realises that if architectural drawings are to be judged by amateurs, it is indeed probable that the design which would result in the best building may be rejected in favour of one more elaborately presented.

But, when designs are examined by experts, surely we may assume that the object of the assessors is to think in terms of the ultimate building, and they can do this quite well with far simpler drawings than those usually submitted. Lest there be any misunderstanding, I will say definitely that I do not desire to encourage bad draughtsmanship or to discourage good draughtsmanship for competitions; but rather to suggest that less elaborate sets of drawings, well expressed by good, clear, and simple draughtsmanship, are all that expert assessors need in order that they may decide from which set the best building is most likely to emerge.

A general agreement on this point, together with the adoption of the jury system, might well result in competitions being far more popular than they are at the present time. What is more important is that this combination would probably also result in sheer design triumphing even more frequently than at present over the meretricious.

W. S. Purchon.

Cardiff.

City of Hull Cenotaph.

Sir,—Apropos the correspondence in *The Builder* on architectural competitions, I give below a few points of bad organisation in connection with the above competition:

(1) The advertisement calling for designs appeared in *The Builder* for June 22 and stated that conditions, &c., would be available after June 18. (2) Although I made early application for the conditions, I did not receive these particulars until July 9. (3) The printed conditions stated that questions from competitors could not be entertained after July 2, and any such questions, with replies, would be circulated to competitors and form part of the competition. In my position, what chance had I to ask questions? Whether "Questions and Replies" were circulated I do not know; I did not receive a copy. (4) The printed conditions gave the sending-in date as July 25, but although one casually noticed in *The Builder* for July 20 that the sending-in date was given as July 31 one rather took it, seeing that no direct communication as to extension of date had been sent by the promoters to competitors, that this was a misprint. I sent my design off to reach Hull by July 25, on which day I was greatly annoyed to receive a postcard informing me that the closing date had been extended to July 31. Under this point surely the proper course to have taken would have been to inform individual competitors direct.

R. Price.

Bridgnorth.

Other Letters.

Other letters are given on pp. 340 and 341.



Drayton House: Lead Urns.



Montague Almshouse, Weekley



Drayton House: Balustrade of Parterre.

THE NENE VALLEY.

By G. NORBURN.

Few districts offer greater "riches in a little room" to the architectural holiday-maker than the Nene Valley, from the Saxon work of Earl's Barton and Brigstock to the work of John Webb at Thorpe, and the charming restoration work at Oundle.

Kettering is an excellent centre of a good district; though itself robbed of much of its interest by very necessary street widenings, it still shows us a splendid church with a notable tower and spire. At Rothwell, four miles away, is the interesting Market House, begun in 1577 and left unfinished by that Sir Thomas Tresham whose son was implicated in the Gunpowder Plot. The detail exhibits grace and refinement, and is much akin to his other unfinished Lyveden New "Bield," ten miles away. This Sir Thomas was a keen builder, but, being also a staunch Roman Catholic, had to suffer fines and imprisonment for his opinions, which prevented his projects from attaining fruition. His only finished work which has come down to us is the peculiar triangular Lodge at Rushton, standing in a remote corner of the grounds of Rushton Hall. Its solitude, coarse detail, and uncommon shape at first repel, but, trying to pierce through to the motive in the mind of the builder, one remembers that it was built as an emblem of the Trinity, notes the play of triangle, trefoil and triple gable, and realises that it remains as one of the quaintest of the "quaint conceits" of the Elizabethan age.

Three miles or so from Rushton, set among those splendid elm avenues planted over 200 years ago by the eccentric Duke of Montague, is the village of Geddington, chiefly famous for its cross, which I certainly think is one of the most beautiful mediæval monuments left to us. It is triangular in plan and set on a hexagonal base of steps; the lower part is covered with diaper work, which, being on a slightly waving surface, is delightful in effect.



Montague Almshouse: Central Feature.

Above, a statue stands on each side in a niche with canopy over, and this is carried up to the summit, and works out in a very fine and logical manner.

Between Geddington and Kettering is the village of Weekley, where, shyly tucked away near the church, is the Montague Almshouses or Hospital, presenting that simple grouping of window, gable and chimney so endearing to English eyes. Over the doorway a sundial is painted in dull red with a black border, which has faded during the years to an unobtrusive hue, yet still gives a pretty spot of colour; the date, 1611, is also painted on in black. The gates opposite lead to the park of Boughton House, which has an interesting wing built in a French manner by one of the Dukes of Montague, who was Ambassador to France in late Stuart times. He and his kin are buried in the adjacent church of Warkton under monuments in the full-blown manner of the eighteenth century, about whose artistic value there may be two opinions.

Six miles from Kettering and two from Thrapston, in a secluded hollow, stands Drayton House, over which Horace Walpole was justifiably enthusiastic, and which has among its many treasures a wealth of wrought ironwork and lead work, and a seventeenth-century parterre, with fountain, vases, and banqueting houses at two corners. "Just," says Walpole, "as Sir John Germain brought it from Holland." What we see now of the exterior is mainly Elizabethan, the mediæval house having been largely added to about 1584. The fine, almost Baroque, façade and colonnade to the courtyard were built about 1700 by Sir John Germain, the reputed half-brother to William III. Notable features of the interior are the dining-room, a gem of Adam decoration in soft colour with an excellent mantelpiece by the same hand; the ample walnut, winding staircase cantilevered from the wall, is a masterpiece of carpentry, and leads to the long gallery, now a library from which one can get an excellent view of the parterre below. The fireplace in the King's Bedroom is by Webb, and his original drawing for it still exists, showing that his mantelpiece surround has been largely removed, leaving the upper part rather unrelated to the lower, though the bold swags on each side of the shield are intact.

Webb left a drawing for another fireplace at Drayton, which seems never to have been carried out, and his direct connection with Drayton ends here, though I cannot help thinking that he may have had a hand in the designing of the north door to the garden There is strong evidence that Sir J. Germain employed Tijou for the wrought ironwork, of which there is such an amplitude. This may help the resemblance to Hampton Court which he was accused of striving for. The stone staircase, with its wrought iron balustrade and balcony, is unusually fine, as is that to the outside stairs leading into the garden. The lead work, vases, statues and the magnificent rain-water head owe their presence largely to Germain's second wife, Lady Betty, to whom (strong-minded lady) our thanks are due for resisting the fashions of the landscape school and preserving to us the garden in its original form. But we must leave Drayton and pass on, having already lingered too long in this



Drayton House: Looking up the Bowling Alley.



Drayton House: Gate to Gardens.



Thorpe Hall: Door to Stable Yard.

aunt of beauty so typically English in itself nd in its charming and enthusiastic owner.

Oundle, a quiet stone-built town, is be-oming quite collegiate in atmosphere, with he buildings of its school spreading serenely bout it. The church is famous for its spire nd tower, and has a good south porch. The Talbot Inn (1626) and the White Lion Inn 1641) have fronts of the interesting and satis-actory traditional type, which lingered on so ong in the stone districts. The former has fine oak stair reputed to have come from Fotheringhay Castle, and which has a strong amily resemblance in detail to that of Lyve-en Old "Bield," the family home of the Treshams, three miles away. In the dining-oom, now occupying the whole of the first-oor front, are some interesting sixteenth-cen-ury fireplaces. Romance also attaches to he window now lighting the staircase, which ame from the great hall of Fotheringhay astle, and which must have looked down pon the trial and execution of the unfortu-ate Queen of Scots. Among later work is boldly-designed house on the south side of he square, and nearly opposite a row of shops, busually treated, with a colonnade on the round floor and houses over, the gables finish-g off with a large edition of the typical orthamptonshire chimney. This colonnade ay have been inspired by or have had some nnection with the Market House still stand-



Thorpe Hall: South Front.

ing, and which was, as usual, open on the ground floor.

Four or five miles further on lies the village of Fotheringhay. The Castle, once a Royal fortress, is only now marked by a few mounds. The fine Perpendicular church must have had one of the best proportioned interiors in England before the chancel was destroyed. It was attached originally to a college refounded by Edward IV, and still retains the fine oak pulpit presented by him, though the benches of the choir are now in various churches in the country round. Travelling on towards Peterborough, we cross the Great North Road at Wansford, with its delightful old bridge over the Nene, and the old Haycock Inn at its southern end, no longer an inn, but still a delight to the eye as a vigorous piece of design.

What little is left of old Peterborough has been so thoroughly described that I will pass on to Thorpe Hall, lying between Peterborough and Castor. It was built by John Webb about 1656 for Oliver St. John, Lord Chancellor during the Commonwealth, whose badge crowns the north and south gate piers. The house, outside and in, may almost be termed an epitome of Webb, and is, singularly, as he must have left it. It exhibits the tricks he loved, the returned and mitred architrave, and the scroll volute, certain reminiscences of Jacobean tradition. The interior is almost more interesting than the exterior.



Thorpe Hall: Office Wing

Built of Ketton stone, which has weathered to beautiful tones, the outside may be described as handsome, having much of that masculinity that distinguished the work of Inigo Jones. The chimneys are a very striking feature, being large, boldly rusticated, and richly capped. Those on the stables are equally striking, and enhance the grace and lightness of the bell cupola. The doorway in the wall of the yard is an interesting version of such a subject, but the smallness of the keystone is an undoubted defect. That all this is by the same hand can be seen by comparing the centre feature of the office buildings with the façade of the gazebo. This appears from a plan made by Hakewell about 1850 to have been the centre feature of a range of buildings now gone, this part having been rebuilt on much the same axis, but further forward, and, though it suffers from its very incompleteness, it is still a characteristic and beautiful piece of design. The treatment of the pilaster caps with their trusses carrying the cornice over is decidedly bold and original.

The iron balustrade of the south porch is most interesting as a transition between the crude cut work of the Jacobean smith and the more dexterous wrought work of the Restoration. The design is complicated and flowing, but, cut from sheet metal, giving an unusual effect, one expects the depth of wrought iron and sees only the flatness of sheet. The ironwork of the gates appears to be later, and is not up to the standard of the noble gate piers, which attain much character and vigour by the unusually large bed mould to their cornice. Thorpe, though comparatively small, is an excellent example of the phase of an architecture which was due to Inigo Jones and untouched as yet by the genius of Wren. One finds Webb at his best and comparatively free from the heavy touch which often prevents his work from attaining greatness.

Below Peterborough the course of the Nene lies through the Fens, and the interesting stone district ceases, making it a very good point to break away and cross into the Welland valley to the ever-fascinating Stamford.



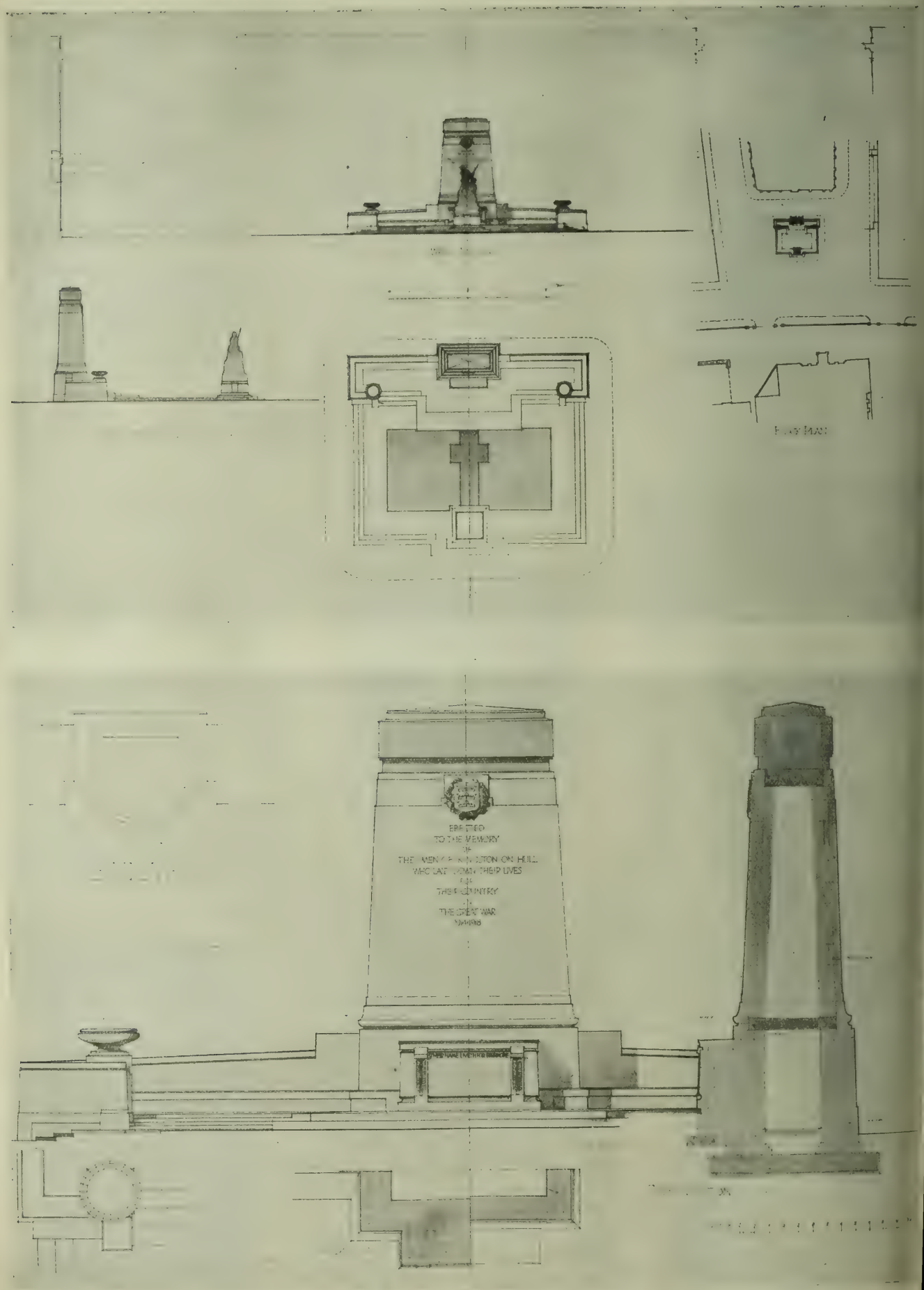
Thorpe Hall: Entrance Gate.

Architect's Estate.

Mr. William Walker, F.R.I.B.A., of 81, North-street, St. Andrews, who died on February 7 last, left, in addition to real estate, personal estate in Great Britain valued for probate at £2,326 4s. 4d.



Thorpe Hall: South Porch.



Hull Cenotaph Competition. First Premiated Design: By MR. T. H. HUGHES, A.R.I.B.A.

[The full result of this competition was given in our last issue.]

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ILLUSTRATIONS.

Normal Training College, Peshawar.

This building has recently been completed, and is situated about three miles outside Peshawar on the road leading to the Khyber Pass into Afghanistan. Building operations were commenced in 1919, but owing to the Afghan War work was suspended, as the materials collected were taken for war works on the Indian frontier. The college has been erected from funds provided by Government, and is intended as a training centre for teachers at the various Government schools in the North-West Frontier Province.

The accommodation comprises, in the main building, eight class rooms, Principal's office, clerks' office, common room and library. An assembly hall is arranged in the quadrangle at the back of the main block. Living quarters are provided for 124 Indian students in two wings, with separate dining rooms and kitchens for Mohamedan and Hindu students respectively.

The building has been designed in a simplified form of Mogul architecture. The main walls are built of bricks manufactured locally. The floors and roof are constructed of reinforced brickwork slabs supported on reinforced concrete beams. The total cost of the building amounted to Rs. 23,000 (£21,533).

Mr. B. Matthews, F.R.I.B.A., Consulting Architect for Military Works in India, was the architect for the work, which was constructed under the supervision of Capt. F. S. de V. Gould, M.I.C.E., Mr. L. W. Phips, A.M.I.C.E., and Mr. A. O. Morrison.

British Officers' Hostel, Peshawar.

This building has, owing to the shortage of bungalows, been erected by the Government for the housing of British officers and families whilst stationed for duty in Peshawar.

The accommodation consists of sixteen unit suites, comprising sitting and bedroom, dressing room and bathroom. Single officers occupy one-unit suite and married officers two or more unit suites according to size of family.

The permanent dining and drawing rooms are now under construction, also an additional block of quarters similar to that illustrated. At present this accommodation is provided temporarily in tents.

All main walls are constructed of bricks manufactured at Government kilns in Peshawar. The roofs are formed of reinforced brickwork, which consists of steel bars placed between the courses of bricks. A light corrugated iron roof has been erected over the flat roof to protect the main roof from the excessive heat of the sun during the hot weather.

A special feature of the design are the hinged louvres in the verandahs. During the cold season these can be opened to admit the maximum amount of light, and during the hot weather they remain closed to protect the main walls of the building from the direct rays of the sun.

The cost of the building amounted to Rs. 1,30,000 (£8,666). The rent of each unit suite, including furniture and electric light installation, works out to Rs. 45 (£3) per month.

The building was carried out under the supervision of Colonel H. A. D. Fraser, R.E., and Capt. F. S. de V. Gould, from plans prepared by Mr. B. Matthews, F.R.I.B.A., Consulting Architect for Military Works in India.

Students' Work of the Architectural Association.

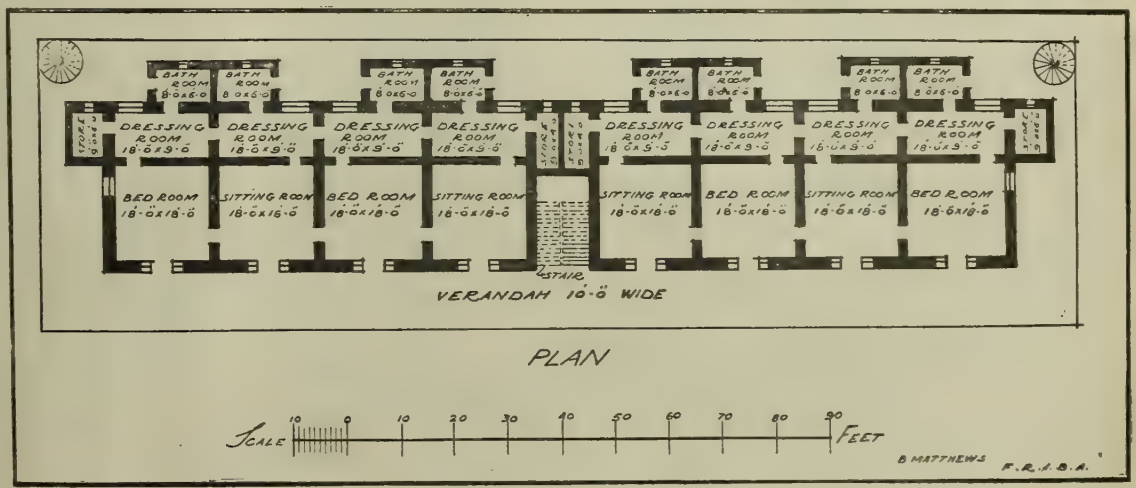
We illustrate this week drawings of the various years of the Architectural Association Schools—an article describing the exhibition, at 34, Bedford-square, appeared in our issue for August 3.

The drawings show the results of the A.A. teaching, which endeavours to avoid any straining after preconceived ideas, and to lead to a natural and unmannered architectural expression.

Southwark Cathedral.

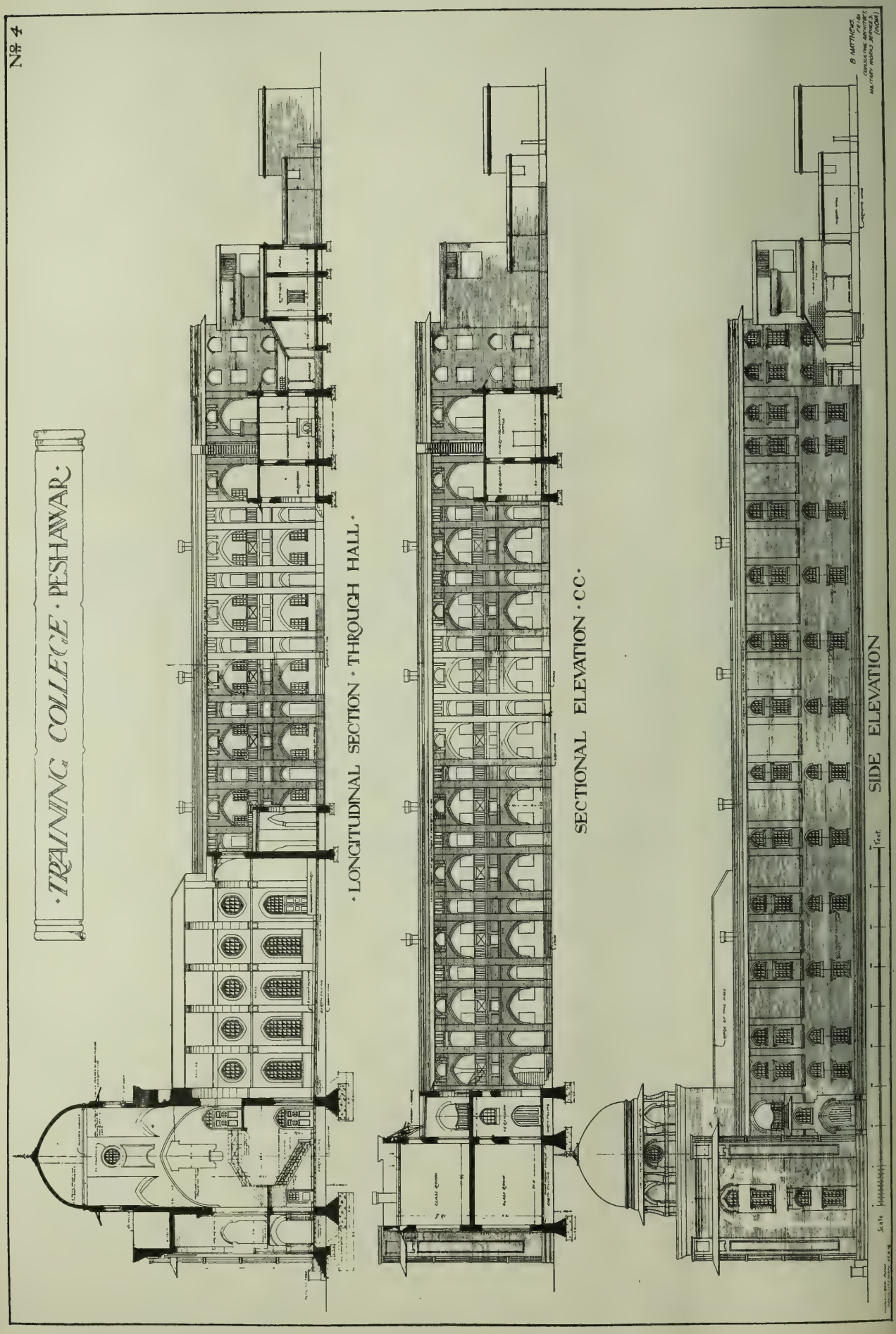
An appeal is to be made for a fund to meet the cost of the renovation of Southwark Cathedral. Canon Haldane, the Precentor, informed a Press representative that the condition of the fabric was causing considerable anxiety to the chapter of the cathedral. A scheme for the renovation of the Gower tomb, erected to the memory of England's first great poet at a cost of about £300, was also being considered, but unfortunately the cathedral authorities had no funds at their disposal for the purpose. The advice of a well-known architect had been obtained as to the condition of the whole of the fabric, and the Bishop of Southwark and the members of the chapter were considering his report.



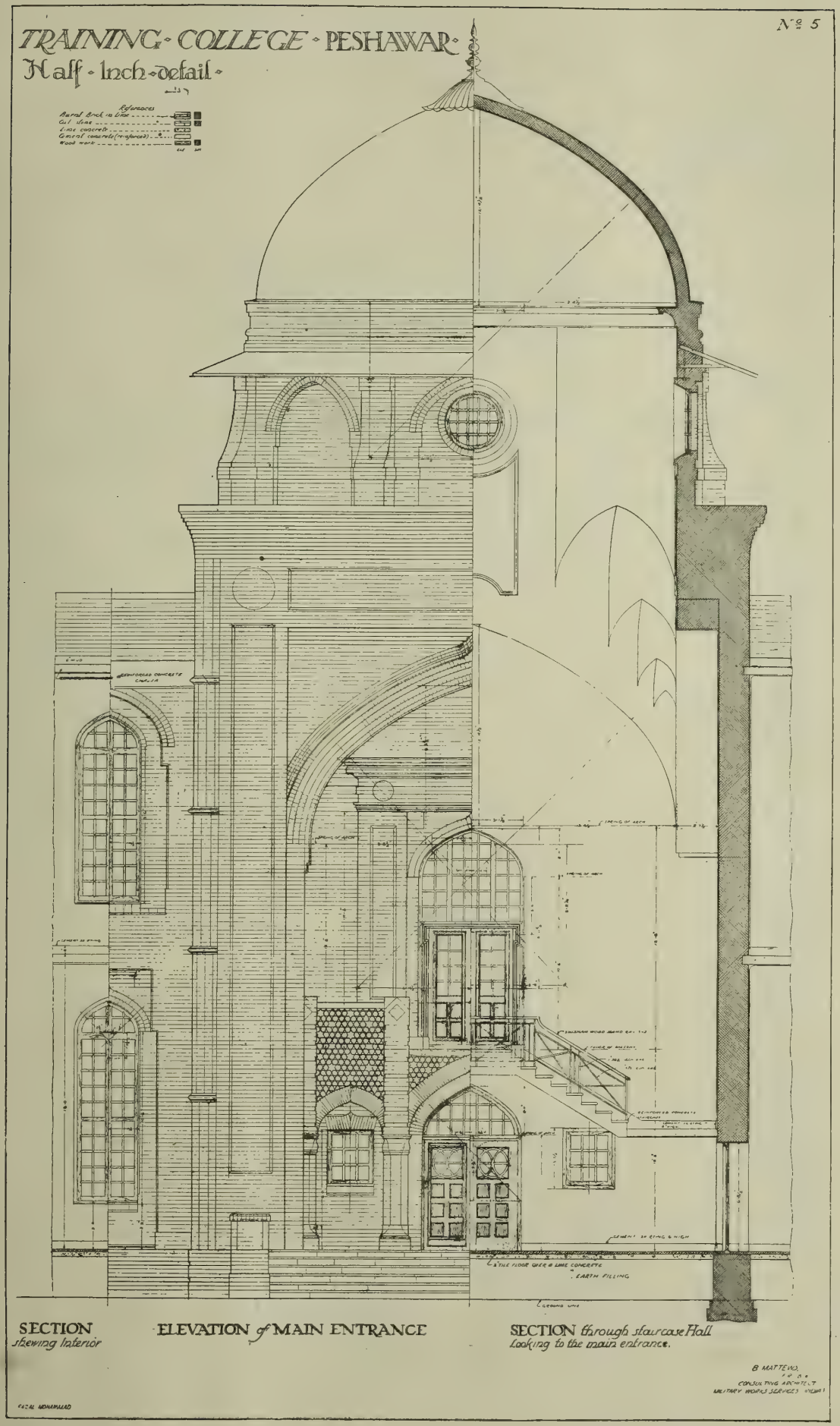


Officers' Hostel, Peshawar, India.

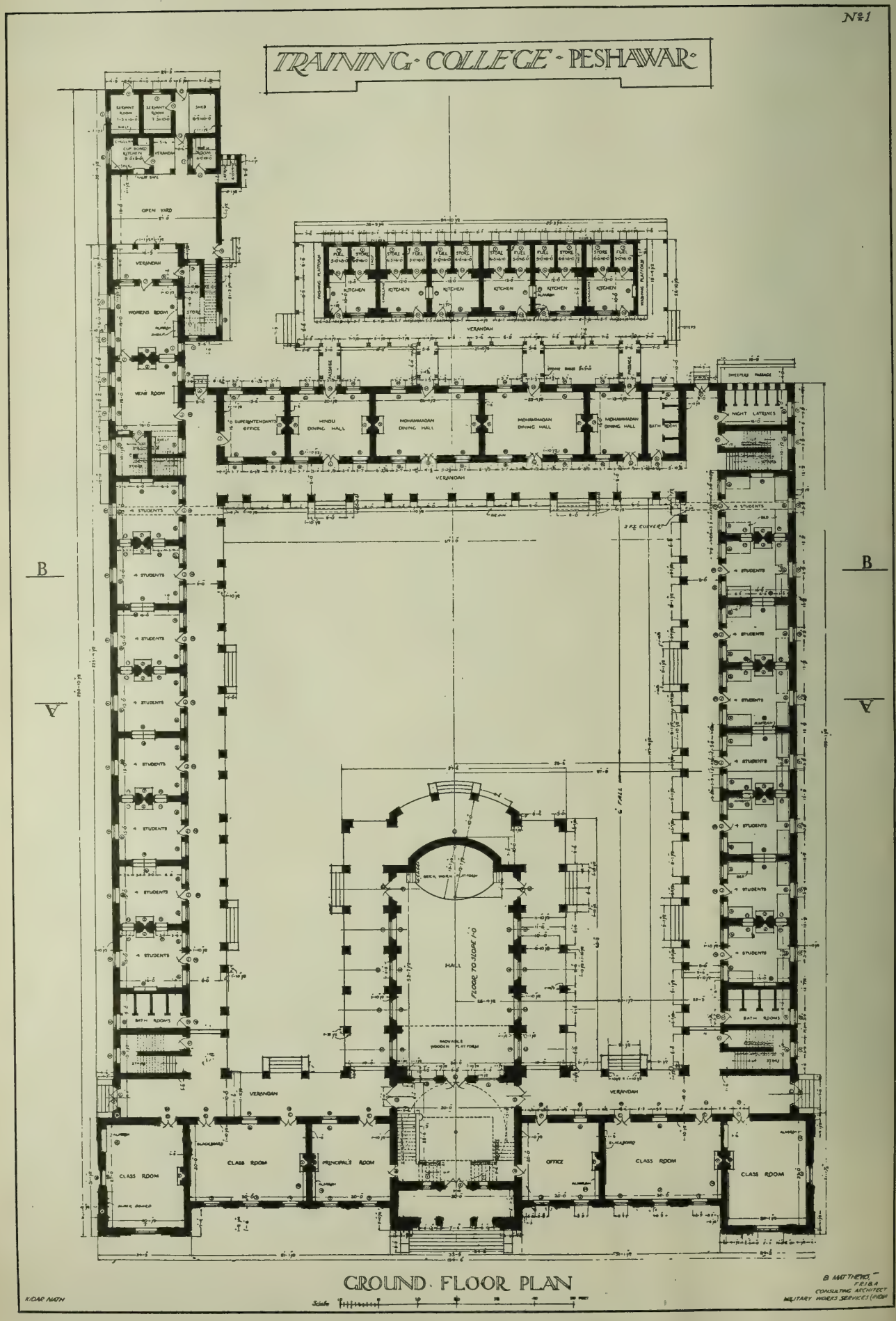
Mr. B. Matthews, F.R.I.B.A., Consulting Architect for Military Works in India.



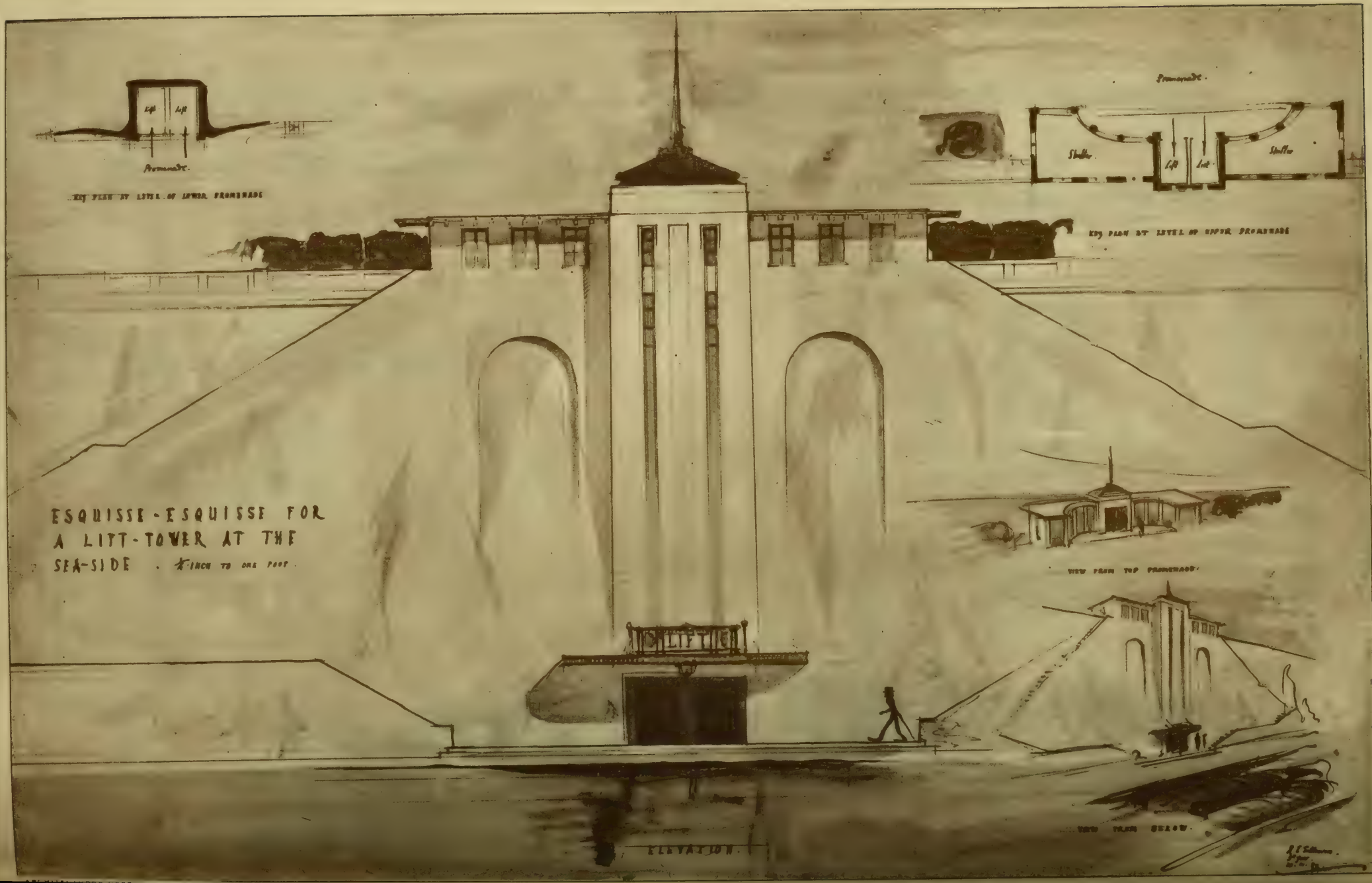
Mr. B. Matthews, F.R.I.B.A., Consulting Architect for Military Works in India. (*See p.* 323.)



Mr. B. Matthews, F.R.I.B.A., Consulting Architect for Military Works in India. (*See p.* 323.)



Mr. B. Matthews, F.R.I.B.A., Consulting Architect for Military Works in India. (*See p.* 323.)


Promenade.
Lift
Lift
KEY PLAN AT LEVEL OF LOWER PROMENADE
Promenade.
Shelter
Lift
Lift
Shelter
KEY PLAN AT LEVEL OF UPPER PROMENADE
ESQUISSE-ESQUISSE FOR
A LIFT-TOWER AT THE
SEA-SIDE . 1/8 INCH TO ONE FOOT.
VIEW FROM TOP PROMENADE.
LIFT
ELEVATION.
VIEW FROM BELOW.



ARCHITECTURAL ASSOCIATION SCHOOLS STUDENTS' WORK.

AN ITALIAN RENAISSANCE COMPOSITION. By Mr. Tha Tun (second year student).



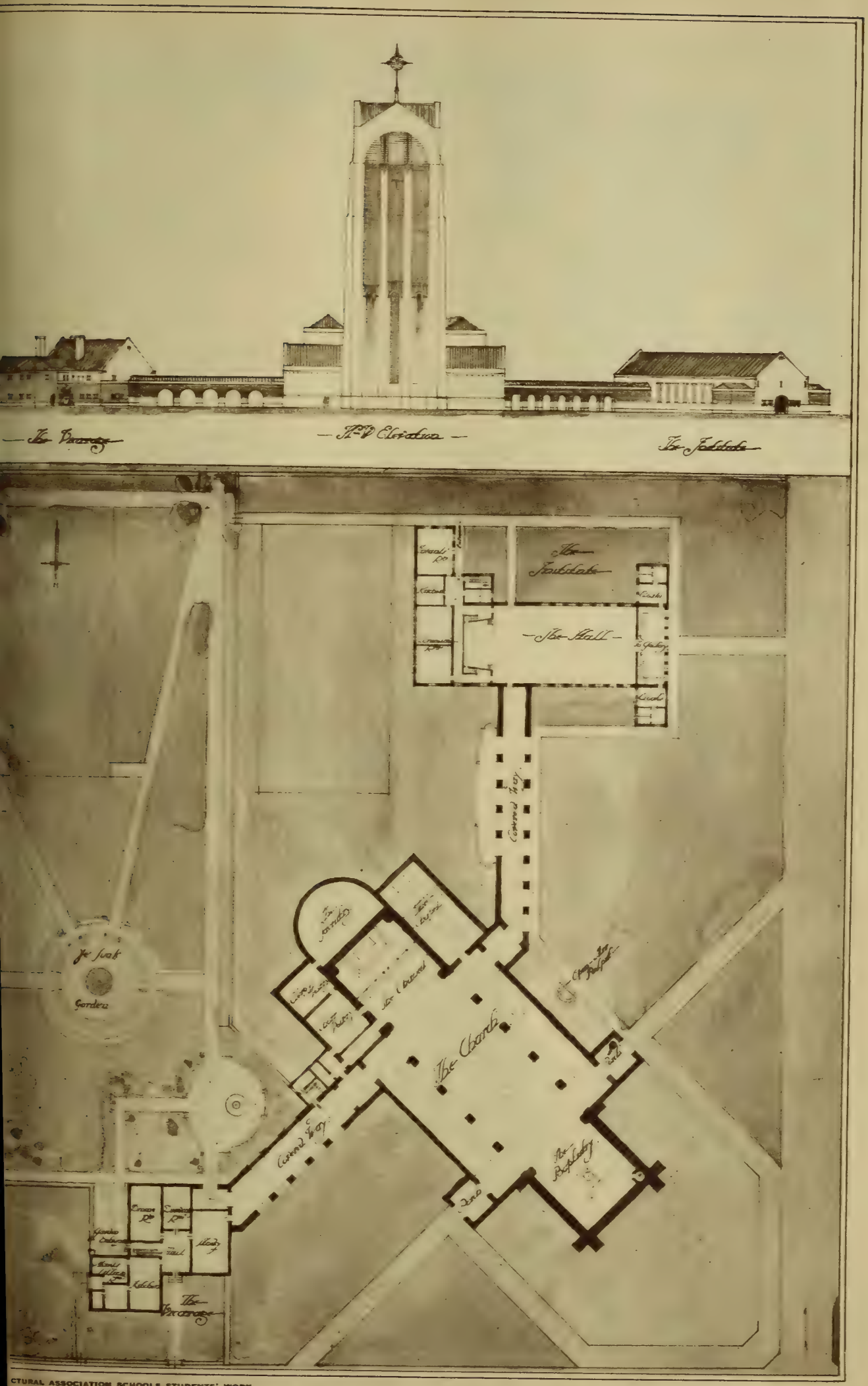
VIEW FROM MAIN ROAD.



MAIN FRONT.

NORMAL TRAINING COLLEGE, PESHAWAR.

MR. B. MATTHEWS, F.R.I.B.A., CONSULTING ARCHITECT OF MILITARY WORKS IN INDIA.



CTURAL ASSOCIATION SCHOOLS STUDENTS' WORK.

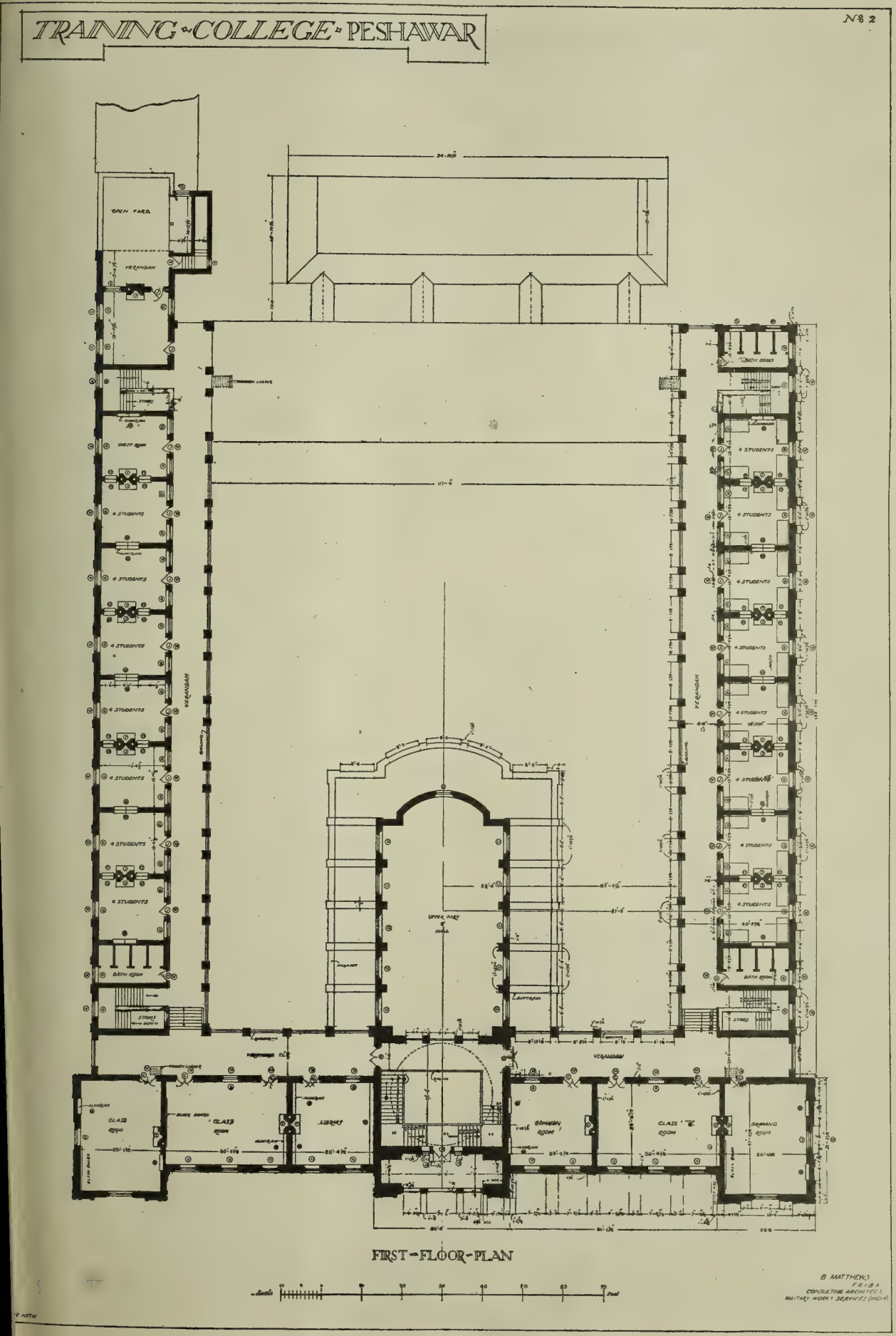
DESIGN FOR A CHURCH AND INSTITUTE. By Miss I. J. Macfadyen (third year student).



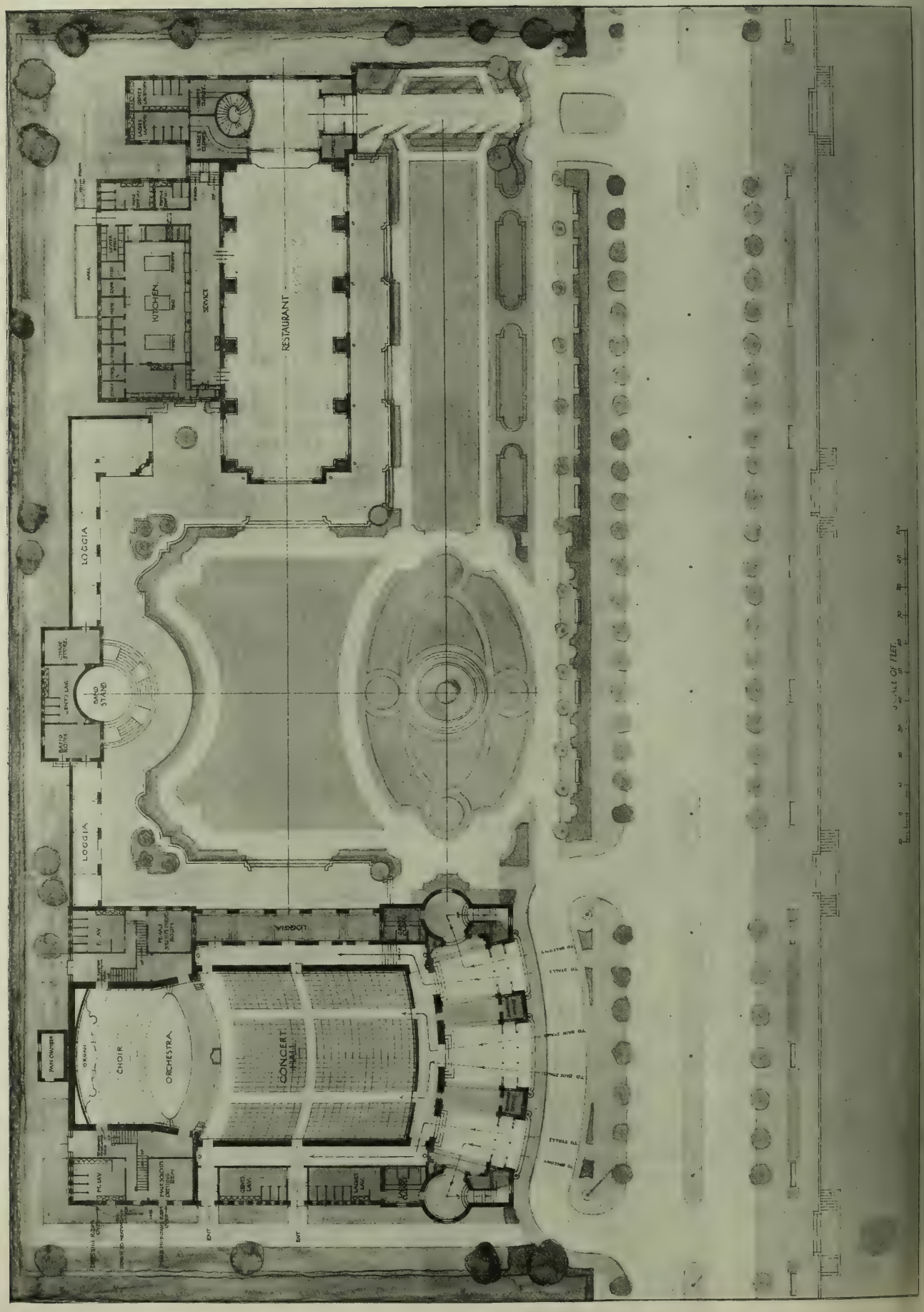
ARCHITECTURAL ASSOCIATION SCHOOLS STUDENTS' WORK.

A DEVELOPMENT SCHEME FOR HORSE GUARDS PARADE (TOWN PLANNING SUBJECT).

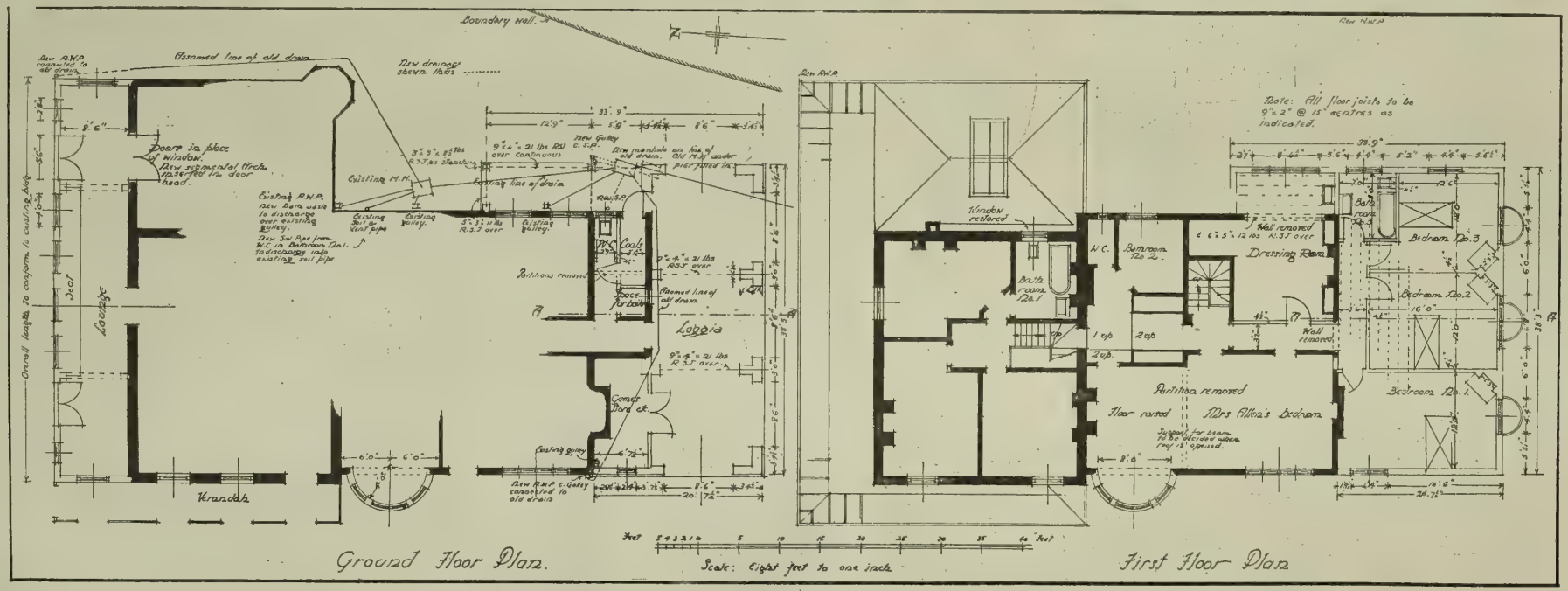
BY MR. E. U. CHANNON (FIFTH YEAR STUDENT).



Mr. B. Matthews, F.R.I.B.A., Consulting Architect for Military Works in India. (*See p.* 323.)


RESTAURANT
KITCHEN
SERVICE
LOGGIA
LOGGIA
BAND STAND
LOGGIA
CONCERT HALL
ORCHESTRA
CHOIR
PLAY
PLAY
EXIT
EXIT
Scale of Feet





No. 39, Circus Road, St. John's Wood. MESSRS. BENNETT & HOSSACK, Architects

[This is an early nineteenth-century house in stucco with a characteristic verandah and trellis. It was added to some few years ago, and in this latest work three extra bedrooms and a loggia, a lounge, and a circular bay window are to be added. An effort has been made to keep the simple lines, which are part of the character of houses of this period, and to make an addition which would give a good plan as well as provide the extra accommodation. The work will be carried out in stucco and tiles for the elevation and with brick paving for the loggia, while the remaining materials will as far as possible match the existing. The builders will be Messrs. John Marsland & Sons, Ltd., of South Molton-street].

THE DOME: ITS HISTORY AND CONSTRUCTION.—II.

By SIDNEY TOY, F.S.A.

With the transference of the seat of the Empire from Rome to Constantinople the problems of building peculiar to the Levant were assailed with greater zeal, and a renewed vigour was infused into architectural development. The Levant is subject to frequent earthquake shocks and is not well provided with timber. Confronted with these difficulties the Byzantine builders selected the dome as the principal form of covering for their churches, and devised an ingenious method of construction with thin bricks and thick bed-joints so that in building it they were able to dispense almost entirely with timber centering.

The bricks used by the Byzantines varied from 1 ft. 2 in. square to 2 ft. 3 in. by 1 ft. 4 in., and were from 1¾ in. to 2 in. thick; they were laid between mortar joints from 1 in. to 2 in. thick. In the construction of their domes the bricks were laid in successive conical rings with beds converging towards a centre on the axis of the dome, this centre gradually rising as the rings approach the crown, as shown in Fig. 5. As each ring was set a thick bed of mortar was spread upon it and the bricks of the following ring were placed upon this bed, the adhesive quality of the mortar in bed and side joints being sufficient to hold them in position until the ring was formed. When complete the ring became a kind of conical key, its bricks receiving mutual support, as shown in Fig. 6, and no timber centering would be required.

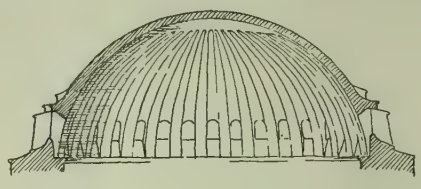


Fig 9



Fig 10

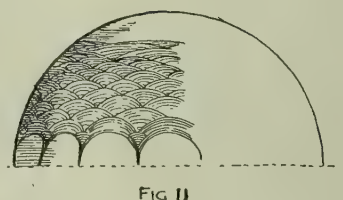


Fig 11

The construction of the crown presented difficulty since the tendency of the bricks fall inwards before the ring to which th belonged was complete increased the nea the summit was approached. The Pers and Arabian builders met this difficulty deflecting the intrados upwards beyond haunches and finishing the dome with conical crown, as shown in Fig. 7. In so small Byzantine examples the contour broken at the haunches, a secondary cup formed, and the crown finally finished wit disc of masonry previously built on a p form, as in Fig. 8. The Byzantine builde however, generally completed their domes a spherical form and probably used a sm wood centre for the brickwork at the cro To counteract the lateral thrust and conv this thrust into a vertical pressure a mass masonry or brickwork was built round base of the dome and carried to the height the haunches, as shown in Fig. 5; and in early examples of Byzantine work, as S. Sophia, Constantinople (Fig. 9), windo are pierced through this mass.

The Byzantine dome is often strengthe by ribs which, in the early examples, w built and bonded with the general brickw of the shell. In the dome of S. Sophia, C stantinople, dating from A.D. 562, forty r spring from the base, where they 3 ft. 3 in. wide, and converge towards crown (Fig. 9). At their springing the p jection of these ribs is only 6 in., while at crown they die into the general surface so distance from the summit. Ribs were so times formed by imparting a scalloped sh to the dome itself, as at SS. Sergius a Bacchus (Fig. 10), and in the dome of inner narthex at S. Saviour in the Cho both at Constantinople, and both dating fr

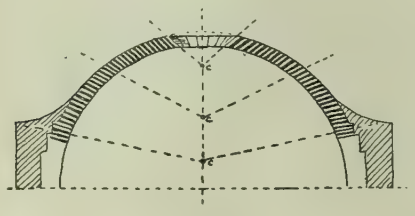


Fig. 5.

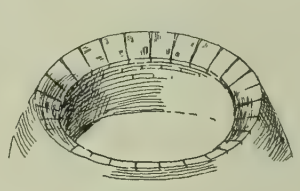


Fig 6

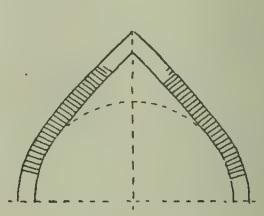


Fig 7

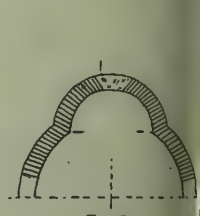


Fig 8

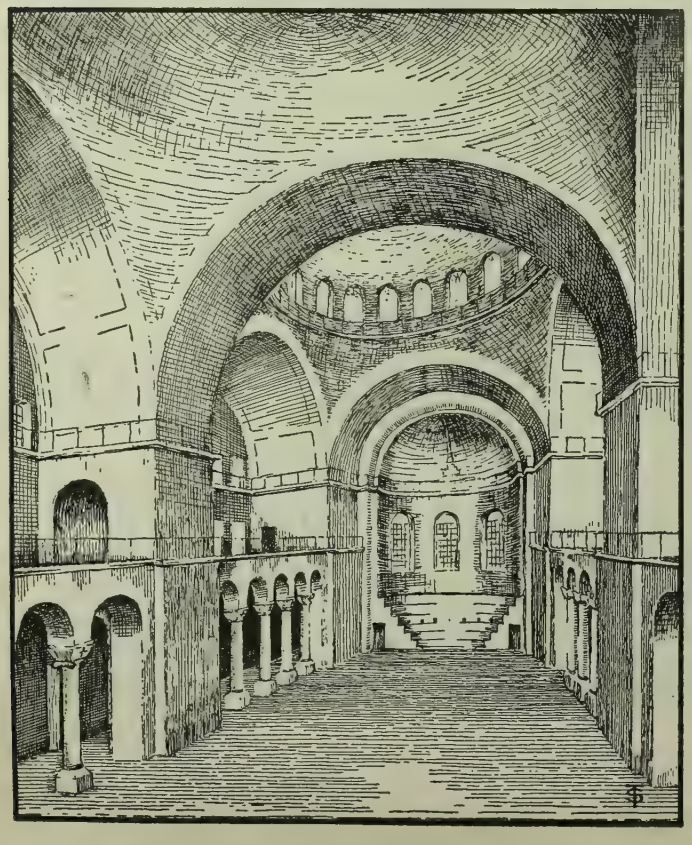


Fig. 16.—Church of St. Irene, Constantinople.



Fig. 20.—S. Sophia, Salonika.

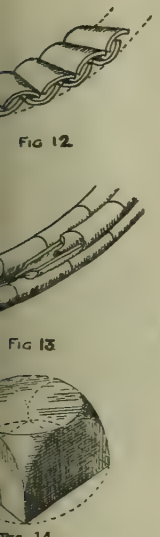


Fig 12.

Fig 13

Fig. 14.

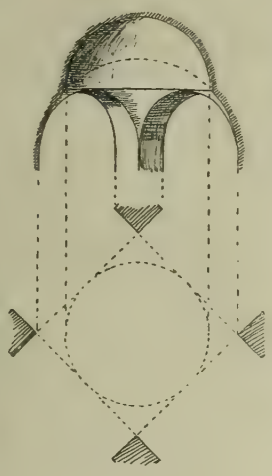


Fig 15.

first half of the sixth century. In the ner case the scallops were doubtless de- ed primarily as a convenient form to erimpose on the octagonal base of the ucture. At later periods ribs became ely decorative features built of bricks not ded with the general material.

n the small dome of the tomb of S. netrius, Salonica, dating probably from fifth century, the brickwork is composed lischarging arches, juxtaposed and built in s forming a series of fan-shaped figures. s disposition was adopted about two hun- d years before in the round temple at lato, and illustrated in Fig. 11. Some es, as that of S. Pantelemon, Mt. Athos, e constructed of rings of interlocked pan- s set in mortar, each ring thus forming on-expansible tie, as shown in Fig. 12. At enna terra-cotta tubes, set in mortar and posed as shown in Fig. 13, were exten- ly used. These tubes were interlocked formed into spiral coils which encircled dome from its base to its crown, and by means a very light dome was constructed which the effect of thrust was overcome hin the shell itself. The dome of S. Vitale. enna, dating from 547, is built in this nner.

The Roman dome was usually constructed a circular base, and arose directly from base, as at the Pantheon at Rome, but n it was desired to apply this method of lting to a polygonal or square space, such formed the central portion and not the le of a building, some manner of support- the circular dome across the angles had e devised. At the temple of Minerva ica triangular shaped corbels were em- ed, and in the tombs of the Via Pales- a tentative expedients of a similar charac- are observed, but the problem was scien- ally solved by the Byzantine architects, designed and built the true pendentive.

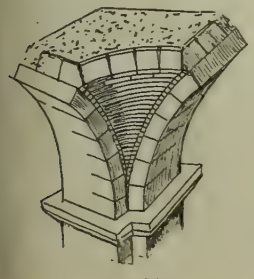


Fig. 23.

e surfaces of the pendentives were ical and may be represented by the re- ing surfaces of a hemisphere when cut ally on the planes of a square drawn n the base and horizontally at the level of the summits of these vertical sections, as shown in Fig. 14. The vertical sections represent the planes of the four arches enclosing the space to be covered and the horizontal section the base of the dome itself (Fig. 15). In the western dome of S. Irene, Constantinople (Fig. 16), the pendentives and dome form parts of the same sphere, as indicated by the dotted line in Fig. 15, but this construction was usually confined to small compartments not lighted by the dome itself. The pendentives were constructed with conical rings of brickwork in a manner similar to that employed in building the domes, but a difficulty was presented by their oblique junction with the transverse arches, as shown in Fig. 17. Occasionally the courses were built as shown in Fig. 18, from S. Sophia, Salonica; or disposed as in Fig. 19, from S. Mark's, Venice; but in both these cases the resulting base for the dome is deformed, as illustrated by the dotted lines on Figs. 18 and 19, and seen clearly in Figs. 20 and 21.

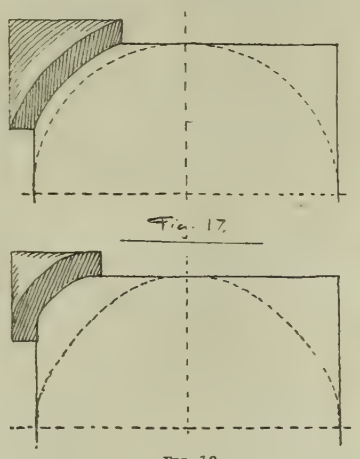


Fig. 19.

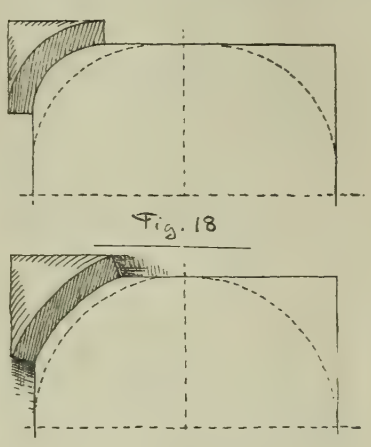


Fig. 22.

When the true spherical form was followed chamfered voussoirs were often placed on the arches to receive the ends of the pendentive rings, as shown in Figs. 22 and 23. The backs of the pendentives behind the rings were always filled in with a kind of rubble or brick concrete.



Fig. 21.—Church of S. Mark, Venice.

BOOK REVIEWS.

Historic Streets of London. An Alphabetical Handbook. Compiled and edited by Lilian and Ashmore Russan. (London: Simpkin, Marshall, Hamilton, Kent & Co., Ltd. Price 3s. 6d. net).

To quote the editors' introductory note: "The book is what it pretends to be—a compilation, an index, a handbook, a ready reference, for which many colonials, provincials, and foreigners, not to mention Londoners, may hold us in esteem." To those who have known the pleasure of holidays in London in the company of some good friend competent to be their guide to its many points of historical interest the handbook brought out by Lilian and Ashmore Russan will call back many happy memories, and for those who have not yet experienced the charm of London streets the information they have so carefully collected will open up a store of good things.

It is of the utmost interest to learn the connection of the great men of the past with the streets of the capital city of the Empire, and in this book, under the name of each street, is given sufficient information to captivate the reader and to direct his further study by reference to the authorities. The probable meaning or derivation of street names has been given in several doubtful cases, and it is interesting to read that Birdcage-walk was probably so called originally and is not a corruption of the French word Bosquet, a clump of trees, as is sometimes stated. "Birdcage-walk, St. James's Park (S.W.1), named from the Aviary established there in the reign of James I, and the Decoy made there in the reign of Charles II (Timb's 'Curiosities of London,' p. 15)."

The names of the more famous streets are associated with brief summaries of the chief persons and events, but owing to the limits of space these lists are not always so long as the facts would warrant, for some London streets have been the haunt of great men of several generations. As the editors admit, "the book might easily have been extended to three times the size such is the wealth of material." They have constrained themselves, however, to keep the volume within dimensions which allow of it being carried in a pocket or in a lady's handbag. Within these limits it is admirable, but the pruning has had to be severe. Bankside, for instance, is rightly associated with Shakespeare and the early theatres, but it might be asked why Sir Christopher Wren's connection with the spot is ignored since it was from his house in Bankside that this great man, who has been proclaimed "the builder of this city," was able to watch the growth of its cathedral church as it was being erected to his design. The note on Westminster Hall, too, obviously suffers from undue brevity since the roof erected by Richard II, one of the wonders not only of London, but of the whole field of mediæval construction, receives no mention. The reproduction of old maps and views from the Goss collection by way of illustration is appropriate, though it may be regretted that the charming picture of Old London Bridge, with its many-storied mansions, is not accompanied by any explanatory reference in the text.

Structural Drafting and Design of Details. By Carlton Thomas Bishop. 2nd edition. (New York: John Wiley & Sons, Inc. London: Chapman & Hall, Ltd. Price 25s. net.)

This book is a new edition revised to suit the changes in the standards of the Association of American Steel Manufacturers. It is produced in good, well printed style, with valuable detailed diagrams. It does not leave essential points to rule of thumb methods, or avoid them, as so many treatises published in this country have done. The drawings and examples given for all kinds of constructional engineering work cannot fail to prove of use for reference to any engaged on this class of work. If many of the rules mentioned in connection with working drawings were adopted wholly or in part by many drawing offices, much confusion and many mistakes would be avoided.

But as this work is intended principally for the apprentice draughtsman and student, it ought to be pointed out that it does not help very much in its practical chapters, as distinct from those dealing with design, those students attempting to grasp the way in which work is detailed and put into the constructional shops in this country. It is essentially concerned with American methods and designing, shop practice and procedure. Except for one or two notable exceptions, British constructional engineers do not follow what is known as the American system of detailing. The tables given are, naturally, based on American profiles, specifications and loadings and, of course, cannot be of great utility in this country where the sections are those of the British Engineering Standards' Association, the specifications those of British authorities based on the British Standard specification, and the loadings those prescribed by some particular railway or British firm of engineers.

A student might also be misled by many American terms used; also, the dictionary of definitions is by no means of general applicat in this country. To take examples. What understood amongst steel erectors in t country as a derrick is described as a gin p whilst a derrick itself is described as "a hoist machine so pivoted that a load may be swu horizontally." Camber is described as a cu in the bottom chord to prevent sag. Camb as we understand it, applies to the whole gird whose depth is maintained. Similarly in reg to notation adopted. What is known as L.C.C. Notation is now more generally used this country. The book under review use notation so similar, and yet so different, as be misleading. Some symbols used are identi with the L.C.C., some have similar meanin and many entirely different meanings.

Dealing with the manufacture of structu steel, it is stated that this "is made by open hearth process." Whilst no doubt th is a lot to be said for this, this limitation is no means so definitely prescribed by the Brit standard specification for structural st Design is not gone into very fully, only so as the design of details and simpler memb of a structure is concerned, with which it deemed imperative that the production, works' draughtsman, should be familiar. S notes as there are on design are good, and chapters dealing with the design of rivet spac and joints can be particularly commended.

The book is an excellent work in many w for those American students for whom it primarily intended—and for British studer too, provided they can keep in mind that i American practice which they are studyi The book emphasises more than ever necessity of more up-to-date British literat dealing with similar points from the standpo of British practice, British loading standar profiles, &c.

A B C of Collecting Old English Pottery. J. F. Blackler. Fourth edition. (Stan Paul & Co., 15s. net.)

The fourth edition of this work will rece a warm welcome from the collector and th possessing family pieces, enabling them account of the numerous illustrations (so 450 in half-tone and line) to identify th pieces. The volume gives a general history English pottery from the earliest period and, addition, mentions some two hundred pott names. The owners of some fine specimens pottery have placed them at the dispo of the author, enabling him to illustrate m fine and unusual specimens. An appendix prices is a useful addition, but from our kn ledge prices to-day have very considera



"Cotcroft," Kelvedon. Mr. F. Sidney Webber, Architect.

[This residence, near Kelvedon, Essex, was recently completed from designs by Mr. F. Sidney Webber, Lic.R.I.B.A., of Blackheath, S.E.3. The building has been erected in local bricks and rough-cast, with bays and dressings in stone. The roofs are covered with handmade red tiles. Electric light generating plant and central heating have been provided. The general contractors were Messrs. Holland & Hannen and Cubitts, Ltd., Bloomsbury, W.C.]

ased since the latest date mentioned, viz.,

Decoration and Renovation of the Home. By ARTHUR SEYMOUR JENNINGS. (London: V. R. Howell & Co. Price £2 2s. net.)

have nothing but praise for this work as ctical book on painting and decorating. e matter of design, however, it is by no s so satisfactory. This defect we have had ion to note before in reviewing Mr. ngs' works. The designs seem altogether out of touch with modern ideas of internal ation; they are reminiscent of the work enty years ago, and not even very good ens of that period. As for some of the ative details, they remind us frankly of orst periods of the "nouveau art" move-

art from these defects, the book is full of ble information. It contains a collection loured plates suggesting various colour es for wall surfaces; in all eighty-nine are , and they are executed with the actual and not by any reproduction process. ook deals also in addition to wall painting its branches, with varnishing, enamelling, arious wood finishes.

very useful chapter for the amateur—and ook is designed to appeal to him—is that gives a selection of the questions which been addressed to the author at various by persons seeking information. Each ion is followed by its proper answer, and householders will find here a remedy for particular trouble. To the architect the er which gives some recipes for paint g will be more useful. The student will ciate the illustrated glossary.



"Cotcroft," Kelvedon: Drawing Room
MR. F. SIDNEY WEBBER, Architect. (*See p.* 332.)

House-Owner's Book. By ALLEN L. CHURCHILL and LEONARD WICKENDEN. (Funk & Wagnalls Co., New York and London: 1922. Price 8s. 6d. net.)

e book is addressed to the non-technical r, and aims at increasing the house-owner's st in and knowledge of his property. The cial aspect of house-owning is first touched House property may not be always a speculation, but a person owning the house ves in does not regard the proposition ly as a case of possible profit or loss. r those who cannot command sufficient al to build a home for themselves the ative methods of mortgages and associa- in a mutual building society are described the general proviso: "It is a safe plan to that one should not pay out money, or into a contract, for the purchase of rty or the building of a home without r legal advice. . . . The contract with the er should be carefully scrutinised by a r, in order to avoid misunderstanding and lties and to make sure that one's rights nterests are fully protected." architect, however, is not mentioned, and portant subjects of selection of site, aspect xposure are passed over in silence. The mportance to the householder, whether he ner or tenant, of having a house planned in n to the great primary, the sun, is too ntly ignored both in America and in n, yet no daintiness of architectural ing can redeem a house that is condemned m and icy draughts through lack of atten- what should be fundamental matters of

chapters on materials are somewhat fuller til, but to the English reader there seems ing quaint in the desire to learn building action for the reason indicated in the ng passage:—"Should you be building, t to build, a house of brick, it is probable some time your architect or your builder gin to talk impressively of 'English bond,' retchers,' and 'headers,' and 'bats.' is no reason at all why you should not e them and gain their increased respect ing them know that YOU know exactly hey are talking about."

rican readers will sympathise with the f view more readily than English, who will be more interested in the special appliances, the home refrigerating apparatus, the garbage incinerator and the vacuum cleaner equipment. The American love for refined exterior finish at all costs appears again in the paragraph on "Hiding the Radiator," and the statement that "with a properly designed radiator enclosure, the loss of heat is very small" is not generally accepted by heating engineers. The advice to hide radiators behind "what is, apparently, a book-case with leaded glass doors, or beneath a charming window seat," &c., will be regarded with horror by architectural purists and even the most catholic-minded will recognise that this is not the way to solve an æsthetic problem. Efficiency of function of any installation should be considered together with its artistic expression, and for success in one direction alone is insufficient.

A chapter on "Safety in the Household" contains a great deal of sound advice, and the book includes a collection of tables useful to the American house-owner.

The Golden Hind. (Chapman & Hall, Ltd. 6s. net.)

A quarterly magazine of art and literature, this magazine contains many weird and fantastic drawings, some distinctly German in character, others of the Aubrey Beardsley school. The lithographs are the most appealing, notably those by Walter Spradbery, Grace Rogers, Austin O. Spare, and E. A. Cox. Of the woodcuts, that by Robert Gibbings is worthy of mention. The literary contributions are by Messrs. H. J. Birnstingl, Rabindrath Tagore, Clifford Bax, and others.

Mechanics. Part 1. By Thompson & Leslie. (London: Cassell & Co. 2s. net.)

Elementary mechanics is a very well worn subject, but the authors have succeeded in putting life into the dry bones of this important branch of physics in a manner with which the publisher's elementary text-books have come to be associated. The unconventional character of the book will be evident from the fact that after an introduction on materials, stresses and strains are dealt with, and the use of various trusses is simply explained. Friction, economic and uneconomic, is illustrated by various driving and clutch diagrams. An account of the lever principle is followed by a chapter on machines illustrating its use. The last third of the book is occupied with pneumatics and hydrostatics. Containing 142 illustrations, diagrammatic and photographic, the book should prove an attractive addition to the publishers' library of applied science, and its very reasonable price should make it available for a wide range of readers.

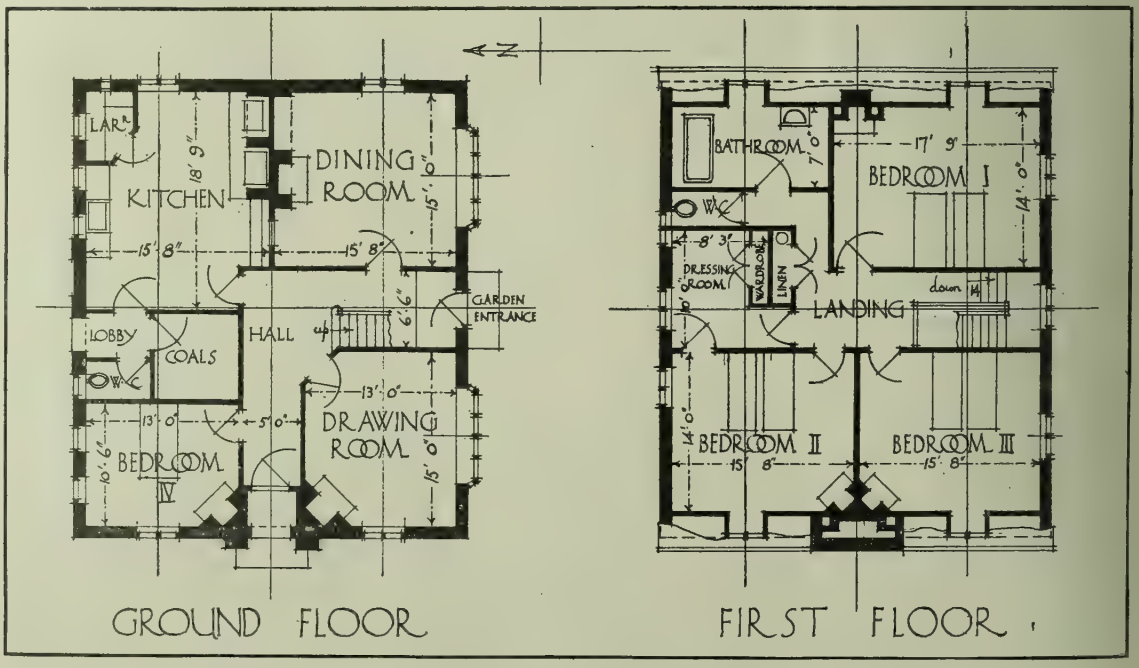
The House Doctor. By R. RANDAL PHILLIPS. (London: 20, Tavistock-street, W.C.2. Price 2s. 6d. net.)

This is a small manual describing everyday jobs and repairs in the home, such as replacing defective washers, sash-lines, and fuses, recovering chairs, and fitting up electric bells. It includes a list of trade preparations, and proprietary articles are also freely recommended in the text. Some of the processes dealt with are of doubtful value, as, for example, the repairing of an old Staffordshire jug by moulding a new lip and painting the design on it with water colour varnished to imitate the glaze. In regard to wall treatment we read that "wall papering involves many difficulties," to which it might be added that the inexperienced amateur who tries to paper his own wall is rightly given a place beside the kipper and the mother-in-law among classical music-hall jokes. The average householder would find this book useful in giving him an idea of those jobs that should easily be done by anyone of intelligence without the aid of an expert.

The Old-World Galleries A B C History of English Antique Furniture. By STANLEY BARRETT, F.S.Arc., L.R.I.B.A. Second edition. (London: The Old-World Galleries. Ltd. Price 1s. 6d. net.)

This is a handy little volume on old furniture, giving much valuable information in a condensed form, and a useful table of dates and periods. The volume also has notes on blue and white Staffordshire pottery with a list of makers and dates. Numerous illustrations of the various periods are shown and the approximate prices appended, a detail so essential to those anticipating furnishing with old furniture. Pieces suitable for a week-end cottage or a mansion are included.





" Oak Knoll." Beaconsfield.

Messrs. Burgess, Holden & Watson, Architects.

[This house was built in 1921. A feature, which was specially desired, is the roomy kitchen accommodation combining kitchen and scullery in one, and making, at the same time, a comfortable maids' sitting-room. The house is built with 11 in. cavity walls faced with red bricks of varied colour. The roof is covered with hand-made tiles, and the external woodwork painted white. The architects were Messrs. Burgess, Holden & Watson of 13, Gray's Inn-square, W.C.1, and Beaconsfield.]

LEGAL SECTION.

NOTES ON CURRENT CASES.

Sub-Letting : Consent.

A decision of the Privy Council on covenants t to sublet without consent in the case Fullers Theatre & Vaudeville Co., Ltd., *v.* fe (1923 A.C. 435) may be noted.

The respondent Rofe was the lessee of certain emises, the lessors being the Municipal Council Sydney, and the lease under which he held property (which we shall call the "headse") contained most onerous covenants. addition to covenants to pay the rent erved, to repair and paint, it contained a venant the breach of which it was specifically ovided could not be remedied, namely, that lessee would not assign or sublet the whole any part of the premises without the consent the Council in writing first obtained; and, o, a covenant as to the uses to which the emises must not be put by the lessee. The pondent had demised part of the premises the appellants, and it is the sublease of this rt of the premises which alone is relevant to point raised and decided in this case. This se, after defining the term "rent," &c., conned first a covenant by the lessees that they uld not (with an immaterial exception) sign or sublet the whole or any part of the emises without the consent in writing of the sor, the respondent, and the Council first d been obtained; and, second, a covenant at the lessees "will not use or permit the ildings and demised premises to be used for y purpose other than one of the purposes entioned in" the headlease. But at the end this lease there was a covenant by the lessor hich was as follows: "The said T. E. Rofe reby covenants for himself, his executors, ministrators and assigns that so long as the y Council of Sydney raises no objection to an signment or assignments, or subletting or blettings of the demised premises, or any part ereof, the said lessor will not object to any ch assignment or subletting."

To understand the points raised, we may ote two statements from the judgment livered by the Privy Council. The first is, Having regard to these onerous covenants and nditions, it was obviously of vital interest d importance to Mr. Rofe that in case the mised premises or any part of them should sublet, the sublessee should be firmly bound perform all the covenants by the lessee ntained in this headlease since the breach of y one of them might at the will of the Council rk a forfeiture of the headlease. And this uld be all the more necessary since it is well ablished that no privity of contract or estate uld exist between the lessor, the Council, d such a sublessee." The second passage is: t is well established by the following horities, amongst others, namely, Treloar *v.* ge (L.R. 9 Ex 151); Sear *v.* House Property Investment Society (1880 16 Ch. D. 387); row *v.* Isaacs & Son (1891 1 Q.B. 417); tern Telegraph Co. *v.* Dent (1899 1 Q.B. 385); t if one finds in a lease a covenant by the e not to assign or sublet the demised mises without the consent in writing of the r first had and obtained, and also a cove- t by the lessor that he will not unreasonably hold his consent to a subletting or such the two covenants must be construed ther, with the result that the covenant he lessee will be held to be qualified by that he lessor."

any of the prohibited trades were carried n the premises the respondent might have own lease, the headlease, forfeited. Now, appellants desired to grant a sublease to named persons, and their solicitors wrote he respondent asking for his consent in ng. They informed him that the term of ublease was to be ten years, and what the was to be, but no information was given the contents of the lease, nothing as to ate, the time from which it was to run, or the purposes for which the demised premises were to be used. They, however, stated that the Council had consented to the sublease, but gave no indication as to the character of that consent, whether it was a mere bald consent. Application was made for the form of the lease, but the appellants did not comply, their view being expressed in a letter from their solicitor that, so long as the approval of the Council was obtained, the respondent's consent was unnecessary. In this they relied upon the clause in the lease to them set out above as to the consent of the Council. It was not until the sublease had been executed and was no longer held as an escrow that a copy was forwarded to the respondent. In the action, the respondent was claiming to re-enter for breach of covenant, and the Privy Council, affirming the two courts in New South Wales, held that the respondent was entitled to succeed in the action as he had not been guilty of any breach of the lessor's covenant; he had not refused to give his consent to the sublease; he had not raised any objection to the subletting as such, but had only asked for information which on every principle he was entitled to, namely, such information as would enable him to ascertain what was the precise nature of the thing he was asked to do.

A second point was relied upon by the appellant, viz., that the breach of covenant had been waived by a receipt of rent after breach with the respondent's knowledge of the breach. It was not until July 28, 1921, that the lessor received the copy of the sublease, and was definitely informed that it had been executed. The last receipt for rent was dated July 27, and that and former receipts bore an endorsement: "Without prejudice to the rights of the lessor under the lease." The Privy Council held that the appeal failed on this point also, and that there had been no waiver, approving the decision Mathews *v.* Smallwood (1910, 1 Ch. 777).

We have often in these pages dealt with this question of waiver, but we may again quote two passages from Mathews *v.* Smallwood, which were specially approved by the Privy Council in this case. "Waiver of a right of re-entry can only occur where the lessor, with knowledge of the facts upon which his right to re-enter arises, does some unequivocal act recognising the continued existence of the lease. It is not enough that he should do the act which recognises, or appears to recognise, the continued existence of the lease, unless at the time when the act is done he has knowledge of the facts under which or from which his right of re-entry arose." Then, as regards onus, "The question whether there has been a waiver in such a case is one of law, and the onus is on the lessee to adduce some evidence of the lessor's knowledge, and proof of an act showing a recognition of the tenancy does not throw the onus of proving want of knowledge on the lessor." We may point out that the compliment of the first rule set out above that waiver of a right of re-entry can only occur where the lessor, with full knowledge of the facts upon which such right depends, does some unequivocal act recognising a continuance of the lease, seems contained in the case Elliott *v.* Boynton, which we noted in our Legal Section on July 27, where it was laid down also that a receipt of rent after the landlord has unequivocally shown his determination to determine the lease for breach of covenant does not operate as a waiver.

Specific Performance : Statute of Frauds.

There have been an unusual number of cases lately turning upon what is a sufficient memorandum in writing on the sale of an interest in land to satisfy the Statute of Frauds. The latest case is Koenigsblatt *v.* Sweet (*Weekly Notes*, June 23). The vendor in that case, who was the defendant, had signed a contract, but left certain blanks in it, and had left it with his agent to be handed over as one part of a contract in writing for the sale of land to the plaintiffs, a man and his wife, in exchange for a similar document signed by them, the agent having authority to fill in the blanks. The agent filled in the blanks he was authorised to do, but he also struck out the name of one of the two purchasers, thus exceeding his authority, as he was only authorised by the defendant to accept the offer made by the plaintiff to purchase the property on the same terms as it had been offered to the plaintiff and his wife. The defendant, however, ratified the act of the agent, and the ratification was to date back to the time when the act was done.

In an action by the plaintiff for specific performance the defendant contended (1) that no binding contract had been originally made, as the agent had no authority to contract with one purchaser alone, and (2), even if the defendant had ratified the agent's act, new terms by that ratification were introduced into the original contract and this would make a new contract, and to that new contract there was no signature by the person to be charged to satisfy the Statute of Frauds as the old contract was the only one he had signed. The judgments of the Courts are at present too briefly reported for us to give the reasoning upon which the judgments were based. The report only states that the Court below held that the Statute of Frauds raised no difficulties, as the plaintiff was suing on an agreement in writing signed by the parties, and the plaintiff was entitled to an order for specific performance on the footing of the title having been accepted, and that the Court of Appeal dismissed the appeal without calling upon counsel for the respondent, the plaintiff. Section 4 of the Statute of Frauds, so far as it is relevent to this case, provides that no action shall be brought upon any contract or sale of lands, tenements, or hereditaments, or any interest in or concerning them, unless the agreement upon which such action is brought or some memorandum or note thereof shall be in writing and signed by the party to be charged therewith, or some other person thereunto by him lawfully authorised. Apparently the Courts must have considered, therefore, that the agreement or contract in this case and signed by the defendant had been duly ratified by the defendant at all material times and represented the contract sued upon.

Agreements in Restraint of Trade.

The decision which we noted in our Legal Section June 29, in the case of H. J. Willett *v.* Beasley, has been reversed on appeal. It will be remembered that the plaintiffs, who carried on business as agents for Ford cars at Colchester, were seeking to enforce an agreement as against a late employee, which, *inter alia*, provided that he should not at any time during the period of five years after the determination of his employment "undertake or carry on or be engaged or directly or indirectly concerned or interested in any branch of the motor business at any place within a radius of fifty miles from the Town Hall, Colchester." The Court below had upheld this agreement, as noted in our article.

The Court of Appeal reversed the judgment of the Court below. The Court referred to passages in Mason *v.* Provident Clothing Company (1913, A.C. 724), and Attwood *v.* Lamont (1920, 3 K.B. 571), and held that the covenant was too wide in two respects—the class of business and the area. The Court held that the words "any branch of the motor business" might include the assembling of parts, the manufacture of cars, or the building of motor boats, and were too wide for the protection of the business in question, whilst the area was also too wide, for it could not be said that it was necessary for an agent in this class of business to be protected over an area of fifty miles which covered part of London. Lord Justice Bankes is reported as having said that those who drew these agreements should not insert a specified area without considering whether it could reasonably be supported.

THE EFFECTS OF CEMENT CONTENTS ON CONCRETE.

At a recent meeting of the Institution of Structural Engineers Dr. Oscar Faber, O.B.E., D.Sc., read a paper on "Experiments on Concrete of Different Cement Contents."

The paper was divided into Parts I, II, and III, from which we take the following extracts:—

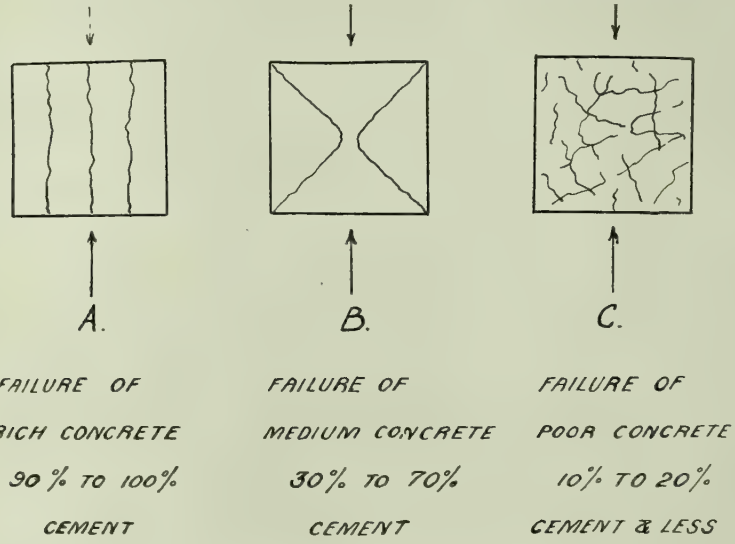


Fig 1.

PART I.

In connection with some work requiring rich concrete, the lecturer some time ago wanted definite experimental results as to how the properties of concrete were affected by varying the cement contents, and could find only isolated and unrelated tests, which, moreover, agreed but poorly with one another. He therefore determined to make a thorough and careful series of tests, in which cubes were made with 10 per cent., 20 per cent., 30 per cent., etc., up to 100 per cent. of cement, with careful measurements of weights of all the ingredients sufficient to furnish data as to weight of concrete, shrinkage of materials, quantities of material required, crushing strength, etc.

Such a series was made in August and September, 1922, and the quantity of water was left to the operator to find by trial, the resultant wetness to be controlled by a slump-test so as to obtain uniform wetness with all mixtures. It was found, however, that in spite of considerable care the results were very variable and bore strong internal evidence of unreliability, which was traced to variations in water content, which, of course, has a predominatory effect on strength of concrete. In other words, it was not found practicable, by means of leaving it to the discretion of the operator, assisted (or perhaps hampered) by a slump-test machine, to get the water contents sufficiently uniform in the various tests to obtain really uniformly varying results having strong internal evidence of reliability and consistency.

A second series was therefore undertaken, in which the water content of each mixture was carefully regulated according to a formula which had been designed to give uniform wetness to both rich and poor mixtures. Even though it was subsequently found that this formula could be improved on slightly, the second series did produce the instructive and reliable results hoped for.

In order to obtain really accurate proportions of cement, sand, and ballast it was found necessary to measure these by weight and not by volume, and it may be pointed out that the same cement can give variations in volume corresponding to a variation of from 90 to 60 lb. a cu. ft., depending solely on whether it be loosely packed or consolidated, and that a given measure filled with cement from a sack will give widely varying weights, and that clearly under such conditions no consistent results could be anticipated if the quantities were measured by volume. The same argument applies to sand and ballast, but to a much smaller extent.

In this series of experiments the ratio of sand to ballast was kept as 1 is to 2 throughout all the mixtures. The sand used was washed Ham River grit (a clean siliceous sand), and ¾-in crushed Ham River ballast.

Throughout the tests a 10 per cent. cement contents means that the weight of cement shall be 10 per cent. of the total weight of *dry materials* (cement, sand, and ballast); from which it follows that the sand and ballast would be 90 per cent., and since the sand is to be half the ballast, the sand would be 30 per cent., and the ballast 60 per cent., of the total weight of dry materials.

The cement percentage might have been taken as the percentage of the weight of *all materials* (cement, sand, ballast, and water), but this would conform less to usual parlance of the industry.

The water content was calculated by taking 25 per cent. by weight of the cement plus 5 per cent. by weight of sand and ballast. It was found that this formula made the very rich specimens rather too dry and the very poor ones rather too wet, and that a better formula is 28 per cent. by weight of cement plus 4 per cent. by weight of sand and ballast.

Subsequent tests were made verifying that this did in fact give proper and uniform consistency to all mixtures, but the formula first given was used in the tests here described.

The cement was of good quality British manufacture.

Conduct of Tests.

The proportions of cement, sand, and ballast were calculated so as to give 5,000 gms. of dry materials in all cases, the cement contents being 10 per cent., 20 per cent., 30 per cent., etc., up to 100 per cent. in the various tests, the remainder being divided between the sand and ballast in the proportions of 1 to 2.

These materials were weighed out, mixed, and the water calculated by the formula given was measured out and added.

Two cast-iron 4-in. cube moulds were filled with concrete, and the remainder of the concrete carefully kept.

After keeping for 24 hours in air the cubes and residue were weighed, and the cubes then kept in water for 28 days, when they were crushed.

The temperature during mixing did not vary outside the limits of 58° to 61° Fahr., and all the materials had been kept in the laboratory to acquire its temperature. The specimens were also kept approximately at this temperature when hardening in water.

The cubes were crushed in an "Amsler" machine. In most cases timber packing was used. The tests marked with an asterisk gave low results owing to a knot in the timber. The average in the curves has taken cognizance of this in giving these tests less

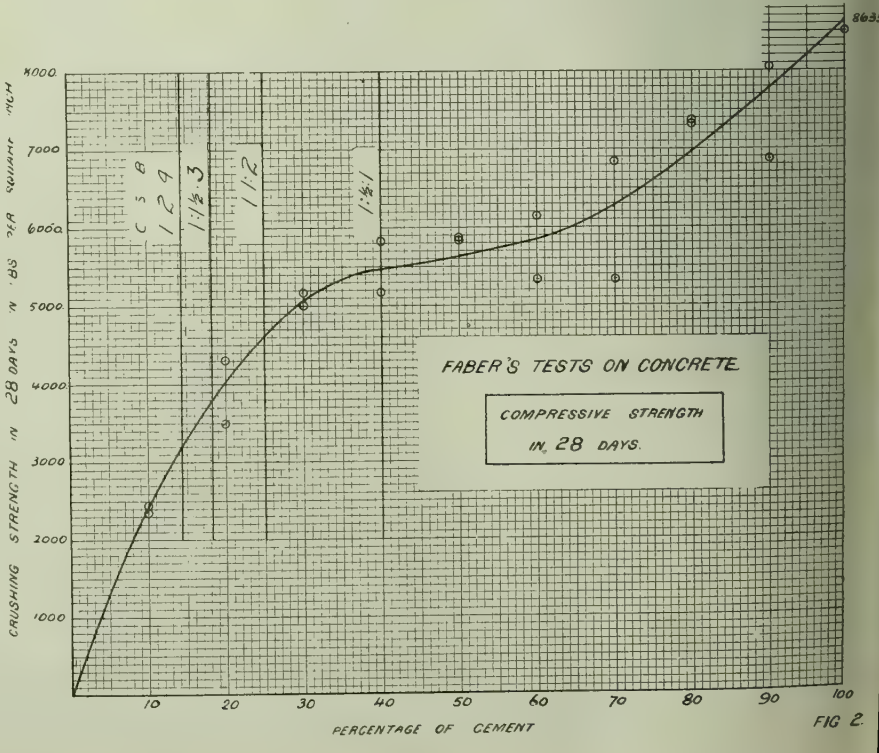


Fig 2.

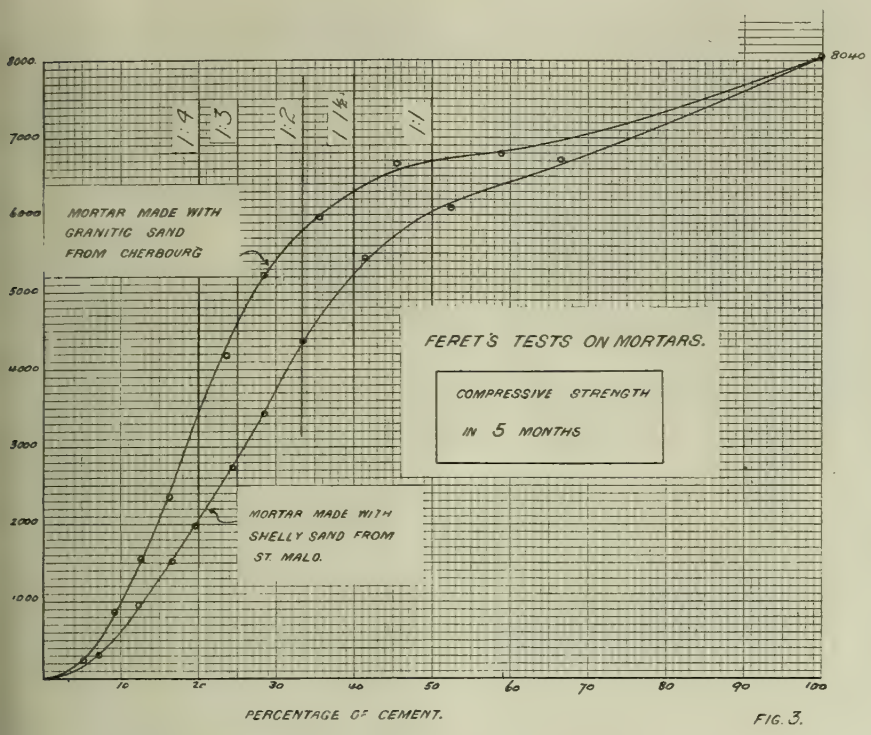


FIG. 3.

portance. The five poorer specimens were shed without packing.

t was very marked that the richness of the crete affected not only the strength but the thod of failure. The richest specimens 0 per cent. and 90 per cent. cement) failed splitting vertically. The medium ones per cent. and 30 per cent. cement) gave usual conical failure, while the poor ones per cent. and 20 per cent. cement and) failed by irregular crushing. These are strated in Fig. 1.

Fig. 2 shows the relationship between the centage of cement and the crushing ength of the cubes. This curve is one of greatest importance and brings out many eresting points.

t will be noticed that the positions on the ve corresponding to 1:2:4 and 1:1:2 rtars are indicated so that the relative ength of these and other similar proportions readily be ascertained.

The crushing strength of 1:2:4 concrete n the curve is 3,150 lb. per sq. in., and t of the 1:1:2 concrete is 4,600 lb. per in. It will be noticed that this is almost ctly 50 per cent. greater than the 1:2:4. s is a matter of considerable interest and some bearing on the L.C.C. Regulations, ch allow 600 lb. per sq. in. for 1:2:4 crete and 750 lb. per sq. in. for 1:1:2 crete. In other words, they only allow a per cent. increase in stress against the per cent. increase in stress actually ascered by the experiments.

g. 2 also brings out the interesting fact between 40 per cent. of cement and per cent. of cement there is only a very l increase in strength. After that, how- the increase in strength with additional nt contents again becomes appreciable. is a very interesting fact, and can readily nderstood if the strength of the concrete nsidered in terms of its tensile strength s vertical or oblique planes. It is of st to note that the curve between com- ve strength and cement contents has a different shape for concrete from its with cement mortars.

. 3 gives the corresponding curves drawn results published by R. Feret in 1897. ll be seen that the curvature in the case mortar curves is quite different, and a arison of the two is of considerable st.

haps the next interesting fact emerging these experiments is in connection with the shrinkage—that is to say, the reduction in volume of the dry materials which takes place when they are mixed together and wetted to form concrete. To ascertain this, not only were the materials actually weighed as mentioned and the volume of the concrete in the cubes ascertained, but the residue of concrete left over when the cubes had been made was also carefully measured, so that the total quantity of concrete produced from a given quantity of material was definitely ascertained. This shrinkage is, of course, of enormous importance to contractors, because from it can be calculated how much cement and materials are required to produce a cubic yard of concrete.

The shrinkage rises consistently with the richness of the mixture from about 18 for neat cement to about 36 for a 10 per cent. mixture. In other words, 100 parts of dry material were required to produce 64 parts of concrete, or that $100 \div 64 = 1.56$ cu. yds. of dry material are required to produce 1 cu. yd. of concrete of this particular richness. Of this 1.56 cu. yds. the cement would represent, roughly speaking, 0.16 cu. yds., leaving about 1.4 cu. yds. to represent volume of sand plus volume of ballast measured separately.

Generally speaking, the results of these tests confirm those of many other previous tests, which all go to show that the amount of shrinkage is generally greatly underestimated by contractors when estimating for concrete.

In the calculation of these shrinkages cement was taken as weighing 90 lb. per cu. ft. In practice it may actually weigh less, depending on its condition, and in such cases the shrinkage would actually be greater. Figs. 4 and 5 show the relationship between the volumes of cement, sand, ballast, and water, and the volume of dry materials and total materials, and should be of considerable assistance to contractors in estimating.

Fig. 6 gives the weight of concrete in lb. per cu. ft. for the different mixtures at different periods, from which it will be seen that the weight per cu. ft. increases as the cement content is reduced. These results also show that the cubes lost about 3 per cent. of water by evaporation in the first 24 hours, and re-absorbed about the same amount in the subsequent 28 days under water.

It is found that the safe stress for a 1:2:4 concrete works out to $3{,}150 \div 4$, which is nearly 787 lb. per sq. in. This is, of course, considerably higher than the present L.C.C. allowance of 600, and it would appear that the figure of 750 lb. per sq. in. which the lecturer had for some time been urging the L.C.C. to adopt in the revised Regulations is fully justified by the experiments.

As a matter of interest in passing, the corresponding safe stress to give a factor of safety of 4 for the 1:1:2 concrete comes to $4{,}600 \div 4 = 1{,}150$ lb. per sq. in. Naturally, he would only use these stresses when the materials were equal to those used in the tests.

In the experiments just described the lecturer expresses his indebtedness to Mr. H. T. Desch and Mr. Derek Hannen, who co-operated with him in conducting the tests and provided the necessary facilities, and whose interest aided materially in securing such accurate and consistent results.

PART II.

Experiments on the Variations of Volume in Proportioning Concrete.

Engineers, architects, and contractors have been in the habit of specifying concrete to be

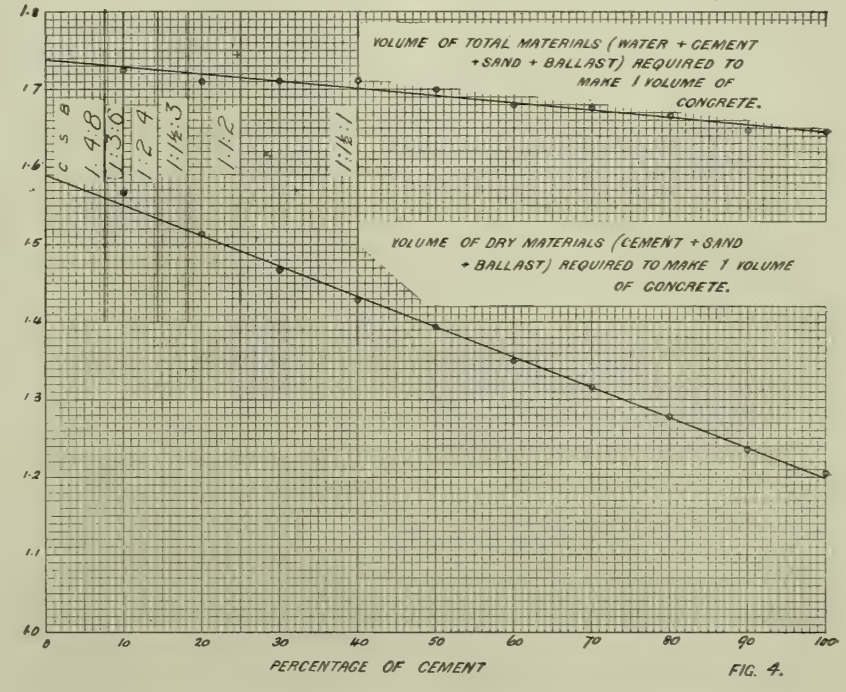


FIG. 4.

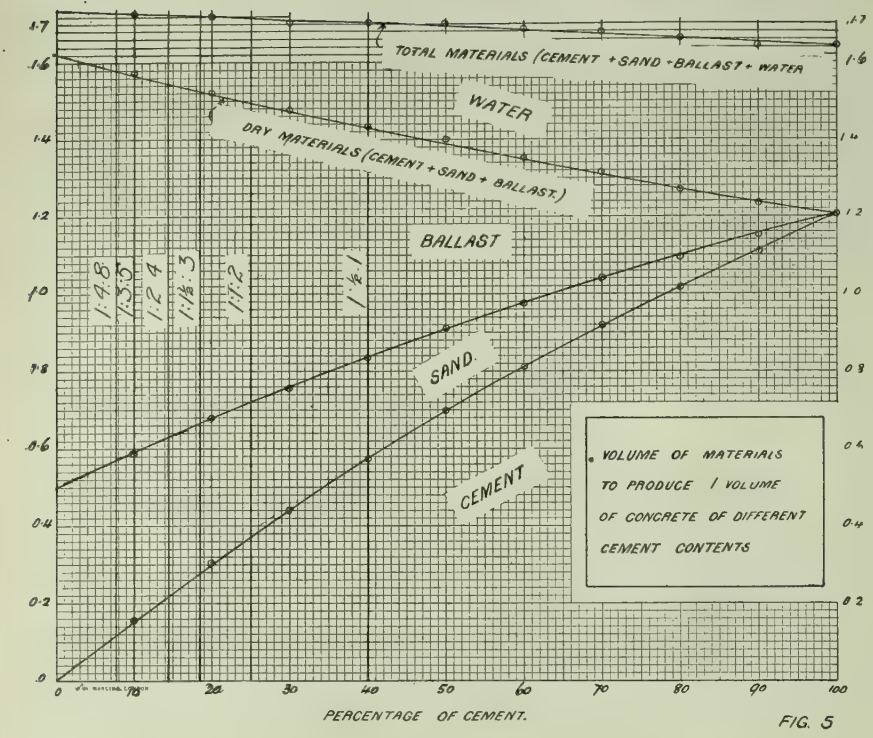


FIG. 5

apportioned by volume. For example, a common specification is 4 parts ballast, 2 parts sand, and 1 part of cement, all measured by volume. To this custom there are grave objections, owing to the fact that a cu. ft. of cement may represent anything between 60 and 90 lb., depending on the extent to which it is consolidated, or to which, on the other hand, air has been occluded between the cement particles, and in the same way, but to a much lesser extent, the amount of sand in a given volume varies with its wetness and its degree of consolidation.

He was aware of this discrepancy, but it was Mr. Desch who first opened his eyes to the extent of the variations, which he had never realised were so great as they are, and it was with a view to ascertaining this in a different manner that experiments were put in hand to show how much a given volume of cement and sand could vary in weight under different conditions. The actual cement used in the previous experiments was found to weigh 1,432 grams per litre when put in the litre pot and shaken until it was thoroughly consolidated. As 1,445 grams per litre corresponds to 90 lb. per cu. ft., it will be seen that this was a common figure.

The cement was then filled into the litre pot by allowing it to trickle in from a vessel held some distance above it through a very small orifice, so that the cement dropped in a thin stream through the air and settled in the litre pot without any shaking. When it had filled the pot and some distance above it, the excess over the top of the pot was cut off with a trowel and the contents were weighed. The weights in two separate experiments were 955 grams and 950 grams respectively per litre. This corresponds to about 60 lb. per cu. ft., and represents only two-thirds of the previous weight. For this particular cement the two figures of 90 lb. per cu. ft. and 60 lb. per cu. ft. represented the maximum and minimum weights of the cement which could be obtained by variations in compaction obtained by shaking.

It was thought to be interesting to see what actual weights would be obtained by scooping the cement with an ordinary cement scoop direct from the barrel and filling the litre pot without any shaking. The results of four consecutive experiments were as follows:

1,105 grams per litre.
1,206 ,, ,,
1,074 ,, ,,
1,079 ,, ,,

These results lie intermediate between the maximum and minimum values previously recorded, and lie rather below than above the mean, and correspond roughly to about 70 lb. per cu. ft.

The significance of these variations is, of course, as follows:—The proportions by volume for concretes are generally based on cement weighing 90 lb. per cu. ft., but actually the cement may weigh as little as 60 lb. after it has been sufficiently disturbed and is poured into the cement measure as loosely as possible. In such cases the engineer thinks he is getting 6 to 1 mixture on the basis of 90 lb. per cu. ft., when actually he would only be getting a 9 to 1 mixture on that basis, and in practice would actually get something which would lie intermediate between the two values.

When the cement is loaded into barrels or sacks at the works its weight per cu. ft. approximates to 70, and its transit by rail and carrier has the effect of consolidating it so that it frequently weighs about 90 lb. pe cu. ft. when it arrives at its destination What it would weigh in the actual measur on the banker board would depend entirel on the way in which it is filled into suc measure, whether it is shaken or filled loosely It is clearly most unsatisfactory that varia tions of this magnitude up to 33 per cent. i the cement contents can occur, and this i equally unsatisfactory from the engineer's o architect's points of view as well as that o the conscientious contractor, and to obviat this difficulty the lecturer considers it ver much better to specify concrete as follows:—

. . cu. ft. of ballast.
. . cu. ft. of sand.
1 bag of cement containing not less than 200 lb.

Experiments were made to see to what exten the same variations occurred in the case o sand and ballast. It was realised, of course that they would be much less, but it wa desirable, nevertheless, to ascertain thei actual values.

PART III.

The lecturer was recently called in t advise in connection with some retainin walls. A large site had been excavated to depth of 30 ft. approximately, and the sur rounding earth, together with the building upon it, were being retained by means of brick wall 3 ft. in thickness. At the tim when he was called in the wall was showin signs of overturning owing to the pressur of earth behind it. It was immediatel shored to render it safe, and subsequentl strengthened as described.

In connection with this work the lecture formed the opinion, after an examination o the soil, that the pressure on the back of th wall might safely be calculated at a pressur of $p=30\ (h+6)$, where "p" is the hori zontal pressure in lb. per sq. ft. and "h" is the depth in ft. from the top of the soil The effect of the buildings behind the wal could be allowed for by an equivalent sur charge of 6 ft. of earth.

On this basis the horizontal pressure at th top of the wall would amount to 180 lb. pe sq ft., and that at a depth of 30 ft. t 1,080 lb. per sq. ft. It was desired, fo several reasons, to have a check of these pres sures if possible, and it was found that th trench for the retaining wall was strutte across by means of horizontal timber strut

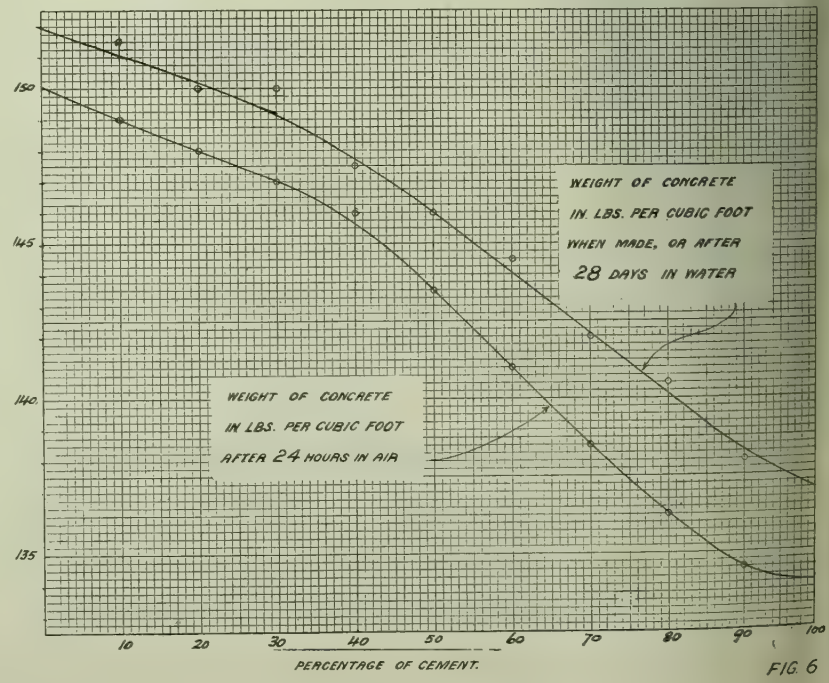


FIG. 6

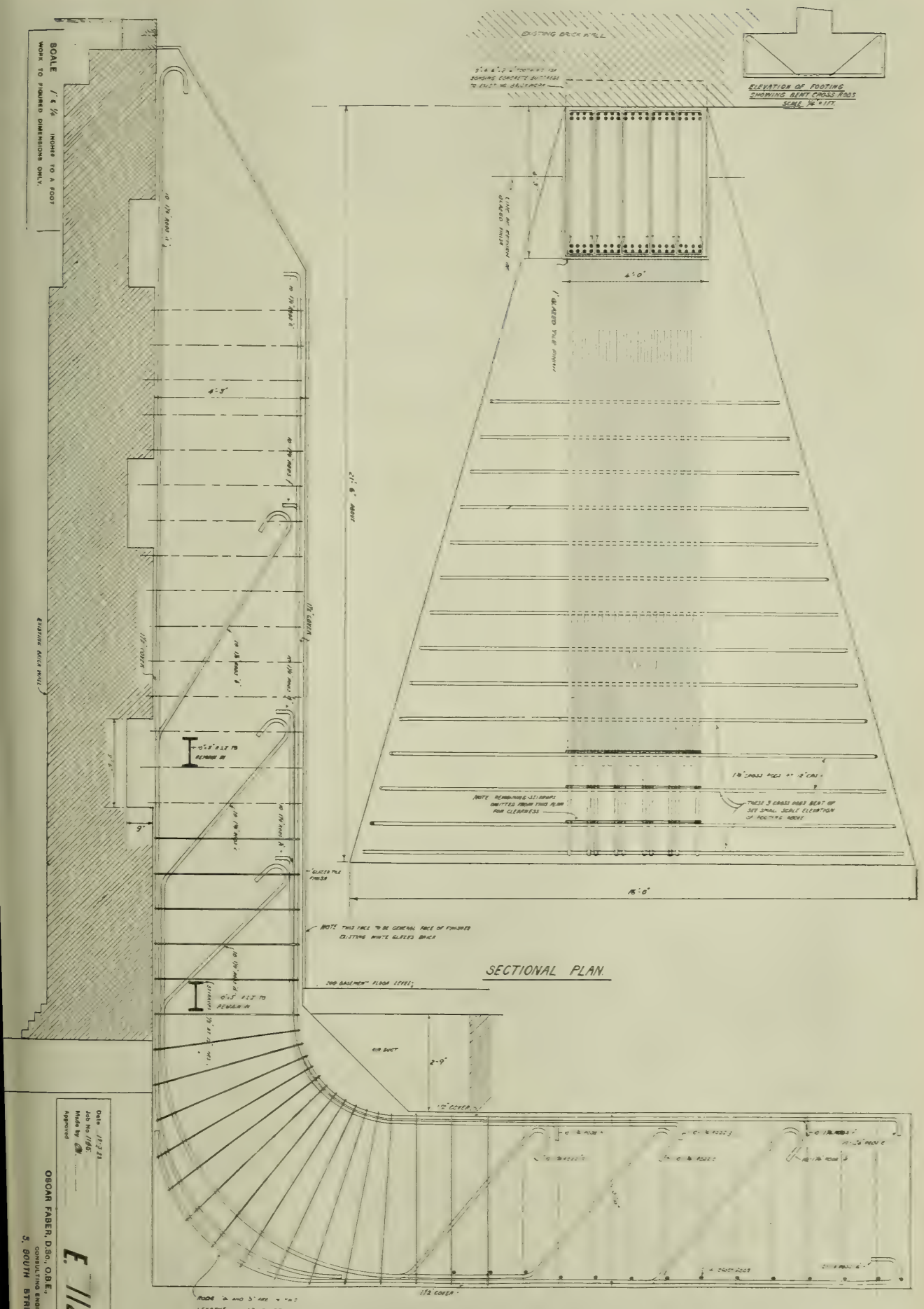

EXISTING BRICK WALL
ELEVATION OF FOOTING SHOWING BENT CROSS RODS
SCALE ¾" = 1'0"
SCALE 1/8 INCHES TO A FOOT
WORK TO FIGURED DIMENSIONS ONLY.
4'-0"
4'-5"
2'-6" ABOVE
15'-0"
9"
2'-9"
SECTIONAL PLAN.
SECTIONAL ELEVATION OF BUTTRESS.
FOUR BUTTRESSES THUS, FOR POSITION SEE DRG. E 1127.
OSCAR FABER, D.Sc., O.B.E., CONSULTING ENGINEER, 5, SOUTH STREET, E.C.1.
E. 1128.

FIG. 7.

7 ft. apart in both directions, the sectional area of the struts varying between 7 in. sq. and 8 in. sq.

This, of course, was on the portions of the wall where the dumpling had not been removed, and where the struts were still resisting the full horizontal pressure corresponding to their particular depth. It was noticed that the struts had indented themselves to a considerable distance into the horizontal timber walings, and this suggested the means of checking the earth pressure. A particular strut half-way down the wall was found to be $7\frac{1}{2}$ in. sq., and the indention to the horizontal timber, which amounted to about $\frac{3}{8}$ in., was measured. A similar strut and a similar piece of waling were then tested in a testing machine, and it was found that a pressure of about 28,000 lb. was required to produce the same indention of the strut into the waling.

Having regard to the fact that these struts were 7 ft. apart in both directions, it was possible to check back, and calculate that the earth pressure at this depth must be of the order of $28{,}000 \div 49 = 570$ lb. per sq. ft. The calculated pressure at that depth by his assumed pressure curve comes to 630 lb. per sq. ft., which was considered to be in close agreement.

This was considered of sufficient interest to be recorded, because it is not often engineers have opportunities of checking the pressures for which retaining walls need to be designed.

As a matter of interest Fig. 7 is added, showing how the walls were actually strengthened. A reinforced concrete buttress of rather peculiar design was constructed against the inside of the wall at intervals and efficiently bolted to the existing brick walls. Its effect is to increase the leverage of the weight of the wall from about 1 ft. to about 15 ft., and is therefore obviously extremely effective in supporting the wall against any tendency to overturn. It will readily be appreciated how extremely economical this method of strengthening the wall was as compared, for example, with the construction of a continuous reinforced concrete wall inside the brick one, which would have been the only practicable alternative which would have given adequate strength to resist the pressures which actually were found to exist.

From a point of view of obstruction, the arrangement adopted also proved to be peculiarly convenient, as these buttresses could be placed in certain recesses in the brick wall. It will be noticed that the buttresses are very heavily reinforced, as might be expected, as the pressure on a considerable width of wall was being resisted by a buttress only 4 ft. wide, and it was necessary to reduce the dimensions to an absolute minimum, with a view to causing as little obstruction as possible.

"REINFORCED MUD."

A Correspondent, "C. E. R." writes:—

The repairs recently carried out at the old "White Horse" inn at Shere, Surrey, brought to light certain old-time methods of construction that should be of interest to modern builders. This inn is upwards of six hundred years' old, and its stout oak timbers will probably last for centuries more. The repairs necessitated the demolition of the old tiled roof, which was erected about three hundred years' ago, and upon removal there was discovered a second complete roof below. This second roof was made of "wattle," clay and mud, extremely hard, having weathered the storms, it is believed, of some three centuries prior to the erection of the tiled roof.

The mud, which was compact and of considerable weight, was held together by a coarse straw, and where it was necessary that the slabs should be stronger they were further reinforced by the imbedment of straight sticks, about half-an-inch in diameter. These sticks were much eaten into by worms, and age had rendered them very brittle.

Whereas the tiled roof was pitched at 45 degrees, the mud roof was at 30 degrees, and curiously enough its axis was at right-angles to that of its successor, and it had therefore quite independent timber queen-post trusses. These latter, which form part of the main framing of the house, still remain, as do portions of the mud slabs, since in parts the ceilings of the upper rooms are depended from them.

In one place the cavity between the two roofs was occupied by a bacon-loft, and the smoke had hardened and well preserved the wattle in which it was formed.

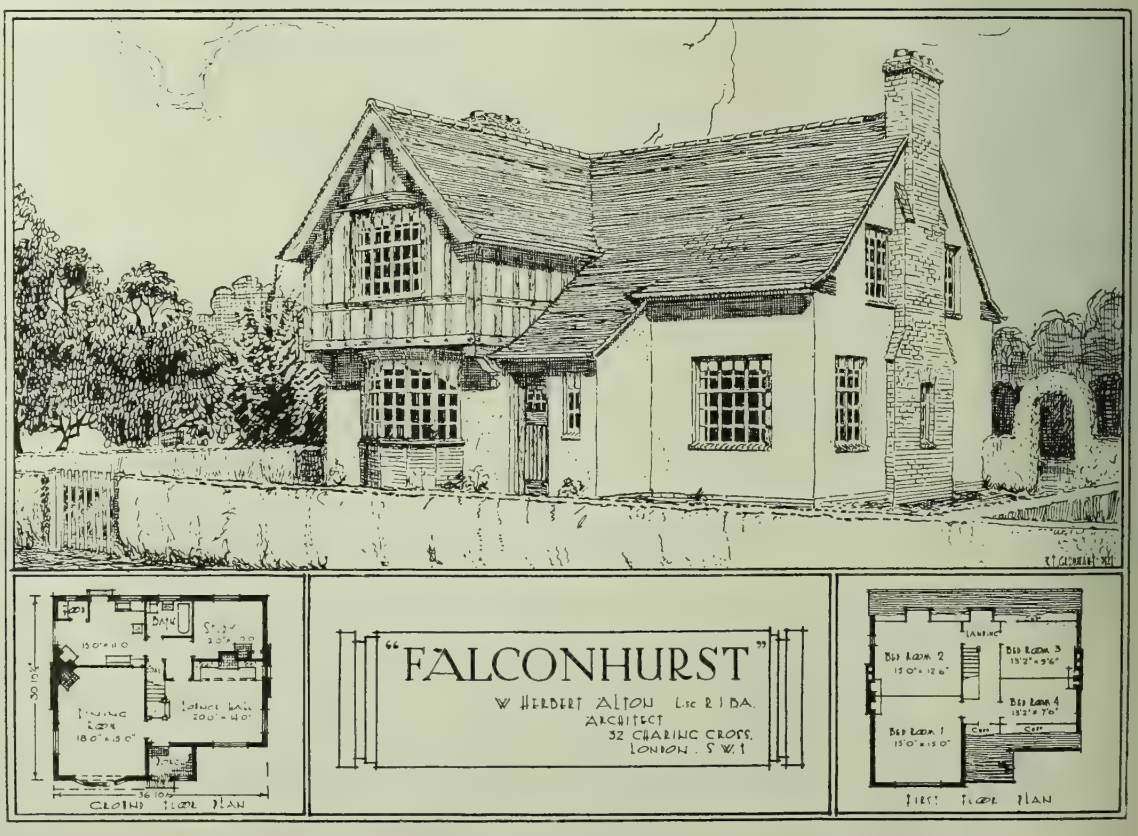
In spite of recent renovations, the house is still in bulk mainly fifteenth century work, and the wondrous old beams, and fine inglenook for which the inn is justly famed, still remain.

MORTEHOE CHURCH.

Mr. W. McG. Eagar, Secretary of the Garden Cities and Town-Planning Association, writes:—

"Sir,—The photographs of the bench-ends in Morethoe Church, reproduced in your issue of August 24, bring back familiar memories to those who know the West Country. A number of churches in Cornwall have bench ends so similar that they would appear to be the work, if not of the same hand, at any rate of the same school. Some of the most notable are the Parish Churches of St. Ives, Mullion, St. Mawgan-in-Pydar, St. Goran and St. Keverne. Strong traces of Italian influence have often been detected in them, and it is often stated that they are the work of Italian carvers who travelled round the West Country at the end of the seventeenth century. I have never heard any authoritative explanation, and it would be very interesting if any of your readers could give more precise information.

"The heads shown in panels in bench-ends of this type frequently bear an amusing resemblance to kings and knaves on playing cards (see Fig. 4 of your Mortehoe illustrations); at St. Ives there is a mermaid, and in one church St. Goran, there is a representation of the Holy Trinity, one head with three faces, one shown full and two in profile. The vigour and fancy of the artist or artists are remarkable, and though freedom of invention were given full play in the central panels, the form of the panels with their tracery and carved beadings, are remarkably uniform."



House at Coulsdon, Surrey. Mr. W. Herbert Alton, Lic.R.I.B.A., Architect.
[This house is being erected at a cost of £1,400.]

THE BUILDING TRADE.

UILDERS' ACCOUNTS.*

ns book deals in a thorough manner with complicated problems to be found in dealing the subject summarised under its heading. stated in its introductory remarks, the ial feature of the accounts of this trade costing accounts, which are so necessarily rt of its system, and in dealing with these nical accounts it is essential for a builders' untant to have a practical knowledge, t from his purely book-keeping knowledge. instance, his knowledge of the trade and discounts for various classes of goods, both ssing accounts for payment and for charging lients, necessitates him often being more tradesman than a book-keeper, and he is more valuable as such, leaving the com-'s accountant to tackle the higher accoun-y problems, such as the balance sheet and t and loss ledger. Our remarks are, there-confined more to the costing books as

hilst the whole of the books mentioned are y useful, in actual practice the problem of of staff in keeping them at once arises. instance, the "Register of Tenders" most useful reference volume, but to a firm it would require one clerk to do ing else but keep this register, and how would its pages of figures be looked at eference purposes? Ask the estimating If any particular job is wanted for ysis, it can always be done. The same with rtmental costs. Whilst it is very desirable ow that the joiners' department is paying and the smiths' department is losing y, when one comes to find the necessary to keep the costs of each department and isition goods from one department to ner, plus establishment charges and profit, poor estimator finds the costs of his job poor goose that lays the golden eggs) f all proportion to what he can get paid in etitive prices.

e "Purchase Journal" rulings are very rtant, and those shown should be amplified r headings, instead of at the side, to include ge, plant repairs, office trade expenses, and ances, all such totals to be agreed at the end e financial year with the prime cost books. ages book: With regard to this item, we nly say here that this system seems to be ed to benefit (1) the printers; (2) the tional Association of Clerks and Time-ers"; and (3) the Inland Revenue. For nce, "a *separate* sheet for every trade made up *every night* and posted to the and entered up in a wages' book." What matter with a weekly pay sheet made up ch job from a daily time book and sent yard on Friday for the amount of wages ed? A wages' *book* is surely only neces-or the yard wages, so that each depart-can be analysed and balanced. We notice, ssing, "deductions for local hospital." s presumably ready for when hospitals are a State charge, but surely a little previous sent, and what about the Truck Act?

ntract Journal."—This, we presume, is ed as a wages cost book of each depart-at the works, showing the cost of each der its number, but should be amplified to material, thus getting a total cost in ok.

Wages Cash Book.—The author has ly gone into the matter very extensively ide this as a necessary book, but we differ im as to the necessity. Possibly, owing unemployment benefits in vogue, men v rarely compelled to ask for "subs.", en so done it is surely a matter only for nal note by the foreman on the time book to ensure his getting repayment on the following pay day. Special cash books are not required in London. Yard stores accounts are very necessary, and with a system of bin cards to check stores "ins" and "outs" require full time services of a storekeeper and assistants, the question of classifying and entry of credits from contracts returned into stores being an item requiring a lot of care and time on the storekeeper's part.

Contract ledger as shown, generally called prime cost ledger, would not be found practical for large firms, and would require to be considerably condensed, showing name of each contract at side with headings for wages, materials ex yard, accounts direct, transport, machinery, plant hire, petty cash, &c., so that all contracts are thus classified and the total spent on each shown every month. An establishment charges P.C. ledger should also be kept under the same headings, showing the total expenditure monthly on machinery, plant, trade expenses, &c., and percentage allocated to each contract.

lers' Accounts. By JOHN A. WALBANK, F.C.A. : Gee & Co., Ltd., 6, Kirby-street, E.C. 1.) net.

BUILDING EXAMINATIONS.

MR. W. J. STONE writes:—

SIR,—I have read with much interest the letter of Mr. Gayer in your issue of the 17th, and I particularly noted the third paragraph, in which is indicated a form of registration for builders, a much-needed reform and one that will be welcomed by all builders and architects of merit. My article was designed to point out the bad construction of the Institute's Syllabus, and this appears to be amply justified in Mr. Gayer's admission that modifications are already contemplated.

As regards the charge of "not being constructive," presented by Mr. Gayer, I must point out that eighteen months ago the constructive side was suggested in my letter from the Building Surveyors' Association to the Institute, along with copies of letters to the Board of Education, and again as recently as April, 1923, and had the Institute taken the matter up then probably some of the anomalies might not have occurred and the anticipated modifications at so early a stage might have been avoided. This surely is some reflection upon the bodies with whom the Institute has collaborated. I still think it would have been wise and courteous to have conferred with some of the technical teaching staffs in addition to those referred to by Mr. Gayer, as the scheme bears evidence of hurried work.

It can be agreed, I think, that the cardinal point is that the Institute is one for (federated) master builders only. If so, one can accept their claims for the right to lay down the restricted conditions such as appear in the syllabus just issued. I confess that I looked upon the Institute from a much broader standpoint, and I seriously question the wisdom of the Institute in so restricting itself. Most of the industrial institutions and associations have a distinct national character, both educationally and commercially, and both the employing and employed class have admission on equal terms, usually by some form of examination, and these institutions set their standards of technique, etiquette, and commerce.

With respect to the building industry, it is perhaps the most disorganised of any of our great national industries, when, as a matter of fact, it should be the most complete, as it is one of the most important of the nation's callings. The aim should be one great national association or Institute of Builders representative of all branches—architectural, engineering, building, manufacturing, commercial, in addition to the scientific, technical, and educational side—and should be available as a national court of appeal and reference. One well-organised set of examination syllabuses issued by such an Institute after approval by the various interested sections would command national support and carry national prestige worthy of the British building industry.

If the various examination syllabuses are examined it will be found that the standard is so variable as to be amazing. Why should the standard of structural building work be different in each of the architectural or engineering and surveying associations? In one comprehensive and properly-graded syllabus the various stages might be used or adapted to the different associations.

Briefly, I would suggest a syllabus similar to many now in use covering the period of adolescence—from sixteen to nineteen years—dealing with the fundamentals and forming a groundwork on which most students could build and direct their future studies. Such a course would require attendance at an evening school or college for three evenings per week. Following this would be a two- or three-year advanced course, and at the age of twenty-one or twenty-two years students so desiring would specialise and follow on to a degree course mainly through the day colleges or universities. Many students for business reasons must necessarily move about the country, and if there be no syllabus of a national character much of their work becomes valueless unless repeated in accordance with local demands. A desirable object would be to reduce the number of examinations. Instead, I find they are increasing in number. We have the Institute of Builders' just issued, and shortly the Clerks of Works and Builders' Foremen will be issuing their scheme, whereas if such a syllabus as briefly outlined were available, each of the associations could select the year or grade of work most suitable to its requirements. A further example in the allied branch of carpentry and joinery can be cited, where there are three distinct examinations in the final grade. Imagine the rivalry and unnecessary complexity the student has in determining which of the examinations he should take!

The personal reference to my walk in life is scarcely worth mentioning, but for Mr. Gayer's information I might add that a number of my students are now quite creditable employers. It would perhaps have been better if the remark had been supplanted by reference to other more important points raised in my article. One does not doubt that the accountancy and book-keeping side requires close observation at all times, but the careful training of the building craftsman and artisan (who compose the great mass of the persons who will be affected by examinations) is much more important. The skilled organisation and direction of work can only be brought to a high level by a sound educational policy leading to a scientific study of the various arts and crafts and a broadening of the conceptions of life and citizenship. I sincerely trust the Institute will keep the broader outlook in view when the contemplated amendments are being considered. One might close by quoting Sir Charles Higham, speaking at a City Livery Club luncheon recently; he said: "We are famed for British quality: let us not lose that reputation."

Quarry Owner's Estate.

Mr. Aspinall Brooke (73), of Fenny House, Hipperholme, Yorks, quarry owner, stone merchant, and brick manufacturer, left £9,817, with net personalty £7,241.

ESTIMATING FOR SMALL BUILDERS—V.

By J. H. BARNS, F.I.O.B.

IRONMONGER.

It is difficult to attempt briefly to convey any information relating to this trade, as there are dozens of different qualities, sizes, gauges and patterns of most of the articles, and a fair acquaintance with the trade is essential. The most ordinary items are butt hinges. The cost of these will depend upon the material, whether pressed steel, cast iron, wrought iron, or brass; also upon the width of the butt when open, as the narrower butts are usually the cheaper. If the butts are narrow the screws sometimes align, which may tend to split the wood; the wider hinges have the screw holes alternating. The cheaper butts, especially the cast ones, usually fit loosely at the joints.

The cost of the pressed steel and wrought iron butts will depend upon whether they are to be of one or two thicknesses of metal, and the number of knuckles in the joint. Japanned iron casement stays of the usual common pattern can be bought from 2d. to 2s. each. Iron cockspur casement fasteners can be bought from 3d. to 2s. 6d. each for the ordinary ones with the mortice plate attachment; those with hook plates cost a penny or two more.

Examples of Cost of Ironmongery fixed complete.

Cast-Iron Butts (say, equal to Baldwin's 200).

	Long.			
Per pair ..	2½″	3″	3½″	4″
Hinges	4d.	5d.	7d.	8d.
Screws, say ..	2d.	2d.	3d.	3d.
Fixing to deal ..	10d.	11d.	1/–	1/2
	1/4	1/6	1/10	2/1
Profit and on-costs, 15 per cent. ..	2d.	3d.	3d.	4d
Total	1/6	1/9	2/1	2/5

Fixing to hardwood, say, 50 per cent. extra.

Heavy pressed steel butts about the same price as cast-iron butts.

Wrought-Iron Butts.

	Long.		
Per pair.	2½″	3″	4″
Hinges	1/4	1/7	2/8
Screws, say	2d.	2d.	3d.
Fixing to deal	10d.	11d.	1/2
	2/4	2/8	4/1
Profit and on-costs, 15 per cent.	4d.	5d.	8d.
Total	2/8	3/1	4/9

Ordinary Cast Brass-Steel Washered Butts.

	Long.			
Per pair ..	2½″	3″	3½″	4″
Hinges	3/–	3/6	4/3	5/–
Screws	3d.	3d.	4d.	4d.
Fixing to deal ..	10d.	11d.	1/–	1/2
	4/1	4/8	5/7	6/6
Add profit and on-costs, 15 per cent.	8d.	8d.	10d.	1/–
Total ..	4/9	5/4	6/5	7/6

Japanned Cross Garnet or "T" Hinges.

These are made in several different weights. The following prices are for a rather light kind:—

	Long—Per pair.					
	10″	12″	14″	16″	18″	24″
Tee hinges—	6d.	8d.	10d.	1/2	1/3	2/6
Screws, say—	2d.	2d.	2d.	3d.	3d.	3d.
Fixing—	1/–	1/2	1/2	1/3	1/4	1/6
	1/8	2/–	2/2	2/8	2/10	4/3

Profit and on-costs, 15 per cent.—

3d.	4d.	4d.	5d.	5d.	8d.
1/11	2/4	2/6	3/1	3/3	4/11

Heavy wrought-iron tee hinges would cost about 8d. per lb.

Japanned Iron Barrel Bolts with Brass Knob with Staples.

	6″	8″	10″	12″
Barrel bolts ..	7d.	1/3	1/6	1/10
Fixing	8d.	8½d.	9d.	10d.
	1/3	1/11½	2/3	2/8
On-costs and profit, 15 per cent.	2d.	4d.	4d.	5d.
	1/5	2/3½	2/7	3/1

Sash Fasteners.

There are many different patterns and materials in which they are made, the cheaper are in cast iron and the better ones in brass. The better qualities are somewhat on the lines of Hopkinson's Patent (which has, I believe, expired), and was in a form having a splayed shoulder to the moving arm to prevent tampering with window. A cheap 2¾ in. brass sash fastener costs 1s., and fixing 9d. Iron sash fasteners cost about 3d. each and cost of fixing same as before.

Black Casement Stays.

	10″	12″	long.
Japanned, with pins ..	1/–	1/2	each.
Screws	1d.	1d.	,,
Fixing	8d.	8d.	,,
	1/9	1/11	,,

Cockspur Casement Fasteners.

Cockspur	1/– each
Screws	1d. ,,
Fixing	8d. ,,
	1/9 ,,

The better qualities of casement stays and fasteners and ironmongery generally will cost more to fix. There are so many kinds of rim and mortice locks that, although no attempt will be made to detail their differences and prices, the following particulars will give some general information relating to the cheaper kind of locks, as it is useless to quote prices of locks without giving some details of the case and action of the lock.

Mortice Locks.

Sash ward locks with rough wrought interior, iron bushes and tumblers, brass bolts, thin stamped brass striking plate, Japanned case either 5 in. or 6 in. long and about ½ in. thick, 2s. 6d. each; similar lock, but with brass bolts and tumblers, 3s. each; ditto, but steel pressed action, strong spring brass bolts, japanned case, one lever, 3s. 3d. each; ditto, but polished wrought case, worth about 4d. more than last; ditto, polished case, brass bolts, tumbler and bushes, two lever, cast striking plate, 5s. 6d. each; ditto, but four lever, 6s. 6d. each. Most locks are now made reversible so as to be suitable for either hand. If locks are of fair to medium quality they will be made for the keys either "to pass" or "differ" without extra charge.

A fairly good lock can be obtained "in suites" subject to a master key without extra charge, except the cost of the master key, which varies from 2s. 6d. to 20s. each. With the better grades of ironmongery the screws for fixing are sometimes supplied by the makers. In most cases they are the ordinary wood screw with the slot at the top slightly enlarged as it is considered that the ordinary screw is likely to have the slot burred when driven. The additional cost of such screws is usually considerable, probably 2d. each. Half rebated or full rebated mortice locks are made in many of the grades of locks, and the cost of these are about 5s. to 10s. per lock. Rim locks are a little cheaper than mortice locks, and the remarks relating to them will apply to the former locks except that the cases of rim locks are usually japanned as the refinement of polished iron cases to rim locks has as yet hardly arrived to add a further joy to the life of the labour-loving housewife. T the small builder locks may be roughly plac into two categories, viz., those that are proper fitted, and those which are not. The easiest w to test the fitting of the "works" of a lock is press the follower with the thumb and if it go back in perfect alignment and without wobl it is reasonably well fitted and may be furth examined, but if the follower wobbles and obviously badly fitted it should be rejected unworthy of further inspection.

Rim locks will cost between 2s. 6d. a 12s. 6d. each, and mortice locks from 2s. 6d. 20s. each. Fixing rim locks from 2s. each a upwards. The cost of fixing mortice locks from 2s. 6d. to 7s. 6d. each, and will depend up whether the door has been prepared duri manufacture to receive them. The ret charges for ironmongery are considerably high than the wholesale rates, but it is doubtful if will pay the small builder to buy in large qua tities, as the cost of warehousing and keepi ready for immediate use a fair proportion of t great variety of items of ironmongery requir would probably amount to much more than t increased cost due to retailers' charges.

Brass Cabinet Locks.

These may roughly be described as comi within two classes:—(1) Till locks and straig or cut cupboard locks; (2) box and desk loc

The difference between the straight and t cut cupboard lock is that the straight cupboa lock is simply screwed on to the door and t "cut cupboard" has to be recessed into the st of the door and consequently costs more to f The desk lock has a sloping top plate.

The cost of fairly cheap brass cabinet loc each would be as follows:—

Long.	2″	2½″	3
Till or cupboard locks	1 lever	1/–	1/1	1/
Do. ..	2 ,,	1/6	1/7	1/
Do. ..	4 ,,	2/–	2/1	2/
Box and Desk	1 ,,	1/2	1/3	1/
Do. ..	2 ,,	1/7	1/8	1/
Do. ..	4 ,,	2/5	2/6	2/

The cheaper brass cabinet locks (say 1 lev usually have the brass cap at back riveted those of a little better quality have the screwed on. These locks are supplied neith "to pass" or *en suite* without extra charge.

Example:—

1—3″ brass 4-lever till lock.

	s.	d.
1—3″ till lock	2	2
Screws, say		1
Fixing, say	1	6
	3	9
Profit and on-costs, 15 per cent.		7
	4	4

The cost of fixing till locks will depend whether the locks can be recessed into drawer machine or must be done by hand, the for method is worth about 8d. and the latter ab 1s. 6d. If a thread escutcheon were require would have to be added on and would about 2d. for the escutcheon and 3d. for fix

Lock Furniture.

The slightly better qualities are usually ma factured on the lines of some (obsolete) pa and are so described. The cheaper patterns usually unsatisfactory as the handles freque become loose. The cost of furniture for rim mortice locks will depe n upon the syster patent under which it works, such as "Mac "Pitts," &c., and whether the handles are of or stout metal or solid cast, and an additi charge will be made for anything of an mental pattern. The cheaper qualities of furniture are described as for a certain lock, 6 in., 7 in., or 8 in. lock furniture, the difference being that the knobs of the 8 in. furniture would be about 2 in. diameter an 6 in. about 1¾ in. diameter. Other descrip of lock furniture are sold by the diameter knobs or pattern of handles.

Cheap Brass Lock Furniture (Per set).

	6″	7″	8″
Drilled through rim furniture	8d.	10d.	1/–
"Maces" rim furniture	1/–	1/1	1/2
"Maces" mortice furniture	1/7	1/9	1/10

Example :—

	s.	d.
1 set 6″ mortice furniture	1	7
Fixing		9
	2	4
Add profit and on-costs, 15 per cent.		4
	2	8

The cheaper patterns of finger plates are worth about 6d. to 9d. to fix.

A double-action brass floor spring, made by a well-known London firm of spring makers, can be obtained for 60s., fitted with brass adjustable shoe and top centre. This would be suitable for all ordinary doors and guaranteed for three years. A similar floor spring, but prepared for exceptionally heavy doors in exposed positions would cost £5. If the first mentioned floor spring were fitted with check action, the additional cost would be 15s., making a total of 75s. each. In practice the check action springs are very likely to be damaged by persons pushing the door open before the check action has finished its work, and thus straining the air check. Another well-known firm of makers supply a floor spring for medium sized doors at 50s., and for heavy doors, 65s., and if fitted with check action, 80s. and 98s. respectively. Springs for single action doors (swinging one way only) would need to have check action and, including the top butt necessary for hanging, would cost about the same as double action floor springs with check. There are so many makers and patterns of floor springs that the small builder will be well advised to get a special quotation on each occasion for exactly what is required.

Example :—

1 double-action floor spring and top centre, and fixing to hardwood door and wood floor—

	£	s.	d.
1 spring	3	0	0
Fixing, say	1	0	0
	£4	0	0
Profit and on-costs, 15 per cent.	12		0
	£4	12	0

The spring makers will send to fix floor-springs, and their charge for this would be approximately 25s. per spring. Spring manufacturers will usually arrange to oil, maintain, and adjust their floor springs at a cost of about 15s. per annum.

The following are a few prices from the British standard list for bright iron wood screws per gross, with countersunk heads (Nettlefolds) :—

Nos.	8	9	10	11	12
Length					
¾″	1 1½	1/2½	1 3	1/4	1/5½
⅞″ & 1″	1 3	1/3½	1 4½	1/6½	1/7½
1¼″	1/5½	1/6½	1/7½	1/9	1/11
1½″	1/7½	1/8½	1.9	1/11	2/1
2″	2/1	2/1	2/2	2/4	2/8

Brass Wood Screws (per gross).

Nos.	8	9	10	11	12
Length					
¾″	2/8	3/–	3/4	3/10	4/4
⅞″ & 1″	3/4	3/8	4/1	4/6	5/–
1¼″	4/–	4/5	4/11	5/5	6/–
1½″	4/8	5/2	5/9	6/4	7/–

The discount varies in accordance with the quantity required, but the present discount is about 30 per cent. off iron screws, and 15 per cent. off brass screw list.

No. 9 screws are usually suitable for 2½ in. and 3 in. butts, and No. 10 screws for 4 in. butts.

[Previous articles in this series, with the dates on which they appeared, are as follows :—Preliminaries, June 29; Brickwork, July 6; Carpenter, July 20 and August 10.]

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur :—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-Masons' Labourers.	Plas-layers' terers Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1 0	
Bedford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0 11½	
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1 4	
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1 0½	
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0 11½	
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1 0½	
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1 1½	
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Cambridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0 11½	
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1 0	
Chelmsford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0 11½	
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1 0	
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Colchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0 11½	
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1 1½	
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1 1½	
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
E. Glam. (Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1 0½	
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1 0½	
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0 11½	
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1 0	
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1 1½	
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1 2½	
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Great Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0 11½	
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1 0½	
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0 11½	
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1 0	
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Ipswich	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0 11½	
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1 1½	
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1 1½	
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1 1½	
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1 4	
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1 2½	
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Luton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0 11½	
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1 0	
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1 1½	
Norwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1 0	
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1 0	
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1 0½	
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1 1½	
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1 0½	
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1 0½	
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1 0	
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1 1½	
St. Albans	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0 11½	
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Scarborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1 1½	
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1 1½	
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1 0½	
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1 0½	
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	0 11½	
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1 0	
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0 11½	
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1 0½	
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1 0½	
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1 1½	
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1 0½	
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1 2½	
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1 1½	
York	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1 1½	

(For rates of wages in the Building Trade in Scotland, see page 344.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING

AUGUST 31.—**Bow, E.**—ROOM.—For an additiona room to the laundry at the St. Andrew's Hospital, Devon's-road, Bow, E. 3, for Managers of Poplar and Stepney Sick Asylum District. Messrs. Andrews & Peascod, architects, 143, Bow-road, E. 3. Deposit £2.

SEPTEMBER 1.—**Aberystwyth.**—PAINTING.—For painting and decorating the old Infirmary, Aberystwyth. Mr. G. T. Bassett, architect, Aberystwyth.

SEPTEMBER 1.—**Aberystwyth.**—REBUILDING.—For rebuilding of part of Pwllimmon House, Marine-terrace, for University College of Wales. Mr. G. T. Bassett, architect and surveyor, Aberystwyth.

SEPTEMBER 1.—**Alton (Hants).**—KITCHENS, &C., AND ALTERATIONS.—Erection of new kitchens and laundry and for other alterations at the Alton Poor Law Institution, at Alton (Hants), for the Guardians of the Alton Union. Clerk to the Guardians, 46, High-street, Alton (Hants). Deposit £3.

SEPTEMBER 1.—**Barnsley.**—STREET WORKS.—Tenders are invited for the making and completing of—Henshall-street and Milnes-street, Barnsley; back road, between Hawthorne-street and St. George's-road, and Longcar-lane, Barnsley; back road, between Keir-street and Summer-street, Barnsley. PAINTING. —Tenders are invited for painting the following:—External work of the Public Baths, York-street, and Race-street, Barnsley; external work at Locke Park, Town End Recreation Ground, and St. Mary's Disused Burial Ground. PUBLIC CONVENIENCES.—Erection of new public conveniences at Locke Park, Barnsley. HOUSING.—For the erection of 82 non-parlour houses at the junction of Pontefract-road and Grange-lane, Barnsley. Mr. H. Taylor, Fairfield House Offices, Barnsley.

SEPTEMBER 1.—**Bourne.**—HOUSES.—Erection of 8 houses (4 parlour type and 4 non-parlour type), for the U.D.C. Mr. A. W. Plowright, surveyor, Meadowgate, Bourne. Deposit £1 1s.

SEPTEMBER 1.—**Brentford.**—CONVENIENCE.—Erection of a public urinal at the Recreation Ground, St. Paul's-road, for the U.D.C. Mr. W. J. W. Westlake, Clifden House, Brentford.

SEPTEMBER 1.—**Royston, near Barnsley.**—HOUSES.—Tenders are invited for the erection of 12 houses, for the U.D.C.; also the roadmaking and laying of sewer. Messrs. Dyson, Cawthorne & Coles, 10, Regent-street, Barnsley.

SEPTEMBER 3.—**Abertillery (Mon).**—FOURTEEN HOUSES.—For erecting, for U.D.C., under Rose Heyworth scheme, 14 houses at Abertillery. Work includes demolition of existing huts and clearance of the site. Surveyor, Council Offices, Abertillery.

SEPTEMBER 3.—**Aylesbury.**—AMBULANCE STATION.—For ambulance station, for the T.C. Mr. W. H. Taylor, Borough Engineer and Surveyor, Town Hall, Aylesbury.

SEPTEMBER 3.—**Bournemouth.**—LODGE.—Erection of gate lodge at North Cemetery, for the T.C. Borough Engineer, Bournemouth. Deposit £1 1s.

SEPTEMBER 3.—**Bristol.**—CONVENIENCE.—Erection of public convenience at Greville Smyth Park, for the T.C. Mr. L. S. McKenzie, City Engineer, Bristol. Deposit £2 2s.

SEPTEMBER 3.—**Bristol.**—PAINTING.—For re-painting externally houses on Knowle and St. John's-lane estates, for the T.C. Secretary, Housing Department, Council House, Bristol.

SEPTEMBER 3.—**Crediton.**—CEMETERY ENTRANCE.—For forming entrance, with gateways, carriage-way, and footpath, for Crediton Joint Cemetery Board. Architect, Mr. S. Dobell, 11, Bedford-circus, Exeter.

SEPTEMBER 3.—**Dartford.**—HOUSES.—Erection of 24 houses at Ship-lane, Sutton-at-Hone, for the R.D.C. Mr. Eustace J. Hobbs, Clerk, Council Offices, West Hill, Dartford. Deposit £2 2s.

SEPTEMBER 3.—**Failsworth.**—SHELTERS, &C.—Construction of wood shelters, conveniences, tool-house, and septic tank installation, for the U.D.C. (Unemployment Relief Works). Mr. J. W. E. Brown, Engineer and Surveyor, Town Hall, Failsworth, near Manchester.

SEPTEMBER 3.—**Fordingbridge.**—BRIDGE REPAIRS.—For the repair of a small masonry bridge known as Roaches County Bridge on the Fordingbridge-Ringwood main road, about 1 mile from Fordingbridge Station, for the Southampton C.C. Mr. W. J. Taylor, County Surveyor, The Castle, Winchester. Deposit £1 1s.

SEPTEMBER 3.—**Goodmayes.**—COTTAGES.—Erection of two cottages at Mental Hospital, Little Heath, Goodmayes, for the T.C. Borough Engineer, Town Hall, West Ham, E. 15. Deposit £1.

SEPTEMBER 3.—**Guildford.**—HOUSES.—Erection of 12 non-parlour houses on the Newark-road Site, for the R.D.C. Mr. John Anstee, Architect, Council Offices, Commercial-road, Guildford. Deposit £2 2s.

SEPTEMBER 3.—**Norwood, S.E.**—EXTENSION.—For an extension of the playroom at The Children's Home, "Cumberlow," Goat House Bridge, Norwood, S.E., for the Guardians of the Poor of the Lewisham Union. Guardians' Offices, 394, High-street, Lewisham, S.E. Deposit £1 1s.

SEPTEMBER 3.—**Pontefract.**—INFIRMARY BLOCK.—Erection of an Infirmary Block at Poor Law Institution, for the Pontefract B.G. Messrs. Tennant & Smith, architects, Ropergate, Pontefract. Deposit £3 3s.

SEPTEMBER 3.—**Rochdale.**—SCHOOL.—Erection of open-air school at Brownhill, for the T.C. Borough Surveyor, Town Hall, Rochdale.

SEPTEMBER 3.—**Tynemouth.**—TENEMENTS.—Erection of three blocks of tenements at Percy-square, for T.C. Mr. John P. Smillie, Borough Surveyor, Tynemouth. Deposit £2 2s.

SEPTEMBER 4.—**Aberdare.**—POST OFFICE AND TELEPHONE EXCHANGE.—Erection of a new Post Office and Telephone Exchange at Aberdare, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s., payable to the Secretary.

SEPTEMBER 4.—**Birmingham.**—REPAIRS, &C.—Execution of ordinary works and repairs at the Beacon and Lickey Hostels, Birmingham, for H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit 10s. 6d.

SEPTEMBER 4.—**Cardiff.**—PAINTING.—(1) External painting, City Lodge, East; (2) external painting, City Lodge, West, for the B.G. Mr. R. Stephenson, Clerk, Union Offices, 11, Park-place, Cardiff.

SEPTEMBER 4.—**Dromore.**—ADDITIONS.—For additions to Town Hall, for the U.D.C. Mr. A. F. Wright, Town Clerk, Dromore, Ireland.

SEPTEMBER 4.—**Hampton, Middlesex.**—HOUSES.—Erection of 24 houses on the Priory-road site, Hampton, for the Urban District Council. Mr. Sidney H. Chambers, Surveyor to the Council, Public Offices, Hampton, Middlesex. Deposit £2 2s.

SEPTEMBER 4.—**Thame.**—STAIRCASES, &C.—Erection of two staircases and minor alterations to the Infirmary block, for the B.G. Mr. C. Simmons, Clerk, 2, High-street, Thame.

SEPTEMBER 4.—**Various Places.**—ORDINARY WORKS AND REPAIRS.—Execution of ordinary works and repairs at the buildings in the charge of the Commissioners of H.M. Office of Works, at various places. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit 10s. 6d. in each case (payable to the Secretary).

SEPTEMBER 5.—**Cambridge.**—ROOM.—New dressing-room and other structural alterations at the Guildhall, for the T.C. Borough Surveyor, Guildhall, Cambridge.

SEPTEMBER 5.—**Clacton-on-Sea.**—HOUSES.—Erection of twenty houses in Central-avenue, Clacton-on-Sea, for the Clacton U.D.C. Council's Surveyor, Council Offices, Station-road, Clacton-on-Sea.

SEPTEMBER 5.—**Clavering, Essex.**—COTTAGE.—Erection of a cottage at Coldhams Farm, Clavering, Essex, for the Small Holdings and Allotment Committee of the Essex County Council. Mr. Jno. Stuart, F.R.I.B.A. County Architect, Springfield Old Court, Chelmsford.

SEPTEMBER 5.—**Dunmow, Essex.**—COTTAGE.—Erection of a cottage at Cooper's Farm, Dunmow, for the Small Holdings and Allotments Committee of the Essex County Council. Mr. Jno. Stuart, F.R.I.B.A., County Architect, Springfield Old Court, Chelmsford.

SEPTEMBER 5.—**Greasborough.**—BUNGALOWS.—Eight bungalows in blocks, four of two each, for U.D.C. Mr. James Totty, architect, Moorgate-street, Rotherham.

SEPTEMBER 5.—**Hendon.**—ENLARGEMENT.—Enlargement of the Union Offices, near Edgware, for the Guardians of the Hendon Union. Mr. F. J. Seabrook, Clerk to the Guardians, Union Offices, Edgware.

SEPTEMBER 5.—**London, E.14.**—REBUILDING WALLS, &C.—Rebuilding of the walls and other works in connection therewith to Block "G," at the Poplar Institution, High-street, Poplar, to plans and bills of quantities prepared by their architects, Messrs. Andrews & Peascod, for the Poplar Board of Guardians. Clerk to the Guardians, 45, Upper North-street, Poplar. Deposit £2.

SEPTEMBER 5.—**London, S.W. 18.**—REMOVING CHIMNEY STACKS, &C.—Removing chimney stacks and for alterations to two wards at the St. John's Hospital, St. John's Hill, S.W. 18, for the Guardians of the Wandsworth Union. Mr. F. J. Curtis, Clerk, Union Offices, St. John's-hill, Wandsworth, S.W. 18.

SEPTEMBER 5.—**Manchester.**—SCHOOL.—Erection of Higher Ormond-street Municipal School. Education Offices, Deansgate, Manchester. Deposit £1 1s.

SEPTEMBER 5.—**Omagh.**—BANK.—Erection of new premises, Omagh, co. Tyrone, for the Munster and Leinster Bank, Ltd. Messrs. Morris & Kavanagh, 68, Harcourt-street, Dublin. Deposit £2 2s.

SEPTEMBER 5.—**Sheffield.**—HOUSES.—Erection of 147 houses on the Manor Estate, Intake, for the T.C. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield. Deposit £2.

SEPTEMBER 5.—**Twickenham.**—HOUSES.—Erection of 16 "A" type houses on the Prospect-crescent Site, Whitton, for the Twickenham U.D.C. Surveyor to the Council, Town Hall, Twickenham. Deposit £2 2s.

SEPTEMBER 6.—**Ballachulish.**—HOUSES.—Various works in connection with the erection of twelve three-apartment houses at Ballachulish, Argyllshire, for Argyll County Council. Mr. R. W. Campbell, architect, Oban.

SEPTEMBER 6.—**Birchencliffe.**—BUNGALOW.—For the various trades required in the erection of bungalow. Mr. Joe Ainley, architect and surveyor, 3, Chapel-hill, Huddersfield.

SEPTEMBER 6.—**Dewsbury.**—ALTERATIONS.—For several trades required in the alterations to Lloyds Bank, Northgate, Dewsbury. Messrs. Holtom & Fox, architects, Corporation-street, Dewsbury.

*SEPTEMBER 6.—**London, W. 6.**—ALTERATIONS TO LAVATORIES.—Alterations to the male and female lavatories at the Workhouse, 129a, Fulham Palace-road, for the Guardians of the Parish of Fulham. Mr. E. J. Mott, Clerk to the Guardians, Guardians' Offices, 129, Fulham Palace-road, Hammersmith, W. 6. Stamped addressed foolscap envelope.

SEPTEMBER 6.—**Salisbury.**—CONVERSION.—For converting outbuildings into engine room, &c., for the B.G. Messrs. J. Harding & Son, architects, 65, New-street, Salisbury.

SEPTEMBER 6.—**Stafford.**—PAINTING.—For painting the outside of the Children's Homes, Stone-road, for the B.G. Mr. C. B. Wilton, Clerk, Union Offices, Market-square, Stafford.

SEPTEMBER 6.—**Surbiton, Surrey.**—PUMP HOUSE.—Construction of a pump house, alterations to existing boiler house, boiler setting, &c., and other contingent works, at their Surbiton Pumping Station, in the county of Surrey, for the Metropolitan Water Board. Mr. Henry E. Stilgoe, Chief Engineer, Offices of the Board, New River Head, 173, Rosebery-avenue, E.C. 1. Deposit £5, to 'Accountant' to the Board.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Masons' Labourers.	Plasterers' Labourers.
Aberdeen	1/7	1/8	1/7	1/7	1/8	1/8	1/4½	1/-	
Airdrie	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/5	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/7	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Fort William	1/7	1/6	1/6	1/6	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 343.

SEPTEMBER 7.—**Manchester.**—NURSES' HOME.—Extension of Nurses' Home at the Booth Hall Infirmary, for B.G. Mr. William Fishwick, Quantity Surveyor, 7, Brown-street, Manchester. Deposit £2 2s.

SEPTEMBER 8.—**Hampstead, N.W.3.**—SUNDRY WORKS AND ALTERATIONS.—Sundry works for alterations to existing buildings for the Guardians of the Parish of St. John, Hampstead. The Clerk, Guardians' Offices, New End, Hampstead, N.W. 3. Deposit £2 2s.

SEPTEMBER 8.—**Wakefield.**—BRIDGE WORK.—For widening bridge over Kitchen Clough, on the Wakefield and Austerlands main road. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

SEPTEMBER 10.—**Clydebank.**—VARIOUS WORKS.—Excavator and brick work, glazier, slater and roughcast, plumber and gasfitter, plaster, carpenter and joiner work in connection with the erection of 78 houses at Whitecrook, for the T.C. Town Clerk, Municipal Buildings, Clydebank. Deposit £1 1s.

✱SEPTEMBER 10.—**Erdington.**—HOUSES.—For the erection of 98 non-parlour type, Perry Common-road, Contract 136, and 102 parlour type, Gipsy-lane, Contract 137, for the City of Birmingham. Mr. Herbert J. Humphries, M.Inst.C.E., The Council House, Birmingham. Deposit £1.

✱SEPTEMBER 10.—**France and Belgium.**—HEADSTONES.—For a total supply of 15,000 headstones in a number of contracts, none less than 100, for the Imperial War Graves Commission. The Secretary, 82, Baker-street, London, W. 1. Marked "Headstone Contract 5079–R."

SEPTEMBER 10.—**Glasgow.**—VARIOUS.—Offers are invited for the (1) excavator, brick, &c., works, and (2) carpenter and joiner, &c., works, in connection with the erection of the Mearnskirk Sanatorium, Mearns, Renfrewshire. Deposit £10 10s. each trade.

SEPTEMBER 10.—**Hemsworth.**—HOUSES.—Erection of 10 houses in blocks of two, for the U.D.C. Mr. A. Wright, Clerk, Council Offices, Barnsley-road, Hemsworth. Deposit £1 1s.

✱SEPTEMBER 10.—**Rochford, Essex.**—HOSPITAL BUILDING.—Erection of new Hospital Block (54 beds), extension of Nurses' Home (28 beds), new board room, new electric lighting power house, and other alterations and additions at the Poor-Law Institution, Rochford, for the Rochford Board of Guardians. Mr. Norman Evans, Licentiate R.I.B.A., 27, County Chambers, Ashton-road, Southend-on-Sea. Deposit £1 1s.

SEPTEMBER 10.—**Woldingham.**—HOUSES.—Erection of 12 working-class dwellings at Lunghurst-road, Woldingham, for Godstone R.D.C. Council's Surveyor, Mr. T. C. Barralet, Council's Offices, Oxted. Deposit £2s.

SEPTEMBER 11.—**Ashton-under-Lyne.**—PAINTING.—For painting and other decorators' work at Electricity Generating Station and Offices, for the T.C. Borough Electrical Engineer, Wellington-road, Ashton-under-Lyne.

SEPTEMBER 11.—**Brierley Hill.**—ALTERATIONS AND ADDITIONS.—Alterations and additions to the Post Office, Brierley Hill, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

SEPTEMBER 11.—**Glasgow.**—HOUSES.—(1) Excavator, brick, and mason works; (2) carpenter, joiner, and ironmonger works; (3) slater and roughcast works; (4) plumber and gasfitter works; (5) plaster work; (6) painter work; (7) glazier work; and (8) iron railings and gates, for 228 houses at Kelvindale, for the T.C. J. Lindsay, Town Clerk, City Chambers, Glasgow.

SEPTEMBER 11.—**Manchester.**—WASHHOUSE.—Erection of public washhouse, at Ardwick, for the T.C. Architect, Town Hall, Manchester. Deposit £1 1s.

SEPTEMBER 11.—**Rhondda.**—HOUSES AND ROADS.—Undertaking for the Rhondda U.D.C. following :—(*a*) Building of fifty (50) non-parlour type houses, and, alternatively, fifty (50) parlour type houses on the same site, near the Ferndale Cemetery, Ely-road, Ferndale; (*b*) The construction of roads and sewers in connection with the houses. Mr. E. Mair, Engineer and Surveyor, Council Offices, Pentre Rhondda). Deposit for (*a*) £5 and for (*b*) £2.

SEPTEMBER 11.—**Offaly (Ireland).**—GENERAL REPAIRS AND PAINTING.—For repairs and painting of the Courthouses and County Home, Tullamore. Mr. T. S. Delaig, Secretary, County Board of Health, Tullamore.

SEPTEMBER 11.—**Southgate, N.**—HOUSES.—Erection and completion of ten houses at Nursery-road, Southgate, for the U.D.C. Engineer and Surveyor to the Council, Town Hall, Palmer's Green, N.

SEPTEMBER 12.—**Brierley Hill.**—HOUSES, &C.—For the erection of 20 houses, together with the necessary roads and sewers, on the Mill-street Estate, for the Mr. John Yorke, Engineer and Surveyor, Town Hall, Brierley Hill, Staffs. Deposit £2 2s.

SEPTEMBER 12.—**Edinburgh.**—VARIOUS SCHOOL WORKS.—Various works in erection of Bellevue Industrial and Commercial School, for the Education Authority of Edinburgh. Mr. J. A. Carfrae, architect, Dundas-street, Edinburgh.

SEPTEMBER 12.—**Morecambe.**—ADDITIONS TO HOSPITAL.—For whole works, or separate trades, for additions to Morecambe Hospital. Mr. S. Wright, architect and surveyor, Seaborn-drive, Morecambe.

SEPTEMBER 12.—**Penzance.**—REBUILDING.—For the rebuilding of the premises of Mr. J. W. Saundry, Market-street, Penzance. Mr. Henry Maddern, H.R.S.A., 2, London, 11, Morrab-road, Penzance.

SEPTEMBER 12.—**Stone, Staffs.**—ENLARGEMENT.—Addition of two classrooms, cloakroom, heating apparatus and alterations and improvements to Alleyne's Grammar School, for Staffordshire Education Committee. William Balfour, Director of Education, Stafford.

SEPTEMBER 12.—**Stromness.**—PIER.—The Harbour Commissioners of Stromness invite offers for the erection of a pier in reinforced concrete. Mr. Robert S. Rae, Clerk to Harbour Commissioners of Stromness. Deposit £1 1s.

SEPTEMBER 12.—**Woolwich, S.E.18.**—PAINTING, Painting works, &c., to the premises Furze Lodge, Shooter's Hill. Plumstead, for the Guardians of the Woolwich Union. Messrs. Whincop & Channer, architects, Plumstead-street, Woolwich.

SEPTEMBER 12.—**Yorkshire.**—ALTERATIONS.—Whole or separate tenders for (1) Fairburn Council School—Additions to Head Teacher's House: Builder, carpenter and joiner, slater, plumber, and glazier, plasterer, and painter work. (2) Darton Mapplewell Council School—Minor alterations. (3) Swinton Kilnhurst Council School—Converting th W.C.'s and repairs to school. (4) Fellisciffe Council School—Repairs to asphalte playground, for the West Riding Education Committee. Education Department, County Hall, Wakefield.

✱SEPTEMBER 13.—**Highgate.**—SUB-STATION, &C.—For the erection of an electricity sub-station and engineer's residence at North-road, for Hornsey Borough. Mr. E. J. Lovegrove, Borough Engineer and Surveyor, Town Hall, Highgate, N.6.

SEPTEMBER 13.—**Ilford.**—HOSPITAL BUILDINGS.—Erection and completion, under one contract, of the following buildings at the Isolation Hospital, Groveroad, Chadwell Heath: (1) New administration block; (2) the raising of roof over two large wards and the conversion of rooms on first floor into two large wards; (3) new staircase block for access to last; for the Ilford U.D.C. Mr. H. Shaw, Engineer and Surveyor to the Council, Town Hall, Ilford. Deposit, £5 5s.

SEPTEMBER 13.—**Keswick.**—HOUSES.—Erection of sixteen Class "A 2" houses, in blocks of two, for the U.D.C. Surveyor, Town Hall, Keswick. Deposit £2 2s.

SEPTEMBER 13.—**Chadwell Heath.**—HOSPITAL BUILDINGS.—Erection of new Administrative Block; raising of roof over two large wards and the conversion of rooms on first floor into two large wards; and new staircase block, at Isolation Hospital, for Ilford U.D.C. Mr. H. Shaw, M.Inst.C.E., Council's Engineer and Surveyor, Town Hall, Ilford. Deposit £5 5s.

SEPTEMBER 13.—**Greenwich.**—PLASTERING, &C.—For plastering the internal walls of the East Block, supplying and fixing tubing for wires for electric lighting, and preparing and pointing the external walls at Greenwich Institution, Woolwich-road, East Greenwich, for the B.G. Mr. Alfred Roberts, surveyor, 92, London-street, Greenwich. Deposit £1 1s.

SEPTEMBER 13.—**Guildford.**—CONVENIENCE.—For construction of a public convenience, for the T.C. Borough Surveyor, Tuns-gate, Guildford.

✱SEPTEMBER 13.—**Worthing.**—ENGINE ROOM, &C.—For the erection of additional engine room and other work at the Electricity Works for the Borough. Borough Surveyor, Municipal Offices, Worthing. Deposit £1 1s.

SEPTEMBER 14.—**London, E.C.**—BRONZE UNIT.—Reconstruction of bronze unit at the Royal Mint, for the Commissioners of His Majesty's Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s.

SEPTEMBER 17.—**Laleham, Middlesex.**—ENGINE HOUSE, &C.—Construction of the superstructure for an engine house, boiler house, elevated coal bunkers, chimney shaft, fitters' shop, stores, ash hoist building, sewage disposal plant, and other contingent works, at the Littleton Reservoir, in the Parish of Laleham, in the county of Middlesex, for the Metropolitan Water Board. Mr. Henry E. Stilgoe, Chief Engineer, Offices of the Board, New River Head, 173, Rosebery-avenue, E.C.1. Deposit £10, to Accountant to the Board.

SEPTEMBER 18.—**Abertillery.**—POST OFFICE.—Erection of a new post office for the Commissioners of H.M. Office of Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

✱SEPTEMBER 18.—**Barnsbury-grove, N.**—EXTENSION.—For the extension of the North Telephone Exchange, for the Commissioners of H.M. Office of Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit, £1 1s.

SEPTEMBER 18.—**Glasgow.**—VARIOUS WORKS.—For the various works required in connection with the erection of 1,140 houses at Knightswood, Areas Nos. 1 and 2, for the T.C. Mr. J. Lindsay, Town Clerk, City Chambers, Glasgow.

✱SEPTEMBER 18.—**Warlingham (Surrey).**—TELEPHONE EXCHANGE.—Erection of a new telephone exchange, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

SEPTEMBER 19.—**Mapplewell.**—ALTERATIONS.—The W.R. Committee invite tenders for alterations at Darton Mapplewell Council School. The Education Department, County Hall, Wakefield.

SEPTEMBER 20.—**Tedavnet, Co. Monaghan.**—CHURCH.—For the reconstruction and enlargement of Tedavnet Church, Co. Mcnaghan, for the Rev. Philip Mulligan, P.P., Scotstown, Co. Monaghan. Mr. R. M. Butler, F.R.I.B.A., architect, 23, Kildare-street, Dublin.

SEPTEMBER 24.—**Watchet.**—QUAY BUILDING, &C.—For construction of certain works including building of a concrete quay, sheeting and bulkhead walls for the improvement of Watchet Harbour. Mr. Frank Risdon, Clerk, U.D.C. Offices, Watchet.

OCTOBER 1.—**Hertfordshire.**—COTTAGES.—Erection and completion of 32 detached cottages at various places in Hertfordshire, for the C.C. Mr. A. Ernest Prescott, M.Inst.C.E., Lieut.-Col., County Surveyor and Architect, Hatfield. Deposit £1 1s.

NO DATE.—**Barnsley.**—PAINTING.—Scraping and painting two lattice pit-headgears. Houghton Main Colliery, near Barnsley.

NO DATE.—**Blackwood.**—PAINTING.—For painting two houses at Cefn-road, Blackwood. T. Jones, Schoolmaster, Cross Keys (Mon).

NO DATE.—**Buxton.**—CONVERSION.—For the conversion of "Parkholm," The Park, Buxton, into two flats. Mr. Chas. Flint, architect and surveyor, Buxton.

NO DATE.—**Cross Keys (Mon).**—PAINTING.—For painting of two houses at Cefn-road, Blackwood. Mr. T. Jones, Schoolmaster, Cross Keys (Mon.).

NO DATE.—**Durham.**—PAINTING.—For painting Nos. 1, 2, and 3, Holly-street, Durham. Scott, 8, Victoria-street, Pity Me.

NO DATE.—**Gilfach Goch.**—HALL.—For the several works in completing the Gilfach Goch Workmen's Hall and Institute (partly erected). Messrs. R. S. Griffiths & Partners, architects, Tonypandy. Deposit £2 2s.

NO DATE.—**Heckmondwike.**—PAINTING.—For painting Upper Jndependent Church, Heckmondwike, Sunday School, and adjoining premises; also the parsonage and cottage property. Mr. Ed. Batley, 1, Union-street, Heckmondwike.

NO DATE.—**Huntington.**—HOUSES.—Erection of 25 pairs of non-parlour type houses, for Cannock R.D.C. Mr. H. M. Whitehead, Director of Housing, Council Offices, Penkridge, Stafford. Deposit £5.

NO DATE.—**Kilmarnock.**—VARIOUS WORKS.—For the digger and brick works, carpenter and joiner works, plumber work, slater and roughcasting works, plaster work, and glazier work of 30 houses, for the T.C. Mr. Robert Blackwood, Burgh Surveyor, Kilmarnock.

NO DATE.—**Manchester.**—PAINTING.—For painting houses and shop. Mr. Grayshon, 18, Princess-road, Moss Side, Manchester.

NO DATE.—**Pontefract.**—RESIDENCE.—For new residence in Womersley-road, Knottingley, for Mr. F. Sellers. Messrs. Tennant & Smith, architects, Roper-gate, Pontefract.

NO DATE.—**Pontypridd.**—PAINTING.—For painting of Wesleyan Chapel, Treforest. Mr. Oliver Morgan, Park-street, Treforest, Pontypridd.

NO DATE.—**Swanwick.**—BILLIARD ROOM, &C.—For billiard room and other additions to Locks Heath Workmen's Social Club, Swanwick. Architect, Mr. Norman Atkins, 62, West-street, Fareham.

NO DATE.—**Worthing.**—VILLAS.—For erection of pair of villas. Elderslie, Grand-avenue, Worthing.

FURNITURE, MATERIALS, etc.

SEPTEMBER 1.—**Trowbridge.**—MATERIALS.—Supply of road materials, tools, &c., to the Wiltshire C.C. Mr. J. G. Powell, County Surveyor, Trowbridge.

SEPTEMBER 3.—**Hammersmith.**—MATERIALS, &C.—Supply of stores and materials to the B.C. for six months. Borough Engineer, Town Hall, Hammersmith, W

SEPTEMBER 3.—**St. Marylebone.**—MATERIALS.—For supply of materials for various depts., for six months. Mr. J. Paget Waddington, Borough Surveyor, Town Hall, Marylebone, N.W.

SEPTEMBER 3.—**Willesden.**—SUPPLIES.—Supply (six or twelve months) of artificial slab paving, tar-paving, gravel, broken granite, lime and cement, stoneware pipes, ironmongery, timber, &c., for the U.D.C. Mr. F. Wilkinson, M.Inst.C.E., Engineer to the Council, Town Hall, Dyne-road, Kilburn, N.W.

SEPTEMBER 4.—**Farnham.**—MATERIALS.—Supply of cutlery, furniture, &c., for Farnham and Hartley Wintney School District. Superintendent, District Schools, Crondall, Surrey.

SEPTEMBER 4.—**Lancaster.**—SUPPLIES.—Supply (six months) of brushes, hardware, disinfectants, &c., to County Mental Hospital, Lancaster. Mr. J. R. Wilson, Clerk and Steward.

SEPTEMBER 4.—**Newport (Mon).**—SUPPLIES.—For supply for period of three or six months to the Board of Guardians of following materials:—Paints, paint brushes, electrical fittings, ironmongery, and tinware, engineers' stores, brushes, oils, rubber utensils, disinfectants, soap, steam coal, house coal, leather, drugs, &c. Mr. William Dowler, Clerk to the Guardians, Union Offices, Queen's Hill, Newport, Mon.

SEPTEMBER 5.—**Barnet.**—SUPPLIES.—Supply of oils and colours, &c., for the B.G. Mr. A. Wilshire, Clerk, Barnet.

SEPTEMBER 5.—**Manchester.**—SUPPLIES.—Supply of shovels and forks, &c., for the T.C. Mr. R Williamson, Superintendent Cleansing Department, Town Hall, Manchester.

SEPTEMBER 5.—**Shardlow.**—MATERIALS.—Supply of disinfectants, soap, &c., for the B.G. Mr. J. Spencer, Clerk, St. Mary's-gate, Derby.

SEPTEMBER 6.—**Dewsbury.**—SUPPLIES.—For supply of oils, paints, ironmongery, and hardware, &c., for the B.G. Mr. E. T. Tunnicliffe, Clerk, Wellington-street, Dewsbury.

SEPTEMBER 6.—**Newcastle-on-Tyne.**—MATERIALS.—Supply (six months) of builders' hardware, paints, timber, bricks, sanitary pipes, machinery oils, steam jointings, brushes, &c., for the B.G. Mr. Gladstone Walker, Clerk, 127, Pilgrim-street, Newcastle-on-Tyne.

SEPTEMBER 10.—**Coventry.**—SUPPLIES.—Supply (six months) of brooms and brushes, &c., for B.G. Union Offices, 13, Little Park-street, Coventry.

SEPTEMBER 10.—**Edmonton.**—SUPPLIES.—Supply (six months) of ironmongery, painters' goods, timber, &c., for the B.G. Mr. E. Ridley, Clerk, 77, Bridport-road, Edmonton, N.18.

SEPTEMBER 10.—**Hull.**—SUPPLIES.—Supply of paints, oils, sand, cement, cable and other stores, for Humber Conservancy Board. Mr. A. W. Franklin, Secretary, Conservancy Buildings, Hull.

SEPTEMBER 10.—**London.**—HEADSTONES.—Supply of 15,000 headstones, for the Imperial War Graves Commission, Secretary, Works Department, Imperial War Graves Commission, 82, Baker-street, W. 1. (Headstone Contract, 5079/R.)

SEPTEMBER 10.—**Manchester.**—MATERIALS.—Supply of granite setts and kerb, for the T.C. Paving, &c., Department, Town Hall, Manchester.

SEPTEMBER 10.—**Morpeth.**—SUPPLIES.—Supply (six months) of brooms, paints, oils, &c., to Northumberland Mental Hospital, Clerk and Steward, Hospital.

SEPTEMBER 11.—**Bristol.**—SUPPLIES.—For supply of ironmongery, electrical fittings, &c., for the B.G. Mr. T. S. Lamb, Clerk, St. Peter's Hospital, Bristol.

SEPTEMBER 12.—**Belfast.**—WIRELESS SUPPLIES.—For stores and materials for wireless telegraphy, &c., for police, for Government of Northern Ireland. Secretary, Ministry of Home Affairs (Maintenance Branch), Plough Chambers, 5, Cornmarket, Belfast.

September 12.—**Liverpool.**—Materials.—For supply of ironmongery, castings, wrought iron and steel goods, files, paving setts, kerbs, flagstones, oils and paints, timber, &c., for the T.C. City Engineer, Municipal Buildings, Dale-street, Liverpool.

September 12.—**Macclesfield.**—Supplies.—Supply of furnishing materials, paints, &c., to Cheshire County Mental Hospital, Macclesfield. Mr. W. G. F. Turgay, Clerk, to the Hospital.

September 12.—**Richmond (Surrey).**—Supplies.—Supply of oils and colours, &c., for the B.G. Mr. P. Umney, Clerk to the Guardians, "Parkshot," Richmond, Surrey.

September 12.—**Smethwick.**—Materials.—Supply (six months) of road materials, shovels, bricks, cement, ironmongery, &c., for the T.C. Mr. Alex. Hosken, Borough Engineer and Surveyor, Council House, Smethwick.

September 14.—**Stockport.**—Materials.—Labour and materials for construction of precipitation tanks at Cheadle Heath Sewage Works. Mr. H. Hamer, A.M.Inst.C.E., Borough Surveyor, Town Hall, Stockport. Deposit £5 5s.

September 17.—**Worthing.**—Timber.—Supply of fifty squares of 1½ in. pitch pine floor boarding to the T.C. Borough Surveyor, Worthing.

September 18.—**Brentford.**—Supplies.—For hardware, oils, &c., for the B.G. Mr. F. E. Harmsworth, Clerk, Toolands House, 34, Twickenham-road, Isleworth.

September 18.—**Merthyr Tydfil.**—Supplies.—For supply in bulk for period of six months from October 1 next, for the Poor Law Institutions at Merthyr and Trecynon and the Cottage Homes, Aberdare, for the Merthyr Tydfil Board of Guardians, of the following supplies:—Building materials, haulage, straw, electrical fittings, earthenware, oils, paints, glass, ironmongery, shoemaking materials, leather, boots, &c., drugs. The Clerk to the Guardians, Union Offices, High-street, Merthyr Tydfil.

September 24.—**Dover.**—Supplies.—Supply (six months) of bricklayer and plumber materials, ironmongery, &c., for the B.G. Mr. C. Dacre Carder, Clerk, Market-square, Dover.

No Date.—**Dundee.**—Kerb.—Supply of 5,000 lin. ft. of whinstone kerb and 10,000 lin. ft. of granite kerb, for the T.C. Mr. George Baxter, M.Inst.C.E., City Engineer, 91, Commercial-street, Dundee.

No Date.—**Sheffield.**—Supplies.—Supply (six months, Sheffield firms only) of ironmongery, brooms, &c., for B.G. Clerk to the Guardians, Union Offices, Westbar, Sheffield.

ENGINEERING, IRON AND STEEL.

August 31.—**Birmingham.**—Boiler.—Supply and erection of Lancashire boiler at the P.O. Telegraph Office, Birmingham, for Commissioners of H.M. Works, Contracts' Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s.

September 1.—**Enfield.**—Telephones.—For maintenance of telephones at Hospital of the Enfield and Edmonton Joint Hospital Board. Surveyor, Public Offices, Enfield.

September 3.—**Dublin.**—Steelwork.—Supply of steelwork for bridge for the Midland Great Western Railway of Ireland Co. Chief Engineer, Broadstone Terminus, Dublin. Charge 4s.

September 3.—**Dundee.**—Bridge.—Erection of plate girder railway bridge over Kingsway, for the T.C. Mr. G. Baxter, City Engineer, Dundee. Deposit £5.

September 3.—**Glamorganshire.**—Water Mains.—Providing and laying cast-iron mains and pipes at Ynysyplwm, Pontycymmer, Ogmore Vale, and Maesteg, for Mid-Glamorgan Water Board. Mr. Eiryn W. Davies, Superintendent, Water Board Offices, Bridgend. Deposit £1 1s.

September 3.—**Glasgow.**—Boilers.—For two water tube boilers at new Baths, Woodside, for the T.C. Office of Public Works, City Chambers, 64, Cochrane-street, Glasgow.

September 3.—**Stratford, E.**—Mechanical Stokers, &c.—Mechanical stokers, coal elevator and conveyor for Abbey Mills Pumping Station, Abbey-lane, Stratford, London, E. 15, for the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W. 1. Deposit £2.

September 4.—**Bethnal Green.**—Telephone Instruments.—Installation of telephone instruments in Offices, for the B.G. Mr. C. Faulkner Jones, Clerk, Administrative Offices, Bishop's-road, Bethnal Green, E.2. Deposit £1 1s.

September 4.—**Cannock.**—Liquefying Tanks.—Construction of two additional liquefying tanks at Littlewood Sewage Outfall Works, Cheslyn Hay, for R.D.C. Mr. H. M. Whitehead, Engineer's Office, Penkridge, Stafford.

September 4.—**London, E.C.**—Railway Materials.—Supply of platelayers' tools, dressed wagon covers, pressed steel sleepers, bolts, nuts, and rivets, brass and iron or steel screws, steel draw-bars for wagons, ferro-prussiate paper, metals, &c., miscellaneous articles and materials, four-wheel goods brake body skeletons, for the Great Indian Peninsula Railway Co. Mr. R. H. Walpole, Secretary, 48, Copthall-avenue, E.C.2. Various fees from 2s. 6d. to £1.

September 4.—**West Bromwich.**—Heating System.—Installation of heating system in the dining-hall at Hallam House, Hallam-street, West Bromwich, for the B.G. Mr. A. H. Ward, Clerk, 22, Lombard-street, West Bromwich.

September 5.—**Sleaford.**—Cable.—Supply and laying of a new pair of feeders, for the U.D.C. Mr. W. H. Wilson, Resident Electrical Engineer, Electricity Works, Sleaford, Lincs.

September 6.—**Salisbury.**—Heating Installation.—For installing boiler and heating plant at the workhouse. Mr. E. Mould, Clerk, 48, Blue Boar-row, Salisbury. Deposit, £3 3s.

September 7.—**Halifax.**—Turbo-Alternator.—Supply of one 10,000 K.W. turbo-alternator with condenser, for T.C. Mr. W. M. Rogerson, M.I.E.E., Borough Electrical Engineer, Electricity Offices, 29, Northgate, Halifax.

September 7.—**Morecambe.**—Water Mains.—For materials involved in transporting, laying and jointing cast-iron pipes for water mains, and fixing and connecting valves and hydrants in a number of streets, for the T.C. Mr. Percival Holt, A.M.I.C.E., Borough Water Engineer. Deposit £1 1s.

September 10.—**Edinburgh.**—Tram Poles.—Supply of 168 steel tramway poles and scrolls, &c., for the T.C. Tramways Manager, 2, St. James-square, Edinburgh.

September 10.—**Hornsey.**—Low tension switchgear, for T.C. Borough Electrical Engineer, Tottenham-lane, Hornsey. Deposit £1 1s.

September 11.—**Cowdenbeath.**—Supply and erection of wrought iron railings and gates, and stob and wire fencing. Mr. C. A. Alexander, Burgh Surveyor, Town House, Cowdenbeath. Deposit £1 1s. per schedule.

September 11.—**Manchester.**—Rails, &c.—Supply of (*a*) steel girder tramway rails; (*b*) steel tramway poles; (*c*) span-wire brackets for tramway poles; (*d*) copper bonds for tramway rails, for the T.C. Mr. Henry Mattinson, General Manager, Corporation Tramways, 55, Piccadilly, Manchester.

September 12.—**Chesterfield.**—Induced-Draught Plant.—For an electrically-driven induced-draught plant, for the T.C. Mr. R. H. Campion, M.I.E.E., General Manager, Electricity Department, 172, Chatsworth-road, Chesterfield.

September 12.—**London, E.C.4.**—Axles, &c.—For supply of:—(1) Steel axles for carriages and wagons; (2) red and white lead; (3) four-wheeled sheep vans and bogie boiler trucks, for the East Indian Railway. Mr. G. E. Lillie, Secretary, 73–76, King William-street, London, E.C.4. Deposit £1 1s.

September 12.—**London, S.W.**—Railway Material.—For brake beams, spring washers and axle-guards, for the Bombay, Baroda and Central India Railway Co. Secretary, Offices, 91, Petty France, Westminster, S.W.1. Fee 10s.

September 12.—**Stoke-on-Trent.**—Cooling Towers.—For two cooling towers, 200,000 gallons each, with cooling ponds and accessories, for the T.C. Borough Electrical Engineer, St. Peter's Chambers, Stoke-on-Trent.

September 14.—**Nottingham.**—Piping, &c.—Manufacture and erection of steam water and other pipework, valves, tanks, &c., at the Power Station, for the T.C. Messrs. Preece, Cardew & Rider, 8, Queen Anne's Gate, Westminster, S.W.1. Deposit £5.

September 15.—**Manchester.**—Pumps.—For one set of electrically driven high-pressure centrifugal pumps, to deliver 1,000 g.p.m. against a pressure of 1,120 lb. per square inch. Secretary, Waterworks Offices, Town Hall, Manchester. Deposit £2 2s.

September 15.—**Weaste.**—Heating, &c., Apparatus.—For heating and hot-water service apparatus, for Union Infirmary, Stott-lane, Weaste, for the Salford B.G. Mr. T. Roland Wollaston, M.I.M.E., Lord's Chambers, 26, Corporation-street, Manchester. Deposit £2 2s.

September 17.—**Aberdeen.**—Coal Handling Plant.—Supply and erection of a 40-ton coal handling plant, with band conveyor, gravity bucket conveyor, and steel hopper and chute. Mr. J. A. Bell, Borough Electrical Engineer, Milburn-street, Aberdeen. Deposit £1.

September 17.—**Farnworth.**—Electrical Plant.—For a 50 K.W. rotary converter, complete with transformer, switchgear, &c., for U.D.C. Chief Electrical Engineer, Mr. A. J. Hutchinson, Electricity Works, Farnworth, near Bolton. Deposit £1 1s.

September 17.—**London.**—Machine Tools.—Supply of machine tools, for the Council's Tramway Central Repair Depot, Charlton. General Manager, London County Council Tramways, Victoria-embankment, W.C. 2. Deposit £2.

September 19.—**Fulham.**—Filtration Plant.—Supply and erection of filters and plant at the Fulham Public Baths. Superintendent and Engineer at the Baths, Walham Green, S.W.6.

September 22.—**Manchester.**—Compressor.—For a portable air compressor; also paving breakers and caulking hammers, for T.C. Secretary, Waterworks Offices, Town Hall, Manchester.

September 25.—**Dublin.**—Pump.—For one pumping unit (oil engine and centrifugal pump), for the T.C. City Engineer, 28, Castle-street, Dublin, and Mr. J. S. Aflord, M.Inst.C.E., 11, Victoria-street, Westminster, London, S.W.1. Deposit £2 2s.

September 27.—**Chelsfield.**—Reservoir.—Construction of covered service reservoir at Chelsfield, Kent, for the Metropolitan Water Board. Mr. H. E. Stilgoe, Chief Engineer, 173, Rosebery-avenue, E.C. Deposit, £10.

September 27.—**Chile.**—Port Improvement.—Improvement of the Harbour of Constitucion, for the Chilean Government. Chilean Legation, 22, Grosvenor square, W. 1.

October 1.—**Egypt.**—Steam Launches.—For three 40 ft. steam launches, for Ministry of Public Works, Egypt. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Westminster, S.W.1.

October 9.—**Toronto.**—Alternating current generator, for T.C. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

October 24.—**Australia.**—Bridge.—Construction of bridge for Ccuntry Roads Board, Victoria. Agent-General for Victoria (Australia), Melbourne-place, Strand, W.C.2. Preliminary deposit £500.

October 31.—**Australia.**—Electric Cranes.—Supply and erection at Port Adelaide of four 7-ton electric coal-handling cranes, for the South Australian Harbours Board. Agent-General for South Australia, Australia House, Strand, W.C.2.

November 1.—**Siam.**—Bridges.—Supply of superstructures of steel railway bridges to Siam State Railways. Messrs. C. P. Sandberg, 40, Grosvenor-gardens, S.W. 1. Charge 28s.

November 30.—**Sydney.**—Bridge.—Construction of the superstructure and substructure of a cantilever bridge across Sydney Harbour; also an alternative tender for the construction of the superstructure and substructure of an arch bridge across Sydney Harbour. Agent-General for New South Wales, Australia House, Strand, W.C.

December 3.—**Sydney.**—High tension switchgear for Municipal Council. Department of Overseas Trade (Room 52), 35, Old Queen-street, S.W.1.

No Date.—**Neath.**—Pipe Column.—For fixing 8 in. pipe column and byats in 200 yards shaft. Secretary, Clyne Merthyr Colliery, Neath (Glam.).

ROAD, SANITARY, AND WATER WORKS.

September 1.—**Chapel-en-le-Frith.**—Sewage Works.—For construction of sewage disposal works at Bamford, for the R.D.C. Messrs. Brady & Partington, Engineers, Town Hall, Chapel-en-le-Frith. Deposit £5.

September 1.—**Chesterfield.**—Reservoir.—Construction of a reinforced concrete reservoir, for the T.C. Mr. Chas. Boldry, Engineer, West Bars, Chesterfield. Deposit £2.

September 1.—**Langton Matravers.**—Roads.—Widening and resurfacing of the "Valley-road," Langton Matravers, about 3½ miles in length, for the Dorset C.C. Mr. W. T. Fletcher, County Surveyor, County Offices, Dorchester. Deposit £2 2s.

September 1.—**Netherton.**—Road.—Making-up Netherton Colliery approach road, Netherton, for the Bedlingtonshire U.D.C. Mr. J. W. Pooley, Surveyor to the Council, Bedlington.

September 1.—**West Riding of Yorkshire.**—Roads.—For various road works in the districts of Saddleworth, Stanley, Birstall, Castleford, and Pontefract, for the C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

September 3.—**Mid-Glamorgan.**—Mains Laying.—For providing and laying, for the Mid-Glamorgan Water Board, with all necessary valves, fittings, &c.:—(1) About 246 lin. yds. of 3 in. diameter cast-iron mains and 160 lin. yds. of 1 in. diameter galvanised iron pipe at Ynysyplwm, Llanharran. (2) About 163 lin. yds. of 4 in. diameter cast-iron mains at Victoria-street and Adare-street, Pontycymmer. (3) About 170 lin. yds. of 3 in. diameter cast-iron mains at Walters-road, Ogmore Vale. (4) About 400 lin. yds. of 3 in. diameter cast-iron mains at Park Housing site, Maesteg. Mr. Eiryn W. Davies, Superintendent and Manager, Water Board Offices, Bridgend. Deposit £1 1s.

September 3.—**Mitcham.**—Roads.—For the making up of Lewis-road, for the U.D.C. Surveyor's Office, Broadway House, London-road, Lower Mitcham.

September 3.—**Romford.**—Sewerage.—For construction of sewers, for the R.D.C. Mr. W. Fairley, Parliament-mansions, Victoria-street, S.W. Deposit £3 3s.

September 3.—**Stirling.**—Roads.—Re-surfacing the roadway from Larbert Cross to Carron Iron Works with clinker or slag asphaltic macadam, for the C. Mr. Alexander Lindsay, Joint Road Surveyor, District Office, Falkirk.

September 3.—**Tiverton.**—Roads.—For steam rolling of district roads, for the R.D.C. Mr. J. Puggsley, Clerk, Tiverton.

September 3.—**Uckfield.**—Sewage Works.—Construction of sewerage and sewage disposal works at Waldron, for the R.D.C. Mr. J. Taylor, Hendall House, Uckfield. Deposit £3 3s.

September 3.—**Ventnor.**—Roads.—For widening of Newport-road, for the U.D.C. Mr. D. V. Howse, Surveyor, Town Hall, Ventnor, I.W.

September 4.—**Morecambe.**—Streets.—For making up streets within the borough, for the T.C. Mr. Percival Holt, A.M.Inst.C.E., Borough Engineer and Surveyor. Deposit £1 1s.

September 4.—**Sale.**—Draining, Paving, &c.—For draining, levelling, metalling, kerbing, paving, channelling, flagging, &c., Orchard-place, for the U.D.C. Mr. W. Holt, A.M.I.C.E., Engineer and Surveyor, Town Hall, Sale.

September 5.—**Birmingham.**—Sewer.—Construction of about 2,600 yards of stoneware pipe sewer (Unemployment Relief Works), for T.C. Mr. H. Humphries, M.Inst.C.E., City Engineer and Surveyor, Council House, Birmingham. Deposit £2.

September 7.—**Bexhill.**—Sewers.—For construction of sewers, for the T.C. Mr. G. Ball, Borough Surveyor, Bexhill. Deposit, £1 1s.

September 7.—**Southwold.**—Road.—Making up Field Stile-road, Southwold, for the T.C. Borough Surveyor, Town Hall.

September 8.—**Tynemouth.**—Roads.—Construction of road and six bridges, for the T.C. Mr. J. F. Sp[illegible] Borough Surveyor, Tynemouth. Deposit, £2 2s.

September 8.—**Yorkshire.**—Bridge.—For widening Star or Kitchen Bridge, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

September 10.—**Blofield.**—Sewer.—About 3½ miles of 6 in., 7 in., and 9 in. sewer, a pumping station, 1,100 yards of 8 in. cast iron rising main, at Thorpe Saint Andrew, for the R.D.C. Office of the District Council, 17, Prince of Wales-road, Norwich, or Messrs. Martin & Roberts, MM.Inst.C.E., 4, George's-square, Westminster, S.W. Deposit £2 2s.

September 10.—**Torquay.**—Road.—For road making and wood-paving works, Torbay-road, Torquay, for the T.C. Mr. Henry A. Garrett, A.M.I.C.E., Borough Engineer. Deposit £2 2s.

September 11.—**Egham.**—Roads.—For making Park and South-avenues, Egham Hythe, for the U.D.C. Mr. G. W. Booth, Surveyor, Council Offices, Egham. Deposit £2.

September 12.—**Buxton.**—Drainage.—For construction of drainage, and alteration of sanitary conveniences in connection with 18 houses, for the T.C. Mr. Wm. Owen Coates, Sanitary Inspector, Town Hall, Buxton.

SEPTEMBER 12.—**Middleton.**—ROADS.—For making-up and completing six streets. Borough Engineer and Surveyor, Town Hall, Middleton, Lancashire.

SEPTEMBER 12.—**Middleton.**—SEWER.—Reconstructing (*a*) the joint Middleton-Chadderton sewer, and (*b*) the Middleton branch sewer. Unemployment Relief Works, for the T.C. Borough Engineer, Town Hall, Middleton, Lancashire.

SEPTEMBER 13.—**Greenwich.**—ROAD AND SEWER.—Road and sewer works on Charlton Housing Estate, for the Borough Council. Borough Engineer, Town Hall, Greenwich, S.E.10.

SEPTEMBER 15.—**Bedwas.**—SEWERS.—For constructing, for the Bedwas and Machen U.D.C., subsidiary sewers at Bedwas, Machen and Maesycwmmer, work to include providing and laying of stoneware pipes, with manholes, and all incidental work. The work will be in three separate contracts. Mr. A. S. V. Taylor, Queen's Chambers, Orchard-street, Neath. Deposit, £2 2s.

SEPTEMBER 15.—**Westhampnett.**—BRIDGE.—For reconstruction in ferro-concrete of small bridge over the Aldingbourne Rife, near Gas Works at South Bersted, for the R.D.C. Surveyor of Highways, Council Offices, Pallant House, Chichester. Deposit £2 2s.

SEPTEMBER 21.—**Bognor.**—ROADS.—For making up Bassett-road, for the U.D.C. Mr. A. O. Bridge, Surveyor, Bognor.

SEPTEMBER 24.—**Blaenavon (Mon).**—FERRO-CONCRETE WORKS.—For construction for the Blaenavon U.D.C. of a ferro-concrete lining to the existing No. 4 Reservoir, comprising about 6,000 square yards of reinforced concrete. Messrs. Thomas & Morgan & Partners, architects, Gelliwasted-road, Pontypridd. Deposit £5 5s.

NO DATE.—**Cannock.**—ROADS, SEWERS, &C.—Construction of roads, sewers, surface water drains, and fencing, for Huntington Housing Scheme. Mr. H. M. Whitehead, Director of Housing, Council Offices, Penkridge, Stafford.

NO DATE.—**Tynemouth.**—ROAD AND BRIDGES.—The T.C. invite tenders for the construction of a road 25 ft. in width and about 700 yds. in length, and six bridges, near Northumberland Docks.

Competitions.

(*See Competition News, page* 348.)

Auction Sales, Tenders, etc.

SEPTEMBER 4, 5, AND 6.—**Sussex.**—Mr. F. H. Clark will sell, without reserve, the whole of the huts and building material contained in South Camp, Seaford, Sussex. Auctioneer, Railway Wharf, York-road, Wandsworth.

SEPTEMBER 5.—**Rotherhithe, S.E. 16.**—Messrs. J. T. Skelding & Co. will sell, without reserve, at Appleby's-yard, Silwood-street, Rotherhithe, S.E. 16. the valuable well-seasoned dry stock of timber, including 2,900 ft. cube dry English oak, &c. Auctioneers; 48, Gresham-street, Guildhall, E.C. 2.

SEPTEMBER 6.—**Hastings.**—Messrs. Veryard & Yates will sell without reserve, building materials arising from demolition of old East Sussex Hospital. To clear site for new music pavilion, Hastings (on sea-front facing pier), timber, fittings, and building materials. Auctioneers, 365, Norwood-road, S.E.27.

SEPTEMBER 11.—**Suffolk.**—Messrs. Veryard & Yates will sell at "Oakley Hall," near Eye, Suffolk (on Norfolk and Suffolk borders, 4½ miles from Diss Station, L. & N.E. Rly.) building materials and fittings arising from demolition of the above important mansion. Auctioneers, 365, Norwood-road, S.E.27.

*SEPTEMBER 12.—**Eltham.**—Mr. F. H. Clark will sell, without reserve, timber and materials contained in the Women's Hostels, Well Hall-road, at 11 a.m. Auctioneer, Women's Hostels, Well Hall-road, Eltham.

Public Appointments.

SEPTEMBER 3.—**Grays, Essex.**—Housing Assistant in the offices of the Engineer and Surveyor required by the Grays Thurrock U.D.C. Mr. Herbert S. Goodall, Engineer and Surveyor, Council Offices, Grays.

SEPTEMBER 3.—**Middlesex.**—Architect or Building Surveyor required by the Justices of the Gore Division of Middlesex to examine the plans of alterations, &c., proposed in licensed premises, and to advise them thereon. The Clerk to the Justices, Edgware, by enclosing a stamped addressed envelope.

SEPTEMBER 4.—**London, N.E.**—VISITING TEACHER Visiting Teacher of building construction and drawing required by the London County Council at the L.C.C. Hackney Institute, Dalston-lane, N.E., for one or two evenings a week. Apply Education Officer (1 (*a*)), The County Hall, S.E.1 (stamped addressed foolscap envelope necessary) for form.

*SEPTEMBER 5.—**Blackpool.**—Clerk of Works required by the C.B. Mr. Francis Wood, M.Inst.C.E., Borough Surveyor, Municipal-buildings, Blackpool.

SEPTEMBER 8.—**Portsmouth.**—ASSISTANTS.—One temporary and two permanent assistants to the Borough Engineer, with Municipal experience, required by the County Borough of Portsmouth. Mr. Arthur W. Ward, Borough Engineer, Town Hall, Portsmouth, with covering envelope, marked "Borough Engineer's Assistant."

*SEPTEMBER 15.—**Rodbaston.**—Clerk of Works required by Staffordshire Education Committee to supervise erection of dairy at County Farm Institute, Rodbaston, near Penkridge. Mr. Graham Balfour, Director of Education, County Education Offices, Stafford.

NO DATE.—**Hong Kong.**—Three Assistant Engineers required by the Government for service in the Public Works Department. Crown Agents for the Colonies, 4, Millbank, London, S.W.1.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council: E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERDEEN.—Plans passed by T.C.: Additions at 138 and 140, Broomhill-road, for Mr. W. Taggart and Mr. J. Brown, per Mr. G. Watt; house and garage, Anderson-drive, for Mr. H. Duncan, per Mr. J. Ellis; house, Queen's-road, for Mr. C. Harper, per Mr. G. Watt; house, Anderson-drive, for Mr. R. L. J. Henderson, per Messrs. Kelly & Nicol; addition to St. Mark's Episcopal Church, Short Loanings, for the Directors, per Mr. A. Murison; additions to auction mart, Powis-terrace, for Reith & Anderson, Ltd., per Messrs. Sutherland & George; garage and workshops at junction of West North-street with Meulmarket-street, for Mr. G. Bothwell; addition to flock factory, Ardarroch-road, for Messrs. J. Rhind & Son, per Mr. W. E. Gauld. Also plan for development of Links Sea Beach, estimated to cost £27,200.

ABERYSTWYTH.—The U.D.C. has applied to the Ministry of Health to sanction the borrowing of £23,065 for carrying out sewerage works.

ALTRINCHAM.—Mr. P. H. Cundall, architect, of "Windyside," Hartley-road, Altrincham, has prepared plans for a detached house in Macefin-avenue, West Didsbury, for Miss Campbell.

AMMANFORD.—Estimated to cost £12,000 to complete the new public hall erection, under Welfare Scheme, will soon be tendered for, site negotiations being advanced nearly to completion.

AYLESBURY.—Plans passed by the U.D.C.: Timber-framed bungalow near Aston-hill, for Major J. M. Pye-Smith; houses at Ford, for Mr. T. W. Wood; Wend-over-road, Weston Turville, for Mr. E. P. Kempster; Station-road, Stoke Mandeville, for Mr. W. G. Ellis; cattle shed at Haddenham, for reconstruction of a cottage at Hulcott, for Mr. A. de Rothschild.

BARMOUTH.—A loan of £5,000 for temporary works to prevent coast erosion is to be sought.

BARROWFORD.—The U.D.C. is strengthening the Recreation Ground River Wall, at an estimated cost of £696. Plans have been approved for a building to be used as a garage for Mr. F. Hully, and a store-house in Richmond-road for Mr. A. Ashworth. It has been decided to fix an iron palisade fence around the new sludge drying works, at an estimated cost of £250.

BELFAST.—Plans passed by R.D.C.:—Thirty additional cottages for ex-service men, near Whiteabbey railway station.

BRETHERTON.—Mr. F. Howard, architect, of Preston, is designing an oak war memorial to be erected in the Wesleyan Church and a marble war memorial to be erected in the Congregational Church.

BRIERCLIFFE.—The Ministry of Health has sanctioned a loan of £4,935 for constructing additional water works.

BURNLEY.—Plans approved at a meeting of the Improvement Committee:—Water tower, Calder Vale Mill, for Messrs. The Calder Vale Room and Power Co., Ltd.; house, Pasture Gate, for Mr. T. H. Grey; two houses, Moseley Hill-road, for Mr. J. Nuttall; additions to "The Grange," Marsden-road, for Mr. J. Stuttard. ——It is proposed to install a new refrigerating plant and alterations to existing buildings at the Burnley Cold Air Stores, at an estimated cost of £8,455.

CASTLESIDE.—It is proposed to build a public hall and institute at Castleside, near Consett, at a cost of £1,250.

CHEETHAM.—Messrs. Matley & Brotherton, architects, of 11, Old Millgate, Manchester, have prepared plans for the reinstatement of premises, 91, Great Ducie-street, and John-street, for Mr. J. R. Steinberg.

CLITHEROE.—Mr. Bleazard, the Council Surveyor, is preparing plans and estimates for repairing Eshton-terrace and Duck-street. The Council are also considering the erection of a bridge over Mearley Brook. The Council have authorised application to be made to the Electricity Commissioners for a special order for a supply of electricity for the town. The Lancashire Electric Power Co. is to be approached.

COVENTRY.—Plans are to be prepared for an enlargement of Nurses' Home at the Infirmary.

DIDSBURY.—Mr. H. Davies, builder, of 13, Hooley Range, Heaton Moor, Stockport, is erecting detached and semi-detached modern houses on a site in Essex-avenue, and Fog-lane. Work on the first pair has commenced.

DUNDEE.—Plans submitted to Works Committee of the T.C.: Adelaide-place, garage for A. Dewar; Albert-street, additions to tenements for Mrs. A. Reid; Bright-street, Lochee, alterations on cottage for David Neave; Dalhousie-road, Barnhill, garage for D. T. Ferguson; High-street, alterations on premises for Louis Meotti; Loons-road, drill hall, &c., for City of Dundee T.A. Association; Murraygate, alteration on shop for Hipps, Ltd.; Strathmartine-road, extension workshop for Wm. Steele & Sons; Taft's-lane, alterations on shed for J. Robertson & Sons; West Park-gardens, garage for J. W. Hunter.

DURHAM.—Plans approved by R.D.C.: G. S. Legard, addition to Bow School, South-road, Durham; Thomas Blackett, cow byre, Shincliffe Colliery; William Lowe, house and butcher's shop, Carrville; A. Hollingworth, addition to house, Neville's Cross; Viscount Boyne, conversion of stables, &c., into golf clubhouse, Brancepeth.

EASINGTON.—The South Hetton Coal Co. have virtually decided to proceed with the erection of 100 houses at Murton Colliery. The Company has requested the R.D.C. to assist them with regard to roads, sewer and water supply.

EASTHAMPSTEAD.—The R.D.C. has given approval to schemes to cost £37,000 for the improvement of district roads.

ENNISKILLEN.—Plans passed by U.D.C.:—Houses to be built under Government loan.

FAVERSHAM.—Plans passed by T.C.:—Pover & Son, alterations and additions to Grosvenor House, for the Co-operative Society; alterations and additions to International Tea Company's Stores.

FISHGUARD.—The Fishguard U.D.C. has passed plans for the erection of bungalow at High-street, for Mr. J. M. Evans.——The Brynymor road widening scheme of the U.D.C. has been sanctioned by the Ministry of Transport, who will make grant.

GLASGOW.—Plans for new bandstands and enclosures at Alexandra and Bellahouston Parks are being prepared. Plans approved: Cottage at Cathcart, for Mr. A. Campbell; addition to buildings in Wallace-street, for Campbell, Achnach & Co., Ltd.; new building for Institute of Accountants and Actuaries, at West George-lane; new building at Trongate, for Corporation; street off Julian-avenue, for Mr. J. C. M'Kellar; housing schemes are to be carried out at Merryplatts (200 cottages), Crossmyloof (276 tenement houses), Whitefield-road (126 houses).

GOSPORT.—Plans passed by T.C.: Lavatories, St. Matthew's Church; bungalow, Testcombe-road, J. E. Jones; cycle sheds to two houses in Privett-road, W. Chandler; motor garage, Brockhurst-road, Tutt & Sons; Privett Building Estate (lay-out), Alverstoke Land & British Co.; alterations to laundry, House of Industry, Alverstone Guardians; house, Grove-road, W. H. Roberts; additions to premises, Elson-road, E. Carter.

GREAT YARMOUTH.—Plans passed by T.C.: House, Marine-parade, Gorleston, for Mr. F. A. Osborns; pair of houses and two houses, Cliff-avenue, Gorleston, for J. Balls & Sons; shop and cottage, High-street, Gorleston, for Mr. C. H. Moger; house, Lowestoft-road, Gorleston, for Mrs. Emms; addition to house, Cromwell-road, Southtown, for Mr. Pearson; timber shed, Southtown, for Palgrave, Brown & Son; vestry to St. Luke's Church, Cobholm, for the trustees; garage, Bermondsey-place, for Mr. W. Field; roof over yard, Dene-side, for the Electricity Department.

HECKMONDWIKE.—Plans passed:—Alterations to shop premises in Westgate for Mr. Martin, and new shop in Railway-street, for Mr. W. Cooper.

HORNDEAN.—The following estimate prepared by Mr. G. C. Vernon Inkpen, F.S.I., for the proposed local water supply, has been forwarded by the R.D.C. to the Ministry of Health for approval: Mains and connections, Cowplain area, £5,724; Catherington, Horndean, Lovedean, and Blendworth area, £10,583; reinforced concrete reservoirs of 100,000 gallons capacity, £1,300; site for reservoirs, £150; pumping station, £1,000; easements, £100; engine and force pump, inclusive of gears and fitting, £1,500; site for engine and force pump, £150; telephone and electrical indicator, £100; clerk of works, £300; engineer's fees and expenses, £1,109; contingencies and charges, £500. Total cost, £22,507.

HOUGHTON-LE-SPRING.—The R.D.C. have provisionally accepted a tender for the erection, by Mr. F. W. Mole, of Chester-le-Street, of twenty houses on the East Rainton site, at a cost of £6,406.——The Lambton and Hetton Collieries, Ltd., are negotiating with the Houghton-le-Spring R.D.C. with a view to obtaining certain land on the Council's housing sites, for the purpose of erecting a number of workmen's houses.

LAUNCESTON.—Plans have been passed for tenement houses to be built with money bequeathed for the purpose, and tenders are to be invited forthwith by the T.C. for their erection.

LEEDS.—Crossgates Municipal Tenants' Association has decided to erect a club and institute in Orchard-road at an estimated cost of £7,000.

LEYLAND.—A faculty has been granted for the erection of a tablet in St. Andrew's Parish Church.

LIVERPOOL.—Plans for 12 new private houses have been passed by the T.C.

LLANDILO.—The Council has put forward a scheme of road improvement to cost £21,000, and the Ministry of Transport has promised conditional grants.——A special meeting of the Council has been decided upon to frame a housing scheme.

LLANDUDNO.—Plans passed by U.D.C.: Lay-out of roads, sewers, &c., at St. David's-road West: new dancing academy and shops, Mostyn-broadway; also plans for twenty-seven new houses.

LLANELLY.—The Harbour Commissioners have leased land to Messrs. Metals Accessories Co., Llanelly, for building of new sidings near to the fuel works.——Statutory notice has been given by the T.C. to acquire land for extensive road improvement and widening works.

MANCHESTER.—Schemes for four new roads, estimated to cost £200,000, are to be recommended to the Council Finance Committee and the Ministry of Transport. The first scheme is the widening of Blackley New-road from Middleton-road to Heaton Park. The second is the continuation of Mauldeth-road, West Withington, to New-road, No. 12, Princess-road Extension. The third will run from a point in Barlow Moor-road, West Didsbury, passing through Hough End Farm, Chorlton-cum-Hardy, and the fourth is a continuation of Withington-road to Road No. 10, near the Alexandra Park Aerodrome. It is anticipated that the schemes will provide work for about 1,000 unemployed men for 35 weeks, and is in addition to works recently recommended by the Highways Committee as suitable for relief works, estimated to cost £67,000.

(*Continued on page* 349.)

* See also our List of Contracts, Competitions, etc.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	2 15 3	Do. Bullnose ..	10 1 6
Do. Bullnose ..	3 8 3	Blue Wire Cuts	7 11 6
Best Purbridge Fire brick :— 2½ in.	11 3 0	3 in.	13 2 0
GLAZED BRICKS— Best White Ivory, and Salt Glazed Stretchers ..	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends ..	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
Quoins. Bull-nose and 4½in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. „	2 5	4 in. „	3 7

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand	15 6	„ „
½ in. Shingle for Ferro-Concrete	14 0	„ „
¼ in. „ „	15 0	„ „
¾ in. Broken Brick	10 6	„ „
Pan Breeze	5 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 5

51/- alongside at Vauxhall in 80-ton lots.

	£ s. d.
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 13 0
Keene's Cement, White	5 8 0
„ „ Pink	5 3 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 6
„ Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube — s. 2 d. 9½

Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube — 2 11¾

PORTLAND STONE—

Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube — 4 4

Do. do. delivered on road wagons at above stations, per ft. cube — 4 5

White basebed, 3d. per ft. cube extra.

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ¼d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

	s. d.
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides „	27/-
Sawn three or four sides „	32/-

YORK STONE, BLUE—*Robin Hood Quality*.

Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 5½
1½ in. to 2 in. ditto, ditto „	1 3

HARD YORK—

Delivered at any Goods Station London.

	s. d.
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto. ditto „	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.

	s. d.
Plain per ft. cube	6 6
Moulded „ „	7 9
Cills „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	21/-	1¼	33/6
⅞	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1⅛	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	22/-
1	26/-

BATTENS s. d.

Inches		
¾ × 2	2	4 per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¾ in. do. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 6	to	0	4 0
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt.	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
„ Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2¾ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¾	3½d.
4 in.	1/4	1/1¾	3½d.
4½ in.	1/5½	1/1¾	4d.
5 in.	1/7¾	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5½	3 3½
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3½	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	14 0 0	to	15 0 0
Staffordshire Crown Bars—good merchant quality	14 10 0	..	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	13 10 0	..	14 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 10 0	..	14 10 0
Hoop iron, basis price	16 10 0	..	17 10 0
„ Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	15 10 0	..	16 10 0
„ „ „ 24 g.	16 10 0	..	17 10 0
„ „ „ 26 g.	18 10 0	..	19 10 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24 10 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	21 10 0	..	23 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.		
LEAD—Sheet, English, 4 lb. and up	34 0 0	..	—
Pipe in coils	34 10 0	..	—
Soil Pipe	37 0 0	..	—
Compo pipe	38 0 0	..	—

NOTE—Country delivery, 30s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	21 10 0	..	—
Do., ex country, carriage forward per ton	22 10 0	..	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES. S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	120/-

COPPER—	£ s. d.		
Strong Sheet per lb.	0 2 3	..	—
Thin „ „	0 2 4	..	—
Copper nails „	0 2 3	..	—
Copper wire „	0 2 4	..	—
TIN—English Ingots „	0 2 0	..	—
SOLDER—Plumbers' „	0 0 11	..	—
Tinmen's „	0 1 1	..	—
Blowpipe „	0 1 3	..	—

PAINTS, &c.

	£ s. d.		
Raw Linseed Oil, in pipes per gallon	0 3 6		
„ „ „ in barrels „	0 3 3		
„ „ „ in drums „	0 3 11		
Boiled „ „ in barrels „	0 4 0		
„ „ „ in drums „	0 4 2		
Turpentine in barrels „	0 6 6		
„ in drums (10 gall.) „	0 6 9		
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	55 10 0		
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	77 0 0		
Red Lead, Dry (packages extra) per ton	42 0 0		
Best Linseed Oil Putty per cwt.	0 16 0		
Filocot per cwt.	0 15 0		
Size. XD Quality fkn.	0 3 0		

[*Concluded on next page.*]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

Per Ft.		Per Ft
5 oz. fourths .... 3½d.	32 oz. fourths.....	8½d
5 „ thirds ..... 4½d.	32 „ thirds.....	10½d.
1 „ fourths .... 5d.	Obscured Sheet, 15oz.	4d.
1 „ thirds .... 6½d.	21 „	5½d.
8 „ fourths .... 6d.	Fluted 15oz. 6½d.	21oz. 9½d.
6 „ thirds..... 7½d.	En'lled 15 „ 5½d.,	21 „ 7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
Rolled plate	4½d.
Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal flatting	ditto	1 0 6
Hard drying Oak	ditto	0 18 0
Fine Hard drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 0
Knotting (patent)		1 5 0
French and Brush Polish		0 17 6
Liquid Dryers in Terebine		0 9 0
Brass Black Enamel		0 7 0

OBITUARY.

The death has occurred in a nursing home of Mr. Thomas Charles Jones, aged 57, managing director of T. C. Jones & Co., Ltd., of Shepherd's Bush, and for seven years a member of the Hammersmith Borough Council. Councillor Jones was an active worker in Hammersmith for upwards of twenty years. He was a Freeman of the City of London, Past Master of the Unity Lodge of Freemasons No. 1,637, Committee Member of the Shropshire Society in London, Trustee of the Bishop King's Charities, Chairman of the North Hammersmith Unionist and Conservative Association, President of the Shepherd's Bush Athenæum Club, No. 1 Life Member of the Regent-street Polytechnic.

The death is announced of Mr. John Corfield, of Belton-road, Whitchurch, Salop. He was formerly a well-known builder and contractor.

The death of Mr. Alfred Roper, builder and contractor, of Wellington, took place recently in the age of 75. He had been in business in the town for many years, and carried out numerous contracts in the district, including the building at the top of Queen-street for the United Banking Company (now Barclays Bank).

The death has taken place at Bideford, at the age of 78, of Mr. Edmund Ellis, a well-known North Devon builder.

TRADE NEWS.

"Bigger Business," the house organ of the Wylplug Co., Ltd., Gloucester House, Cromwell-road, London, S.W. 7, a copy of which is to hand, is a bright little publication to be issued monthly. It contains many useful hints for business men, and copies will be sent to firms requiring them.

Visitors to the Shipping Exhibition, Olympia, which opens to-day will find an instructive series of demonstrations on Stand No. 17, Row C, occupied by Messrs. Wailes Dove Bitumastic, Ltd., of Newcastle-on-Tyne, the sole manufacturers of "Bitumastic" preparations. Visitors will witness "Bitumastic" successfully withstanding acid, refrigerating, and boiling water.

PROPOSED NEW BUILDINGS, &c.

Continued from p. 347

Mr. F. Fenn, architect, of 11, Chapel Walks, Manchester, has prepared plans for the conversion of a house, 424 Moss-lane East, into flats for Mr. R. M. Roberts. Mr. G. Westcott architect, of 13, Bridge-street, Manchester, has prepared plans for alterations to premises, 103 and 105, Stretford-road, Hulme, for Mr. A. Horwick. Mr. J. Thomason, architect, of Mosley-street, Manchester, has prepared plans for alterations to premises, 71, Fairfield-road, Openshaw, for Mr. J. Wilkinson.——The T.C. is considering a scheme, estimated to cost one million sterling, for a new road into Cheshire, via Northenden. Several bridges would require to be built.

METHLEY.—The U.D.C. is erecting 12 houses at an estimated cost of £6,451.

MIDDLETON.—Plans have been approved for detached houses in Manchester-road, Alkrington, one of which is being erected by Messrs. J. Middleton & Co., contractors, Shaw, near Oldham, and one by Mr. Robert Taylor, contractor, of 105, Manchester Old-road, Middleton, who have just commenced work on the foundations.

MONMOUTHSHIRE.—The County Education Authority has given formal notice of intention to build a new elementary central school at Lawn House, Rhymney.

MORLEY.—Tenders are being invited shortly by Mr. L. C. Hurst, architect, for a new bakehouse at Hungerhill, for Mr. Colbeck.

MORPETH.—The R.C. are proceeding with their original sewerage scheme involving Widdrington, Ulgham, and Chevington East, at an estimated cost of £19,500. Work is to be commenced immediately.

NELSON.—A sub-committee of the County Council has made the following recommendations with reference to new secondary school at Hole House to the County Higher Education Sub-Committee:—That 11¾ acres of land be acquired, and that a building to provide accommodation for not less than 400 pupils be erected.

NEW MILLS.—Father Prendergast, priest of St. Mary's Roman Catholic Church, has inaugurated an important forward movement for restoring the church, building a new presbytery, and establishing a young men's club. The estimated cost of the scheme is £3,000. No architect has yet been appointed.

OLDHAM.—The E.C. is considering the erection of a new elementary school on a site in Ward-street, and also a scheme for a proposed day open-air school.

OSSETT.—Plans approved by the T.C.:—Four cottages in Back-lane, for Mr. Abraham Pollard; warehouse at Flushdyke, for Mr. J. H. Nettleton; pair of houses at Gawthorpe, for Mr. J. W. Harrop; detached villa in Sunnybank-street, for Mr. John Child; bungalow in Sunnybank-street, for Mr. Albert Pollard; paint shop in Prospect-road, for Mr. J. W. Cudworth; house in Dewsbury-road, for Mr. P. Ward; additions to South Ossett Working Men's Club; and three scullery houses in Church-street, for Mr. Robert Spurr.——The Ministry of Health has sanctioned the borrowing of £2,000 for new water mains and extensions to mains, also for £1,128 for laying a new 6 in. water-main from Gawthorpe to Warneford-avenue. The Education Committee propose to erect new elementary school at Gawthorpe with proposed accommodation for 500 children.

OSWALDTWISTLE.—An inquiry was conducted by the Ministry of Health at the Oswaldtwistle Town Hall, into the application by the Council for sanction to borrow £4,366 for works of sewerage in the village of Knugden, £2,810 for the laying of water mains, £3,500 for the conversion of conservancy closets into water closets, and £1,700 for works in connection with Rhyddings Park. There was no opposition.

PEMBROKE DOCK.—The U.D.C. has in consideration the building of concrete wall near St. Patrick's Church, the improvement of Croft's-terrace and Belle Vue-corners, and widening of Ferry-lane.

PICKERING.—Plans passed by R.D.C.: New institute (Ald. Twentyman).

PONTYPOOL.—It was reported to the U.D.C. that the Pontypool Athletic Association was anxious to be allowed to spend £2,000 on laying out tennis courts and bowling greens at Pontypool Park. A further sum would be available from the Miners' Welfare Fund. The Council decided to urge the Park Management Committee to allow this to be done. Mr. D. C. Udell is secretary of the Association.

PONTYPRIDD.—The Territorial Association is to build a new hall to replace that destroyed by fire a year ago. Plans are nearly completed. The adjutant is Capt. T. O. Jones, 5th Batt. the Welsh Regt., Pontypridd.

ROYSTON.—Plans passed by U.D.C.: Cottage, Mr. J. H. Mann; addition of kitchen to a house, for Mr. W. T. Dobbs.

RUISLIP-NORTHWOOD.—Plans passed by U.D.C.:—Shop premises, High-street, Ruislip, for Mr. H. E. Clark; lay-out Field End Estate, Field End-road, Eastcote, for Telling Bros., Ltd.

RUSHDEN.—Plans passed by U.D.C.: Extension of power station of the Rushden Electric Light Co.

RUSHOLME.—Mr. E. D. Sherlock, architect, 6, Ashlyn-grove, Fallowfield, has prepared plans for a garage to "Hazeldene," 178, Wilmslow-road, for Mr. H. Plummer.

RUSKINGTON.—The Ministry of Health has sanctioned the borrowing by the U.D.C. of £2,640 for the new housing scheme.

SAFFRON WALDEN.—Plans passed by T.C.: House, for Mr. H. A. Cornwell; house, for Miss E. G. Bowles; chimney shaft, for Mr. W. Elsom.

SCARBOROUGH.—Plans have been approved for the erection of two houses, Esplanade-road, Scarborough. Mr. F. W. Plaxton, Castle-street, Scarborough, is the architect.——The Borough Engineer has been instructed to submit plan and estimates for a new public hall. A loan of £34,156 for protective works on the Royal Albert Drive has been sanctioned. Plans and estimates for the construction of roads and sewers on the Prospect Mount Estate are to be prepared.

SHEFFIELD.—Plans have been approved for the erection of a new Secondary School at Osgathorpe Hills, Pitsmoor, with accommodation for 800 Catholic scholars, to be called De La Salle College. Brother Dunston is the headmaster. No contracts have been placed.

SLEAFORD.—The U.D.C. propose to extend their electricity mains at an estimated cost of £2,000.

SOUTHEND-ON-SEA.—The Town Hall Committee has been instructed to submit a scheme for the provision of a town hall; a new justices' room and petty sessions house is to be erected, at a cost of £5,500; the T.C. is seeking sanction to borrow £6,173 for re-surfacing London and Southchurch-roads and £3,990 for re-surfacing Marine-parade.

SOUTHPORT.—Plans have been prepared by Messrs. Lumb & Walton, architects, 16, Clifton-street, Blackpool, for the rebuilding of shops and offices for Messrs. Rawcliffes, Ltd. Tenders are being invited.

STAFFORD.—A site has been obtained in Marsden-road for a new Roman Catholic Church, and £2,000 has been raised towards the cost, but no architect has yet been appointed. The Rev. D. Kelly is the priest in charge.

STAINFORTH.—The U.D.C. propose to erect 170 additional houses, the first instalment of 50 to be put in hand at once.

THORNABY.—Plans passed by T.C.: Bungalow, Thornaby Green, Mr. A. McLeod; improvement to Dockway Sugar Mills, Messrs. W. & M. Pumphrey.

TYNEMOUTH.—In connection with their slum clearance, Tynemouth Corporation are inviting tenders for the erection of three blocks of tenements within the borough.

USK.—The occupier of Tenby House, Old Market-street, has submitted plans to the U.D.C. for erection of a shop.

WAKEFIELD.—A scheme is afoot for constructing a new infectious diseases hospital, to the plans passed in 1914. The matter has been referred to the T.C.'s General Purposes Committee. Additional land (68 acres) is to be purchased by the T.C. for the erection of working-class houses. Plans approved include house, Belgravia Mount, for Mr. J. Auty; 12 houses in Agbrigg-road, for Mr. T. Ibbottson; house in Horbury-road, for Mr. S. H. Charles; house in Horbury-road, for Mr. W. L. Jackson; five houses in Pinderfields-road and Selby-street, for Messrs. Kilkenny Bros.; house in Carr-lane, for Mr. C. J. Crocker; house in Horbury-road, for Mr. E. Billcliffe; house in Belgravia-road, for Mr. D. F. Martin.

WANDSWORTH.—Plans prepared for B.C.: Library, for Earlsfield; swimming bath, for Streatham. (Aggregate cost, £200,000.)

WESTHAMPNETT.—The R.D.C. is seeking a total loan of £17,588 for road works.

WHITBY.—Plans have been approved for the erection of a new band pavilion, "The Spa," Whitby. Mr. C. M. Blanchard, the local Surveyor, is the architect.

WIGAN.—Plans approved by the Improvements Committee: Two houses, Wigan-lane, for Messrs. Darbyshire & Jackson; house, Wigan-lane, for Mr. Thomas Ormerod; alterations to the "Freemasons' Arms," Warrington-road, for the Oldfield Brewery Co., Ltd.

WOKING.—Plans approved by U.D.C.:—Mrs. Witham, detached house, Prey Heath-road, Worplesdon; E. Ricks, detached house, Pembroke-road; W. G. Tarrant, Ltd., two detached houses, Hockering Garden Estate, off Park-road; W. G. Tarrant, Ltd., detached house, Hockering Garden Estate, off Park-road; Major Holbourn, detached bungalow, Kingsway-avenue; F. Aylott, four detached houses, White Rose-lane; H. M. Wyatt, detached house, Horsell Park Estate; Mrs. Roche, detached house, Fletcher-road; E. Ricks, amended plans to those approved on April 17 for a bungalow on Highlands Estate, Westfield; Dr. R. Thorne Thorne, addition to consulting room at "Greenhayes," White Rose-lane; H. C. Allen, first floor addition to the "Wishel," Pembroke-road; Embersons, corrugated iron store at the rear of premises at Chobham-road; A. B. Jones, garage at "Southfields," Woodham Rise; E. A. Cook, new boiler house of galvanised iron at Laundry, Step Bridge-path; S. W. Colman, wooden garage in connection with house, Waldens-road; Dr. Davies, garage, the "Dell," Goldsworth-road; — Owens, drainage of "Edgeware House," High-street, Knaphill.

WHITE CEMENT STUCCO

White cement stucco, which is used to a considerable extent in the United States, has been made the subject of a series of films, taken in America, showing the many uses of "Atlas" white cement stucco. This film was shown on Tuesday morning at the private theatre of Jury's Imperial Pictures, Ltd., Tower-street, St. Martin's-lane, W.C., and Mr. Frederic Coleman explained the many applications of the material. Among other things the views showed the textual finishes, whiteness, and durability which may be obtained with this stucco on the exteriors of buildings, and Mr. Coleman pointed out that a notable example of stucco work in London was the new Tivoli Picture House in the Strand.

On September 20, at 10.45, a more elaborate series of films illustrative of stucco work will be shown at the West End Cinema, Coventry-street, to which architects and others interested in building construction are invited. Tickets may be obtained on application to Mr. Frederic Coleman, Regent House, Regent-street, W.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights : average size	" "	3	9

DOORS.

		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail ; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	51	0
Do. Do. in flats	"	49	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	10d.	1/6	1/9	3/1	3/10	
Do. service	"	1/5	1/11	2/3	3/6		
Do. soil	"						6/2
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	" "	2	6
Do. Do. Keen's	" "	3	6
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 11 should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

NEW BUILDINGS IN SCOTLAND.

Brechin.—Houses.—The T.C. has accepted offer from the Board of Health regarding the ction of two additional houses on the Trinity-d Housing Site under the old regulations.

Aberdeen.—Various.—The Corporation has sed plans for the following: House and age, Royfold-crescent, for the Misses Isabella Jemima Reid, per Brown & Watt; alterations at Gray's School of Art, Schoolhill, for governors of Robert Gordon's Technical ege, per Mr. R. L. Rollo; alterations and itions, 34, Queen's-road, for Mr. J. H. tts, per Mr. A. H. L. Mackinnon; and a clubhouse for the Northern Golf Club, per William E. Gould.

Crieff.—Houses.—The Clerk submitted a er to the T.C. with plans from Mr. R. obie, builder, Crieff, for 20 houses at Nell-, Crieff, and asking for a supply of water. matter was remitted to the Burgh Surveyor.

Dyr.—Houses.—The T.C. offers a subsidy of) per house to builders who will erect houses onformity with the new Housing Act, 1923. eeting will be held with the builders in con-ion with the full proposals, followed by tepayers' meeting.

Glasgow.—Houses.—The Housing Committee he Glasgow Corporation recommend that ing schemes be proceeded with in the wing areas: Merryflatts, 200 cottage es; Crossmyloof, 276 tenement houses: Whitefield-road, 126 houses; as a rehousing me, and that the Director of Housing be ucted to prepare and submit layout plans e areas in question. The Corporation dis-oved of the recommendation of the Housing mittee that houses to be erected at Campbell-t, Springburn, be built by direct labour. matter was remitted to the committee to pt the lowest or best offers of individual ate contractors. The committee now re-mend the acceptance of offers amounting to 486.

Kilbroath.—School.—The Dean of Guild t has approved of plans for additions to house Public School. The additions in-e the erection of a one-story brick building site at the rear of the school playground for ccommodation of the infants' department, internal alterations to existing school.

Larthill.—Institute.—£1,000 has been grant-om the miners' welfare fund for the erection public institute at Harthill for the miners oyed at the Kiveton Park Colliery. The f the building and site is £1,600, and efforts eing made to raise the balance.

Falkirk.—House.—The Dean of Guild Court assed plans submitted by Marion Jackson, bonny Lodge, Falkirk, for a house ie-road, estimated to cost about £600.

Uddingston.—Masonic Temple.—A start has made with the erection of a masonic temple ddingston on a site between Gardenside-e, Greenrig-street and Main-street, ad-g the public hall. The funds for this ng have been organised by the Building ittee of Lodge St. Bryde 579, Uddingston.

Tenant House Owners.

h a view to contributing towards the n of the North-West Durham housing m, the Consett Iron Co., Ltd., has pre-a scheme under which it is offering nce to its workmen to become the owners houses in which they would live. The ny announces that it is prepared to houses of the bungalow or other types the area of its operation at Consett, y Park, Garesfield, Medomsley, Castle-Bradley Cottages, Leadgate, Chopwell, Bensfieldside. Under this scheme the ny would apply for the subsidy under using Act, which is expected to amount ommuted sum of about £70 to £75 per from the Government, and in some cases tra from the local authority.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

ADWICK-LE-STREET.—Construction of a concrete reservoir, capacity of 500,000 gallons, with all puddle flags and excavations, for the U.D.C.:—

E. T. Knight	£4,718 15 0
A. Hyslop	3,668 17 3
Carter Helsby Construction Co.	3,637 1 9
*Swift Bros. & Haslam, Doncaster	3,381 5 6

ALNWICK.—The U.D.C. have accepted the tender of Mr. J. W. White, of High Barnes, Sunderland, for the erection of 24 houses in Swansfield-Park-road, in place of that of Mr. Walker, who has withdrawn his offer to build the houses for £8,373 9s. The new tender is £268 in excess of Mr. Walker's figure if electric light is used, and £292 if gas.

ASHINGTON.—For erection of 66 houses (three-room type) at the Hirst Estate:—

*Ashington Colliery Co., Ltd.—£375 per house.

BRADFORD.—For conversion of the Grand Clothing Hall at corner of Ivegate and Tyrrell-street, into banking premises, for the Bank of Liverpool & Martins, Ltd. E. Morley & Sons, architects, Swan-arcade, Bradford:—

*Michael Booth & Sons, Bradford.

CROOKHALL.—For the erection of a new mission church:—

*The Consett Iron Co., Ltd.

DARTON.—Erection of urinal, at Mapplewell, for the U.D.C.:—

*J. H. Parker, Greenside, Mapplewell £104 6

DARTON.—Erection of mortuary, at Darton:—

*J. H. Parker, Mapplewell £175

DURHAM.—For erection of 12 houses at Ludworth:—

J. W. White, Sunderland (per house £478 16s.)	£5,745 12
E. Rutter & Son, Esh (per house £440)	5,280 0
*F. W. Goodyear, Durham (per house £425)	5,100 0

DURHAM.—For construction of roads and sewers at Ludworth Housing Scheme:—

R. C. Brebner & Co., Edinburgh	£1,972 0 0
J. W. White, Sunderland	1,685 0 0
A. E. Hobbs, Stockton	1,593 14 1
*Fordyce Bros., Middlesbrough	1,581 17 1

FARSLEY.—For the erection of a new canteen for the workpeople at Reuben Gaunt's, Ltd., Boom Mill:—

*Michael Booth & Son, Bradford.

GLASGOW.—Construction of new boulevard from Anniesland Cross to Duntocher:—

*Sir Robt. M'Alpine & Sons..... £241,740
(*Less* £9,000 if mechanical appliances used.)

GLASGOW.—For painter work at the Fruit and Vegetable Markets, for the T.C.:—

*James Stirling £1,044 10 3

GLASGOW.—Electric lighting installation at Shettleston and Tollcross Library:—

*Haddow & Co., Ltd..... £365 13 3

GLASGOW.—Supply of cable in connection with new fire alarms in Moss Park district:—

*Western Electric Co., Ltd., London £136 11 4

GLASGOW.—Repairing pavement of Kelvinway with tar-macadam:—

*National Asphalte & Concrete Co., Glasgow £323 6 8

GLASGOW.—Construction of games pavilion at Cowlairs Park:—

*J. G. M'Callum, Glasgow £1,087 16 4

GLASGOW.—Various works on houses to be erected at Campbell-street, Springburn:—

Mason work—	
*Elphinstone Forrest	£18,447 0 9
Carpenter work—	
*Wm. Vernal	11,185 16 10
Slater work—	
*P. & T. M'Guckin	1,894 11 9
Plumber work—	
*Hugh Goldie, Coatbridge	8,866 6 1
Plaster work—	
*John Drummond & Son	2,855 7 4
Glazier work—	
*R. White & Son	237 2 8

GLASGOW.—Electric lighting installation, Coplaw Housing Scheme (second development):—

*James Laird & Co. £387 3 0

GLASGOW.—For various works at Dalmarnock Power Station:—

**Reinforced concrete, &c., work*—	
*William Taylor & Son (Glasgow), Ltd.	£2,145 11 11
Joiner, glazier, and ironmongery work—	
*George Eaglesham	129 6 3
Plumber work—	
*H. Twaddle & Son	149 0 0

HOUGHTON-LE-SPRING.—For 20 houses on East Rainton Site, for the R.D.C.:—

*F. W. Mole, Chester-le-Street..... £6,406

LEEDS.—For the erection of a new café and flats at Meanwood, for Mr. A. Kirby:—

*Saml. Flockton, Leeds.

LEEDS.—For the conversion of shop premises into a branch bank in Armley, for the Yorkshire Penny Bank, Ltd.:—

*Wm. Thompson, Leeds.

LONDON.—For proposed alterations at residence, for Mr. Magnus Goodfellow, Heathfield. Mr. George Carter, architect, 513, Holloway-road, N.19:—

Webber, Berkshire	£655 12 4
J. C. Mather, London	345 0 0
Arthur King, Ltd., London	342 0 0
*Courtney & Fairburn, Camberwell	340 15 0
*With supplementary works at £421	

LONDON.—For proposed alterations to secretary's and directors' offices, Holloway-road. Mr. George Carter, architect, 513, Holloway-road, N.19:—

J. C. Mather	£235
*Courtney & Fairburn	229

MANCHESTER.—For additions to dye works, for Messrs. W. Hall, Ltd. Messrs. Matley & Brotherton, architects, 11, Old Millgate, Manchester:—

*Tinker & Young, Ltd., Newton.

MANCHESTER.—For alterations to premises, 14, Preston-street and Langworth-street. Messrs. F. Newton & Sons, architects:—

*Shaw & Ribsdale, Moss Side, Manchester.

MANCHESTER.—For extensions to Nurses' Home, Hope Hospital, Pendleton, for the Salford B.G. Messrs. Telford Gunson & Son, architects, 10, Marsden-street, Manchester:—

*Robert Carlyle & Co., Ltd., Old Trafford.

MELTHAM.—For erection of 10 non-parlour houses in two blocks and construction of a new street, for the U.D.C. Messrs. Abbey & Hanson, architects, 11, Cloth Hall-street, Huddersfield:—

Masons and Concreters—	
*J. Wimpenny & Co., Linthwaite	£2,114 1 10 109 12 8
Carpenters and Joiners—	
*Geo. Ainley & Sons, Ltd., Crosland Moor	903 15 0
Plumber—	
*H. Stead, Meltham	510 0 0
Slater, Plasterer, and Painter—	
*J. Wilkinson & Sons, Meltham	280 0 0 298 0 0 65 0 0
Street Works—	
*J. Wimpenny & Co., Linthwaite	372 0 0

OSSETT.—For the erection of 47 houses on the Horbury-road site:—

Bricklayer work—	
*A. Tolson & Sons	£6,929 16 9½
Joiner work—	
*J. H. Hornsell	4,496 19 0
Plumber work—	
*F. Newsome	2,000 0 0
Slater work—	
*T. Brear & Sons	1,400 0 0
Plasterer work—	
*E. Wilson	1,331 6 7
Painter work—	
*R. Robinson	265 17 7

OSSETT.—For erection of two pairs of houses (Types 1 and 2) on Leeds-road site:—

Bricklayer work—	
*A. Tolson & Sons (Type 1)	£453 2 4
(Type 2)	367 14 8
Joiner work—	
*W. & E. Whitehead (Type 1)	329 0 0
(Type 2)	299 0 0
Plumber work—	
*F. Newsome (Type 1)	100 0 0
(Type 2)	90 0 0
Slater work—	
*Shevill & Foster (Type 1)	83 8 0
(Type 2)	68 7 0
Plasterer work—	
*R. Clegg & Sons (Type 1)	76 7 6
(Type 2)	59 3 0
Painting work—	
*B. Callaghan & Sons (Type 1)	14 0 0
(Type 2)	14 0 0

LONDON.—For works at the factories of The Ever-Ready Electrical Company's "Great Britain" Factories, Holloway and Finsbury Park. Mr. George Carter, architect, 513, Holloway-road, N.19:—

	Fonthill-road Factories, Works.	New roof Engine House, Fonthill-road.	Factory Hercules-place.	Factory Bowmans-place.	General Factory Works.
George Slade & Co., Barnsbury Park	£166 15 ..	£550 ..	£330 ..	£273 0 ..	£1,309 15
Patman & Fotheringham, Ltd., London	129 0 ..	424 ..	394 ..	188 0 ..	1,250 0
Courtney & Fairburn, Camberwell....	158 0 ..	441 ..	294 ..	118 16 ..	1,011 15
Arthur King, Ltd., Islington.....	123 0 ..	419 ..	288 ..	112 0 ..	942 0

OSWESTRY.—For erection of proposed Council School, to accommodate 300 pupils, Weston Rhyn, for the Shropshire Education Committee. Mr. George H. Bailey, architect.

J. H. Dorse, Cradley Heath	£9,949	7	11
T. Broad, Ltd., Great Malvern	9,677	0	0
Amies & Sharratt, Ltd., Wolverhampton	9,301	0	0
W. Griffiths, Ellesmere	9,245	15	0
C. Kempster, Oswestry	8,940	0	0
T. G. Huxley, Chester	8,920	0	0
E. H. Nicholas, Shrewsbury	8,703	0	0
G. H. Marshall, Smethwick	8,472	0	0
J. Taylor, Stoke-on-Trent	8,441	16	1
R.B.F. Construction Co., Shrewsbury	8,420	0	0
A. H. Woodhouse, Hanwood	8,028	0	0
H. A. Jones, Wrexham	7,947	0	0
Treasure & Co., Shrewsbury	7,803	0	0
Tilt Bros., Birmingham	7,799	0	0
W. F. Humphreys, Acrefair	7,675	0	0
‡W. Edwards, Shrewsbury	7,675	0	0
Architect's estimate	7,698	0	0

PORTSMOUTH.—Construction of Electricity Substations, for the T.C. :—

Cosham, Drayton, and Bedhampton stations—
*Frank Bevis ..... (each) £435 15

Emsworth station—
*Frank Bevis 485 0

Victoria Park station—
*Frank Bevis 745 0

PORTSMOUTH.—Repairs to Town Hall Organ :—
*J. J. Binns £3,316

PORTSMOUTH.—Four electric refuse vehicles :—
*General Vehicle Co., Ltd.

PORTSMOUTH.—For additions to Regent Cinema, London-road. Mr. A. E. Tutte, architect, 38, Commercial-road, Portsmouth :—

L. & A. Sprigings	£398
A. E. Porter	379
John Lay & Co.	348
F. J. Privett	347
Tanner Bros.	299
*J. Crockerell	294

SCARBOROUGH.—For the erection of 12 houses on the Edgehill Park Estate, for the Corporation :—
*Anthony Lyons, Malton £5,584

Note.—The M.H. decline to sanction acceptance of this tender, but Corporation propose to claim subsidy of £75 per house.

SOUTHEND-ON-SEA.—Supply of cast-iron pipes, &c., for Leigh West Sewage Works, for the T.C. :—
*Stanton Ironworks Co., Ltd., Nottingham £1,771 12 1

For 15-in. syphon and 10-in. overflow pipe for Leigh Sewage Works, for the T.C. :—
*Thorby & Matthews, Southend £3,933 1 11

Re-surfacing main road with bituminous material :—
*Whitehall Asphalt Co., Ltd., London, 9s. 5d. and 9s. 7d. per yd. super (with five years' maintenance at 3d. to 5d. per yd.).

Making up Fairfax Drive (Sec. 6) :—
*Iles £705

South View Drive :—
*Iles £2,120

Porter's Grange-avenue :—
*Iles £1,610

Grange-gardens :—
*Iles £830

Lime-avenue :—
*Abbott & Haddington £2,324

Eaton-road :—
*Abbott & Haddington £264

SOUTHEND-ON-SEA.—For work in connection with Council schools :—

Wrought iron (5ft.) fencing—
*Armstrong & Main, Ltd.—11s. 6d. per yard.

New boiler at High School—
*Watkin Heating Co., Southend, £165.

Wrought iron fencing for Memorial Ground—
*Bayliss, Jones & Bayliss—14s. per yard.

Gates—
*Bayliss, Jones & Bayliss—£8 10s

THOMER.—For the erection of a village Victory Hall :—
*W. J. & R. Turnbull, Leeds (all trades)

WORSBOROUGH.—For erection of 22 houses, for the U.D.C. :—
*Oakland & Co., Wombwell £8,250

WORSBOROUGH.—For sewer work at Kingwell :—
*Rawson Porter, Worsborough £392 6

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JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR

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THE HOUSE WE OUGHT TO LIVE IN.

DESPITE the protests of some enthusiasts of the simple life, ordinary civilised people still regard houses as at least provisional necessaries until such time as the perfection of the institution system of Utopia has offered an alternative form of protection the elements. As a matter of present-day fact, people g in England are often required to live in houses or to ess a good reason for not doing so. Tents and huts are e to be visited by District Surveyors, and orders for demo- n may follow where the accommodation is not considered onform to some standard of quality. "The house we t to live in" is therefore no idle phrase and the disappoint- of many individuals, who have recently suffered ejectment temporary huts erected in the emergency of the house tage is evidence of the practical compulsion residing in word "ought." The whole system of building by-laws, far as they refer to domestic buildings, is based upon the mption that people live in houses, and that those houses t to be fit for habitation in accordance with some recog- l view as to what constitutes fitness. The by-laws of rent districts naturally exhibit divergencies of opinion n this point, for although they often resemble those in in the neighbourhood of London, the personality of each inistrative official also plays a part in their interpretation ctual erection. The surveyor's opinion also must coincide ome extent with that of the local authorities or the legal aratus fails to perform its task of preventing the erection nsisting upon the demolition of undesirable dwellings.

exatious as many people profess to find the restrictions nglish building laws, the houses produced under their mild pulsion are only possessed of certain elementary safeguards gard to sound construction, resistance to fire or damp, some ary accommodation and a modicum of light and air. ic health is consulted in the matter to a negative rather to a positive degree. The freedom of the subject is a l tradition, and the by-laws generally stop short with enting the intending building owner from causing immediate is and obvious damage to his neighbours. What damage ay do to himself or to the unfortunate people who may after him, in badly-designed, toil-creating houses, does et come under the control of the law or even of public on. The Englishman's house is his castle, and if the al arrangements are antiquated and gloomy that is ed as part of the necessary price of freedom. It is y's business to dictate to us Englishmen the sort of we ought to live in. Under this privilege of being allowed ft, houses are still being erected with all the impedimenta l-destroying drudgery that town-planners, architects and sts have been endeavouring to eliminate from the face land. Long, lightless passages, sunless north rooms, of front steps, those abominations of Victorian building, excusable in the restricted space of a town frontage, are ng repeated in too many of the domestic buildings now put up on open sites by private owners within twenty f the Metropolis.

e houses exhibiting these or similar ineptitudes of design we suppose, have been put up without assistance properly qualified architect; they must, however, in st majority of cases, have passed the scrutiny of the surveyor. To affix the seal of official sanction to a plan ill misapply the savings of some poor man's lifetime, to know that a few days spent in competent revision would set matters right, and to have no authority even to suggest such a revision must tax the competent surveyor's patience. The proposal to establish a staff of expert plan-revisers, either attached to or independent of the District Surveyor's office would not meet with any great measure of approval in these economical days, even if future politics should drift in this direction.

One method of obtaining the house we ought to live in is to appeal to popular opinion through the avenues of literature and publicity, but here the difficulties are greatly increased by the disinclination of the public to read what is written concerning architecture. So rooted is this dislike that we have heard of lecturers being advised by their agents to omit the hated word architecture from the announcement and substitute some alternative title for their lecture on the plea that otherwise no audience will be forthcoming. Perhaps it is the last thing that even architects learn that the training necessary to make a house practical is harder and demands more serious concentration than will suffice to make it artistic. Magazines and books dealing with house design and construction may be seen on the bookstalls, and there is evidently some sale for them, but they frequently suffer from two opposite defects and are either far too technical to be readable or are so diluted for popular consumption as to fail to indicate the serious nature of the problem. The vocabulary of architectural terms is awkward in that so many of them are foreign and have never been fully incorporated into normal English speech. In a book we notice on page 369 the authors have steered a middle course among these difficulties and their book contains much that is admirable and suggestive in the way of improved planning expressed in a thoroughly lucid and readable style. Their sustained attack upon the problem of house design from the point of view of efficiency in every detail should bring home to their readers the fact that architecture does not consist in placing so many rooms in the first order that suggests itself, or, on the other hand, in torturing the necessities of the case to accommodate preconceived features without reference to sound economy or common sense. The authors' incidental passing reference to the house as "an instrument of rest or recreation" hardly does justice to its chief function as a nest for young human beings; but their treatment of their subject is, in other respects, thorough and serious. Throughout the book domestic architecture is discussed from the scientific rather than the artistic standpoint, though it becomes abundantly clear that art would be no loser if this method of approach were more usual.

Another method of directing attention to the question is by competitions among architects, and the designs submitted in the recent Cost of Building Competition promoted by this journal showed that some architects had mastered the elements of efficiency in planning. Criticisms of the winning designs which appeared in these pages also showed appreciation of practical points, but sometimes failed to recognise the necessary limitations involved in planning to a specified first cost, or, as in the actual competition, to a certain rental value.

Whatever may happen in the future, the house we ought to live in at the moment has often to be identified with the house we can afford to pay for. Efficient planning will make a given outlay of money purchase more convenience, but no expense of brain-power can stretch the accommodation beyond a certain maximum for any specified sum.

NOTES.

Monotony in Building.

A CORRESPONDENT complains of the sameness and "appalling monotony" of new London buildings "with scarcely any individuality," and wonders whether this is a sign of "modern progress." While in certain directions this criticism may be true, it is hardly to be described as progress, and we should certainly welcome a more personal intimacy of approach; something a little more lighted by nature and feeling. But these are not paramount influences in commerce, and it is not therefore surprising that new buildings now arising in the streets of London, mostly for commercial purposes, should reflect commerce more than art. After all, it has been said "By their works ye shall know them," and the character of the bulk of advertisements on our street hoardings reveals the outlook and sensibility of the advertiser no less than the character of many of the buildings rising in the streets of London reflects the commercial aims of those who occupy them.

Art in Industry.

ANY fairly comprehensive survey of this subject reveals to the observer much that is encouraging. New and better influences are piercing through the accustomed views which dwelt so much on machinery and vague aspirations. The source of this encouragement proceeds from a recognition of other needs, of another kind of organisation. Encouraging art on the old theoretic lines is seen now to be a very difficult thing in itself; one, in fact, so difficult that the tendency is growing to take up the whole matter from another angle of vision, freer from the control of exhibitions, schools, "critics and curators"—and the guidance of commercial motives. For the motives which we have assumed to animate men, and to which, therefore, it has become customary to appeal, are becoming less important to us. The sections of opinion which have hitherto been dominant are now being wholesomely challenged. As a writer states in a contemporary: "The artist has looked to shows and schools, to critics and curators, to the patronage of the rich, and to association with commerce," but, he pertinently adds, "the one thing he has failed to establish is his status as a workman with a programme of his own creation." This appears to us a better object than his former dependence on entangling associations. We must not be governed, much less driven, by commercial motives; moreover, as the result of much testing we find they do not work. The manufacturer's zeal for better design is compromised by this—as it appears him—necessity, and also by the mistak notion that the public "will have wh they want." When we cease to wr down the virtues of the public in this w we shall be freer to make the best use our own.



Madonna and Child, by Mino da Fiesole, at Florence.

The Public and Art.

OF the many shibbolet with which our time h doped itself, none has be more harmful than the loading of our responsibilities on public as though it were some separ entity, and we were not part of that v public ourselves, so leading our thoug all astray. It is ever a poor act to pl the blame on other shoulders; health if we look for where we ourselves are blame. More often an excuse than argument, it has palliated most of bad work that gets itself done, and is most fruitful source of failure. As matter of fact, the public—the multitu—are acceptors chiefly and take what given them, and if we have someth better to offer them they will accept t too. The manufacturer is a citizen bef he is an employer, and when one of the in a letter to *The Times*, complains th "it is not the manufacturer's fault if public will have what they want," states the true cause of the lack of art industry—which is a lack in the ma facturer himself. It is encouraging, h ever, to find a growing recognition of t and that an improvement of art in ind try cannot be accomplished through h truths.

Protection of Open Spaces.

EACH year as the sum comes round complaint made of the disfiguremen the countryside thro waste-paper and the other concomit of holiday-making, and it is really which is very regrettable in a presum civilised people. To leave this wak disfigurement is a great reflection those who are responsible for the offe Drastic action has been recommen but it is difficult to see in what way it be effectively taken. In Kew Gar the provision of baskets set about grounds into which visitors can put empty bottles, &c., has mitigated the and their presence also suggests to vis the disregard for the general welfa the neglect to use them. Perhaps addition of notices against objectio habits, as in the railways, would further to mitigate the evil. P requests not to "walk on the g are respected, and we are inclin think that with more attention to the matter in such ways improve should be expected. Considerati expense offer objection to the f proposal that open spaces and "bea spots should be better patrolled. Th taste and public spirit of the p if directly appealed to, is, we thi

elied on, for it is more from want of ght than anything else that the ect of these decencies of the common still prevails so much.

ızes at mpeii.

An account from the pen of Professor M. Rostovtseff in the *Times* of his archæological investigations at Pompeii ıls information in reference to the rations which its dwelling houses ded. The Strada dell' Abbondanza, h extends from the Forum, one of principal streets, reveals particulars gard to the decorations included in dwelling houses of extraordinary est. The mural work of these under- nd rooms represents the art of the ıstan period, when the subject matter rated was mostly drawn from famous des in the Iliad, though we are told landscape predominated. One parti- r room described by the Professor ıs to have more directly illustrated Homeric poems. A comment about e mural paintings, &c., illustrates an ct of wall painting which belies that modern and theoretic view of the ssity of "flatness," for fear we should et we were looking at a wall—a view h has fostered in our own time such ttenuated expression, and so limited cope. As stated in the course of a er on the subject in the same journal: ıe artists' primary object seems rather ave been to paint landscape than to trate Homer, and to create as part of architectural plan the illusion of lows looking out upon Nature." much more interesting than the t" pabulum, the studio substitute! rentions such as these are the growth reconceptions little related to practice, when the practice of mural painting takes hold of our artists, as well as art schools, they will not be content to hold the richness of real painting ity, or fear lest the spectator should know a wall when he sees it.

ubject tter at mpeii.

There is another consideration of much importance illustrated by the particulars furnished by Professor Rosseff about these Pompeiian decora- . We are experiencing a very ral reaction from the over-conven- l, and jejune subject matter of late eenth-century painting, in regard- anything outside of the mundane l as suspect. But though the fried- Lop, the purveyor of Bury puddings, roundabouts and swings furnish a tly legitimate and more robust native, we are a little too ready to de other subject-matter of more ental character, anything which does answer to what we consider to be But the account of the leading out nting, as suggested by the description ave quoted—"windows looking out Nature"—opens the way to a more



Panel at Rimini Cathedral.

transcendental world, one in which the mind is turned once more from the more pedestrian objectives for art to those which enclose the whole being.

The Collector.

Mr. Philip Guedalla, in "Masters and Men," portrays for us the collector:—"It is an odd, industrious little figure that goes about, in his favourite phrase, picking things up. There is something faintly perverted about many of his preferences. You will find him, in the dark corners of bookshops, buying books for their misprints. He has been seen admiring prints because of some error that remained uncorrected on the plate. The fatal lure of rarity obscures for the collector the facile charms of perfection. It is enough for him (one is back again in the era of the two-headed lamb) that the specimen is unique. The collector, scavenging indomitably in the wake of our civilisation, will leave nothing whatever for posterity to find."

The City Churches.

Some pertinent questions in connection with the proposal to demolish a number of Wren's City churches are raised by a correspondent. "I note the renewal of the menace as regards the City churches," he writes. "They are to be sold to supply funds to erect new churches in the suburbs. Are the suburbs so thirsty for spiritual consolation? Ask them. The local clergy tell me that they cannot fill their churches as it is, and matters are getting steadily worse in this respect. What would the City look like without the churches? A sad sight. I know you will use your most powerful influence against this speculation."

Payment by Results.

We should surely all agree that the prosperity of the building trade is not a matter for the concern of builders or operatives alone. We are all more or less concerned in the right development of the building industry, and we can only hope that the suggestions on payment by results (see p. 379) will be carefully considered and acted upon in some feasible way. Payment by results should not be an impossible ideal to attain. We believe Mr. Chessum is right in saying that the workers in the building industry are in favour of payment by results, providing there is a sufficient guaranteed wage below which their earnings will not fall, and also with a proper security against rate cutting. With such a protection for all, why should not the industrious be permitted to receive payment for his extra labour?

GENERAL NEWS.

Professional Announcements.

Mr. Frank A. Coyle, M.S.A., architect and surveyor, has removed from 1, West-parade, Consett, to 29, Newmarket-street, Consett.

Mr. Thomas Adams, of the firm of Thomas Adams & Longstreth Thompson, town-planning consultants, 121, Victoria-street, Westminster, has been appointed Chief Consultant to the Committee on the Plan of New York and Its Environs. The plan of the Committee deals with an area of 5,220 square miles, having a population of about 9,000,000. The acceptance of the New York work will not affect the English practice of the firm.

Technical Courses.

The 1923–24 session of the London County Council Central School of Arts and Crafts, Southampton-row, W.C.1, opens on September 24, the autumn term ending on January 31, while the spring term is from February 1 to June 28.

The University courses in the Municipal College of Technology, Manchester, will re-open on October 4 and end on July 25.

Obituary.

Mr. C. Frederick Wilkinson, retired architect, of Hyde Park, who has died in Leeds, designed and altered a number of the buildings at the Bramley Poor Law Institution, and was responsible also for the Old Field-lane Methodist Chapel. The son of the late Rev. C. Wilkinson, pastor of the Holbeck Unitarian Chapel for twenty years, Mr. Wilkinson in former days took a keen interest in cricket and angling.

A Spire in Danger.

The spire of St. Mary's, Shrewsbury, is threatened with destruction. In 1894 the top of the spire fell, and it cost £7,000 to repair the damage. Now it is the Norman tower and the lower portion of the spire which are in danger. The sum required for the restoration is £5,000.

St. Nicholas Church, Wrea Green.

The Birley family have decided to present a reredos and altar to the Church of St. Nicholas, Wrea Green, Lancs, in memory of the late Mr. Hutton Birley. The design, in painted oak, has been approved by the Church Council of the Manchester Diocesan Architects' Committee, 90, Deansgate, Manchester, and, when a faculty has been granted, the work will be proceeded with.

Anthracite Stoves.

Mr. H. Tieling Smith, at a Rotary Club luncheon at the Hotel Cecil last week, made it clear to users of anthracite stoves that a recurrence of the explosions which took place last winter is not likely to happen in the future. He explained that a committee had been appointed by the colliery owners to inquire into the matter, and they had made exhaustive inquiries and experiments, and declared that such precautions had been introduced in all anthracite pits which made it impossible for explosions such as were experienced to happen again in the future. Any explosives used would be of such a nature that it would disintegrate and be quite harmless, if by any chance it became mixed with the coal. Anthracite, he stated, gave a much higher percentage of heat than any other coal, but it could only be burned advantageously in closed stoves. Mr. Smith demonstrated and explained some of the experiments which had been made with a stove he had at hand for the purpose.

COMPETITION NEWS

Armstrong College, Newcastle-on-Tyne, Library Competition.

Mr. H. M. Fletcher, M.A., F.R.I.B.A., has made the following award in this competition :—First premium, £100, Mr. A. Dunbar Smith, F.R.I.B.A., 6, Queen's-square, Bloomsbury, W.C. ; second premium, £75, Mr. W. G. Newton, M.A., F.R.I.B.A., 4, Raymond-buildings, Gray's Inn, W.C.1. ; third premium, £50, Messrs. Mauchlen & Weightman, 2, Collingwood-street, Newcastle-on-Tyne. The approximate cost of the building is £25,000. The drawings are on view to-day (Friday) and will be exhibited again on September 27, 28 and 29, from 10 to 5 p.m., at Armstrong College.

The first premiated design is given in this issue.

Manchester.

The Manchester War Memorial Commi has decided to accept the design of Sir Ed Lutyens, R.A. The new Cenotaph at Manc ter will be 36 ft. high, and will be flanked two obelisks each 24 ft. high.

Southsea Common Lay-out Competition.

The conditions of this competition are no accordance with the Regulations of the R.I.B and members are advised to take no part in

Manchester.

Messrs. The D.I.C. House (Cross-street), L of 16, John Dalton-street, Manchester, h invited a certain number of architects to sub designs for a new building in Cross-str Professor C. H. Reilly, F.R.I.B.A., is assessor. Sending-in day, October 15.

Cottage Hospital.

South Moor and Holmside Collieries' Welf Scheme Committee invite plans and specifi tions for their proposed cottage hospital, wh is to have two wards, capable of accommodat 20 beds, at a total cost of £10,000, includ furnishing.

Chiswick.

FOR THE U.D.C.—Designs for construct and laying-out a river embankment. Premiu 100, 50 and 25 guineas. Sending-in d October 15. Further particulars from Clerk to the Council, Town Hall, Chiswi *Banned by R.I.B.A.*

Other Competitions.

Other competitions still open include t following (the dates given are, first the sendi in date, and second the issue of *The Builder* which full particulars were given) :—Singap College (Jan. 1, 1924; March 30). Hull A Gallery (Nov. 5; May 4). Mint competit for plaques (Sept. 30; May 25). Birmingh Masonic Temple (Sept. 12; June 22). Col scheme (Sept. 30; June 29). Memorials to Missing (Jan. 1, 1924; Aug. 3). Halifax L out—*Banned by R.I.B.A.* (Oct. 1). Swan Masonic Hall (Oct. 3). Eastleigh and Bish stoke Assembly Hall (Aug. 24).



Royal Academy Exhibition, 1923.

MR. E. W. COLDWELL, Lic.R.I.B.A., Architect. (*See p.* 357.)

THE COMPLEAT ARCHITECT.

By DUDLEY HARBRON.

VIII.—CONVERSE.

In one of the issues of the *Tribune*, a daily per, unhappily defunct, there appeared a ort story entitled "The Monkey Tree," by dyard Kipling. I remember hardly anying about the story as a story, but I seem recollect that that distinguished writer tempted incidentally to do for a house the rt of thing which he has done for engines, idges and boilers; that is, to toy familiarly th the working parts. Even he did not nture far into the intricacies of the building ssary.

I do not wish to labour the point, but does not need an architect, a builder, or an erative to put in their right places all the tle details of finish, workmanship and aterial that cluster round the occupation of eating an edifice? In talking to each other, d to and with workers in the same calling, e can use a language that amongst relatives uld appear affected, whereas between ourlves it is quite natural and useful. True, e technical vocabulary breaks down now and en, and perforce we have to make use of ugh English, to help us characterise mouldgs with "too much belly," and mixtures hich are "fat" or "thin." But the applition of these adjectives in their respective ses remains a secret not overheard by the blic ear. All other callings worth the name ve a kindred symbolism that is Greek to the tsider.

When we can talk freely in this jargon of r calling we may be considered to have ssed through the initial novitiate state, to genuinely interested, absorbed, and merged th and into the profession. We no longer ll plans elevations or elevations plans, as the Philistines. An architrave for us has definite significance. A floor is not exactly hat it appears upon the surface, but someing of depth as well as breadth, with an derside of filling, sleeper, or ceiling.

In my youth, I remember, I spoke of paints." I was very young. I was sharply rrected by a voice (now professorial), Colours." I have never forgotten that tial transition from the boilermaker's outk to that of the architect. Nor do we make suddenly, unless we keep our mouths shut d our ears open for a very long time. We come inoculated by contact. Unification d to be attained by a rather rough method. Who is the greatest architect of the day?" ere was only one answer. An illustration Scotland Yard framed upon the wall gave a hint. If you were bright enough to take you were "Welcome." If too obtuse then Good-day." This brusque sort of consation has its merits, not only in separag the sheep from the goats, but in distinshing the interested from the amused.

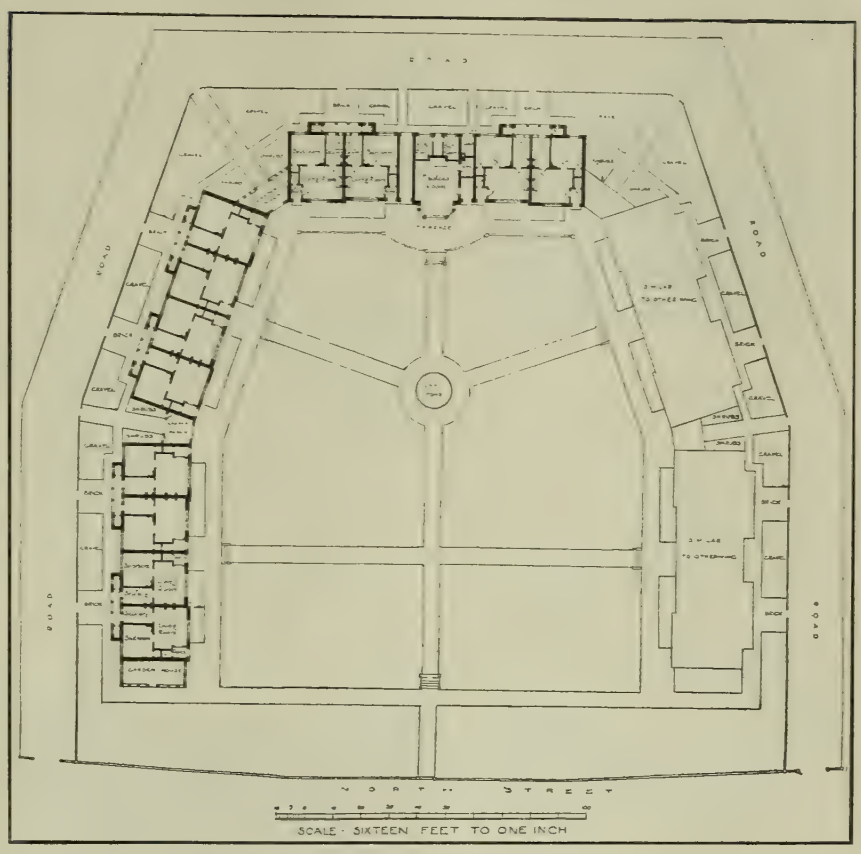
There are not wanting a disgruntled set of tics, who object to the language of art. ey believe in calling spades—spades. ough to a spade-maker that simple tool st consist of a hundred and one parts, detions, and attributes. It is a complicated ce of mechanism, into the very interstices which he has delved as only a spade-maker uld. I do not object because I cannot ow him. It is only when language obres the conception instead of elucidating t the critics' complaint is justified. Let critics simplify their language if they st; indeed, the composition of their tience renders it imperative, but leave us refinements, our feeling of them in profile perspective. Granted that there are es, and that he who oversteps that to ch he has attained is presumptuous. The ney along the road is full of incident, and further we travel the more interesting s it become.

is a phase of art that does not enter into news, because the full discussion of technical matters has not a broad enough appeal and takes up too much space. Thus the valuable acquirement of being able to do so in words can only be gained in conversation. Only the individual who devised the member can fully detail why. If he cannot, and at the same time convince his auditors of its rightness, there must be something wrong somewhere. The creator should be able to explain his creation. If we cannot talk about these things, there must be precious little to say. No amount of eloquence will justify a meaningless, stunted, coarse element in design. The opening apology is sufficient condemnation. There are words finer sounding which, nevertheless, should awaken suspicion and suspend judgment—"Decorative"; regard it carefully in order to make sure that it answers the definition of the dictionary, "Fitted to adorn." In course of time it has acquired an application remote from its true meaning.

In the survey of the means at our disposal, by which we can add to our store of knowledge, and develop our powers to the limit of capacity, conversation is apt to be regarded as too trivial a method for consideration. Books have usurped the place formerly held by discourse between the instructor and his pupils; though the dialogue form survived in print until quite recently as a relic of other days. When, therefore, occasion is offered to talk without offence upon matters pertaining to the profession, they should be seized and enjoyed. Even if we gain nothing more by its exercise than a habit of arranging our thoughts and expressing them with clarity and conviction, we have not misapplied our time. All of us can learn from each other. *Viva voce* occupies an important place in examination.

Of course, there are innumerable aspects of an architect's calling capable of discussion. Discuss them. Do not be content to accept on trust. Endeavour to formulate for yourself a reason, an explanation, or a condemnation. If your solution coincides with someone else's that is no matter for disquietude. If in disagreement, it is no matter for temper. In converse we can rub off rough corners and become persuasive.

All this alludes to conversation among brothers — intimate conversation. Among strangers it is different. A witty Frenchman wrote the words, "Never show your wounds except to a physician." They are equally true of beauty spots. It is important not to let your calling down before laymen, nor to laud it unduly on the tram top. Let works speak. Help him to hear. Do not deride his views, correct them.



Rest Houses, Halstead, Essex.

Mr. E. W. Coldwell, Lic.R.I.B.A., Architect.

HALSTEAD REST HOUSES.

This building consists of five blocks, each containing four dwellings (twenty in all), each with living room, bedroom, scullery, larder, &c. In the centre of the central block is a room to be used for trustees' meetings and for purposes of recreation. The amount of the contract, without foundations and excavation, is £13,057. The contractor is Mr. Charles Deaves, of Bures, Suffolk. The foundations and ground work were carried out by Mr. S. G. Woodman, of Halstead. The bricks and tiles are being supplied by Messrs. Ames & Finnis, who will also carry out the tiling. The iron sashes are being supplied by Messrs. Wainwright & Waring, Ltd., who will also carry out the lead light glazing.

The site was before occupied by the Halstead Workhouse with Union offices and board room and infirmary. New Union offices and board room are now being erected in the town under the same architect.

The whole scheme is due to the generosity of Mr. Samuel Augustine Courtauld, who is not only bearing the whole cost of the purchase of the site and the erection of the dwellings, but is also providing an endowment.

The architect is Mr. E. W. Coldwell, Lic. R.I.B.A. Our illustration is from the exhibit at this year's Royal Academy Exhibition.

CORRESPONDENCE.

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

London Traffic Improvement.

SIR,—Were the propositions explained in your recent issues put into effect, it might be said that a start had been made centrally on the main project as above.

The northern portion of the suggested mid-Metropolitan artery has been already explained. The course of its complement may now be indicated.

The bi-level feature would be continued in a south-eastern direction across Victoria-street to the circus at Horseferry-road, thence *under* the river. On the south bank its further course would be a matter for consideration.

As regards the subway innovation at the river some explanation is necessary. It has been referred to in the *Builder* more than once already. the last time a year ago, when the arrangement was urged as a substitute for a bridge at Richmond, where a beauty spot is in danger of being spoiled by a proposed bridge. The same applies to the splendid reach between Westminster and Vauxhall bridges and, additionally, the purposes of aviation have been referred to incidentally. At Richmond the circumstances of the site, however, are very favourable, inasmuch as in the "half-tide" lock an essential requirement is already in position. By that provision the ebbing tide is held up so that any proposed structure underneath could be placed at the *shallowest level*, and so with the easiest gradient in the approaches.

Similarly with the suggestion at Lambeth. Possibly, as already proposed, London Bridge might be fitted with the arrangement for the reaches westward, and in a complete scheme the navigable channel trained to a convenient width. That would admit of a curtailment of the length of subway, and also of the application of a novel feature as regards the relative foreshores. Those might then be arranged as tidal beaches for recreation purposes. As such they would be of considerable extent, so much so that "London Unique" might take its place as one of the marine resorts of the Kingdom.

"O. B. I. T."

Leaking Lead Roof.

SIR,—The old lead on the nearly flat roof of the north and south aisles of our church is in a very defective condition. The cost of replacing being prohibitive, can anyone suggest a suitable covering which will adhere to the lead and stop leaks ?

"CHURCHWARDEN."

[Another letter is given on p. 362.]



Carved Window at Aiwané Rafaat.
(*See* p. 359)

TOWNS AND TOWN-PLANNING, ANCIENT AND MODERN.*

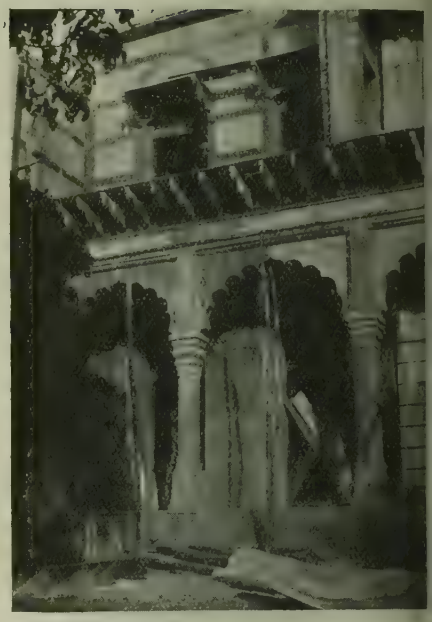
"THE new word 'town-planning' was probably coined by some Victorian 'progressive' in the innocent belief that it represented a new art or science, concerned with problems unknown to our forefathers. The apostle of progress has usually more hope of the future than knowledge of the past." With this introduction Messrs. Hughes & Lamborn lay before us a comprehensive and interesting outline of the history of town-planning all through the ages.

More than half the volume deals with ancient town-planning and, having digested both the subject matter and the many maps and illustrations given, the reader can no longer be under the delusion that town-planning represents a new art. Excavations in Egypt, Greece and Rome show that the ancients not only designed beautiful buildings, but did scientifically plan the grouping to economise material and space, to provide convenient access to each group and each building in it, and to allow air and light to pass with least obstruction. From Egyptian times to Greek, where the rise of town-planning is reflected in the growth of building regulations and by-laws designed to secure order in the streets and to safeguard the health of the inhabitants, and from Greek times to Roman times, where the grouping of public buildings and general lay-out of the towns speak of the regularity of Roman law, we are taken in rapid survey.

Whilst in matter æsthetic the Roman civic consciousness was more highly developed than our own, there are pictures in Juvenal which might well have served as a warning to our nineteenth century statesmen of dangers and miseries attendant on the ill-regulated growth of wealth and population, and although the problem of planning for a rapidly increasing population is mainly modern, it presented itself in Rome and found Romans little better prepared than ourselves to meet it with provision of adequate measures. The rich had parks and gardens within and around the cities, which checked their natural expansion in a way which has its parallels in modern England. The State trusted to contractors to meet the problems of housing, and allowed them to disregard the old building laws and to run up jerry-built houses of timber to enormous heights in narrow streets.

The architecture of the Renaissance is well treated and some excellent examples of Italian and German lay-outs are given. English eighteenth-century work is unfavourably compared wi h foreign examples of the same date, and when considering nineteenth-century enterprises the authors are led to quote Cowper's "God made the country and man made the town,"

*Towns and Town-Planning, Ancient and Modern. By T. H. Hughes & E. A. G. Lamborn. (London: Clarendon Press). 15s. net.



Jain Arches and Dripstone, Aiwané Rafaat.

and themselves to add "and the devil ran up the suburbs." English town life and development are interestingly given, and altogether the book is an excellent guide for those who wish to follow the progress of town-planning throughout the centuries down to the present day. Chapters dealing with the modern movement on the Continent, and particularly with France's contribution, together with American views and efforts, form an interesting addition to the literature on the subject.

In their final chapter the authors bring forward the chastening thought that our modern cities suggest nothing greater than the intense activity of the builder and contractor; 75 per cent. of our people are now town dwellers, and London itself in a century has increased its population fivefold. The work for town-planners in the future may be to reverse the process and by means of cheaper transit, or by bringing the power to the raw material instead of carrying the material to the source of power, earn for themselves the new name of "country-planner."

The Housing Act of 1919 is considered and compared with legislation in the United States and in Australia, and the determining factors of town-planning concisely stated. Whilst contributing little that is new to the subject, the authors are to be congratulated on their thoughtful and well-got-up volume, which will do much to awaken interest in a subject which until recently has been an unexplored field to the general public; and may well serve as a stepping-off ground for many a lay mind. One reader may be led to a fuller study of ancient towns and life and customs pertaining there, whilst another may be led to investigate the history of our own towns and villages; but, with the authors, we hope it will in all cases help to stimulate interest in the towns and villages "that are still to be."

Reserving our severest criticism for the post script, we would wish that the authors had not so freely indulged their taste for poetry in this an essentially practical, book.

New Pier at Hove.

The long-deferred scheme of erecting a pier for Hove at a cost of £180,000 is to be started at an early date. The site of the pier will be immediately opposite St. Aubyns. The length will be nearly a quarter of a mile and the width from forty-five to fifty feet. The whole construction will be of reinforced concrete. A theatre will be built at the land end to accommodate 1,400 persons. Other attractions include a bandstand, casino, dance hall, restaurant, residential club, and medical baths.

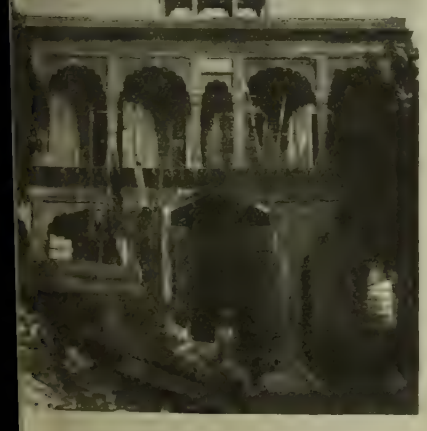
THE REVIVAL OF INDIAN ARCHITECTURE

By V. B. METTA.

The house named "Aiwané Rafaat," the Mansion of High Excellence, which Her Highness Nazli Begum Rafiya Sultana has recently built in Bombay, is of great interest from many points of view. Bombay is essentially a European city, since it owes its life and growth to the English, and did not even exist in the days of the Hindu and Mohammedan kings of the country. It therefore does not reflect or interpret the soul of the East to any great extent. Many of its business offices are built in the French or the Italian Renaissance styles, with little Saracenic domes or Gothic spires super-added as mere ornamental details. Absurd and artistically faulty as all such buildings are, they are tolerable as compared with the Gothic railway station and the High Court building of that city. "Were there railway stations in the days when the Gothic architecture flourished?" "Can you associate justice with the European feudal times?" are the questions we cannot help asking ourselves on seeing them. The rich Indians of Bombay, denationalised by the system of education which is established there at present, have imitated the Britishers, and built all sorts of buildings which are an incongruous *mélange* of the Gothic, the Renaissance, the French eighteenth-century, and other European styles. What Bombay, therefore, needed was a really and truly Indian building like this one to make her orientally self-conscious.

"The Mansion of High Excellence" is designed by Mr. Fyzee Rahamin, a well-known Indian painter. But feminine influence is quite visible in his design, as it has always been in all beautiful artistic creations of the East from time immemorial. Her Highness the Begum and her sister, Mrs. Atiya Begum (the designer's wife), have, in fact, suggested a good many ideas to him about the construction and decoration, as well as the choice of the building materials of the house.

The Orientals are fond of symbols because they are intellectually imaginative, and among symbols the flowers are their most favourite ones. The lotus has been the symbol of India for thousands of years. It has been sung of and sculptured again and again in the ancient literature and art of the country. Therefore you see the whole or parts of that wondrous flower on the capitals and bases of the pillars of this house also. The rooms are large and lofty, provided with daintily carved lattice windows, through whose many-shaped perforations the light streams into them. They are to be fitted up with Indian furniture—*gadis*, *takiyas*, carpets, *tepoys*, and divans—for the Western style of furniture suits neither the Indian climate nor the Indian types of houses, nor the habits of the people. They will, however, be lighted at night, for certain reasons, by electricity, and not by lovingly carved Indian metal lamps fed with fragrant oils. But at the same time it should be noted that the electric light will be handled with Oriental artistry. It will be sent up through the floors of the rooms by means of an X-ray apparatus, to be reflected on the highly polished white ceilings, whence it will be diffused all over them. There will also be electric table-fans used there, and these will be placed in little niches in the walls behind perforated stone screens, so that their ultra-modern, non-Indian forms may not obtrude themselves upon anybody.



Aiwané Rafaat: Front View.

The ladies' private room in this house, called "Khas-ul Khas" (the Private of Privates), has a finely carved red sandstone balcony looking out upon the sea. Elaborately worked walnut wood cupboards will house the books in the "Library," which, in the poetic language of the East, is to be called "Al Makhazan" (the Treasury). The ceiling in the dining-room will be of delicately and fantastically carved wood. And on the frieze of the front hall on the first floor of the house you see, inlaid with precious stones, the ninety-nine names of God in Arabic characters. One of the rooms, which is to be called "Astana-i-Khayal" (the Threshold of Imagination), is to be fitted up as a studio for Mr. Fyzee Rahamin. The light comes into it not only from its doors and windows, but also from a small dome in its ceiling, whose base is fitted up with glass. On its walls are shortly to be painted the representations of the chief religions of the world, in order to show the fundamental harmony rather than discord between them. There is a fine kiosk built on a small platform on the terrace roof of the house, where the family will go when the heat of the day has begun to subside; it will be used for offering prayers as well as for enjoying the view of the city and the breezes that come singing up there from the sea below. There are about three kinds of arches used in this house. The first one is the true pointed arch, which the Mohammedans in other parts of the world consider for religious reasons to be absolutely essential in all their buildings. Then there is the polyfoil arch, which the Moors were so fond of using in Spain. And finally there is the Jain arch, which is of wholly indigenous origin, and is more of decorative than of constructive value in a building. In other places here the arch has given place to the trabeate structure of the Hindus, who, though they constructed many types of true arches, did not really like them, because they saw their essential weakness and impermanence. The drip-stone also to be seen in the front part of this building is absolutely of Hindu origin, but which the Mohammedans of India adopted in their architecture.



Doorway, Aiwané Rafaat.



Kiosk on Terrace Roof, Aiwané Rafaat.

I have mentioned the fact that the Orientals are fond of symbols and that this house is full of them. The finest symbolism, however, is to be found not in the house but in the garden, which is planted in front and at the back of the house. Gardening, it might be mentioned here, has been a highly elaborate art in India for thousands of years. From the spacious days when the Vedas were written until after the death of Buddha—that is, for more than a thousand years—gardens went on developing new beauties and modes of revealing great truths. This ancient Indian art then spread in many other Oriental countries like Persia, Turkestan, and China, and from them, by a strange irony of fate, the Great Moghuls, the descendants of Tamerlane, carried it back in a modified form to India, the country of its origin. The garden of "Aiwané Rafaat" is a true Indian garden, unlike all other gardens in Bombay, whether public or private. It is laid out in the form of the Cosmic Cross. The house is situated where the lines of the cross meet, and so is its Mount Meru, the abode of the gods, which should be represented in the centre of every Indian garden. In the front part of the garden will be placed a standing statue of Buddha, from under whose feet the River of Life will rise and flow right through the front portion of the garden, then pass under a stone bench in the front hall of the building, whence it will flow into another room behind, from which it will pass out into the back portion of the garden, which is to be laid out in three terraces, one rising above another—emblematic of the Three Worlds. Flowers of three particular colours will be grown in the garden to represent the Hindu Trimurti (Trinity). These three colours are red, blue, and white. The red ones will represent Brahma the Creator, the blue ones Vishnu the Preserver, and the white ones Shiva the Destroyer. Then, again, will be seen the Orientals' amorousness exhibited in this garden, because the lotus, representing Leila, will be placed in the vicinity of the weeping willow, which will symbolise Majnun, her hapless lover. There will also be cypresses, the symbols of eternity, round which will be entwined fruit trees, the emblems of this life.

The British Empire Exhibition.

The Acting High Commissioner for Newfoundland has received definite instructions to proceed with plans for the erection of a Newfoundland Pavilion in the British Empire Exhibition next year. The cost of the pavilion is not to exceed £12,000. This decision ensures that every part of the British Empire of any size will now be represented at Wembley.—The High Commissioner for South Africa has accepted the tender of Messrs. Sir Robert McAlpine & Sons for the building of the South African Pavilion, and work is to be begun at once. The pavilion is to be completed before the end of September.—The Kenya Government has increased the sum allotted for the building of its pavilion from £10,000 to £12,000.

THE SPIRIT OF ARCHITECTURE.

By ROBERT CROMIE, F.R.I.B.A.

When man builds he puts something of himself into permanence, and that is the "Spirit of Architecture." Unlike literature, especially unlike painting, architecture does not vary with current fashion. It cannot be swayed by passing influence, or by conscious dictation, or even by imitation, until such influences have settled down into definite expression. It is slow to move, for its root is embedded in fact and the natural consequences of a series of facts—which become tradition. Only its externals are subject to the minor influences; the essentials remain persistent as the characteristics of race. They are as definite as the peculiarities of a people. It was not fancy or arbitrary rule that gave the West a steep roof and the East a flat one; each has its natural origin. And the transplantation of styles from one locality to another is as unnecessary and as theatrical as the adoption of the kimono would be in Whitechapel. In the same sense there is as little reason in erecting to-day the sort of building which was contemporary with Herod as there would be in applying his ethics to modern society. Every architecture has its day and its limitations, and therein lies not merely its historical value (which is purely academic), but its beauty—the real beauty that is truth. For, willy-nilly, truth is the essential quality of human life; it can be obscured, but not obliterated. And architecture is its record incorruptible. No mean man can create a monument, but any mean man can build a big building. When we scrutinise the known past we realise that the architecture of the world is no more than an index of mankind—the true illustration of his acts and thoughts, from which there is no escape. "By your monuments shall you be known" might have been the text of Creation. What, we may wonder, will be the verdict of posterity when our own modern cosmos comes to be examined? If we fail to-day it is not for want of guidance, but rather due to a plethora of guides and penny-in-the-slot instruction. With every man his own critic the essential quality of thoughtful reasonableness that makes monuments of buildings is murdered by conflicting ideals. In the heterodoxy of modern styles the spirit is sick, surfeited with cheap individuality and confused ideas. And the jugglery of doing anything with any material anywhere is futile and insincere.

The student's first shock comes when he tries the rules of one style against another. The theories of proportion cannot stand the test. The antique axiom fails. You cannot talk modules to Notre Dame, nor design on a system of "static symmetry." No fabric of mechanical measurement can, or ever did, produce architecture.

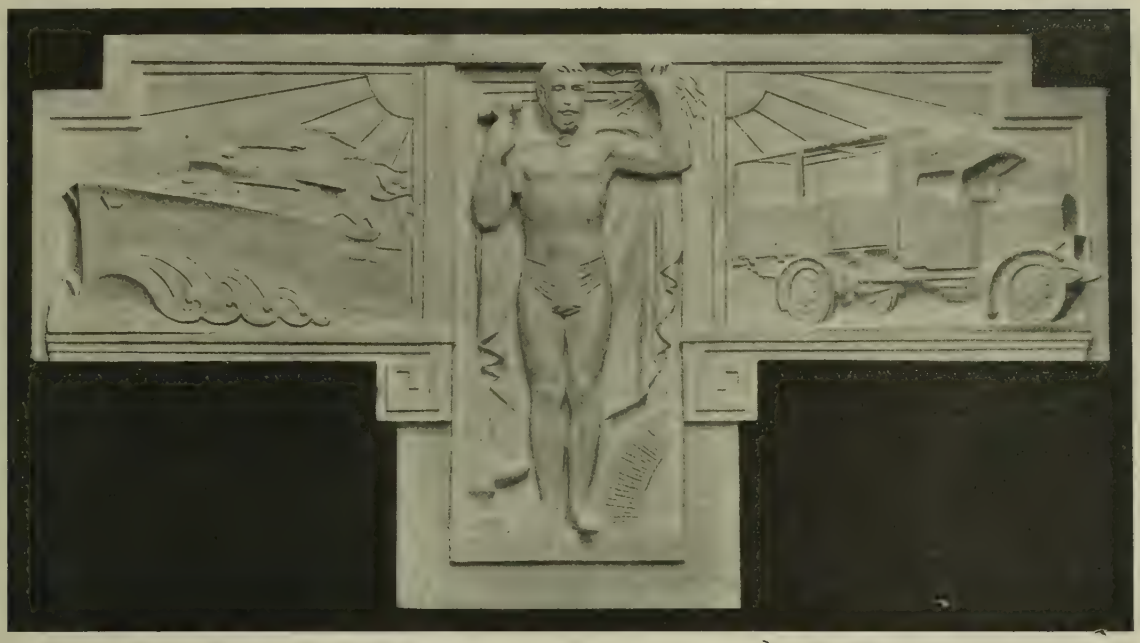
It was the pre-historic instinct to commemorate that created the monument—the purest form of architecture, a pious erection of stones intended to endure. The perpetuation of a memory, the raising of tabernacles, cromlechs, mastabas (probably the earliest architecture that can rightly be termed monumental), was the outcome of a belief in hereafter, or at least a psychological rebellion against the destruction of nature by nature—a vain desire to evoke eternity. The sacerdotal Egyptian, secret, believer in the unchangeable, discovered in the pyramid the "angle of repose" necessary to safeguard his treasures, which to-day are revealed with such a fervour of curiosity. In the course of mechanical development the science of construction created the art of architecture—the open book of humanity, whose phrases were of stone and metal, its chapters dynasties, its periods wars. It is the unbiassed historian.

Literature and research have illuminated the fog of antiquity; Rosetta stones have resolved the enigmas of hieroglyphics; archaic codes have rendered up their unwilling secrets; but do we not owe our knowledge less to papyrus and parchment than to pictorial decoration, the habit of carving and modelling and mere building? The commonplace implement hidden in the earth bears us testimony, and the monument carved out of rock utters the sentiment with which it was originally imbued for ages. The striving after practical perfection and the early steps in the paths of critical reasoning—a sense of proportion, for instance—are illustrated in the tombs and temples of the Nile Valley, the birthplace of the reed and the lotus and the Grecian column. The whole argument of prototype forms is a mentor which indicates in co-related stages the gradual, inevitable



Mr. Clyde Young, F.R.I.B.A., Architect.

[This rood screen is to be erected in the College Chapel in memory of the students of the Imperial Service College, Windsor, who fell in the war. The screen is in English oak, with the names carved on the lower panels. Messrs. J. Thompson & Sons, of Peterborough, are the contractors.]



Modelling at Thorneycroft House, Westminster. Mr. A. Alban H. Scott, Architect.

unfolding of thought. The spirit of the times is captured. Every architectural attempt is an epitome of its period. Every succeeding record embraces the vital qualities of its precursors—models and adapts, accepts, rejects, a process of selection—carves up the cyclopean monolith, builds up with handier stones; invents systems of measurement and values—searches Nature for embellishment; invests architecture with potter's detail and pottery with architectural ornament; introduces ivory and gold, metals and precious stones, richness added to refinement, colour and light, shade and reflection and dramatic effect, and, crowning all, brilliant and astonishing statuary. Out of earth the temple articulate is made.

The oracular Periclean period consumes the past and threatens the future; it is the date, the millennium, of mental power, of philosophy, literature, oratory, and the base-comparative of intellectual effort.

Then Rome. The Emperor adds to the world museum and detracts from it—destroys æsthetic principle, rushes in with the arch, the vault, the dome, characteristic of power, elastic and unstable, a gorgeous panorama of monumental buildings—gorgeous, yes, beautiful, not in symbolism, but with a pagan, riotous, disturbing beauty.

The Greek had the Homeric legend; visualised his deity in battle; adored the apotheosis. In death the public hero became a public god, and inspired the sculptor with at least an official cult.

The popular beliefs shook with the Romans, who created an architecture that was politically inspired, only to become stabilised by the monotheism of the early Christians. And so the story goes on—from the Cyclops to the heyday of Roman pomp, the catacombs and the Sign of the Fish . . . the portrait of St. Peter, in camera. Stealthily the curtain is rung up on Christianity. Scanning the ages we think the old world is rather suddenly dead.

When the throne of power was transferred to Byzantium the intellectual art which we call Classic was left to trail behind. A new obscurity veils the progress of thought; there is a set-back which echoes through the architecture of succeeding centuries; the humanism of the new religion was to work out its own salvation through devious routes — partly oriental and fatalist, wholly ignorant, dreading A.D. 1000. What had gone before was forgotten, lost in the interregnum, whose monument was the basilica—fashioned out of second-hand material, but impregnated with faith. It was a make-up—built of Roman relics and improved by expatriated Greeks. It possessed a beauty that is non-axiomic. Failing for want of arbiter, it arrives timorous, persists, and ritualism breathes it into throbbing reality. There is no architecture so intensely spiritual.

It was a policy of divergence that caused the Church to refute the temple influence—naturally in concern for its own integrity. The basilica weaned away as speedily as possible from the heathen element in its construction and decoration, and sculpture received a deadly blow when Constantine legalised the new religion, proscribing the worship of the graven image; the Heroic Age passed the way of the Golden Calf.

A sort of democracy laid the foundations of the cathedral era. If there was little tradition to replace legend there was altruism and allegory. Christ, Madonna, the Apostles, were reduced to symbols. The Crucifix, mechanically repeated; the Lady, naif, often grotesque, and the curious pictorial hierarchy of the Romanesque ecclesiastics exhaust the total of Biblical influence on sculpture. So it degenerated into carving—and carving became a craft. The mediæval philosophy retarded the plastic art, forbade the nude, centralised study, reduced teaching to formulæ from the lap of Papal authority, and condemned science—only to give birth to sorcery and a clericalism once removed from priestcraft. Yet it inculcated a fanatical zeal that covered Western Europe with real monuments —a complete, abiding gamut to the glory of God and the wisdom of restraint.

Then came the pageant Renaissance, cutting across the traditional track with its individualism, patronage, and brilliant versatility. A profound intellectual activity prevailed. The influence of genius is the characteristic of the revival. A thirst for knowledge, and scientific research, subversive, anti-mediæval, and regenerating, it had neither hesitation nor morality. Virile and resourceful, its leaders overcame the established, if frail, opinion. It was a case of new wine in old bottles. They approached nature. They converted religion into art, and antiquity into a source of information—whence a synthetic architecture, aristocratic, lacking in bourgeois sincerity, fearful of the commonplace. They created the palace—and made portraits of the prophets. Thought, learning, wealth, were dissipated in an enormous constellation of buildings; the prince was prodigal of other people's money. The Popes availed themselves of the occasions to turn to the Church's and their own advantage the works of literati, artists, and engineers. Their bastard buildings were half Roman, half modern, wholly conscious of a striving after originality, new forms of construction and treatments of material, the introduction of painters' composition, perspective, vistas, and every conceivable effect. It was an age of taste, and its works were the achievements of competing schools; masters and patrons dictated and were constantly at loggerheads; pupils outshone their professors; mechanics and filigree workers became poets, painters and sculptors; copyists and artists became architects and engineers, and dilettanti flourished. It was not possible that a definite shape nor even the true essentials of a pure homogeneous style should spring from such a fount of mixed waters.

If the Italian style was founded on the work of academicians it is not without brilliant examples that outshone their rivals and affected the rest of Europe. The genius of the Renaissance initiated genres which others copied, although failing to re-incarnate the real spirit.

The return of modern architecture to a sense of purity and constructional frankness is symptomatic of a much better appreciation of those lasting qualities that are the grain and the essence of monumental work. The mark of the Renaissance will fade, as the mark of the Gothic has faded. Has there been any architectural gain, any improvement? Nothing in comparison with the length of time through which the Ideal has persistently struggled. Leaping two thousand years the Neo-Grec has flickered sufficiently brightly to light the way to a better understanding. It has clarified confusion and shown the value of disciplined learning. It has cleared the ground for an architecture whose style shall be stimulated by the difficulties of modern needs, rid of pedantry, inspired by sanity and economy.

But is it enough that the way be clear?

The spirit of architecture has sped from Babylon to New York, from the tabernacle to the tall chimney of commerce. The cauldron of Industrialism still seethes with unnatural energy unspent, but the momentum of philosophy is broken. Once more the golden calf struts its pedestal. Wealth! The Imperialism that built Europe has smashed Europe, and the world is embittered. The church spiritual, the palace temporal, shall make way for "commodious offices."

The dumb gods shall be shattered—because they are dumb.

THE SOCIETY FOR THE PROTECTION OF ANCIENT BUILDINGS.

Mr. A. R. Powys, Secretary of the Society for the Protection of Ancient Buildings, writes:—

The letter which appeared in your issue for August 17 on this subject makes me want to write in reference to the art of newspaper letter writing, and to state shortly, under headings, the various reasons which cause men to desire the preservation or restoration of ancient buildings. It is a convenience to group under headings reasons of the latter kind; but in doing this we draw firm lines around the different aspects of the case which do not in reality exist.

First, then, as to newspaper correspondence. I have to do more of this than is good for me, and from my experience it appears that a *correspondence* as such is begun unintentionally. Someone wishes to draw public attention to some point of view he feels is being neglected or overlooked, and he writes a letter frankly and without an eye on his defences. His words cover (sometimes too successfully) the thought he wishes to express. Some other person, reading the letter, feels that he is being personally attacked, and answers not the purpose of the letter but the words. Then, if he is clever, he will score many points. The original writer is drawn in to play the game of controversy. The amused audience, careless of any deep-seated intention in the original letter, balance the points won by each party.

The letter in *The Builder* is clever in this respect. "Isis" puts into quotation marks phrases which, with one exception, are not to be found in my original letter in another paper. To a different audience, his victory appears complete; but since he is not quoting accurately, the reader will perceive that it is a victory over an adversary specially set up to be knocked down. That would, perhaps, be the way to reply did I join the game of newspaper controversy; and, according to the rules, some points would then be mine.

But except for the fun of the game this method of dealing with serious problems is unprofitable. This answer avoids the intention of "Isis's" letter, and were it an answer to a letter of mine I should consider it a quibble. So it seems better to turn to realities, and if I can do so, to express in words some idea of why this problem of dealing with ancient buildings should be considered.

I desire here to enumerate the different attitudes of mind with which men approach the subject, putting them into separate compartments. I am aware that in real life this is not possible, for in life we feel with our whole personalities; and it may well be that the wiser we are the less do we confuse our feelings by putting them into words, unless we can be fairly certain that some other quality of ours (a quality which may be akin to telepathy) will help to clear our meaning in the mind of a companion.

As to the attitudes of mind, let them be as follows: the historical, the architectural, the artistic, the structural, the economic, and let us say nothing of the others.

The historical argument, whether it refers to forgeries or to preserving original work, when followed separately to its logical conclusion becomes absurd. In a general sort of way both are sound. . . . We can say with regard to ancient buildings: "What we do in the next millionth part of time is as good history as that of any other time. Let us do more and more, and leave the past to take care of itself." In part this is true; in part it is also false. But what of architecture? Architecture is an idea in the concrete. It is frozen music. Where a part of the harmony has melted away it must be recreated and put in a refrigerator to freeze again. At all costs we must have the whole thing. We must do to the fragment of building what Chapman did for Marlowe's *Hero and Leander*. That poem has now the right number of lines, is divided into balanced sestiads, and the story is complete. How excellent! Let us, therefore, complete Kubla Khan. Your analytical literary man will come close to telling you where Chapman failed. He will be most convincing; indeed, had he time and were he paid, he might be willing to do the end of the poem right himself. Yet we know he would not succeed. Can we logically say why? We can only say vaguely—sentimentally, if you prefer that word—that the soul of the poem was the soul of Marlowe answering the spirit of his age; and that no other man can artificially create that from his own personality. Does someone say that architecture is different; that I am side-tracking and am using analogy to "make a point"? Maybe they are different, and maybe I am making points: who can tell? Yet you will recognise that there is truth somewhere at the bottom of what I am saying. The argument of the architectural attitude leads to the admiration and appreciation of the perfect architectural unit only. St. Mary's Cathedral at Salisbury is nearly this; St. Paul's, also, is as complete a great building as any. Men are moved by architecture of this sort. But is not Canterbury Cathedral fine also? Does not Wells cause more than intellectual pleasure? These are not architectural units, they have come about. That which moves us in them all is the human desire that has been put into them by some builder Marlowe, some carver Coleridge, or some group of poets as Homer. Is architecture a thing of form and material only? Can it be produced by scholarship? The world would be superficially more pleasant were this so.

Further, does not time add an increased beauty to buildings? This word beauty leads me to the artist, the painter, the poet, and the modest man who loves the picturesque and whose emotions quickly receive impressions, so that we who are of harder stuff, with more constructive brains, call him sentimental. Should we not, then, in considering the treatment to be meted out to an ancient building, respect the desire of these folk? Is there not some beauty belonging to it—maybe it is the beauty of mystery, of colour, or the beauty of form modified by the action of time—which your architect or structurally-minded man would destroy in his desire for completeness or stability? Before you say yes, or even a qualified yes, consider the weakness of these poor folk. They care not for history, neither do they care for the future. Why should these matter to them? The future will grow a beauty of its own; and the past, has it not fulfilled its function by giving us such lovely things? The sentimental fellow would cry: "Do not add stone to stone nor remove any of those yellowing leaves. Wait! Perhaps that wall should go, so that the light on the river may be seen from just here; and that tree, it confuses the graceful line of the nearer birch. To give just the right composition these things must be removed. And that iron crane must for ever hang just there to be a foil to the delicacy of the foliage, as is the bright armour to the lace collar of a Stuart youth." Is not this painter of three-dimension pictures right, too? In something he is; but the poor fellow is unpopular to-day. He must be a low, bad person with a loose, unconstructive mind. Besides, he understands nothing of the importance of archæology. We must teach him better, harden his mind if not his heart. Let us send him to the engineer to learn to take pleasure in the wonders of building with geometric precision. Is not he a master, this engineer? Is he not right, too, in his appreciation of the old work put together with such nearly perfect skill in an age when there were no sliding scales and no long-armed steel cranes? Should not such works, sprung from the instinct of man, be rendered permanent, stiffened as only an engineer can stiffen them? Is it not wonderful how he can catch in mid-air the falling mass of masonry, catch and fix it firmly in its place like an icicle that will never melt? Change and decay are so remote from his work that they may be forgotten for generations. Change ending in death is no longer found in his work; and the sting of unchanging life—life that is ever stationary—takes the place of the sting of death.

From some remote distances the man in the street hears the windy words of the experts exchanged in high dispute. He hears, and remembers some catch phrases, and confusedly attempts to reconcile them. In his daily life he has learnt that the getting of meat is the chief necessity of his physical body, and he concludes, in consequence, that the cost of whatever works are done should be related to economic necessities. He is aware of beauty, would like to know more of history, not quite realising that he himself is a link in that chain. The secrets of construction appeal to his imagination. Yet all these things must be subordinate to his daily occupation.

In these words of mine, where is there any reference to the principles of the Society for the Protection of Ancient Buildings, with its dislike of forgeries and its belief in the living customs of the building trades? I think if anyone troubles to read the manifesto which William Morris wrote to be an expression of the aims of this society, he will find that the principles stated there do not give greater value to anyone of the "attitudes of mind" than another. They are based on common sense. There is no talk of completing buildings in the name of architecture. There is no word expressing joy in decay. There is no overrating of historic values. Romance and change are recognised. The importance of maintenance is emphasised, but there is no boasting of the possible feats of the engineer. A feeling for the beauty of old buildings as we find them, and a desire to keep them in fair structural repair as they have come down to us, is the keynote of this document. The passage of time, past and future, with its softening influence is accepted. Although extreme measures are not in themselves decried, they are clearly not recommended. There is evidence of a desire to use the knowledge of experts, while it is still within some circle where each exponent has not yet separated from his fellows by following his own line of reasoning to its logical conclusion. All through this treatise may be found indication of the value of ancient buildings in relation to the things of daily life. A proper sense of economy, though never a suggestion of meanness, is there also. Common sense is the basis of the appeal.

Let us, therefore, without neglecting to use any of our faculties, keep what we have left of these fine works, not adding to them for any but practical reasons, nor yet pulling them down to save money. Let us preserve the structure but not disfigure its appearance—and maybe weaken it—by inserting patches of plain or carved stone. In a word, let us among other things, avoid tinkering with wall surfaces, yet do what is necessary for structural stability, not working extravagantly to show our power and knowledge, but gently and modestly, from day to day and year to year, so that these buildings may remain still carrying within their walls the soul of the builders, as does Marlowe's great poem the full being of its author.

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ILLUSTRATIONS.

Armstrong College Library Competition.

As a result of the recent decision of the Council of Armstrong College to build a College Library, all practising members of the Northern Architectural Association, and a few architects in other parts of the country, were invited to submit competitive designs for the building.

Thirty-two designs were received from 26 competitors, and Mr. H. Martineau Fletcher, M.A., F.R.I.B.A., who was appointed assessor upon the nomination of the President of the R.I.B.A., has now issued his award. (*See p.* 356.)

All the designs submitted will be open to inspection by the public in the Gallery of the King Edward VII School of Art, Armstrong College, between 10 a.m. and 5 p.m., to-day and from 27th to 29th September.

In accordance with the terms of competition and award, Mr. A. Dunbar Smith has been appointed architect of the library, and work will proceed forthwith. The building will consist of a reading-room seating 122 readers, storage space for 175,000 volumes, and accommodation for 55 research students, administrative rooms, and photographic laboratory, and is so designed that additional storage space for 60,000 volumes may be added when required. A beginning has thus been made to a scheme whose realisation will not only fill a long and sorely-felt gap in the equipment of Armstrong College, but should prove an inspiration both to teaching and to learning within the College.

Basingstoke Housing Scheme.

During its consideration of the housing question the Basingstoke Council had been helped with sketch schemes for the various sites prepared by Mr. J. Arthur Smith, F.R.I.B.A., then a member of the Corporation, and upon Mr. Smith's retirement from the Council his firm—Messrs. Wallis & Smith—were appointed architects for the Borough housing schemes, and the design of the lay-out and houses was entrusted to them.

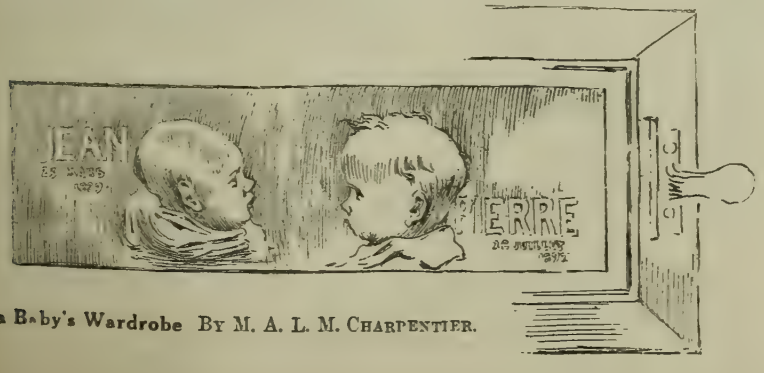
The site is contained in the triangular shaped land of about 20 acres extent, bounded on the eastern side by the Sherborne and on the western side by the Kingsclere roads, and on the northern by a fence dividing it from Merton Farm land. The site has a natural fall of about 40 ft. to the south-east. The lay-out has been designed to obtain as great a building frontage as possible to these existing main roads, and also both sides of a new 40 ft. road running east and west across the north of the site. The completed scheme would have provided 210 houses (12 to the acre exclusive of roads and open spaces), and the contract with the builders included the whole in three sections, with the proviso that the Council should have the option of omitting the last section of 75 houses along the new north road) if the circumstances necessitated it by a specified date. The omission of the last section was determined by instruction from the Ministry.

All the houses are of the "parlour type"—that is, they each contain parlour, living-room, scullery, larder and coals on the ground floor, and three bedrooms and bathroom and separate w.c. on the first floor. The area of rooms and accommodation are similar in all houses, but the planning has been varied with seven designs to suit the varying aspects of the different roads. The houses are built in pairs, except six blocks of four each, set back from the roads to break the line of frontage, and a block of three at the apex of the site facing down Chapel Hill. The construction and arrangements generally have been carried out to meet the requirements of the Ministry as set out in the manual in connection with the Tudor Walters' report, and all the accommodation is contained within the main walls of the house without any out-buildings.

All living rooms have a southerly aspect, and the sculleries are so planned as to overlook the gardens for the purpose of the supervision of children during domestic working hours. The drainage has been carried out on the sectional system, with a number of houses collected to one connection to the public sewer. There is only 520 ft. length of sewer in the total length of 2,010 ft. of new roads, and the 81 houses fronting the existing main roads are connected with the existing public sewer at eight points only. Each house is supplied with a gas cooker, independent copper in scullery, a cottage range in the living room (of the improved cottage type), a gas geyser in the bath room, and four points of electric light. Two of the three bedrooms have fireplaces. The houses are all brick-built, with 11 in. hollow external walls, 9 in. party walls, 4½ in. brick internal partition walls on ground floor, and 2 in. partitions on first floor. All roofs are tiled. Ground floors are all solid—boards in mastic on concrete in parlours and living rooms, and granolithic to passage and scullery, &c. The woodwork was finished with Solignum, and paint only used for ironwork.

The building contractors are Messrs. W. F. Drew, Ltd., of Chalford, Glos, whose tender was the lowest in open competition. The work in roads, paths, and sewers was carried out by Messrs. Henry Osman & Co., of Southampton. Quantities and the adjustment of accounts were entrusted to Mr. S. J. Bryant, F.S.I.

The houses were completed in March, 1922, and the total all-in cost per house was £965, exclusive of roads, sewers, and site.



From a Baby's Wardrobe By M. A. L. M. CHARPENTIER.

Bournemouth Pavilion Competition.

The design illustrated this week was submitted in the recent competition by Mr. A. G. R. Mackenzie, F.R.I.B.A.

The architect's report stated that the concert hall accommodates 2,000 in theatre seats—1,250 on main floor, and 750 on gallery. A sunk orchestra is provided capable of being covered over to afford additional floor space. The lower ground floor refreshment room and tea balcony accommodate 650 and 400 respectively. The main floor tea and refreshment room, with balconies, accommodate 525 at floor level, and an upper balcony has been provided enabling this number to be maintained when the centre of the floor is cleared for dancing. The lounge, with balcony, affords accommodation for 250. 4,300 super. ft. have been allocated on lower ground floor to beach undertakings. A further 1,200 super. ft. would be available if a new pump room is not required.

The materials proposed are:—Brick walls covered externally with Bath stone, except where not seen on east elevation. Steel stanchions and roof trusses to concert hall. Timber roof construction covered with Roman tiles. Ferro-concrete floor and stair construction. Pitch pine wood block flooring. Maple dancing floor. Plaster wall decoration. Deal stained joinery. Iron balustrading to stairs and balconies.

The cost of the building is estimated at £100,000, including clearing the site, incorporating water tanks and boiler in building, heating, and lighting, but excluding architect's and quantity surveyor's fees, organ furnishings, steps and terraces beyond building line, electric pump and laying-out of grounds.

[The first premiated design, by Mr. Wyville Home, A.R.I.B.A., and Mr. Shirley Knight, F.R.I.B.A., was given in our issue for July 6.]

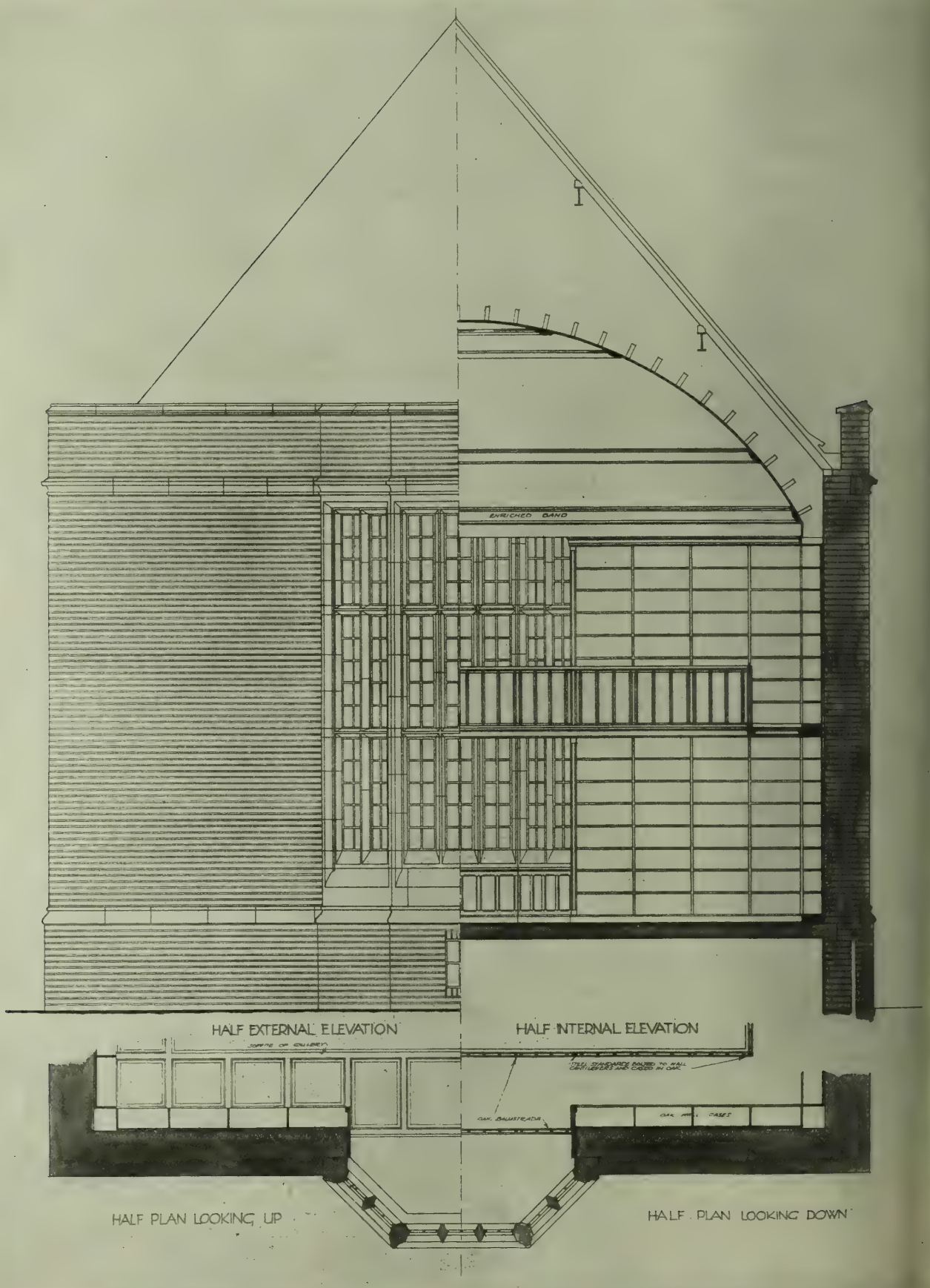
THE COWLEY FAMILY.

MR. EDWARD JOLLYE, A.R.I.B.A., writes:—

Only by means of heraldic devices, arms, or crests is it possible, probably, to trace the descent of certain families or members of that family. The arms most frequently in use were often inscribed on tombs, or memorial tablets, and if the bearers of a certain shield-of-arms migrated, such records would be found in different parts of the country. In the present instance, the quest is for the forbears of a certain Thomas Cowley, of Donington, near Spalding, in the County of Lincoln. He was a large benefactor to Donington and district. This Thomas Cowley was born in 1625, lived and died at Donington, where in the aisle of St. Mary and Holy Rood, the parish church, is a slate slab recording his death in 1721, at the age of 96.

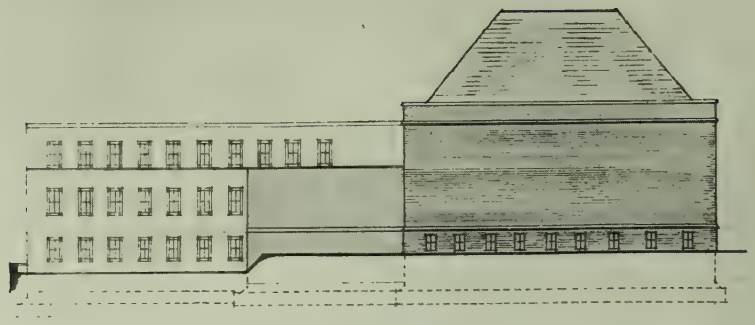
In the "Red Cow" Hotel assembly room, at Donington, which belonged to Thomas Cowley, is his painted and framed representation of his arms—a silver shield charged with (a black) lion rampant, having an engrailed boarder charged with silver mullets or five-pointed stars. By search through old works I have found this coat, or shield, of arms, drawn by Stowe, the historian and eminent antiquarian, and it is assigned by him to Walter Cowley, of London. In "Foster's Collectænea Genelogica," Cowley of London is given, and a note says, "From County Stafford." In the "Genealogist," under Grants and Certificates of Arms, it gives: Cowley, Walter, of London. Arg. a lion ramp. sa; within a bord. eng. of the second, charged with eight mullets of the first. Crest—from a crest coronet or, a demi lion sa.

It is thus possible your readers either in London or Staffordshire, or its adjoining counties, can point to some memorial or tablet depicting these arms, or have records or books of reference at hand which will give information. I shall be greatly obliged to anyone who can kindly give us a little more information to help us.

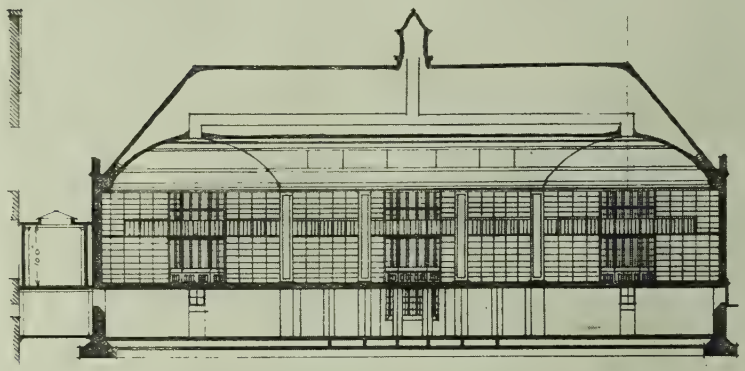


Armstrong College, Newcastle-on-Tyne, Library Competition.

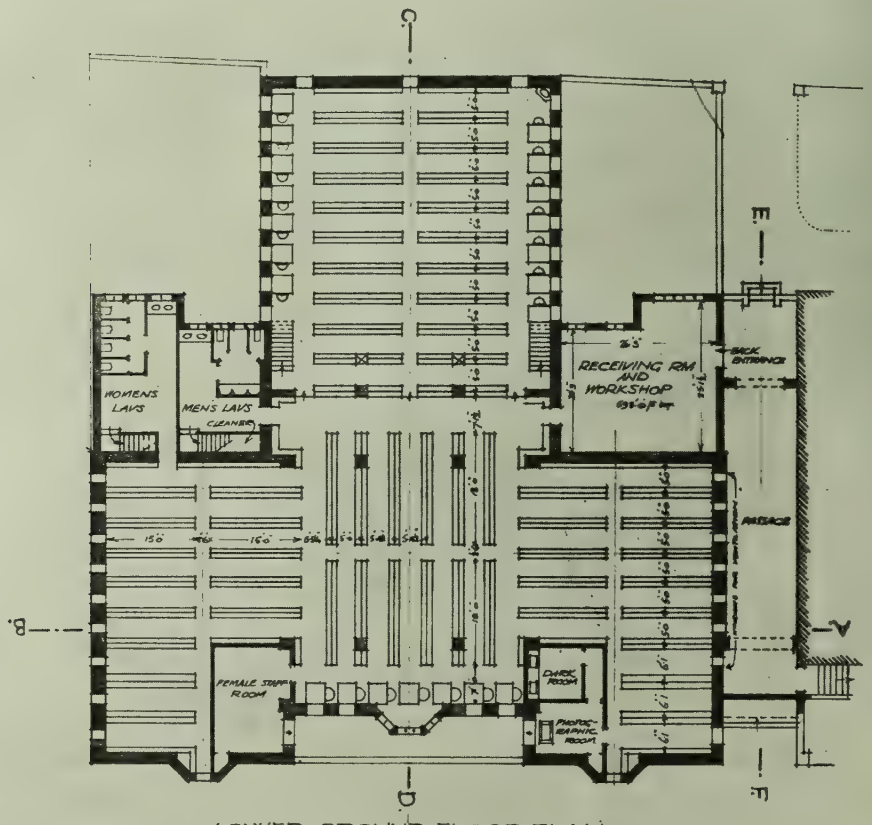
First Premiated Design, by MR. A. DUNBAR SMITH, F.R.I.B.A. (*See p.* 363.)



N.W. ELEVATION



SECTION A.B.



LOWER GROUND FLOOR PLAN

ARMSTRONG COLLEGE

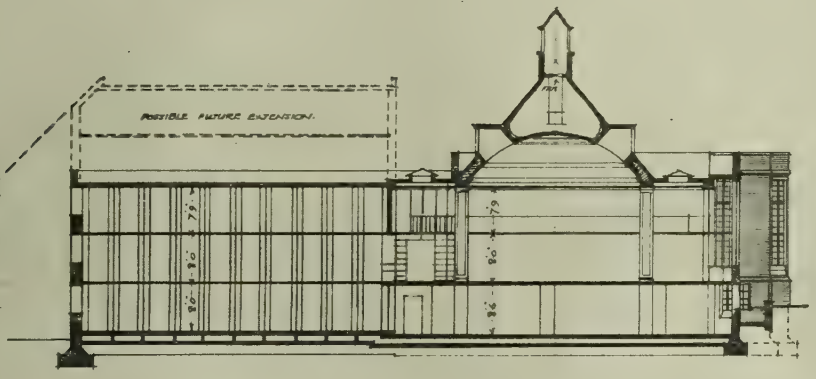
First Premi





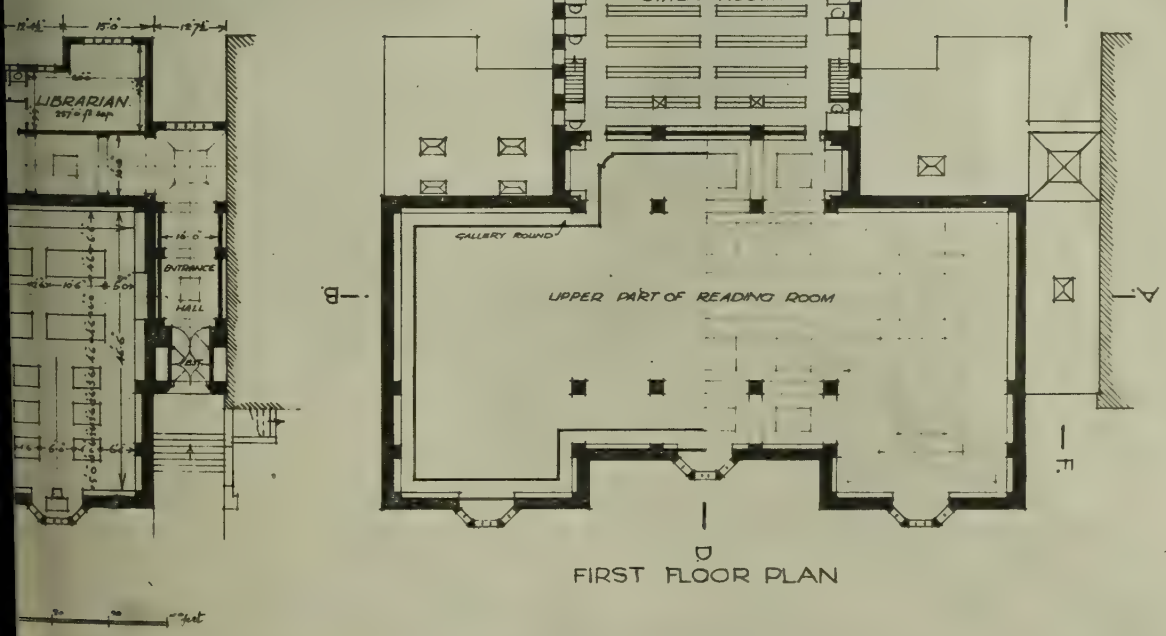
SECTION.E.F.





SECTION.C.D

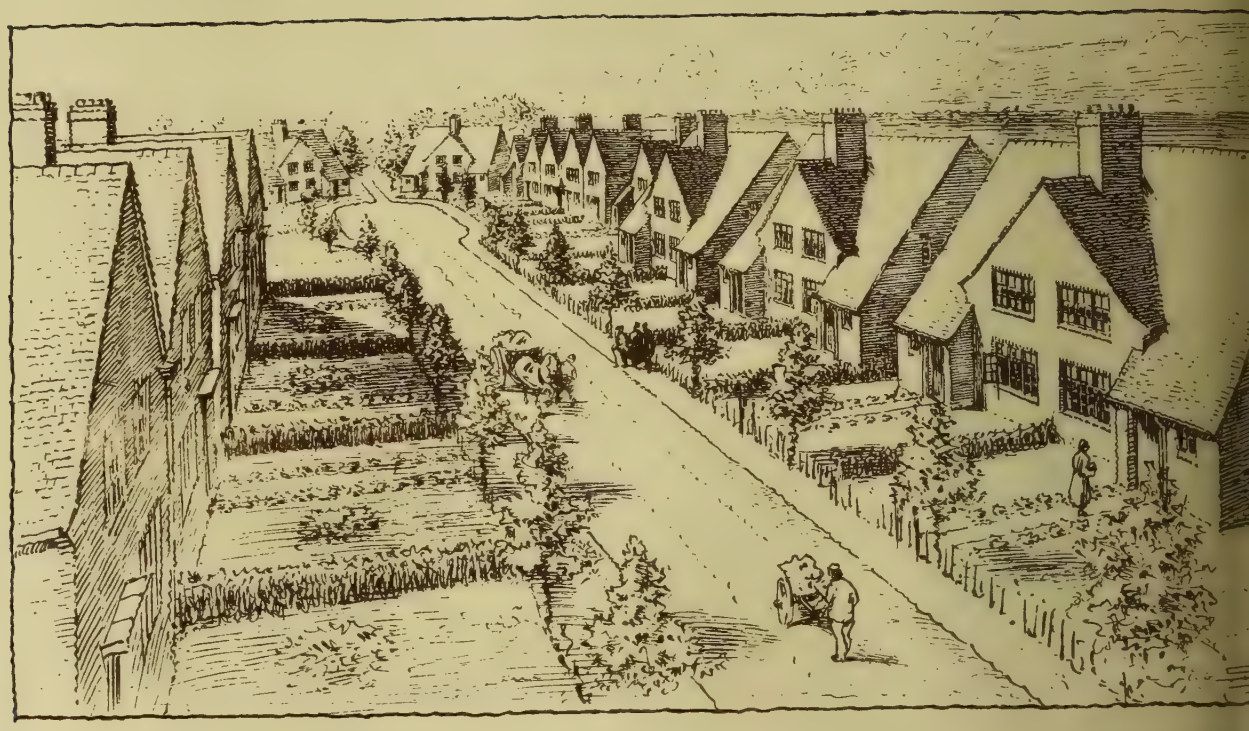
SCHEDULE OF ACCOMMODATION			
BOOKS		READERS	
STACK ROOM		READING ROOM	122
LOWER GD FLOOR	98200	STACK ROOM	
GROUND FLOOR	27600	LOWER GD FLOOR	21
FIRST FLOOR	29400	GROUND FLOOR	13
	155200	FIRST FLOOR	15
			49
FUTURE EXTENSION			
2ND FLOOR	29400		
3RD FLOOR	29400	FUTURE EXTENSION	
READING ROOM.		2ND FLOOR	13
1ST TIER	11700	3RD FLOOR	13.
2ND TIER	13500		

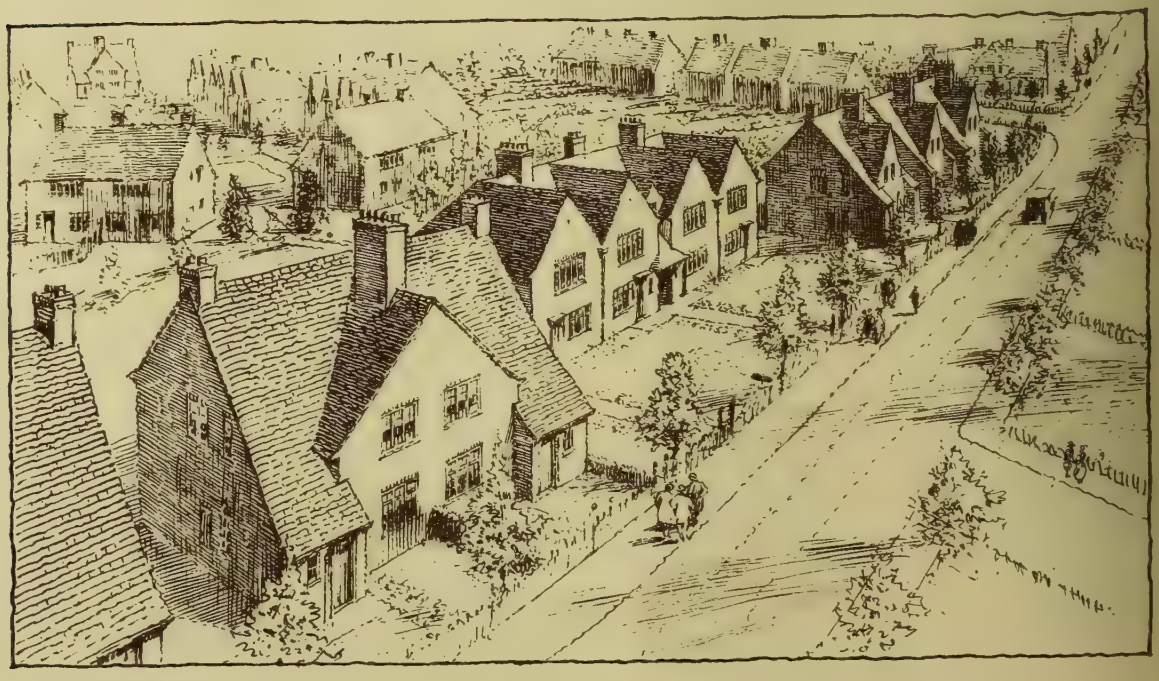


FIRST FLOOR PLAN

LIBRARY COMPETITION.

ITH, F.R.I.B.A.





T. RAFFLES DAVISON, DEL.

BASINGSTOKE HOUSING SCHEME: THE COMPL



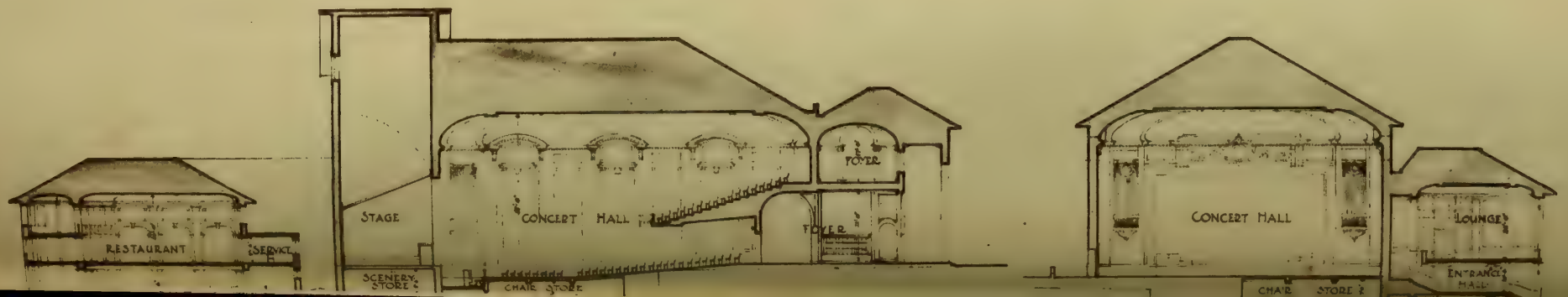


LLIS & A. J. SMITH, F.R.I.B.A., ARCHITECTS.

BOURNEMOUTH PROPOSED CONCERT PAVILION



EAST ELEVATION

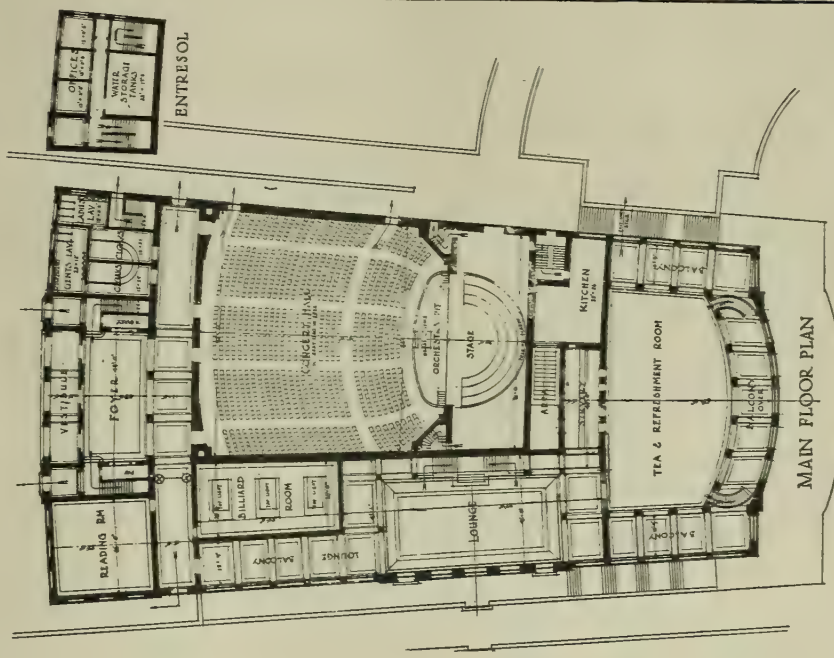


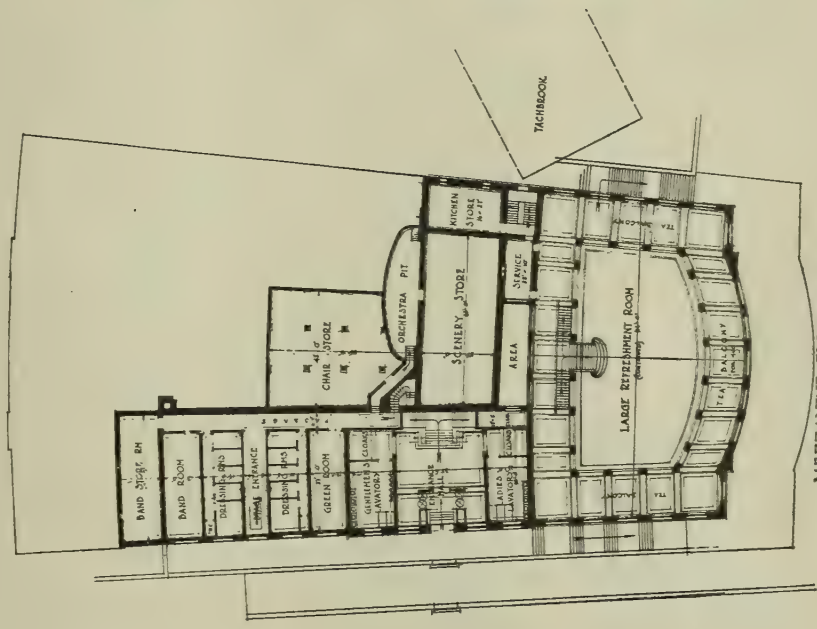
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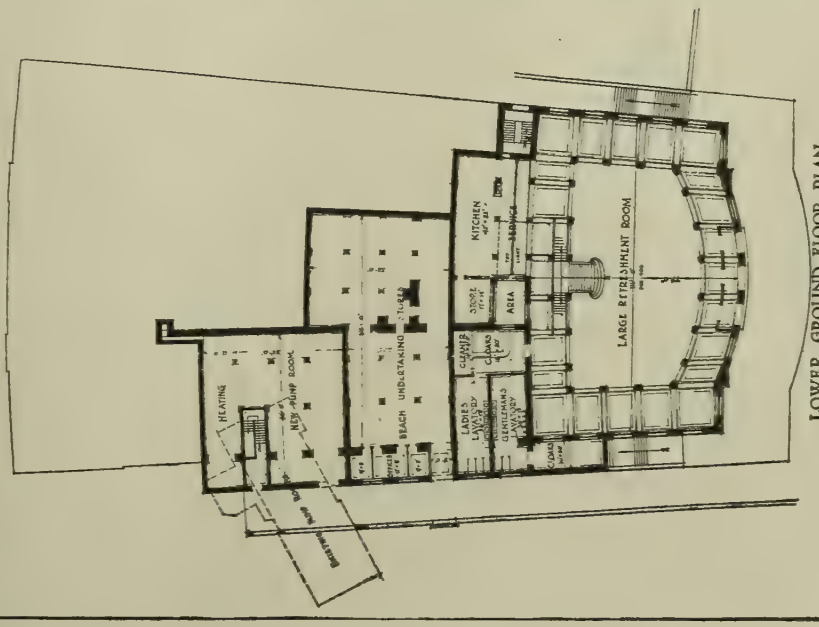


DESIGN SUBMITTED BY MR. A. G. R. MACKENZIE, F.R.I.B.A.

BOURNEMOUTH PROPOSED CONCERT PAVILION







Design submitted by Mr. A. G. R. MACKENZIE, F.R.I.B.A. (*See p.* 363.)

THE BUILDING ART: THEORIES AND DISCUSSIONS.—IX.

By W. R. LETHABY.

THE ARCHITECT OF WESTMINSTER ABBEY.

In his fine new book on Westminster Abbey, Mr. Westlake, by fresh study of the documents preserved at the church, has shown that Master Henry, the mason, who was what we should call the architect of Henry the Third's great work, was almost certainly the same as "Master Henry de Reyns Mason," mentioned in 1256, in a deed, by which Hugh, the son of this Henry, assigned to the Abbey a rent of five shillings a year from a messuage in Westminster which had been given to him by his father.*

Now it has long been acknowledged that many characteristics in our church are derived from the Cathedral at Reims, and this fact, together with the name, makes a strong case for arguing that the architect at Westminster was a Frenchman, who had been employed on the French coronation church, and was brought here by Henry III to build the English Coronation Church. On the other hand, the general view in regard to the architectural character of the church has been that it is specifically English, but shows study of contemporary French art. Sir Gilbert Scott put it thus:—

"Judging from internal evidence, which is all we have to go upon till the documents are thoroughly searched, I should imagine that an English architect, or master of the works, was commissioned to visit the great cathedrals then in progress in France with a view of making his design on the general idea suggested by them. The result is precisely what might have been expected from such a course. Had a French architect been sent for, we should have had a plan really like some French cathedral, and it would have been carried out, as was the case with William of Sens' work at Canterbury, with French details. As it is, however, the plan, though founded on that common in France, differs greatly from any existing church, and contains no French detail whatever, excepting the work of apparently one carver. The church is remarkable as marking the introduction of the French arrangement of chapels, which, however, failed to take root here; and the completed type of bar-tracery, which was no sooner grafted on an English stock than it began to shoot forth in most vigorous and luxuriant growth."

Our being able to accept a French architect for our famous church depends on whether we can allow a predominently French character to its architecture. This is a question of style criticism, and it is as difficult of proof as it would be to prove whether an unsigned picture was by Raphael or Titian. Certain students will be quite sure for themselves without being able to demonstrate their view. It happens that my days of studentship were in the time when there was a special enthusiasm for French cathedrals, and I must have been one of the last of those who concentrated on the "professional" study of these masterpieces of structural art. I have worked, measuring and drawing, at all the great monuments of Northern Gothic art, at some of them again and again, and I may set down three dozen as they occur to me, partly for the sound of the delightful names: Amiens, Reims, Paris, Beauvais, Chartres, Bourges, Vézelay, Tours, Nevers, Autun, Auxerre, Clermont-Ferrand, Lyons, Mantes, Laon, St. Quentin, Noyon, Soissons, Senlis, Meaux, Chalons-sur-Marne, Langres, Strasbourg, Rouen, Coutances, Bayeux, Le Mans, Troyes, Sens, Angers, Poitiers, Tournay, Geneva, Lausanne, St. Omer, and Abbeville.

*Mr. Westlake also quotes a record of the purchase of houses at Westminster by the King for Master Henry, on July 6, 1245. This is exactly the date when the building was begun; in the Close Roll, this purchase is said to have been "for the work of Master Henry."

Without bias I vote for an English master, for it would be a romantic thing to have a great French church in London. All English architects, so far as I know, have taken the same view, so also have American students, and no Frenchman has wished to claim Westminster as an example of great "ogival" art. It has been carefully studied by Count Paul Biver, Mons. C. Eulart and Viollet le Duc—the last-named, significantly dated the south transept at Westminster as 1230—that is, he thought it not nearly so advanced as French work would have been *c.* 1250.

Mr. Westlake supports his theory by a reference to the late Mr. F. Bond's *Westminster Abbey*, 1909. However, it was not Bond's view that a French master conducted the actual works at Westminster. His was an intermediate position. He pointed out French characteristics, such as the radiating chapels; the proportions of the interior and the tracery of the windows; the buttress system; the north transept front with its porches. Then he considered how far English ways prevailed. But, he then argued: "Practically in all essentials it is a French church and had little influence on English architecture." However, he goes on: "If the church was designed by a Frenchman it was certainly not carried out by him." . . . "It was designed by a Frenchman, but built by an Englishman." He did not know that the Henry who was the first master probably had the name of Reyns, and he might have gone further in his claim if he had; but his recorded view was that a French master sent some drawings and "May never have come near the work." This scheme would have allowed of the large English contributions in the work which Bond himself admitted, whereas, under a resident first master who was a Frenchman, these could not be explained. Even this view, however, does not sufficiently recognise the English "feeling" which penetrates the entire work done from 1245 to 1270.

. . . . .

Mr. Westlake says: "When so much of the skeleton fabric is French and nearly all the subsequently added detail English, is it too much to suppose that he who had to do with the former was a Frenchman?" It is not possible to divide skeleton and detail in this way. Much of the skeleton is of English type and the detail is subsequent only to the plans not to the building of the skeleton. Again, it is further suggested that the English character of our church may be explained by the fact that the works were not very forward when Master Henry died about 1253. Now, there are two important fabric rolls of this year which have been printed and analysed by the late Professor Willis (G. G. Scott's *Gleanings*, p. 231), and from these and other references we can determine within fairly narrow limits the progress of the works up to this time. The eastern part of the Confessor's church was destroyed in July, 1245, and actual building from this time was pressed on by the eager King.

The Crypt of the Chapter House must have been the first part of the whole church which was entirely completed (say 1246), and this is English in every respect. The three bays of the cloister between the Transept and the Chapter House entry have the next earliest vaults, and these may be dated about 1248–50; they are of an earlier character than the vaults in the church, but like them they are typically English. The first part of the superstructure to be finished was the Chapter House, and this everybody admits is in the English tradition.

As early as 1248–9, "task work" (by special agreement) for the masonry in the Cloister (under the west aisle of the south transept recorded.

In 1252–3 the King ordered that tin should be obtained for the roof of the new w of the church and for the stalls of the monk the same. In the Fabric Roll of 1253 we references to great marble columns (doubl those of the interior); window tracery; vouss (of the arches); bosses, and chalk for the fil of the vaults; also a large quantity of iron fr Gloucestershire (for the tie bars of the ar and stanchions of windows). Still more sig cant of the completion of some parts, we lozenges (marble squares for paving) mention and glass white and coloured, which was iss for the use of several glaziers. Plumbers w also employed and limewashers and paint The entry to the Chapter House from cloister was being built and canvas for windows of the former was obtained.

On this last item, Prof. Willis remark "The mention of canvas for the windows the Chapter House shows that these wind were so far completed in 1253 as to require be closed with canvas until the glass was re for them." Two sculptured figures for Chapter House (probably a beautiful "Annun tion" group) are also mentioned at this ti and later, in 1258, it was directed that residue of the tiles used for paving the Cha House should be laid elsewhere.

As early as 1249 the King had ordered Ma John of St. Omer, then painting the Ki wardrobe, to make a great lectern for the " Chapter" (Liberate Roll). Now Matthew P mentions the incomparable Chapter House Westminster under the year 1250, and it m not be doubted that it was even then advanced. The fine tiles, which are still the floor, would have been put in hand al 1250–5. They contain the pattern of the gr Rose windows of the transepts, which m thus have been designed before the tiles. Th windows thus belong to Master Henry's wo Indeed, this is shown by the fact that t are the most French of all the parts of the chu and they certainly belong to the first Fren copying impulse. So do the fine sculptu angels in the spandrils just below them, wh were inspired by angels at the Ste. Chape It becomes clear that the first work, 1245- was settled wholly by Master Henry.

On November 7, 1254, Henry III issued mandate that money should be provided fr the Treasury or otherwise to recall the workm who have left [on strike!] for the church m be consecrated at latest on the translation St. Edward the Quinzaine of Michaelm This, of course, only applies to the east part; the intention to consecrate may ha been one of the King's extravagances, but work must have been far advanced. Inde I am now disposed to think that the porti head in the North Transept may be that Master Henry rather than his successor. 1258 the work to the west of the crossing undertaken.

There is no change of style in any part of first work (up to 1258). Already in the w arcade of the Chapter House, which can har be later than 1247, diapered spandrels—the n differentiating characteristic of the inte work of the whole church—are found, and in upper part is the most advanced trac Gilbert Scott, considering this question, st "The church itself was by this time [125 indeed as early as 1249—in a state of rapid gression, so that the architecture must, in main, have been settled at the time of its c mencement."

Twenty years ago I wrote: "Master He must be considered the architect of the buil in all its parts." Then, after pointing out debt to France, in detail, I added: "We readily make the fullest allowance for Fr influence at Westminster, for so entirely translated into the terms of English detail the result is triumphantly English. It remarkable thing, indeed, that this chu which was so much influenced by French f should, *in spirit*, be one of the most Engli buildings. This, perhaps, is only to be fe

accustomed to read what is in buildings annot easily be demonstrated." I gave details as to the character of the details in ce of Mr. Bond's book in the *Journal of the te of Architects* (1910).

was well said by an English architect—I Sir Gilbert Scott's son—"Westminster seems like a French thought in English "

. . . . . .

we will go back to what is known of Henry and consider whether he was arily a Frenchman if, as appears to have he fact, his second name was Reyns. I o make a little reservation even here, for uld be proved that Henry de Reyns the must himself have come from Reims, should have to think that he could not been the same Master Henry who began ld the church. I may remark that the Henry was very popular in England at this nt; and I cannot see, even if Reyns arily represents Reims, why the Henry of name should himself be a Frenchman. ew Paris does not seem to have been a man; William Torel, the artist, who Queen Alionor's exquisite but very English effigy, also bore a French name. If Henry had been specially brought from to build the church it would be difficult derstand why the name Reyns does not r while he was working for his patron. It rther to be pointed out that the Oxford nary gives Reynes as a form of the name s; and as Mr. Westlake says, "it must not gotten that Rayne in Essex bears a name hat similar in sound."

two successors of Master Henry at minster took their names from Gloucester everley, and is it not probable that Henry alled from Rayne, otherwise Reynes? entries in the Patent Rolls show that at me with which we are engaged, Reynes, ex, was a place well known to Henry III, sued three mandates while staying there. 40 the King ordered that a tun of wine l be sent to "Resnes" (Liberate Roll). e index to the charters at the British m I find that "Reine" was said to have granted to Westminster itself by the sor. There is a further charter of the f Henry II, where it is called Reines, and 7 it is spelt Reygne.

The London *Feet of Fines* William de s is mentioned in 1198 in reference to t Edgware; and in 1230 William de is named in connection with premises in ore. The names, or forms of the same Reymes, Raines, Roynes, are also found Patent Rolls of the time of Henry III. e Calendar of St. Paul's Documents Reynes is mentioned. In Buckingham- Clifton Reynes with a church in which eral fine tombs of members of the Reynes

e is thus ample evidence to show that a bearing the name of Reyns and working lon may not himself have come from the Reims. There are also reasons beyond me convincing) architectural evidence v that Master Henry was in fact an man.

irst known reference to him is a mandate December 10, 1243, that robes should n to William le Brun, and to Henry, of the King's masons. The King had Windsor on the day before to keep as and this is the first of several orders s which were granted once or twice o persons in the King's service. Now le Brun was a King's clerk and Keeper orks at Windsor. Sir W. St. John Hope of certain works ordered in 1243 that *stodes operacionem* at this time seem to n Hugh Giffard, William le Brun, and he Carpenter, who were *custodes* the g year." These robes of office and the aster of the King's masons," show ster Henry occupied the regular office mason. The association with William nd the place where the order was issued probable that the mason was occupied at Windsor. And of this there is further evidence.

In 1243 a mandate was issued to the Sheriff of York that the castle there should be strengthened according to the advice of *Magistrum Simonem Carpentarium et Magistrum Henricum Cementarium*, whom the King sent to confer with "other masters expert in the science" (Close Roll, wrongly indexed—p. 291 instead of 293). Such work was part of the ordinary duties of the King's master masons and carpenters, and Simon at least had practice in castle work at Windsor. We have already seen that he was engaged at this time at Windsor.† Master Henry seems to have retained the office of King's master-mason until his death about 1253.

We know that a son of Master Henry of Reyns was living in 1256, as shown by the record of his gift to the monastery. Forty years later, as appears in the accounts of the erection of the Eleanor crosses, a master mason named Nicholas Dyminge de Reyns built the cross, which still exists at Waltham and is a typical piece of English work. The name Raine is still well known. Proceeding from my conviction, the result of all I know about mediæval architecture—that Westminster Abbey Church is English work, and allowing that the architect, Master Henry, probably bore the name of Reyns, I conclude that this was the name of a place in England or of some family settled in the country before the time of Master Henry.

. . . . . .

When I studied the work of Master Henry, some twenty years ago, I suggested that he was the architect of the King's Chapel at Windsor, built about 1240. Mr. Westlake's theory does not allow of this. His view is that Henry III saw Reims Cathedral when he was in France in 1243 and that he found his architect at Reims itself. After his return Master Henry comes "suddenly into notice by receiving on Dec. 10, 1243, together with one William le Brun, a gown of office as Master of the King's Masons." The building of the Chapel at Windsor was in progress, but with it the mason "seems to have had no association." A reference to Sir W. Hope's big book on the Castle is given, but there it is only said "very few names have been preserved of the craftsmen engaged for the period under notice."

No other King's mason than Henry is known at this time, and the work is likely, by reason of his office, to be his. Further, the existing part of the chapel so singularly resembles Westminster work that no one who will compare them will be able to doubt that they are by the same master. The Chapel was part of a large "work" which included new chambers for the King and Queen. Of the Chapel Sir W. Hope says: "In 1239–40 the King issued a writ to Walter de Burgh for the making of a Chapel 70 feet long and 28 feet wide. . . . The north wall of this below the windows is actually a work of King Henry III." In 1244 another order directed that the works should "proceed winter and summer until the King's Chapel be finished." It was to have a high wooden roof like that of the new work at Lichfield, "so that it may appear to be stonework." I take this from Hudson Turner. Sir W. Hope translated the last words (*apparеat opus lapideum*) "so that the stonework appear," but the meaning was probably that it should have a wooden "vault." The Windsor Chapel had no buttresses and therefore no stone vault, and the north transept at Lichfield, which appears to have been the new work mentioned, only had a wooden roof.‡ The question arises, Was the atter the earliest of English "wooden vaults,' and had the King's masters anything to do with it? There are points about the transept doorways which are closely akin to the style of the Westminster master, and I could suppose that he had worked at Lichfield before going to Windsor. The details at Winchester Castle should also be compared with the Abbey work. Stone church seems to be by some mason who worked at Westminster.

I have made a special re-examination of the Windsor work and I have no doubt whatever as to its near connection with Westminster. Not only was the master the same, but the carver of some of the capitals also worked in both places. The Windsor work consists of an arcade of large blind arches along the face of the external wall of the chapel which formed the inner wall of a cloister. These arches resemble those of the Eastern cloister walk at Westminster in function and in many details: in the sections of the arch mouldings; in the fact that the arches have no drip-mouldings (compare the smaller arches next the Chapter House entry at Westminster); in the planning of the piers (two orders in one, three in the other), and the use of extra stout Purbeck shafts, about 7½ in. in diameter; the profile of the bases with the large roll overhanging the part below (Fig. 1); and the

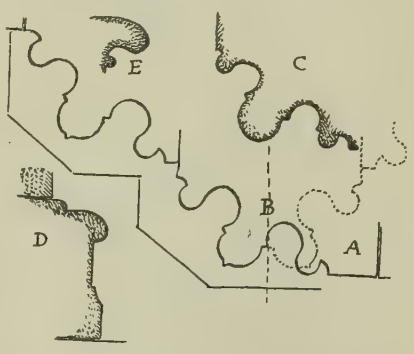


FIG. 1.—WINDSOR. A B C, ARCH MOULDINGS; D, BASE; E, ABACUS.

carved capitals. One of the arches at Windsor is much narrower than the others; this was at the end and doubtless represents the width of a cloister walk; the wider arches rise only to the same height, and are segmental, the centres being some 2 ft. below the springing line. A bold use of such arches is one of the singularities of Westminster; we find it in the Chapter House entry, the diagonal vaulting ribs of the bays of the cloister between it and the church door, the interior of the doors of the north transept, the outer arches of the triforium windows, in a marked way over the Poet's Corner door, and above all in a big wall arcade in St. Faith's Chapel, which is remarkably like the Windsor arcade in scale and general character.§

Sir Gilbert Scott illustrated in "Gleanings" (p. 33) two capitals from the interior wall arcade at Westminster, which were of French character. He wrote: "Many of these are of the English type of the period, but among them are two kinds, both of which are in their carving distinctly French. The one is the *Crochet* capital, the stalks of which are terminated, not as in English work with conventional, but with exquisite little tufts of natural foliage, such as may be seen in the wall arcading of the Sainte Chapelle and many other French works of the period. In the other, natural foliage is introduced, creeping up the bell and turning over at the top. In both the foliage is smaller and less bold than in French work, and the form of the capital is English." Now among the

†From November, 1236, onwards, Master Simon, the King's carpenter, was working at Windsor, and from 1243–4 to 1247–8 he was one of the keepers of the works. He is last mentioned at Windsor in 1249. . . . In 1255 and for some years to come the keepers of the important works then in progress were apparently Master John of Gloucester, the King's mason, and Alexander the King's carpenter, who were also keepers of the King's works in Westminster Abbey" (Sir W. Hope, p. 70).

‡ See a reference in the Life of Sir G. Scott.

§ An interesting study might be made of the special characteristics of the great building masters. He of Salisbury seems to have experimented with half arches; he of Lincoln with unsymmetry.

capitals at Windsor we find ordinary Early English foliage and both varieties of the French fashion, which so closely resemble those at Westminster that they must be by the same carver. In Figs. 2 to 5 I give some sketches from the Windsor capitals, and in Fig. 6 a tuft of foliage from Westminster. One capital at Westminster, to the right of the tomb of the Princess Katharine, has naturalistic oak leaves.



FIG. 2.—WINDSOR.



FIG. 3.—WINDSOR.



FIG. 4.—WINDSOR.



FIG. 5.—WINDSOR.

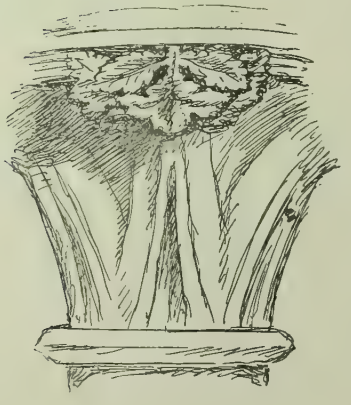


FIG. 6.—WESTMINSTER.

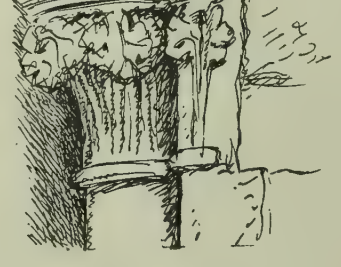


FIG. 7.—WINDSOR.

In the Museum is a capital, of which the stalks of the "crockets" cross exactly like that sketched in Fig. 5. These were carved by the same man! The flat leaves in Fig. 3 may be compared with similar carving on the upper chamfer between the capitals in the East walks of Westminster cloister, now much decayed. Fig. 7 shows a capital at the doorway; notice here the little corbel-like member which comes under the outer mould of the arch. At Westminster these are similar, but more developed. They occur again at Stone, where there is carving, including a dragon in foliage and a negro's head which must be by a Westimnster carver.

The Windsor Chapel was, in regard to the masonry details, the prototype of Westminster Abbey. This fact and the references to Master Henry, which are almost conclusive in themselves, show that he was the architect of Henry the Third's Chapel at Windsor. We thus carry back his tenure of the office of King's mason to 1239–40. He was not, therefore, first employed by the King on the great new church at Westminster begun in 1245.

Coombe Abbey Estate.

The Coombe Abbey estate sale has been concluded at Coventry, when the principal lot offered was the historical old abbey, which had been in possession of the Craven family since 1616. It was withdrawn at £28,000.

CARDIFF DEPARTME OF ARCHITECTURE A CIVIC DESIGN.

AT the Technical College, Cardiff, 10 sch ships, covering tuition fees and mainte grants of £40 per year for three years, are o for competition annually. As candidate entry to the Department of Architecture Civic Design are eligible to compete, scholarships are of considerable interest to contemplating entering the architectural fession.

The scholarship examination is a compe one, and is of about the same standa Matriculation. In the case of candidates f School of Architecture, the subjects of examination are:—(1) English; (2) Math tics (two papers), (*a*) Algebra and Arithm (*b*) Geometry and Mensuration; (3) a m language (French, German or Welsh); Physics with Mechanics, or Higher M matics; (5) History, Geography, or Chem Candidates must further satisfy the Head Department of Architecture as to their a in elementary drawing.

The Department of Architecture at Technical College, Cardiff, has now bee work for rather more than three years und charge of Mr. W. S. Purchon, M.A., A.R.I. the Assistant Lecturer in Architecture bein R. H. Winder, M.A., A.R.I.B.A. Studen the Department also attend courses in Engineering Department, the Technical Ch try Department, the Department of Mathem and the School of Art, all of which Departm are housed in the same building.

This School of Architecture is "recogni by the Royal Institute of British Archit which grants exemption from its Interme Examination to students who pass success through the three years' full-time day c leading to the Certificate. In addition to course, the Department provides a dip course consisting of two sessions of six m each of full-time study, the intervening months being spent in architects' offices. T is also an evening atelier for architects' assis who cannot attend the day courses.

The Department is in close touch with South Wales Institute of Architects, repre tatives of this body being on the Advi Committee for the Department, and studen the School are eligible for the prizes awarde the Institute. In addition to these awards t are also a number of departmental p presented in the main by local architects. External Examiner for the past session Mr. Paul Waterhouse, Past-President of R.I.B.A.

The School year commences on Tues October 2, 1923, but intending students advised to apply at an early date for partic of the courses of instruction and of the Entr and Scholarship Examination. Candidate the latter should obtain application fo which must be completed and submitted b September 17.

Housing in Newcastle.

Newcastle Corporation Housing Comm have issued a report stating that in that the provision of houses with Government sidy assistance under municipal contr necessary. To assist in the erection of h by private enterprise they recommend the Council to fix a maximum lump sum subsid exceeding £100 for each house built by means within the limits of the superficial a the Act. This maximum of £100 represer to £75 the capitalised value of the State su of £6 per year for 20 years. The balance, charged upon local rates, involves an a loan repayable charge over 20 years at £2 4 They propose the following differentiatic the different classes of houses coming with Act:—Not exceeding £100 per house for p type; not exceeding £85 per house for parlour type; not exceeding £75 per h for houses in flats.

BOOK REVIEWS.

ctural Building Construction: A Textbook r the Architectural and Building Student. y WALTER R. JAGGARD, F.R.I.B.A., rchitect, and FRANCIS E. DRURY, F.I.S.E., .C.I. (Cambridge: At the University ess. Vol. I, 2nd edition, 15s.; Vol. II, rt I, 20s.; Vol. II, Part II, 18s.)

series of works on present-day technical es of building published under the title rchitectural Building Construction" com- a great deal of information on points of with some idea of architectural composi- The authors have incorporated in each e the plans, elevations and sections of a te building, and when describing the of construction of certain features have d, as far as practicable, to features shown general plan.

illustrations, too, are designed on this , and are practically detail drawings of part or another of the main building. l of a drawing of a staircase, for example, ut before the reader merely as an example joinery of some possible stair hanging etically in space, the printed heading of ate (Vol. I, No. 168) identifies it as ral plan and section of cottage staircase," nen the sheet of small scale plans of the e is unfolded the position of the stair and racter of its surroundings become evident aneously.

advantages of this arrangement are us to a student of architecture who will ed upon to visualise the constructional of his designs in relation to their main g, and if the bold course adopted by the s of dissecting their own designs some- pens the door to criticism the exercise reader's mind will probably do him more an the criticism itself can do the authors' harm. The type of building illustrated ly exhibits no exceptional flights of fancy. y features constructed in a traditional had obviously to be shown in order that gramme could be carried out. Volume I articularly with the construction of a cottage and a workshop; Volume II and Volume II, Part II, with a suburban house and a town warehouse, thus including a range of various details ample for the first two years of study.

Where necessary the detailed analysis of these subjects is augmented with suggested alternative methods, and attention to the specific problems under discussion has not been allowed to exclude reference to general principles. Chapters 11 to 17 in Vol. II are devoted to the mechanics of structural design, and while close touch is kept with the matter in hand, the theory is expressed all the more forcibly by being applied to the constructions already detailed in the course of the work. A king bolt roof truss for the "workshop" in Vol. I, and a trussed rafter roof truss roof over loading shed in the "warehouse" have been chosen as examples for the demonstration of graphic analysis of stresses in the members. To make the theory more general alternative forms of roof trusses for these and other parts of the buildings have also been included.

Volume II, Part II, continues the description of carpentry and joinery, sanitation and water supply, internal fittings, glazing and painting, and materials, and maintains the standard of the two former books while adhering to the same programme. The drawings throughout are most satisfactory in that they are without exception lucid expressions of the authors' solution of the problems involved. They are, in fact, also models of neatness and present the information in the pleasantest possible way.

The House We Ought to Live In. By JOHN GLOAG and LESLIE MANSFIELD, F.R.I.B.A. Illustrated by A. B. READ from designs by LESLIE MANSFIELD. (London: Duckworth & Co. Price, 7s. 6d. net).

The opening sentence of the joint authors' introduction suggests the scope of their book. "The house we ought to live in will here be taken to mean a house where work is simplified, cleaning reduced, and convenience increased. It will not contain an unmanageable museum of labour-saving mechanism, nor will it be a costly and spacious palace." A reference to the "partial breakdown of domestic service" as affecting design indicates the fact that houses or middle-class occupiers are principally kept in view.

Within these limits the subject is treated with great good sense directed towards efficiency and the forms of artistic expression that go hand in hand with it. The authors protest against the bad old tradition of house design as if it were stage scenery, and hold up the ideal of the well equipped factory or workshop for the emulation of house designers.

The house should be planned so that its inmates are preserved in health and not occasioned needless fatigue in the necessary daily routine of housewifery; but it is not possible to agree with the authors that "good planning costs no more than bad." For the purposes of this book, Messrs. Leslie Mansfield, F.R.I.B.A. and A. B. Read have produced some remarkably interesting essays in house planning which agree in many points with the suggestions offered in the text, yet even in these admirable plans the relation of the rooms to the points of the compass does not appear satisfactory for houses built north of the Equator. Probably the simple operation of tracing the plans and photo. printing from them through the back, so that the kitchen (and presumably the N. point, which is not shown), would be on the left-hand of the paper instead of the right, would amend matters, but it is just in minor operations of this sort that office costs creep up. And, though the blessing of sunlight where it is needed would benefit householders and their families as long as the house endures, the architect certainly would be out of pocket and would probably find it hard to gain credit for his conscientious efficiency.

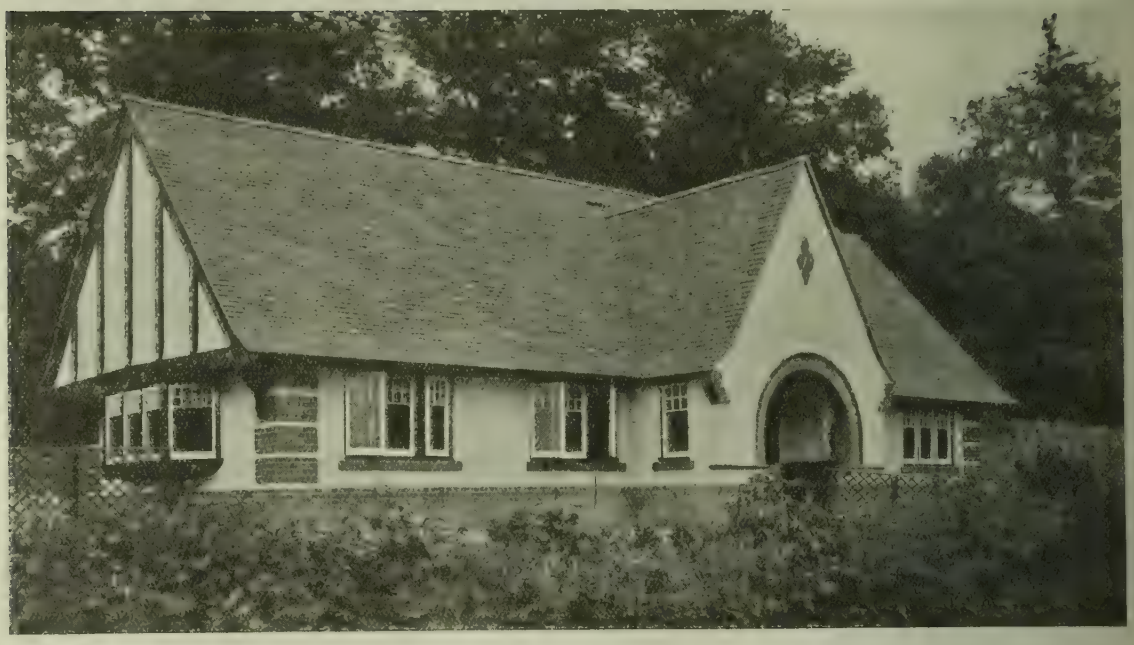
Clients are only human and do not always know how to appreciate a house planned on labour-saving lines if they were offered one. Of two plans for houses on open sites that have recently come under our notice, the client knowingly chose the one where the kitchen door was separated by a distance of 30 ft. from that of the dining room and where long dismal lighted passages wasted space. The elevation contained features that reminded him of his native village, and against this sentimental consideration practical efficiency stood no chance. What is perhaps even more significant was that his wife entirely agreed with him.



R.A. Exhibition, 1922.

A Doctor's House, Westerham. MR. CHARLES W. BOWLES, F.R.I.B.A., Architect.

[The principal features of the external parts of this house are: Cream-coloured stone dressings and portico, white stucco between, English oak window-frames and doors, and old tiling to roof. The spaces within the chains and posts are paved with black-and-white knapped flints and stone, forming a pattern.]



West Ashton Village Hall. MR. TERENCE W. SNAILUM, Architect.

[This building has been erected on the side of a steep hill.]

Ship Joinery—Woodwork fittings of a modern steel vessel. By S. G. DUCKWORTH, A.B.I.C.C. (London: George Routledge & Sons, Ltd.) 1923. Price, 5s. net.

Ship joinery differs from ship carpentry in that it concerns the fittings of the vessel and not its main structure. It also stands in a class apart from joinery as practical for ordinary purposes ashore, since the conditions of shipboard life demand a high degree of strength and durability in service and the ability to stand racking strains that shore joinery is never called upon to bear. The external joinery of a ship, too, is required to be watertight and even on occasion to stand the impact of masses of moving water when high seas sweep the decks, and the methods of design and execution adopted by the ship's joiner are directed in the first place by these considerations.

Mr. S. G. Duckworth, in his profusely illustrated handbook, shows the normal type of ship fittings familiar to every voyager, and in his pages the reader can follow the time-honoured craft established by practical men working upon a conservative tradition and adapting their methods to the introduction of new materials with caution and an ever-present realisation of the severe testing their finished work will receive. The artistic side of design is governed by the question of convenience, often with the best possible result, for the few details shown to which exception may be taken on the ground of appearance happen to be those where the designer has felt himself free to substitute the artistic for the "ship-shape." Luckily, economy often helps to preserve the practical man from the excessive use of unnecessary trimmings, and the ship remains one of the most striking examples of beauty arising from the adaptation of means to ends in the most straightforward way.

The articles made by specialist firms often sin against this admirable state of affairs, and the style of commercial art may be detected in the finishings of the cot bed and the folding lavatory that have done so much to cause unhappy passengers unnecessary depression. Both articles of furniture fail in that they disobey the fundamentals of good sense. Ornamental mouldings and knobs with spiky corners are both absurd and dangerous on shipboard, where passengers who have not yet found their sea legs may be flung against them by the motion of the ship. The cabin lavatory basins have the additional disadvantage of being insanitary and creating a nauseating odour in the stateroom, since they are designed in a fashion that makes efficient cleaning impracticable if not impossible.

Improvements in joinery design should involve the elimination of ledges for dirt and the provision of facilities for cleansing, instead of the addition of inappropriate mouldings and ornament. Ventilation is always difficult to arrange under the decks of a ship, and small quantities of dirt lurking in corners of the joinery are far more offensive than would be the case ashore owing to the restricted window space and consequent lack of direct sunlight and free circulation of fresh air, especially in heavy weather.

The geometry of ship joinery, which is obliged to adapt itself to the lines of the ship, is explained in a separate chapter illustrated by three very practical plates containing diagrams showing the effect of combined camber and sheer upon the canted angle of a coaming or the quadrant corner of a deck house. A method of graphic division well-known to practical joiners, but also of great use to draughtsmen, is shown in the first of these diagrams on geometrical method. In some tables of mensuration formulæ given in Chapter XVI, the surface area of any prism is represented as "perimeter of base × length," a formula which ignores the area of the two ends. A similar omission is made in the case of the cylinder whose surface area is tabulated as $\pi d \times l$, where d = diameter of base and l = the length of the cylinder. These slips are, however, exceptional in what is, in other respects, a remarkably well-written handbook.

A History of Everyday Things in England. Vol. I. By MARJORIE AND C. H. B. QUENNELL. (London: B. T. Batsford, Ltd.) Price 8s. 6d. net.

In these days of a multitude of books it is refreshing to come across one on original lines. It would, probably, be true to say that the educated Englishman knows more about the domestic habits of the ancient Egyptians and of the Greeks and Romans than he does of his mediæval ancestors, and, while this volum intended primarily for the child, it also pro a mine of information, attractively prese for the parent. How many men realise the significance of the word "convent," or familiar with the development of the Br ship, windmill, game, or costume?

Many toys and contrivances designed amuse or instruct the young are seized "grown-ups," and the book under review probably, share the fate of these toys, especi seeing that the authors have indulged ra freely in long words and technical terms w would require explanation to small child One would like to advocate it as a history for the use of schools, since, unlike the stand works on history, it deals with the lives of people, and not with a series of dull statem and dates. How can one expect a child t other than indifferent to the alleged fact taught to the present generation, that "Matil overbearing and arrogant disposition alien her warmest supporters"? Here we are that "John was a thorough bad lot"; h the child feels that it knows something al John. John is definitely classified.

The excellent illustrations have all b prepared by the authors and, with the le press, must have entailed a great deal of la and research. The close parallel between development of architecture, of ship de and of costume is strikingly presented; we trace the purity and simplicity of the F English working through to the intri elaboration of the Perpendicular. One c wish that the description of the fan vaultin Henry VII's Chapel had been easier to un stand, and, possibly, this might have achieved by some skeleton diagrams and ra less of technicalities.

Not everyone will agree with the statemen page 2 that the French in the tenth century "then as now the cleverest people in Eur and the authors are definitely caught trip on page 118, where they tell us that moor have little red feet. It is satisfactory to that this is the fourth impression, and tha volume is not sharing the fate of so many b that are worth reading; and one can only clude by expressing the hope that the se volume will be as pleasant, readable, instructive as the first.

Architectural Association Schools Students' Work

Design for a Concert Hall and Seaside Lay-out. By Mr. E. Wamsley Lewis (Third-year Student).

[Plans of this design, and other A.A. Students' work, were given in our last issue.]

ORGANISATION OF THE ARTS AND CRAFTS.

By JAMES GUTHRIE.

ANYONE having a fair acquaintance with the history of what is known as the Arts and Crafts Society and its kindred in England from the time of Morris to the present day, and who understands the significance of handicraft as the reservoir of new impulses in the arts and manufactures, will be disposed to mix his welcome of the recent conjunction of effort at the Royal Academy with some reflection.

It is evident, for one thing, that the Press, which employs critics who can write about painting, is not alive to the importance of a movement always treated with an obvious lack of enthusiasm, and left without the publicity which it deserves. A critic who is able to find in any average exhibition of pictures the material for a discussion is not necessarily gifted with the knowledge by which stained glass, ceramics, weaving, metal work, etc., can be dealt with. His ordinary resort is to a species of faint praise, or the assumption of superior taste mainly used as a smoke screen to hide his retreat from a task obviously beyond his capacity. Even on the subject of mural painting the student may look almost in vain for anything like real guidance; for the study of this art suffers as much from the same indifference towards those handicrafts as they suffer from the lack of a tolerable setting in home or hall.

Criticism, if efficient and constructive, might do a good deal by way of improving the standard of work, rebuking wrong tendencies, and correcting the popular taste. But its present standpoint is against the intelligent apprehension and without respect of men whose work brings them to the daily tussle with the material, and who have so far done without that public notice which it is the custom of our time to regard as the appendage and property of one branch of art. That there is something against the prevailing spirit in the arts and crafts may be admitted at once. The tradition is still apt to be derived from Morris and Burne-Jones, and the modern element is rapidly losing character by dallying with commerce without the necessary bias by which alone manufactures can be served by the arts in the fullest measure. Individually and as a whole the arts need to be brought to the test. The artist and the art worker must come together, and must learn from each other. Architecture must provide the framework, and be enabled to form itself with reference to possible enrichment. It is not enough if we are left the thankless task of inventing knights and angels, or of putting together stone and metal merely from a recollection of how these have been used and admired in times past. The extraordinary thing is, not that the arts suffer, but that they do not extinguish themselves by their persistent archaism, or by their failure to take a bold step in the face of public neglect.

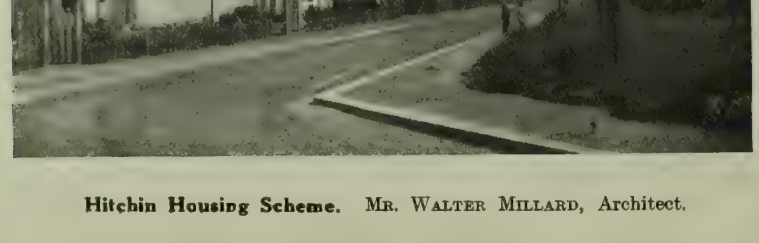
One never hears a new argument when men wish to point the old moral about art as a luxury; yet it is no more true than it has ever been that the arts can be done without. Cheap goods as well as expensive goods may be luxuries in the sense that we possess them with less persuasion and less need, and regard them more fondly on the whole than we do the many unnecessary embellishments which custom foists upon us—the knobs on our bedposts and the patterns that vex so much of our domestic surface.

The activity of mind and hand seen in any tolerable work of art or handicraft is superior and eventually of more practical importance than much that is recognised and paid and cultivated in offices and factories. We only learn too slowly how to make use of formative talents, giving them no scope for expansion, just as, at the beginning, we leave their event to chance.

One may also note the division of art into "fine arts," minor arts, and commercial art. These are purely fanciful, but they are industriously used to weaken and diminish the compact sense in which all the arts and handicrafts originally stood together. Painters seeking a wide field for their work have been compelled to find a footing and a relationship with other forms of decoration. They have begun to see new significance in sculpture and woodwork where before they regarded their pictures as unrelated but dominant objects; they have sought for fresh clues in among the fixed conditions of the wall, which have never till now seemed to matter. Much, it may be assumed, of the literalism of modern painting will disappear under this discipline of place. Breadth will have a new meaning for those who are faced by the conditions under which wall painting has to be done, and the ordinary academic subject-matter also will undergo many drastic changes, very much to its improvement.

The most obvious alteration in the character of the work that it is to be hoped will be afforded this revival, is from solitary individualism to an older and rougher companionship. Interesting as the intellectual aspect of painting is, it threatens the manliness and vitality of art. Preciosity, dull and intricate learning, a too narrow regard for skill, do not expand—they destroy. When your curator and professor have bound art hand and foot, they are not any more in the story except f mischief. For years past painters have soug new methods with much ingenuity and r source; but what they need is not ne methods. Their poverty lies partly in t absence of ideas and partly in the lack space. They need, that is to say, bett education, more experience of men, and wal The conflict which a large hard wall can trusted to set up can equally well be trust to make a workman of an artist, if it do not beat him altogether. And in the proce he will regain lost ground, and be wean from his dependence upon the comfort whi curators and professors take for granted as portion of the true faith. There are wa in which other arts may attain a degree efficiency not within the usual limits of sch and workshop. Everywhere in the recent e hibition at Burlington House, and in othe in London, one feels the same lack of re impetus. It is as though an appeal were bei made to the West End by all the faded a bygone tricks. What one man attempts glittering little pieces of silver, or mother-pearl in iridescent slabs, or raised gold lett ing, another attempts by huge painted figur or leaded glass. One realises that with demand arising from the actual capacity the arts to serve a real purpose of which th are themselves aware, this appeal to the we to-do represents a sadly hopeless frame mind. Yet, to turn in the other direction a seek a use and a welcome in among the liv and homes of the ordinary people; to establi a place for the craftsman in which his labo may always be found to have a bearing up progressive manufactures, has all the virt of good sense, and is a great deal more exc ing in the long run. The luxuriousness of does not lie in its care for beauty; in t enjoyment got from or bestowed by it; in t costliness of it. The only case against t arts and the crafts is that they are dislocat misdirected, put from democratic usage. T worn-out shreds of rich patronage are lo since far too expensive and wasteful. Aris cratic ideas on the part of the artist may ha some bearing upon the mien of his work. h they have no social or political significan and no power to bring duchesses to his do Romance changes about. Art is still lon and Time still hurries men and modes in oblivion. We cannot afford to support t dismal properties which drag us away fr living sensations about men and things, a plant us among knights and monks. Co petent workmanship of itself is too litt Skill may be, and often is, utterly divorc from any tolerable occupation. The cas ordinary visitor at a show of pictures or han crafts might wonder in what strange forest many-towered city this array was fashion and be immoderately surprised to learn hermits buried in his own suburban str in the intricacies of Mallory, or engaged monkish revivals, blissfully detached fr their own time. Being curious about matter, we may even doubt the desirability setting forth elaborate compositions of figu in public places without more warrant th is to be seen for so serious a step. A fra idea enlarged upon a wall undertakes m than when it occupies a frame of mo dimensions, and needs a better or differ excuse. A wall treated as though it must hook or crook be filled with narrative allegory does not seem to meet the case. the one test of mural painting is the w not the study or the studio, and the o obvious practice for the student is the w of his own home and his own school.

Nobody could follow the development of decorative arts in this country without fee that one radical step towards a reunior these with architecture, if it could be bro about, would be worth more than any o scheme of promotion. Why is this not sible in the most explicit form? Why t the artist and the craftsman be require form an irresistible alliance before the a tect admits what is already palpable? M



Hitchin Housing Scheme. MR. WALTER MILLARD, Architect.



Hitchin Housing Scheme. Mr. Walter Millard, Architect.

inters already produced in England a antity of work without gaining any recogni-n. Men who know something of the con-ions and have taken such risks as there are, ght, without undue favouritism, be trusted th some of the practical training. Small d select groups, like the Century Guild and e Clergy and Artists' Association, have eady shown the way to organise and join rces for some definite end. To-day it is the tivity of such bodies which is lacking, with eir workmanlike enthusiasm and actual ex-rience. The new Society of Mural Painters ust not be allowed to suffer extinction by e belated discovery of this art in official cles. In fact, it is as a group of workmen at artists will find their work, and at the me time a connection with the public at rge.

Exhibitions are a device to be made use of, t not permitted to rule the arts. Even if ey succeed in effecting sales, and in taking ver at the turnstiles in quantities, and in nning social functions, whatever sympathy ese good offices evoke, they must not be nfounded with progress or even prosperity in t. Possibly these large glittering exhibi-ns blind the public to many brave and des-rate labours, throwing a haze of gold and ther-of-pearl over drab and difficult lives. is is indeed no guess-work: it is true. A w is not so much a glory as an expense, which in art there are far too many.

The general belief is that a love of art is nulated by gathering a quantity of it to-her. A better way would be to create a ntaneous form of art on the walls of our nes. With what delight one finds a bit simple design, some flower or bird, painted a white wall, or embroidered on a coverlet! e realises that art, despite its fashionable its large enterprise, its following of pro-sors, curators, and critics, is a home-made duct first and last and all the time. And ht not this be the clue which we need to e us away from the ineffective pursuit big business, our fancy for Italian pre-ent, our ambition for enormous and un-ly official appointments?

very artist has his own home, his own tives, and neighbours. Rather than twist-his gifts into some crooked shape in order all in with a wretchedly inefficient system h can never serve any permanent good, does he not form definite local groups take a hold upon the opportunity that lies is hand? For, so long as art is pooled the benefit of dealers and societies or ralised in London, every artist is beating air, and letting slip his one chance of g recognised plainly and sensibly among men in a useful capacity.

hat is true of painting is true of all the ticrafts also. The high indifference of the spaper critics to these is very noticeable. ost without exception they take cover, not recognising the fact that the handicrafts have done more to keep the love of beauty alive in the home than anything else. There is a danger of the Arts and Crafts Society disappearing from view, because it has no independent policy, and perhaps too little opportunity as a body for the necessary organisation. It suffers, moreover, from the domination of an element of mistaken archaism and that of a modern group intent upon bringing handicraft into the different atmosphere of commerce. While one opposes progress by keeping a stale idea of tradition on the surface, the other works against a living spirit by reducing the freedom and the natural curiosity of the craftsman. And if this body, commonly regarded as representative of what is best in present-day handicraft, persists in falsifying the values and distorting the facts, the formation of independent groups will inevitably undermine its position in order to bring about ends which can never otherwise be achieved. The business of a society is to represent all groups, not to place one or two in authority.

In detail, these adjustments might well appear to be beyond the power of any association of men who have their own personal labours in addition to such service as they give for the general good. This service, it must be admitted, is considerable. The point, however, is that, although the difficulties cannot be gainsaid, there is no explicit or generally understood direction beyond the immediate enterprise of a meeting or an exhibition. And it is obvious that, without a larger conception of how the artist and the craftsman stand in relation to other men, no single effort can serve as much as it should. We may doubt if these solitary attempts at rallying the work of years do effect a great deal. They emphasise the more clamorous forms of art, and are a testimonial to the survival of many things which in the interval had been invisible; but in the realm of mural painting, and in certain handicrafts, no true judgment can be arrived at from an exhibition. A larger grasp of the whole question is, therefore, necessary, and should be pressed for by every possible means if the unresourcefulness of the arts in their own interests is not to become a byword and a reproach.

Small guilds and industries and shops are capable of affiliation at least in some simple, recognisable fashion. Usually they are neglected, and either disappear or become the servants of some already well-provided and protected trade, to the detriment of all that is worth while. The principle of trade unionism in the arts, in fact, was never more favoured than it is at the present time by everybody who needs—and who does not?—the moral support of organised citizenship. For, although this savours of politics, and, as such, may be considered by many as aside from the subject, no practicable organisation of art workers can afford to exist without admitting the human claims as essential and proper. It has been tried to decide on the score of talent and reputation—both variable and uncertain. The "great artist" can be, and usually is, a nuisance among his fellows. It is not for him that we press the need for a community of interests, for more energy and opportunity. In a wide sense an artist has leave to be a bad artist. That, anyhow, will decide itself. A greater danger would be, and has ever been, the predominance of those who find the rotten old system good enough for all they require. They block the gangway, ridicule progressive ideas, drive out men who are more susceptible than themselves to the claims of new talent. They are the allies of the dealer, the cronies of the philistine, great at revels and fancy dress balls! It is in such hands that art becomes tainted with the world, the flesh, and the devil, a plaything and a luxury ranking with cigars and champagne, but with none of their attraction.

There is always ample room for all kinds of men in every profession. Artists are capable of looking, and being, exactly like aldermen or stockbrokers. It is, nevertheless, vitally important that they should, as a whole, be workmen in the plain ordinary sense of the word; for if they are not, their appearance in another character will not save them. A lucid, well-considered policy, a large grasp of present-day conditions, a practical alliance with architects and builders, and a solid determination to keep in the forefront, will easily achieve all the rest.



Hitchin Housing Scheme. Mr. Walter Millard, Architect.
[Plans of these houses were given in our issue for July 28, 1922.]



New Offices at Stafford for Messrs Lotus, Ltd.

MESSRS. SANDY & NORRIS, Architects.

NEW OFFICES AND FACTORY AT STAFFORD.

THE first sod of this building was cut on August 22, 1921, and it was completed at the end of January last year. The building is a steel frame fire-resisting structure, faced with Ravenhead rustic bricks and "Empire" stone dressing. The lower floor is intended entirely for stock purposes, and the upper floor is divided by glazed screens into private and general offices. The ventilating system is a combined low-pressure hot-water system (accelerated), with radiators beneath the windows and a plenum system. The ducts for the latter system are carried alongside the main girders underneath the first floor. From these the outlets are formed around the stanchions, which were previously cased in concrete, and carried downwards to the ground floor through ducts formed of breeze slabs. The outlet on the upper floor is merely a box around the stanchion, which again is cased in concrete. Regulators and gratings are inserted to control the flow and pressure of air. The whole building is protected by sprinklers, installed by Messrs. Mather & Platt, Ltd. Although the floor area is large it is found that there is ample light even in the centre of the rooms.

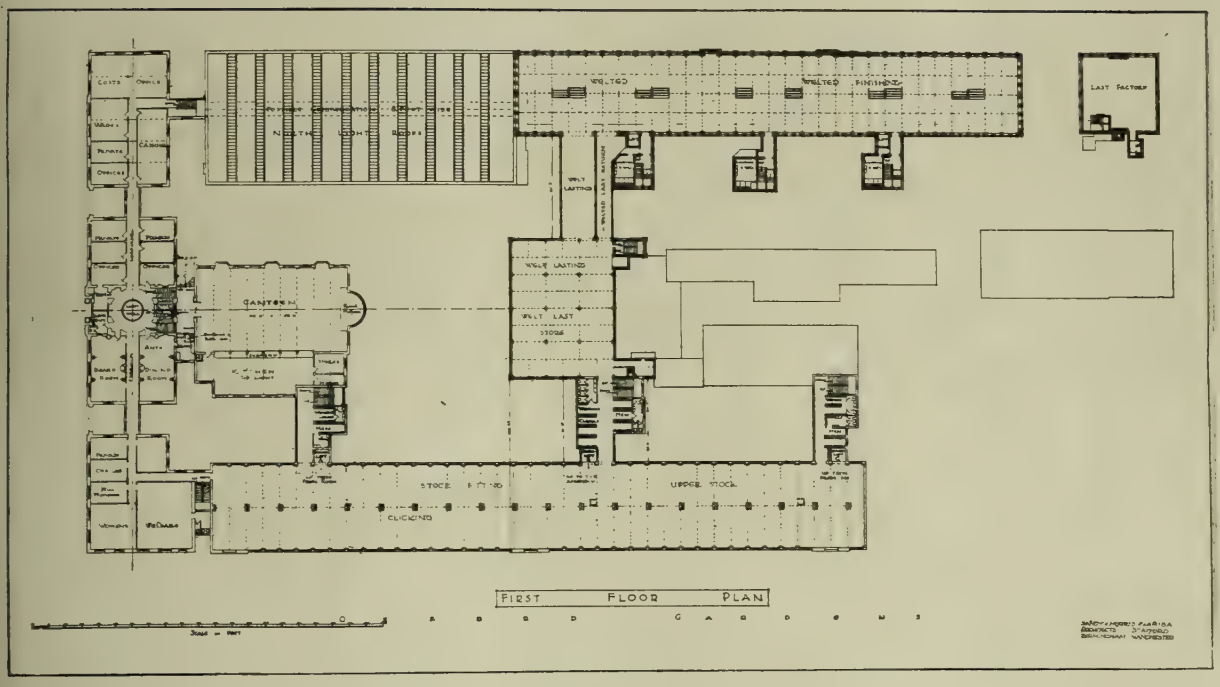
The complete scheme, which is intended to double the output of the present factory, will take several years to complete, but the second portion is now well towards completion.

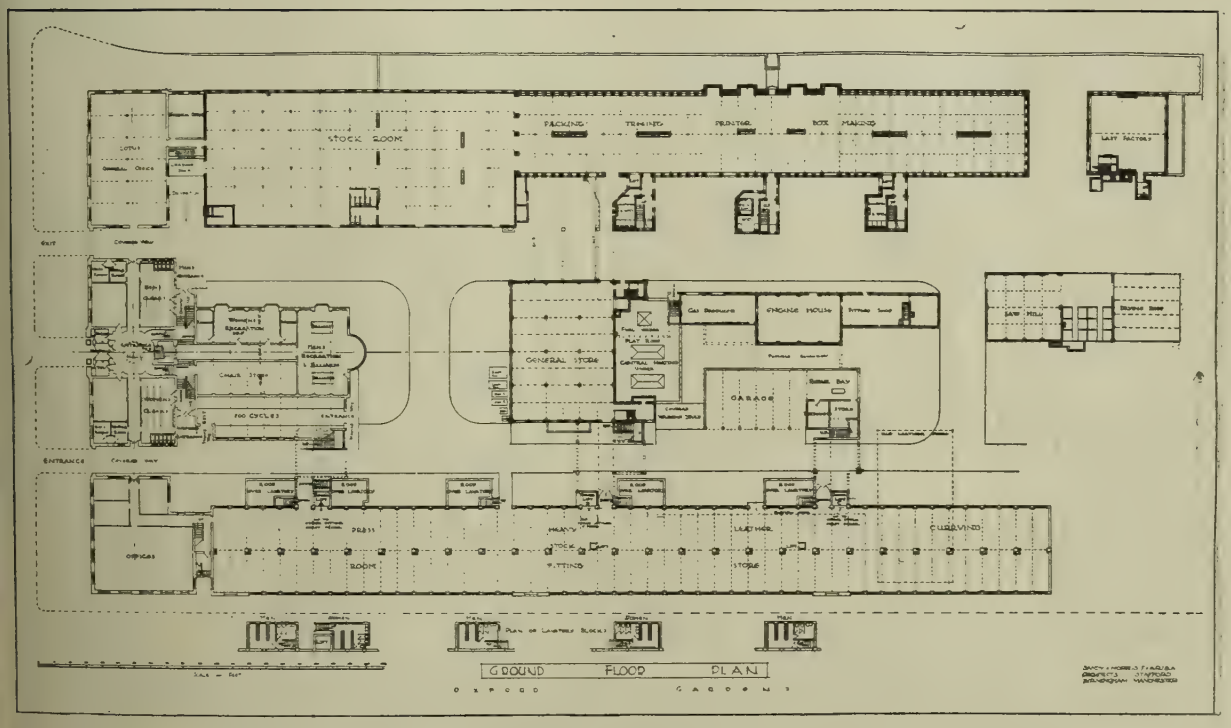
The architects are Messrs. Sandy & Norris F. and A.R.I.B.A., of 22, Greengate, Stafford The general contractors were Messrs. F. Espley & Sons, of Stafford, and the sub-contractors included the following:—Steel work, Lambourne & Co., Ltd. (Manchester); fire-proof floors Diespeker & Co., Ltd. (London); patent composition flooring, Jos. F. Ebner (London) asphalte, Val de Travers Paving Co., Ltd (Birmingham); steel windows, Williams Gamon & Co., Ltd. (Chester); plumbing painting and glazing, H. Pratt, Ltd. (Birmingham); heating and ventilation, Couzens & Akers, Ltd. (Birmingham); facing bricks, Ravenhead Brick & Terra-Cotta Co. (St. Helens); stone dressings, The Empire Stone Co., Ltd. (London).



Extensions to Factory at Stafford for Messrs. Lotus, Ltd.

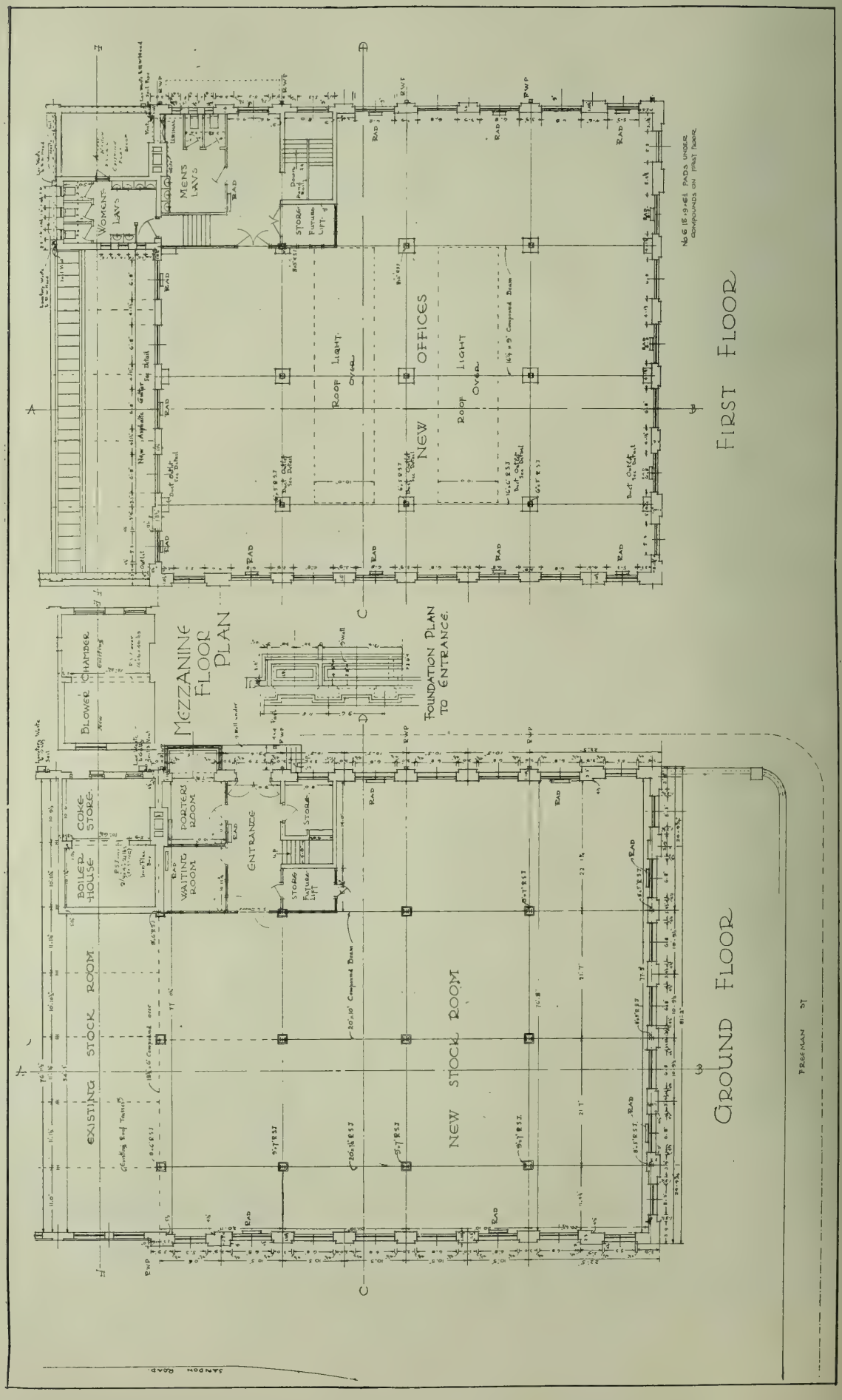
MESSRS. SANDY & NORRIS, Architects.



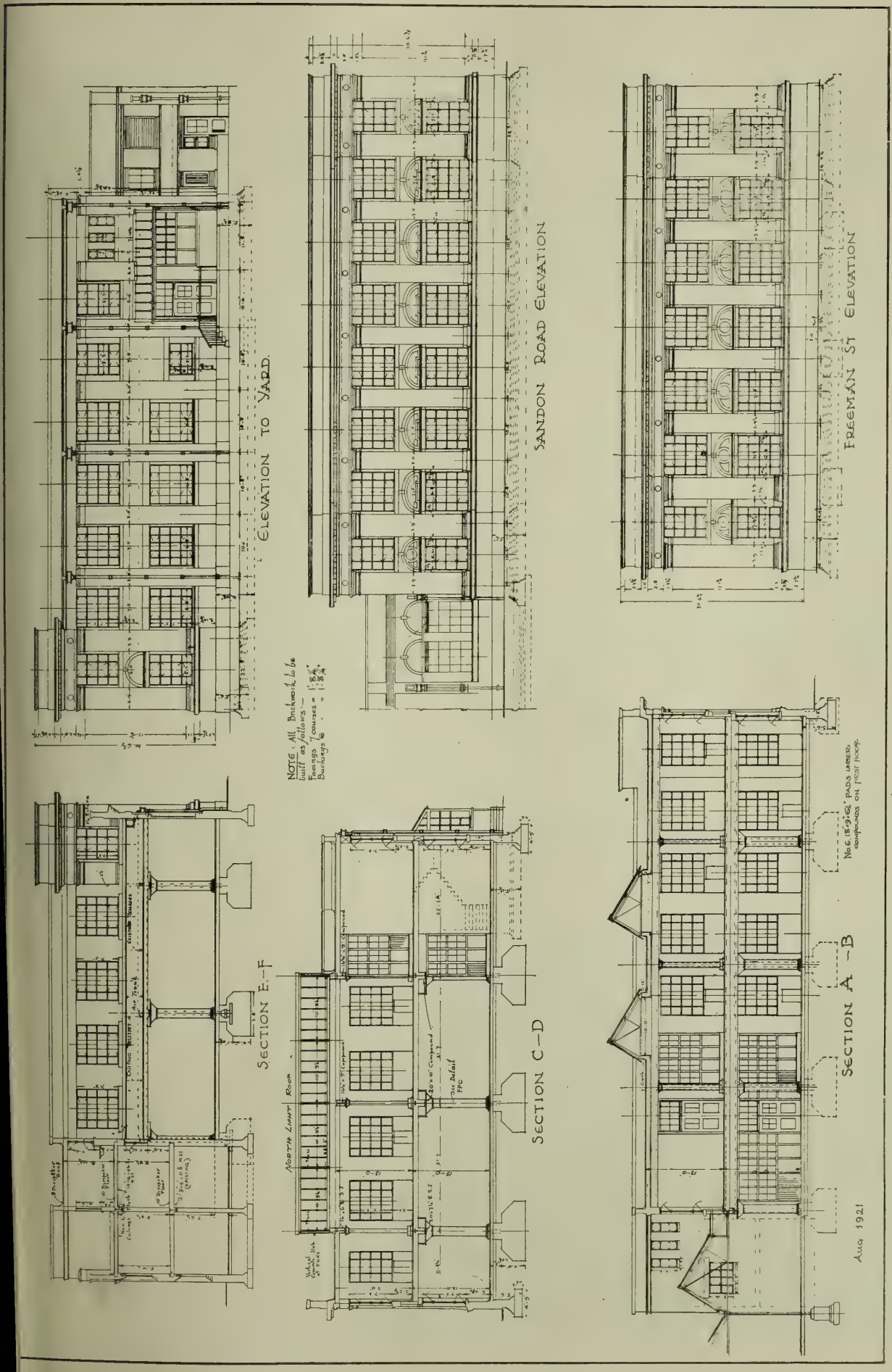


Extensions to Factory at Stafford for Messrs. Lotus, Ltd. MESSRS. SANDY & NORRIS, Architects.

(*See p.* 374.)

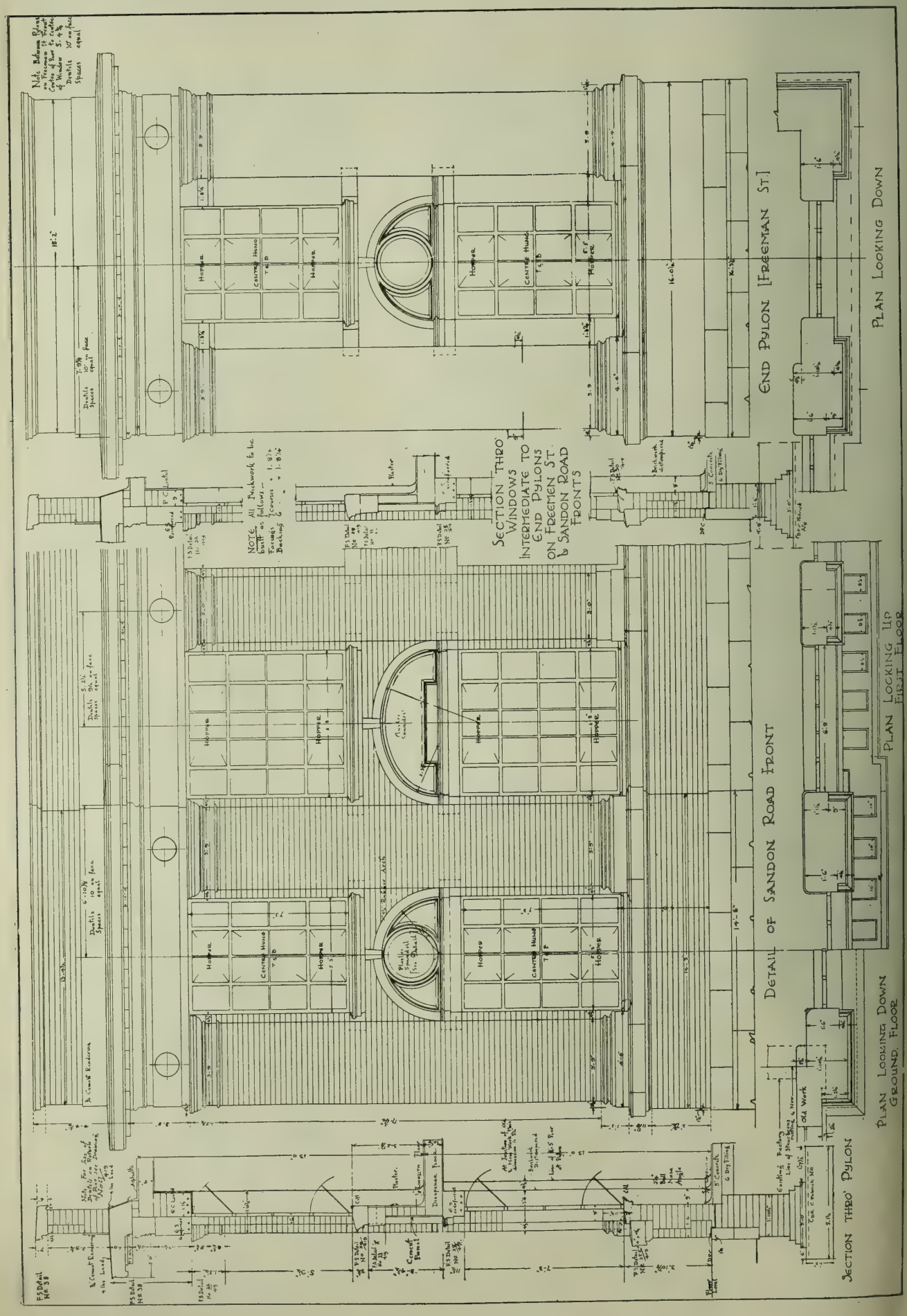


Extensions to Factory at Stafford for Messrs. Lotus, Ltd. MESSRS. SANDY & NORRIS, Architects. (*See p.* 374.)



Extensions to Factory at Stafford, for Messrs. Lotus, Ltd.

MESSRS. SANDY & NORRIS, Architects. (*See p.* 374.)


SECTION THRO' WINDOWS INTERMEDIATE TO END PYLONS ON FREEMEN ST. & SANDON ROAD FRONTS
END PYLON [FREEMAN ST]
PLAN LOOKING DOWN
DETAIL OF SANDON ROAD FRONT
PLAN LOOKING UP FIRST FLOOR
PLAN LOOKING DOWN GROUND FLOOR
SECTION THRO' PYLON

THE BUILDING TRADE.

PROSECUTION UNDER THE RENT ACT, 1920.

The Times, August 27, a prosecution under Rent Restriction Act, 1920, is reported, and here have been few such cases reported it ld be noted.

e report is brief and not entirely satisfactory, does not state the sections of the Act relied nor whether all the premises referred to let with furniture. According to the report efendant was the owner of a house and shop, ent of which was 25s. a week. He himself pied the shop and a parlour and let off other s of the premises. One tenant paid 14s. a for a furnished room, another occupied a en and scullery for 18s., and two other s were let for 14s. and 12s. respectively. As ave said it is not stated whether all these s had furniture, but the total amount ved was £2 18s., the owner retaining the f the shop and parlour.

ction 10 of the Act of 1920 provides where person lets any dwelling house or any part eof, to which the Act applies, at a rent which des payment in respect of the use of iture and the rent charged yields to the r a profit which, having regard to all the mstances of the case and in particular to margin of profit allowed under section 9 of Act, is extortionate, then without prejudice ny other remedy under the Act the lessor l be liable on summary conviction to a fine exceeding £100 and the Court by which he nvicted may order that the rent so far as it eds the amount permitted by section 9 l be irrecoverable and that the amount of excess shall be repaid to the lessee, but any order shall be in lieu of any other method ecovery prescribed by the Act.

ction 9, subsection (1), refers to civil pro- ings in the county court and "the margin of t" is defined in that section. This section applies to houses or parts of houses let the use of furniture, and proceeds "and if proved to the satisfaction of the county t on the application of the lessee that the charged is yielding or will yield to the r a profit more than 25 per cent. in excess he normal profit as hereafter defined," the t may order that the excess shall be irre- rable and may be repaid to the lessee.

subsection (2) "For the purpose of this on, 'normal profit' means the profit h might reasonably have been expected a similar letting in the year ending August 3, "

e only amendment made in the above ons, 9 and 10, by the Increase of Rent Act s year, is that by section 10, subsection (2), declared that in these sections the ex- ons "landlord" and "tenant" shall tively be substituted for the expressions or" and "lessee."

h being the material sections of the Acts, y be noted that the prosecution was taken section 10 of the Act of 1920, and the trates fined the defendant £2 10s. in each with certain costs, and made an order that und of £10 8s. should be made to the of the furnished room, who paid 14s. as und a refund to the tenant of the kitchen cullery, who paid 18s., of £11 12s.

tenants of the other two rooms mentioned report apparently were not parties to rosecution, or the rooms were not let urniture, for they are not mentioned.

magistrates appear also to have fixed the the two tenants to whom the refund was at 10s. in the future. There seems no in the section for such a declaration to be but a defendant would hardly risk a prosecution. The correct course would to apply for a declaration of the rent section 11 of the Act of this year, but pplication would be to the county court.

PAYMENT BY RESULT IN THE BUILDING INDUSTRY.

In the course of a letter to *The Times*, Mr. Roland B. Chessum, Past-President of the London Master Builders' Association, expresses agreement with the opinions put forward in that journal that if we are to face with any confidence a boom in trade, some such system as that advocated [payment by result] must be adopted by British industry, and what may be acceptable to one trade may not be acceptable to all the trades concerned. Obviously some trades, and some kinds of work in each trade, will lend themselves to a system of payment by result, whilst any enforced universal adoption of such a system could only end in failure.

"What I think we ought to do," he states, "is to face the great need for this proposal and then determine the best method for bringing it about. Much investigation of a very careful kind may be necessary in some trades. Who is to make such an investigation, and who is to act on the report which should follow? Lord Askwith proposes that the powers of the Industrial Court should be expanded to cover such investigations, and if this were done, could or would the Minister of Labour act on the findings?

"Mr. Pybus proposes the setting up of district appeal tribunals. Does not this suggestion and that of Lord Askwith merit attention by those in authority in the different industries, and even by governing Departments, such as the Board of Trade and the Ministry of Labour? No investigations will give the practical result needed unless opposition from either employer or operative, or both, can be overcome. Individually, I find working men in favour of payment by results. What they ask for is a guaranteed time wage below which their earnings cannot fall, and security against the cutting of rates. What the employers need in order to hold their own in the markets of the world is an intensive output. In some trades the demand may be a fixed one, but in others, such as engineering, no limit need be placed on its potential expansion. Mr. Ford has taught us this truth, and created a market for his products and security against unemployment of his workpeople. What, then, are we going to do about it?

"In the building industry a proposal has been laid before the operatives' officials whereby a man, or group of men, being paid by the hour at the standard rate, should, on their output being measured and valued at rates in an agreed schedule of prices, receive as a bonus for their increased efforts any surplus over the aggregate of the wages they had received. This would assure to them the guaranteed time wage, and would be an inducement to the individual, or group of individuals, to excel in both industry and proficiency.

"If the proposals could be tabulated and referred to some body, such as the Industrial Court, as Lord Askwith proposes, with power to take evidence and present a report, much misconception might be removed, and a plan evolved which would place Britain in some measure of equality in facing competition and winning new markets, without which many trades will find resuscitation difficult, if not impossible. Such evidence, given on behalf of the building industry, might produce a lot of useful information, which would enable the employers and employed in that industry to come together and find some satisfactory working arrangement. The question is one not for employers or workpeople only, but one on which the whole nation is entitled to be interested, and on which, finally, it must boldly express its opinion, and only in so far as it knows the facts can this be intelligently done."

OBITUARY.

The death has occurred at his residence, 24, Tankerville-terrace, Jesmond, of Mr. Edward Johnson, aged 85, who was a builder and contractor in Newcastle for many years.

The death occurred, at Brighton, on August 21, of Mr. Francis Jukes, managing director of the Silicate Paint Co. Mr. Jukes entered the Silicate Paint Co., at Liverpool, in 1878, and it is largely due to his efforts, seconded by his co-director (Mr. Hugh Watson), and by his son (Mr. Edward Jukes), that "Duresco" has become so well known.

The death has occurred at Prospect-place, Llanelly, of Mr. John Lewis, builder, in his 68th year. For some years he was the treasurer of the Llanelly Rugby F.C. and was widely known.



Extensions to Factory at Stafford for Messrs. Lotus, Ltd.
Messrs. Sandy & Norris, Architects. (*See p.* 374.)

EXTRAORDINARY TRAFFIC.

An action of an unusual character has been the subject of decision in the House of Lords in the case, Glasgow Corporation *v.* Barclay, Curle & Co., Ltd. (*Weekly Notes*, August 25).

It was a Scotch case, and, as the Corporation had not adopted the legislation relating to extraordinary traffic in the Roads and Bridges (Scotland) Act, 1878, the action was brought at common law. The Corporation were suing the respondents for damages caused to the streets of Glasgow by their traffic. The respondents were boiler makers, and the traffic complained of was boilers weighing from 60 to 80 tons. The respondents pleaded that the traffic was not extraordinary or excessive, having regard to the locality and the nature and extent of the industries carried on therein, and that due care had been exercised in the conveyance to prevent unnecessary damage, and it was proved that traffic of this nature had been carried on in that district for twenty-five years past. The House of Lords, affirming the Courts below (Lord Birkenhead doubting, but not dissenting from the judgment), held that, though an action at common law would lie for an abuse of the highway, in this case, as the weights were not greater than those which for many years had been conveyed over those highways, and as the usual precautions had been taken to minimise damage to the streets, the action failed.

The case is only reported at present as a headnote, and it may be assumed that, on this point, there is no difference between the common law in Scotland and the common law here; but our Highway Acts are of universal application, and the legislation as to extraordinary traffic does not depend upon whether a local authority has adopted it or not, so a similar question is hardly likely to arise in this country.

CONCRETE ROADS.

A second edition of "Concrete Roads" is now ready, and may be obtained from the office of *The Builder*, No. 4, Catherine-street, W.C. 2, price 5s. net. The book deals in a thorough manner with the methods of construction adopted in this country and abroad, its chapters including Concrete Roads in England, Scotland, Wales and Ireland, with latest official reports as to their condition, weight of traffic, maintenance cost, &c.; Concrete Roads in Industrial Works; Concrete Roads in Other Countries; Mechanical Appliances used in the Construction of Concrete Roads; Concrete Kerbs and Channelling, Fence Posts, Telegraph and Lamp Posts, &c.; Useful Hints for Making Concrete and the Choice of Aggregates. A valuable feature is a Suggested Specification for the Making of Concrete Roads, which has been prepared by well-known engineers who have had great experience in this type of road, and which embodies the experience gained both in this country and in the United States. The book is well illustrated throughout, and the particulars of the methods of construction used by different Borough Surveyors, tabulated for ease of reference, should be particularly valuable to those about to lay new roads. This volume is the only work published dealing exclusively with concrete roads, and it has been brought up to date to include the very latest ideas and methods.

The Royal Sanitary Institute.

The autumn term of the Institute courses of lectures and demonstrations begins on September 24, at 5.30, with an introductory lecture by Prof. H. R. Kenwood, C.M.G. Admission to this lecture will be free. The other courses will be as follows:—Sanitary officers, commencing September 25; health visitors and child welfare workers, October 1; and meat and food inspectors, October 5.

WATER BOARD RIGHTS.

At Marylebone Police Court recently Whitbys, Ltd., contractors, of Eagle-street, High Holborn, were summoned by the Metropolitan Water Board for using for other purposes the water supplied to them for domestic use at houses in Highgate-road.

Mr. Collins, prosecuting for the Water Board, said that no allegation was made that water was taken with the object of defrauding the Board, but the firm were accused of taking water with the direct intention of challenging the Board's rights under their statutes. A person paying the water rate was entitled to the supply of water for domestic use, but if water was wanted for any other purpose some arrangement must be made with the Board. It was alleged that the defendant firm used the water for building purposes in the mixing of concrete. The premises were under reconstruction, and the charge for the supply of water would, perhaps, amount to two guineas at the most.

Mr. Octavius Sutton, an official of the Board, stated that the contractors had no authority to use water for building purposes.

Mr. W. E. P. Done (for the defence): Do you agree that it has been the practice of builders in London not to give any notice, and for the Board not to require any notice of alterations and repairs of houses?

Mr. Sutton replied that for sixteen years the Board had insisted on it whenever it had been brought to their notice. At a later stage he said that the old Water Company might have recognised the practice, but not the Board, which had been applying pressure in order to stop a growing practice.

Mr. Done contended that the object of the Act was to prevent the abuse of the owner's or occupier's agreement with the Board, and was never intended to apply to a casual use of water, as in this case.

The hearing was adjourned in order that the case might be argued fully.

LABOUR HOUSING CONFERENCE.

A national conference on housing, rati and railway rates, organised by the Lab Housing Association, was held at Plymo last week.

Mr. J. B. Williams, Chairman of the Gene Council of the Trades Union Congress, w presided, said it might cost more to prov decent houses in suitable surroundings, bu general improvement in the health of the peo would save millions in the long run in t national health bill.

The Union of Post Office Workers move resolution condemning the financial provisi of the new Housing Act, and expressing t opinion that good houses built on garc suburb principles on the best available sites a let at low rentals could only be provided local authorities being empowered to acqu land on the basis of its value as ascertained f purposes of taxation, and being allowed to ere houses out of the rates, with financial assistan from the Treasury.—The resolution was carri

Mr. C. T. Cramp (National Union of Ra waymen), who represented the Labour Par Executive, said they could not hope to sol the housing problem until they dealt wi rings, trusts, and combines. Legislation shou be initiated to control the prices of buildi materials.

The conference passed a resolution deman ing that the local authorities should ere houses of not less than five habitable apar ments, with electricity, bath-room, and hot a cold water laid on.

Whalley Abbey.

Practically the whole of Whalley Abbe Manchester, has now been purchased. T abbey stands secluded from the town. N much of the building remains, except the low part of the wall.

COMPARISON OF PRICES OF BUILDING MATERIALS BETWEEN AUGUST 4, 1914, AND AUGUST 31, 1923

Material.	Aug. 4, 1914. £ s. d.	Nov. 11, 1918. £ s. d.	July 31, 1923. £ s. d.	Aug. 31, 1923. £ s. d.	Rise or Fa during Month. (Per cent
Bricks—					
Best Stocks	1 16 6	3 3 6	4 2 0	4 2 0	—
Flettons	1 14 0	2 7 8	2 13 3	2 13 3	—
Glazed	13 0 0	17 17 6	22 0 0	22 0 0	—
Thames Ballast	5 9	17 0	10 6	10 6	—
Thames Sand	7 3	17 0	15 6	15 6	—
Shingle (¾ in.)	—	15 0	14 0	14 0	—
Portland Cement	1 17 0	3 8 0	2 18 0	2 18 0	—
Ground Blue Lias Lime	1 0 0	2 2 6	2 13 6	2 13 6	—
Grey Stone Lime	1 8 0	2 7 0	2 10 9	2 10 9	—
Bath Stone	1 7½	1 7	2 10	2 9½	—1.4
Portland Stone	2 4½	2 10½	4 4½	4 4	—0.9
Good Sound Building Timber—					
4 in. ×11 in.	16 10 0	53 0 0	34 0 0	34 0 0	—
3 in. × 7 in.	13 0 0	46 0 0	25 0 0	26 0 0	+4.0
3 in. ×11 in.	15 0 0	50 0 0	34 0 0	34 0 0	—
2 in. ×11 in.	—	51 0 0	34 0 0	34 0 0	—
2 in. × 7 in.	—	46 0 0	24 10 0	26 0 0	+6.1
3 in. × 4 in.	—	—	24 0 0	24 0 0	—
Slates—					
24 in. ×12 in.	—	—	37 12 6	37 12 6	—
22 in. ×12 in.	—	—	34 0 0	34 0 0	—
R. S. Joists	9 10 0	—	13 10 0	13 10 0	—
Iron—					
Common Bars	9 0 0	16 10 0	14 0 0	14 0 0	—
Mild Steel Bars	9 5 0	21 0 0	13 10 0	13 10 0	—
Steel Bars	9 5 0	19 10 0	13 10 0	13 10 0	—
Cut Nails	11 10 0	29 0 0	21 10 0	21 10 0	—
Sheet Lead	22 15 0	40 0 0	34 0 0	34 0 0	—
Glass—					
15 oz. Sheet	2	7	3½	3½	—
21 oz. „	3	8	5	5	—
26 oz. „	3¾	9	6	6	—
Raw Linseed Oil	2 4	8 4	3 10	3 8	—4.3
Turpentine	2 6	11 0	6 11	6 6	—6.0
Ground English White Lead	30 5 0	60 10 0	55 10 0	55 10 0	—
White Lead Paint	—	83 10 0	77 0 0	77 0 0	—
Red Lead	28 10 0	47 0 0	42 0 0	42 0 0	—

AGES AT SEWERAGE WORKS.

HE Industrial Court, Westminster, has ounced the award to be paid to the men loyed on the sewerage works of the Llan- nt and Llantwit Fardre Council. The issue remitted to the Industrial Council after a ing at Cardiff on August 14. The matter re the Court was whether the navvies' and urers' wages on the sewerage works in stion should be under Grade I or Grade II terms.

he Council had contracted for works at 000 to relieve unemployment in the district had paid rates applicable to Grade II area er the scheme of the Civil Engineering Con- ction Conciliation Board, viz., 1s. 1d. per r. whereas the Altogether Builders' ourers' Society, on behalf of the men, med rate under Grade I area, viz., 1s. 2d. hour. Neither the local authority nor the n was a member of the Conciliation Board e l

he Court, in award, pointed out that the only s of the area which at present could be con- red industrial were such places as Gilfach h. Pwllpant. Tynlwydd, Pontyclun and ıtrisant. If new pits were opened in the rict, as was contemplated, and the popula- increased, the character of the district ht change. but the award had only to deal the present. Having regard to the neigh- rhood where the sewerage works were being ied out, the Court decided that Grade I was the appropriate rate and that the rate to be was Class II area rate.

he signatories to the award are Sir William kenzie, K.C., Mr. Ernest J. Brown, and Mr. Sutton.

NEW BUILDINGS IN LONDON.

xford-street.—REBUILDING.—The contract the rebuilding of 29–31, Oxford-street has ntly been placed with Messrs. O. P. Drever n (Kettering), Ltd., 141, New Bond-street, . The sub-contracts so far placed com- :—For constructional steelwork, The Aston tructional Co., Ltd.; fireproof floors, s. Homan & Rodgers, Ltd.; sanitary and ing, Messrs. Stitson, White & Co.; terra- front, Messrs. Shaw's Glazed Brick Co.. steel windows, The Taylor Manufacturing Ltd. Mr. S. Gordon Jeekes, of 4, George- . Hanover-square, W. 1, is the architect.

entford.—BANK PREMISES.—Messrs. John nus. Ltd., of Hammersmith-road are ing new premises at 100 and 101, High- . Brentford, for the Westminster Bank. The structure is of brick and stone, and s. Crickmay & Sons, 13, Victoria-street. minster, are the architects. The cost will proximately £8,000. and the sub-contracts een placed.

mmersmith.—HOSPITAL.—Messrs. John nus. Ltd., are completing the Hull Martin Operating Department, and Paying ts' Department at the West London al. Hammersmith, at an approximate f £37.000, from drawings prepared by . Alban H. Scott, architect, 13, Old- Lincoln's Inn. Sub-contracts have not en placed.

Proposed New Secondary School.

e scheme proves eligible for Government ce the Bradford Education Authority to proceed with the erection of a new ar School for Thornton at an estimated from £90,000 to £100,000. At present re over 200 scholars, and there is only nodation for 120. The schoolmaster's s used for classrooms, and the Kipping School is also utilised as a makeshift. st Riding County Council is expected to ute financially to the scheme.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur :—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Masons' Labourers.	Bricklayers' Labourers.	Plasterers
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0		
Bedford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½		
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4		
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½		
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Cambridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½		
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0		
Chelmsford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½		
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0		
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Colchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½		
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½		
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½		
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0		
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½		
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Great Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½		
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½		
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0		
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Ipswich	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½		
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½		
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4		
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½		
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Luton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½		
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0		
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Norwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0		
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0		
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/3		
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0		
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
St. Albans	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½		
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Scarborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	0/11½		
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0		
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½		
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
York	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		

(For rates of wages in the Building Trade in Scotland, see page 382.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

SEPTEMBER 10.—**Clydebank.**—HOUSES.—Offers are invited for works in connection with the erection of 78 houses at Whitecrook, for the T.C. The Town Clerk, Municipal Buildings, Clydebank. Deposit £1 1s.

SEPTEMBER 10.—**Dewsbury.**—ALTERATIONS.—Alterations to Lloyds Bank, Northgate, Dewsbury. Messrs. Holtom & Fox, Architects, Corporation-street, Dewsbury.

SEPTEMBER 10.—**East Fortune.**—SANATORIUM.—Painting at sanatorium, for the South-Eastern Counties of Scotland Joint Sanatorium Board. Mr. A. G. G. Asher, Secretary, County Rooms, Edinburgh.

SEPTEMBER 10.—**Edinburgh.**—CAR DEPOT.—Erection of Portobello car depot, for the T.C. Mr. James A. Williamson, City Architect, City Chambers, Edinburgh.

SEPTEMBER 10.—**Erdington.**—HOUSES.—For the erection of 98 non-parlour type, Perry Common-road, Contract 136, and 102 parlour type, Gipsy-lane, Contract 137, for the City of Birmingham. Mr. Herbert H. Humphries, M.Inst.C.E., The Council House, Birmingham. Deposit £1.

SEPTEMBER 10.—**France and Belgium.**—HEADSTONES.—For a total supply of 15,000 headstones in a number of contracts, none less than 100, for the Imperial War Graves Commission. The Secretary, 82, Baker-street, London, W. 1. Marked "Headstone Contract 5079–R."

SEPTEMBER 10.—**Glasgow.**—VARIOUS.—Offers are invited for the (1) excavator, brick, &c., works, and (2) carpenter and joiner, &c., works, in connection with the erection of the Mearnskirk Sanatorium, Mearns, Renfrewshire. Deposit £10 10s. each trade.

SEPTEMBER 10.—**Grangemouth.**—HOUSES.—Erection of 12 houses, for the T.C. Mr. James P. Mackenzie, Town Clerk, Town Hall, Grangemouth.

SEPTEMBER 10.—**Hemsworth.**—HOUSES.—Erection of 10 houses in blocks of two, for the U.D.C. Mr. A. Wright, Clerk, Council Offices, Barnsley-road, Hemsworth. Deposit £1 1s.

SEPTEMBER 10.—**Maryport.**—EXTENSIONS.—For the complete works, or separate trades, required in the extensions to the operating theatre of the Victoria Cottage Hospital, Maryport. Mr. H. Oldfield, M.S.A., architect and surveyor, Workington.

SEPTEMBER 10.—**Pontllanfraith (Mon).**—SCHOOLROOM.—For erection of a schoolroom, for the Trustees of Elim Chapel. Rev. R. H. Richards, Rose Villa, Pontllanfraith (Mon).

SEPTEMBER 10.—**Preston.**—ADDITIONS.—For additions to Deepdale Council School, for the T.C. Borough Surveyor, Town Hall, Preston.

SEPTEMBER 10.—**Rochford, Essex.**—HOSPITAL BUILDING.—Erection of new Hospital Block (54 beds), extension of Nurses' Home (28 beds), new board room, &c., electric lighting power house, and other alterations and additions at the Poor-Law Institution, Rochford, for the Rochford Board of Guardians. Mr. Norman Evans, Licentiate R.I.B.A., 27, County Chambers, Weston-road, Southend-on-Sea. Deposit £1 1s.

SEPTEMBER 10.—**Woldingham.**—HOUSES.—Erection of 12 working-class dwellings at Lunghurst-road, Woldingham, for Godstone R.D.C. Council's Surveyor, Mr. T. C. Barralet, Council's Offices, Oxted. Deposit £2 2s.

SEPTEMBER 11.—**Ashton-under-Lyne.**—PAINTING.—For painting and other decorators' work at Electricity Generating Station and Offices, for the T.C. Borough Electrical Engineer, Wellington-road, Ashton-under-Lyne.

SEPTEMBER 11.—**Brierley Hill.**—ALTERATIONS AND ADDITIONS.—Alterations and additions to the Post Office, Brierley Hill, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

SEPTEMBER 11.—**Gellygaer.**—TRANSFORMER STATION.—For erecting, for the Gellygaer U.D.C., at Pengam, a transformer station. Mr. F. Read, Surveyor, Council Offices, Hengoed, Glam.

SEPTEMBER 11.—**Glasgow.**—VARIOUS.—Offers are invited for the works in connection with the erection of 228 houses at Kelvindale, for the Corporation. Mr. J. Lindsay, Town Clerk, City Chambers, Glasgow.

SEPTEMBER 11.—**Linthwaite.**—HOUSES.—Erection of 10 "A" type houses, for the U.D.C. Mr. Joe Ainley, Architect, 3, Chapel-street, Huddersfield.

SEPTEMBER 11.—**Maesteg.**—ADDITIONS, &C.—For alterations, additions and repairs to house and outbuildings at Maestcadlawr Farm, Llangynwyd, near Maesteg, for the Glamorgan Agricultural Committee. Police Station, Bridgend, and County Land Agent, 30, Park-place, Cardiff.

SEPTEMBER 11.—**Manchester.**—REINSTATING WASHBATHS.—For reinstating wash-baths at Osborne-street Baths, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

*SEPTEMBER 11.—**New Malden.**—CONVENIENCE.—For the erection of a public convenience, together with boundary walls, &c., for the Maldens and Coombe U.D.C. Mr. R. H. Jeffes, A.M.I.C.E., engineer and surveyor, Council Offices, New Malden. Deposit £2 2s.

SEPTEMBER 11.—**Offaly (Ireland).**—GENERAL REPAIRS AND PAINTING.—For repairs and painting of the Hospitals and County Home, Tullamore. Mr. T. S. O'Ceallaig, Secretary, County Board of Health, Tullamore.

SEPTEMBER 11.—**Rhondda.**—HOUSES AND ROADS.—For undertaking for the Rhondda U.D.C. following works:—(*a*) Building of fifty (50) non-parlour type houses, and, alternatively, fifty (50) parlour type houses on the same site, near the Ferndale Cemetery, Mardy-road, Ferndale; (*b*) The construction of roads and sewers in connection with the houses. Mr. E. Taylor, Engineer and Surveyor, Council Offices, Pentre (Rhondda). Deposit for (*a*) £5 and for (*b*) £2.

SEPTEMBER 11.—**Southgate, N.**—HOUSES.—Erection and completion of ten houses at Nursery-road, Southgate, for the U.D.C. Engineer and Surveyor to the Council, Town Hall, Palmer's Green, N.

SEPTEMBER 11.—**Ware.**—SHELTER.—Erection of shelter for Hertford and Ware Joint Hospital Board. Mr. A. Gray, architect, 64, Duncombe-road, Hertford.

SEPTEMBER 12.—**Batley.**—PAINTING.—For outside painting at Batley Working Men's Club and Institute. Mr. C. H. Milnes, Hon. Secretary, Batley.

SEPTEMBER 12.—**Bridlington.**—HOUSES.—Erection of 20 houses, for the T.C. Borough Engineer and Surveyor, 1, The Crescent, Bridlington.

SEPTEMBER 12.—**Brierley Hill.**—HOUSES.—Erection of 20 houses, with roads and sewers, on Mill-street Estate, for the U.D.C. Mr. John Yorke, Engineer and Surveyor, Town Hall, Brierley Hill, Staffs. Deposit £2 2s.

SEPTEMBER 12.—**Edinburgh.**—OFFICES.—Erection of new offices at Leith Tramway Depot, for the T.C. Mr. James A. Williamson, City Architect, City Chambers, Edinburgh.

SEPTEMBER 12.—**Edinburgh.**—VARIOUS.—Tenders are invited for various works in connection with the erection of Bellevue Technical and Commercial School, for the Education Authority. Mr. J. A. Carfrae, architect, 3, Queen-street, Edinburgh.

SEPTEMBER 12.—**Maldon.**—HOUSES.—Erection of 16 houses in Cherry Garden-road, for the T.C. Borough Engineer, Municipal Offices, Maldon.

SEPTEMBER 12.—**Morecambe.**—ADDITIONS TO HOSPITAL.—For whole works, or separate trades, for additions to Morecambe Hospital. Mr. S. Wright, architect and surveyor, Seaborn-drive, Morecambe.

SEPTEMBER 12.—**Nottingham.**—SCHOOL.—Erection of Council School on the Sherwood Housing Estate, for the T.C. City Engineer's Office, Guildhall, Nottingham. Deposit £1.

SEPTEMBER 12.—**Penygroes.**—ALTERATIONS.—For alterations and repairs to the Co-operative Stores. Mr. W. W. Jones, architect, Kuantan, Carnarvon.

SEPTEMBER 12.—**Penzance.**—REBUILDING.—For the rebuilding of the premises of Mr. J. W. Saundry, Chapel-street, Penzance. Mr. Henry Maddern, H.R.S. Mines, London, 11, Morrab-road, Penzance.

SEPTEMBER 12.—**Stone.**—SCHOOL ADDITIONS.—[illegible] largement of Alleyne's Grammar School, Stone, Sta[illegible] by the addition of two classrooms, cloakroom, heat[illegible] chamber and alterations to existing building, for [illegible] Staffordshire Education Committee. Mr. Grah[illegible] Balfour, Director of Education, County Educat[illegible] Offices, Stafford.

SEPTEMBER 12.—**Stromness.**—PIER.—The Harb[illegible] Commissioners of Stromness invite offers for the erect[illegible] of a new pier in reinforced concrete. Mr. Robert[illegible] Robertson, Clerk to Harbour Commissioners of Str[illegible] ness. Deposit £1 1s.

SEPTEMBER 12.—**Woolwich, S.E.18.**—PAINT[illegible] &c.—Painting works, &c., to the premises Furze Lo[illegible] Plum-lane, Plumstead, for the Guardians of the W[illegible] wich Union. Messrs. Whincop & Channer, archite[illegible] 42, William-street, Woolwich.

SEPTEMBER 12.—**Yorkshire.**—ALTERATIONS.—W[illegible] or separate tenders for (1) Fairburn Council Scho[illegible] Additions to Head Teacher's House: Builder, car[illegible] ter and joiner, slater, plumber, and glazier, plaste[illegible] and painter work. (2) Darton Mapplewell Cou[illegible] School—Minor alterations. (3) Swinton Kilnh[illegible] Council School—Converting the W.C.'s and repair[illegible] school. (4) Fellisclíffe Council School—Repairs [illegible] asphalte playground, for the West Riding Educa[illegible] Committee. Education Department, County H[illegible] Wakefield.

SEPTEMBER 13.—**Dumfries.**—ALTERATIONS.—[illegible] alterations proposed at the Sheriff Court Ho[illegible] Dumfries, for the Dumfries C.C. Mr. John Rob[illegible] County Clerk, County Buildings, Dumfries.

SEPTEMBER 13.—**Greenwich.**—PLASTERING, &C.—[illegible] plastering the internal walls of the East Block, supply[illegible] and fixing tubing for wires for electric lighting, [illegible] preparing and pointing the external walls at Greenw[illegible] Institution, Woolwich-road, East Greenwich, for [illegible] B.G. Mr. Alfred Roberts, surveyor, 92, London-st[illegible] Greenwich. Deposit £1 1s.

SEPTEMBER 13.—**Guildford.**—CONVENIENCE.—[illegible] construction of a public convenience, for the [illegible] Borough Surveyor, Tuns-gate, Guildford.

SEPTEMBER 13.—**Highgate.**—SUB-STATION, &[illegible] For the erection of an electricity sub-station and e[illegible] neer's residence at North-road, for Hornsey Boro[illegible] Mr. E. J. Lovegrove, Borough Engineer and Surve[illegible] Town Hall, Highgate, N.6.

SEPTEMBER 13.—**Ilford.**—HOSPITAL BUILDING.—[illegible] Erection and completion, under one contract, of [illegible] following buildings at the Isolation Hospital, Gr[illegible] road, Chadwell Heath: (1) New administration bl[illegible] (2) the raising of roof over two large wards and [illegible] conversion of rooms on first floor into two large wa[illegible] (3) new staircase block for access to last; for the Il[illegible] U.D.C. Mr. H. Shaw, Engineer and Surveyor to [illegible] Council, Town Hall, Ilford. Deposit £5 5s.

SEPTEMBER 13.—**Kensington.**—DECORATIONS.—[illegible] internal decorations at the P.O. Savings' Bank, Bly[illegible] road, West Kensington, for the H.M. Office of Wo[illegible] Contracts' Branch, H.M. Office of Works, King Cha[illegible] street, S.W. 1. Deposit £1 1s.

SEPTEMBER 13.—**Keswick.**—HOUSES.—Erection [illegible] sixteen Class "A 2" houses, in blocks of two, for [illegible] U.D.C. Surveyor, Town Hall, Keswick. Dep[illegible] £2 2s.

BUILDING TRADE WAGES IN SCOTLAND

THE following are the present rates of wages in the building trade in the principal towns Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for err that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick- Masons' layers' te Labourers.
Aberdeen	1/7	1/8	1/7	1/7	1/8	1/8½	1/4½	1/-
Airdrie	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½
Alexandria	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1
Ayr	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½
Bathgate	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/1 to 1/2
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—
Bo'ness	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2
Coatbridge	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½
Dumbarton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2
Dumfries	1/5	1/5	1/5	1/5	1/5	1/6	1/5	1/1 to 1/2
Dundee	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½
Dunfermline	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½
Edinburgh	1/7	1/7	1/7	1/7	1/8	1/7	1/6½	1/2½
Falkirk	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/1½
Fort William	1/7	1/6	1/6	1/6	1/6	1/6	1/6½	1/1
Galashiels	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/2½
Glasgow	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/1 to 1/2½
Greenock	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½
Hamilton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/1½
Hawick	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/2½
Helensburgh	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	10d. to 1/2
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	1/2½
Kilmarnock	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½
Kirkcaldy	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/-
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/2½
Lanark	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½
Leith	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½
Motherwell	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½
Perth	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2
Stirling	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½
Wishaw	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½

* The information given in this table is copyright. The rates of wages in the various towns in England Wales are given on page 381.

✱September 13.—**London, W.**—Painting, &c.—or the execution of painting works at the Imperial ar Graves' Commission, 82, Baker-street, for the ommissioners of H.M. Office of Works. Contracts' anch, H.M. Office of Works, King Charles-street, ondon, S.W. 1. Deposit £1 1s.

September 13.—**Slaithwaite.**—Houses.—Erection of ne houses at Lower Wood, Lingards, Slaithwaite, for e U.D.C. Surveyor, Slaithwaite Town Hall.

✱September 13.—**West Kensington.**—Painting, c.—For internal decorations at the P.O. Savings' ank, Blythe-road, West Kensington, for the Comissioners of H.M. Works, &c. Contracts Branch, .M. Office of Works, King Charles-street, London, W. 1. Deposit £1 1s.

September 13.—**Worthing.**—Engine Room, &c.—or the erection of additional engine room and other ork at the Electricity Works, for the Borough. orough Surveyor, Municipal Offices, Worthing. eposit £1 1s.

September 14.—**Birmingham.**—Plastering.—For acking and plastering walls inside the wards at Dudleyad Hospital, for the B.G. Mr. James Curtis, Clerk, nion Offices, Edmund-street, Birmingham.

September 14.—**Bootle.**—Painting.—Painting the teriors of Balliol Council School, Orrell Council hool, Secondary School for Girls, and greenhouses, c., Derby Park, for the T.C. Borough Engineer's ffice, Town Hall, Bootle.

✱September 14.—**Dover.**—Painting.—For the ecution of painting work at the Duke of York's hool, for the Commissioners of H.M. Works, &c. ntracts Branch, H.M. Office of Works, King Charlesreet, London, S.W. 1. Deposit £1 1s.

September 14.—**London, E.C.**—Bronze Unit.—econstruction of bronze unit at the Royal Mint, for e Commissioners of His Majesty's Works. Contracts ranch, H.M. Office of Works, King Charles-street, ondon, S.W.1. Deposit £1 1s.

September 14.—**Smallburgh.**—Cottages.—Erection cottages in East Ruston, Ludham and Paston, for e R.D.C. Mr. Fairfax Davies, Clerk, North Walsham. eposit 10s.

September 14.—**Wigan.**—Reconstruction.—Dismantling and reconstruction of a portion of the roof c., to the stores in Chapel-lane, Wigan, for the T.C. r. R. B. Donald, M.Inst.C.S., Borough Engineer, unicipal Buildings, Wigan.

September 14.—**York.**—Houses.—The erection of houses in 11 blocks of 4, and 2 blocks of 3, at the eworth Housing Estate, for the T.C. Mr. F. W. urr, architect, Guildhall, York. Deposit £2 2s.

September 15.—**Gravesend.**—Hospital Additions. Erection of additional accommodation at the Graves-d Hospital. Mr. E. J. Bennett, A.R.I.B.A., honorary rchitect, 191, Parrock-street, Gravesend.

September 15.—**Leeds.**—School.—For various ades in erection of secondary school for 500 boys, oundhay, for the Leeds Education Committee. ducation Offices (Architect's Section), Calverleyreet, Leeds.

September 15.—**St. Mellon's (Mon).**—42 Houses.—or erecting 42 houses for the St. Mellon's R.D.C. within area, as follows:—14 houses at Rogerstone; 20 ouses at Bassaleg; 8 houses at Rhiwderin. Tende s ay be made for houses on one, two or all three sites, it it must be clearly stated which site is referred to. ssrs. Thomas & Morgan & Partners, architects, 23, lliwasted-road, Pontypridd. Deposit £5.

September 15.—**Swindon.**—Bakery.—Erection of a kery in Station-road, for the Swindon Co-operative ovident Society, Ltd. Messrs. R. J. Beswick & Son, S.A., A.R.I.B.A., architects, 10, Victoria-road, indon. Deposit £2 2s.

September 17.—**Downderry.**—Institute.—Erection a Church Institute at Downderry for the Committee. . H. R. Venning, Lic.R.I.B.A., Green Bank-lane, keard.

September 17.—**Hopwas.**—Engine House.—Erecon of a new engine house, &c., at Hopwas Pumping tion, near Tamworth, for the Tamworth Waterrks Joint Committee. Mr. Robert H. Briggs, Clerk the Joint Committee, Municipal Offices, Tamworth. posit £2 2s.

September 17.—**Laleham, Middlesex.**—Engine ouse, &c.—Construction of the superstructure for engine house, boiler house, elevated coal bunkers, mney shaft, fitters' shop, stores, ash hoist building, wage disposal plant, and other contingent works, the Littleton Reservoir, in the Parish of Laleham, the County of Middlesex, for the Metropolitan ter Board. Mr. Henry E. Stilgoe, Chief Engineer, ces of the Board, New River Head, 173, Rosebery-nue, E.C. 1. Deposit £10, to Accountant to the rd.

eptember 17.—**Lochgelly.**—Houses.—Erect on of houses at the Newton Park Site, for the T.C. gh Surveyor, Town Hall, Lochgelly. Deposit £2 2s.

✱September 17.—**Northampton.**—Houses.—For the tion of 30 B.3 parlour and three bedroom houses, 72 A 3 non-parlour three bedroom houses, on the Cotton Estate, for the C.B. Mr. Alfred Fidler, Inst.C.E., Borough Engineer, Guildhall, Northamp-. Deposit £5.

✱September 17.—**Southend-on-Sea.**—Pavilion.—ction and completion of a pavilion at the Victory rts Ground, Sutton-road, for the County Borough. Robert H. Dyer, Borough Engineer, Municipal ldings, Southend-on-Sea. Deposit £2 2s.

✱September 17.—**West Hendon.**—Convenience.—the erection of a public convenience at The Broad-, for the U.D.C. Mr. A. O. Knight, A.M.I.C.E., gineer to the Council, Town Hall, Hendon, N.W.4. posit £2 2s.

eptember 18.—**Abertillery.**—Post Office.—ction of a new post office, for the Commissioners H.M. Office of Works, &c. Contracts Branch, I. Office of Works, King Charles-street, S.W. 1. posit £1 1s.

eptember 18.—**Barnsbury-grove, N.**—Extenn.—For the extension of the North Telephone change, for the Commissioners of H.M. Office of ks. &c. Contracts Branch, H.M. Office of Works, Charles-street, S.W. 1. Deposit £1 1s.

eptember 18.—**Glasgow.**—Various.—The Corration invite offers for the various works in conion with the erection of 1,140 houses at Knightswd, areas Nos. 1 and 2. Mr. John Lindsay, Town k, City Chambers, Glasgow.

✱September 18.—**Kingsbury, N.W.9.**—Houses, &c.—For the construction of new sewers, surface water drains, and roads, also for the construction of 24 houses at Buck-lane, for the U.D.C. Mr. R. C. N. Newport, Surveyor to the Council, Council Offices, Kingsbury-road, The Hyde, N.W.9. Deposit £3 3s.

September 18.—**London, N.**—Telephone Exchange.—Extension of the North Telephone Exchange, Barnsbury-grove, N., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s.

✱September 18.—**Nuneaton.**—Houses — or the erection of 40 houses on the Attleborough Housing Estate in two contracts of 20 houses each for the Borough of Nuneaton. Mr. R. C. Moon, A.M.Inst.C.E., Borough Surveyor, Municipal Offices, Nuneaton. Deposit £2 2s.

September 18.—**Pleasley.**—Dwellings and Roads.—Erection of 80 workmen's dwelling houses, and construction of roads and sewers, in Terrace-lane, Pleasley, Derbyshire, for the Stanton Ironworks Co., Ltd. Mr. A. E. Lambert, architect, 28, Park-row, Nottingham. Deposit £2 2s.

September 18.—**Warlingham (Surrey).**—Telephone Exchange.—Erection of a new telephone exchange, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

September 19.—**Mapplewell.**—Alterations.—The W.R. Committee invite tenders for alterations at Darton Mapplewell Council School. The Education Department, County Hall, Wakefield.

September 19.—**Stafford.**—Houses.—Erection of 20 houses of the parlour type on the Lammascote Housing Estate, for the T.C. Mr. W. Plant, Borough Engineer and Surveyor, Borough Hall, Stafford. Deposit £2 2s.

September 20.—**Blackburn.**—Houses and Flats.—Erection of 16 flats and 20 houses (type "L") on the Intack Housing Site, for the T.C. Mr. A. T. Gooseman, M.Inst.C.E., Borough and Water Engineer, Town Hall, Blackburn. Deposit £3.

September 20.—**Cheselbourne.**—Tower.—For the repair of the tower and belfry of the parish church, for the Cheselbourne Parochial Church Council. Rector.

September 20.—**Tedavnet, Co. Monaghan.**—Church.—For the reconstruction and enlargement of Tedavnet. Church, Co. Mcnaghan, for the Rev. Philip Mulligan, P.P., Scotstown, Co. Monaghan. Mr. R. M. Butler. F.R.I.B.A., architect, 2°, Kildare-street, Dublin.

September 20.—**West Ham.**—Painting.—For painting, cleaning, &c., of the interior of Administrative Block of Hospital, Whipps Cross-road, Leytonstone, E. 11, for the B.G. Mr. Thomas Smith, Clerk, Union Offices, Leytonstone, E. 11.

✱September 21.—**Blackpool.**—Houses.—For the construction of 80 or more houses on the Claremont-road, North Shore, site for the C.B. Mr. Francis Wood, M.Inst.C.E., Borough Engineer and Surveyor, Municipal Buildings, Blackpool. Deposit £2 2s.

September 21.—**Welney.**—Cottage.—Erecting a cottage at Bank Farm, Welney, West Norfolk, for the C.C. County Land Agent, The Shirehouse, Norwich. Depos t £1 1s.

September 22.—**Dorchester.**—Alterations.—For alterations and additions to the Electric Power Station, for the T.C. Mr. H. D. Strange, Bo.ough Surveyor, 21, North-square, Dorchester.

✱September 24.—**Aldershot.**—W.D. Works Contract.—For the works contract for repairs and materials, from October 6, 1923, at North Aldershot Station, including Marlborough Lines, Pinehurst and Mytchett. Commanding Royal Engineer, R.E. Office, Marlborough Lines, North Aldershot, Hants.

September 24.—**watchet.**—Quay Building, &c.—For construction of certain works, including building of a concrete quay, sheeting and bulkhead walls, for the improvement of Watchet Harbour. Mr. Frank Risdon, Clerk, U.D.C. Offices, Watchet.

✱September 25.—**Brighton.**—Sorting Office, &c.—For the completion of Brighton Sorting Office and Telephone Exchange, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s.

✱September 25.—**Teddington.**—Extension.—For the extension of the Admiralty Research Laboratory, National Physical Labroatory, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s.

September 25.—**Warrington.**—Painting.—Painting interior of the school buildings at the Cottage Homes, Padgate, for the Board of Guardians. Mr. F. J. Barnish, architect, Golden-square, Warrington. Deposit £1 1s.

✱September 26.—**Herne Bay.**—Shelter, &c.—For the erection of the superstructure of the proposed shelter and conveniences, West Cliff, on a prepared sub-structure, for the U.D.C. Mr. B. J. Wormleighton, F.S.I., Engineer and Surveyor to the Council, Town Hall, Herne Bay. Deposit £2 2s.

September 28.—**Hemsworth.**—Cottage.—Erection of a caretaker's cottage at Kinsley Sewage Disposal Works, for the U.D.C. Mr. W. T. Lynan, A.M.I.C.E., Engineer and Surveyor, Hemsworth. Deposit £2 2s.

October 1.—**Hertfordshire.**—Cottages.—Erection and completion of 32 detached cottages at various places in Hertfordshire, for the C.C. Mr. A. Ernest Prescott, M.Inst.C.E., Lieut.-Col., County Surveyor and Architect, Hatfield. Deposit £1 1s.

✱October 3.—**Ramsgate.**—Sea Wall.—For the construction complete of a new reinforced concrete sea wall, on the indented bar principle, on the foreshore of the St. Lawrence Cliffs Estate, for the Borough. Mr. T. G. Taylor, Borough Engineer, Borough Engineer's Office, Albion House, Ramsgate.

October 9.—**Yorkshire.**—Repairs.—Adaptation and repairs to four farmsteads on the Gargrave Estate, for the West Riding C.C. County Land Agent, County Hall, Wakefield. Deposit £1.

✱November 30.—**Singapore.**—Post Office.—For new General Post Office. Crown Agents for the Colonies, 4, Millbank, S.W.1. Deposit £10.

No Date.—**Bedminster.**—Shop Premises.—Erection of block of shop premises at East-street, Bedminster. Newbons, 41, Mary-le-Port-street, Bedminster.

No Date.—**Buckie.**—Houses.—Offers are invited for various works in connection with the erection of four blocks of additional houses. The Burgh Surveyor, Buckie, or Messrs. G. Sutherland & Clement George, architects, 26, Crown-street, Aberdeen.

No Date.—**Dumbarton.**—Painting.—The T.C. are prepared to receive tenders for the painter work of 20 houses being erected at Silverton-hill. The Burgh Engineer's Office, Municipal Buildings, Dumbarton, or Messrs. John Allan & Sons, 224, St. Vincent-street, Glasgow.

No Date.—**Farsley.**—Houses.—For the erection of 20 houses (parlour type) for the U.D.C. on the Stony Royd Estate. Mr. E. H. Bray, Town-street, Stanningley, Leeds.

No Date.—**Gilfach Goch (Rhondda).**—Workmen's Hall Completion.—For completing the erection of the Gilfach Goch Workmen's Hall and Institute (partly erected). Messrs. R. S. Griffiths & Partners, architects, Tonypandy (Rhondda). Deposit £2 2s.

No Date.—**Ipswich.**—House Breaking.—Taking down and removing materials of two old brick and timber premises, 3 and 5, St. Lawrence-street, Ipswich. Mr. J. A. Sherman, architect, 9, Northgate-street, Ipswich.

No Date.—**Kilmarnock.**—Various.—Contractors wishing to tender for any of the works in connection with the erection of 30 houses are requested to make application to Mr. Robert Blackwood, Burgh Surveyor, Kilmarnock.

No Date.—**Rhostyllen.**—Hall.—Erection of parish hall and institute for the Esclusham Below Parish Council. Messrs. John Owen & F. A. Roberts, architects, Westminster Bank Chambers, Wrexham. Deposit £1 1s.

No Date.—**Sneyd Green.**—Cottage.—Erection of two blocks semi-detached cottages, Sneyd Green. Mr. Arthur W. Moss, M.S.A., architect, 34, Stafford-street, Hanley.

No Date.—**Whitley.**—Houses.—Erection of two houses, Whitley, for Messrs. Asquith. Mr. Ramsden, architect, Savile Town.

FURNITURE, MATERIALS, etc.

September 10.—**Coventry.**—Supplies.—Supply (six months) of brooms and brushes, &c., for B.G. Union Offices, 13, Little Park-street, Coventry.

September 10.—**Edmonton.**—Supplies.—Supply (six months) of ironmongery, painters' goods, timber, &c., for the B.G. Mr. E. Ridley. Clerk, 77, Bridport-road, Edmonton, N. 18.

September 10.—**Hull.**—Supplies.—Supply of paints, oils, sand, cement, cable and other stores, for Humber Conservancy Board. Mr. A. W. Franklin, Secretary, Conservancy Buildings, Hull.

September 10.—**Manchester.**—Materials.—Supply of granite setts and kerb, for the T.C. Paving, &c., Department, Town Hall, Manchester.

September 10.—**Morpeth.**—Supplies.—Supply (six months) of brooms, paints, oils, &c., to Northumberland Mental Hospital. Clerk and Steward, Hospital.

September 11.—**Bristol.**—Supplies.—For supply of ironmongery, electrical fittings, &c., for the B.G. Mr. T. S. Lamb, Clerk, St. Peter's Hospital, Bristol.

September 11.—**Cardiff.**—Materials.—Supply of various materials to the T.C. for six months. City Engineer, City Hall, Cardiff.

September 11.—**Manchester.**—Porcelain Baths.—Supply of 29 porcelain wash-baths at Osborne-street Baths, for the T.C. City Architect, Town Hall, Manchester. Deposit 10s. 6d.

September 11.—**Salford.**—Road Materials.—Supply of granite setts, &c., flags and curbs, curb edging, limestone chippings, stone chippings, tar macadam, cement, iron castings, earthenware pipes, pitch and oil, and paraffin oil, for the T.C. Borough Engineer, Town Hall, Salford.

September 12.—**Belfast.**—Wireless Supplies.—For stores and materials for wireless telegraphy, &c., for police, for Government of Northern Ireland. Secretary, Ministry of Home Affairs (Maintenance Branch), Plough Chambers, 5, Cornmarket, Belfast.

September 12.—**Liverpool.**—Materials.—For supply of ironmongery, castings, wrought iron and steel goods, files, paving setts, kerbs, flagstones, oils and paints, timber, &c., for the T.C. City Engineer, Municipal Buildings, Dale-street, Liverpool.

September 12.—**Macclesfield.**—Supplies.—Supply of furnishing materials, paints, &c., to Cheshire County Mental Hospital, Macclesfield. Mr. W. G. F. Turgay, Clerk to the Hospital.

September 12.—**Richmond (Surrey).**—Supplies.—Supply of oils and colours, &c., for the B.G. Mr. P. Umney, Clerk to the Guardians, "Parkshot," Richmond, Surrey.

September 12.—**Smethwick.**—Materials.—Supply (six months) of road materials, shovels, bricks, cement, ironmongery, &c., for the T.C. Mr. Alex. Hosken, Borough Engineer and Surveyor, Council House, Smethwick.

September 13.—**Pontypridd.**—Supplies.—For the following supplies, for the Pontypridd Board of Guardians' Homes at Pontypridd, Llwynipia and Church Village for three months as from October 1—Ironmongery, enamelled goods, drugs, haulage, paints and oils, brushes, electrical materials, disinfectants, soaps, crockery, uniforms, leather, &c. Mr. William Spickett, Clerk, Guardians Offices, Pontypridd.

September 13.—**Stafford.**—Supplies.—Supply of furniture, brooms, &c., to County Mental Hospital. Mr. G. Badger, Clerk, Hospital, Stafford.

September 14.—**Hackney.**—Supplies.—Supply (six months) of building materials, oils and paints, timber, &c., for the B.G. Mr. F. R. Coles, Clerk, Hackney Union, 2, Sydney-road, Homerton, E.9.

September 14.—**Leek.**—Materials.—Supply of road and other materials to the U.D.C. Mr. W. E. Beacham, Surveyor, Town Hall, Leek.

September 14.—**Stockport.**—Materials.—Labour and materials for construction of precipitation tanks at Cheadle Heath Sewage Works. Mr. H. Hamer, A.M.Inst.C.E., Borough Surveyor, Town Hall, Stockport. Deposit £5 5s.

SEPTEMBER 15.—**Boctle.**—GRANITE SETTS.—For 1,250 tons of 4 in. by 5 in. deep granite setts, for the T.C. Borough Engineer, Town Hall, Bootle.

SEPTEMBER 15.—**Colchester.**—SUPPLIES.—Supply (3 months) of oilman's goods, cement, &c., for Visitors of Severalls Asylums. Mr. H. H. Gepp, Clerk to Visitors

SEPTEMBER 15.—**Stafford.**—MATERIALS.—Supply of ironmongery, tools, building and road material, &c., for the T.C. Mr. W. Plant, A.M.I.C.E., Borough Engineer, Borough Hall, Stafford.

SEPTEMBER 15.—**Wokingham.**—ROAD MATERIALS.—Supply of tarmacadam, granite, limestone and gravel, for six months to the R.D.C. Mr. Arthur H. Prince, Surveyor, Council Offices, Barkham-road, Wokingham.

SEPTEMBER 17.—**Port Talbot.**—SUPPLIES.—For supply to B.C. of following:—(*a*) Linen goods, disinfectants; (*b*) ironmongery, hardware, castings, tubings, limestone, metalling, tarmac, fodder, scavenging and haulage. For items (*a*) Health Department, Council Office, Port Talbot, and items (*b*) Borough Engineer, Port Talbot. Stamped and addressed envelope in all cases.

SEPTEMBER 17.—**Worthing.**—TIMBER.—Supply of fifty squares of 1¼ in. pitch pine floor boarding to the T.C. Borough Surveyor, Worthing.

SEPTEMBER 18.—**Brentford.**—SUPPLIES.—For hardware, oils, &c., for the B.G. Mr. F. E. Harmsworth, Clerk, Toolands House, 34, Twickenham-road, Isleworth.

SEPTEMBER 18.—**Merthyr Tydfil.**—SUPPLIES.—For supply in bulk for period of six months from October 1 next, for the Poor Law Institutions at Merthyr and Trecynon and the Cottage Homes, Aberdare, for the Merthyr Tydfil Board of Guardians, of the following supplies:—Building materials, haulage, straw, electrical fittings, earthenware, oils, paints, glass, ironmongery, shoemaking materials, leather, boots, &c., drugs. The Clerk to the Guardians, Union Offices, High-street, Merthyr Tydfil.

SEPTEMBER 19.—**Fulham.**—SUPPLIES.—Supply of ballast and sand, scavengers' brooms, oilman's goods, lime and cement, &c., for the B.C. Mr. J. P. Shuter, Town Clerk, Town Hall, Fulham, S.W.

SEPTEMBER 19.—**Gloucestershire.**—FURNITURE.—Supply of furniture to the Wotton and Barnwood Hospitals, for the Visitors of the County Mental Hospitals. Mr. E. B. Key, Clerk, County Mental Hospital, Gloucester.

SEPTEMBER 21.—**Bognor.**—MATERIALS.—Supply of road materials, &c., to the U.D.C. Surveyor, High-street, Bognor.

SEPTEMBER 21.—**London, S.E.**—OIL AND CABLE.—Supply of lubricating oil and cable, lead sheathed, &c., to India Store Department, Director-General, Branch No. 34, Belvedere-road, Lambeth, S.E. 1.

SEPTEMBER 22.—**Eccleshall Bierlow.**—SUPPLIES.—Supply of oils, paints, brooms, &c., for the B.G. Clerk, Union Offices, The Edge, Sheffield.

SEPTEMBER 24.—**Dover.**—SUPPLIES.—Supply (six months) of bricklayer and plumber materials, ironmongery, &c., for the B.G. Mr. C. Dacre Carder, Clerk, Market-square, Dover.

SEPTEMBER 24.—**North Bierley.**—SUPPLIES.—Supply of paints, &c., for the B.G. Mr. W. G. Cooper, Clerk, Union Offices, 4, Town Hall-street, Bradford

NO DATE.—**Leeds.**—GRANITE SETTS.—Supply of approximately 4,000 tons of granite paving setts, for the T.C. Mr. J. B. Hamilton, Commercial Manager, 1, Swinegate, Leeds.

✱NO DATE.—**London, S.W.1.**—BRICKS.—For 100,000 interlocking highly calcined blue Staffordshire bricks, for the Ministry of Public Works. The Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Westminster, S.W.1.

ENGINEERING, IRON AND STEEL.

SEPTEMBER 10.—**Edinburgh.**—TRAM POLES.—Supply of 168 steel tramway poles and scrolls, &c., for the T.C. Tramways Manager, 2, St. James-square, Edinburgh

SEPTEMBER 10.—**Heysham.**—WATER PIPES.—Supply of 6 in., 4 in., and 3 in. diameter cast iron water pipes, with special castings (about 82 tons), for the U.D.C. Particulars on application. Mr. Henry Miller, Surveyor, Council Offices, Heysham.

SEPTEMBER 10.—**Hornsey.**—Low tension switchgear, for T.C. Borough Electrical Engineer, Tottenham-lane, Hornsey. Deposit £1 1s

SEPTEMBER 10.—**Windsor.**—HEATING, &C.—Supply and erection of steam boiler, heating, cooking, laundry and electric lighting installations at the Windsor Poor Law Institution. Mr. W. W. Nobbs, 50, Fairhazel-gardens, N.W. 6. Deposit £1 1s.

SEPTEMBER 11.—**Cowdenbeath.**—Supply and erection of wrought iron railings and gates, and stob and wire fencing. Mr. C. A. Alexander, Burgh Surveyor, Town House, Cowdenbeath. Deposit £1 1s. per schedule.

SEPTEMBER 11.—**Govan.**—HEATING AND VENTILATING.—For heating and ventilating work at Elder Public Library, Govan, for Glasgow T.C. Office of Public Works, City Chambers, 64, Cochrane-street.

SEPTEMBER 11.—**Manchester.**—RAILS, &C.—Supply of (*a*) steel girder tramway rails; (*b*) steel tramway poles; (*c*) span-wire brackets for tramway poles; (*d*) copper bonds for tramway rails, for the T.C. Mr. Henry Mattinson, General Manager, Corporation Tramways, 55, Piccadilly, Manchester.

SEPTEMBER 12.—**Chesterfield.**—INDUCED-DRAUGHT PLANT.—For an electrically-driven induced-draught plant, for the T.C. Mr. R. H. Campion, M.I.E.E., General Manager, Electricity Department, 172, Chatsworth-road, Chesterfield.

SEPTEMBER 12.—**Lincoln.**—WATER TOWER, &C.—Erection of reinforced concrete water tower and tank at the Bracebridge Mental Hospital, Lincoln, for Committee of Visitors. Mr. Harold E. Page, Clerk, 5–6, Bank-street, Lincoln. Deposit £5 5s.

SEPTEMBER 12.—**London, E.C.4.**—AXLES, &C.—For supply of:—(1) Steel axles for carriages and wagons; (2) red and white lead; (3) four-wheeled sheep vans and bogie boiler trucks, for the East Indian Railway. Mr. G. E. Lillie, Secretary, 73–76, King William-street, London, E.C.4. Deposit £1 1s.

SEPTEMBER 12.—**London, S.W.**—RAILWAY MATERIAL.—For brake beams, spring washers and axle-guards, for the Bombay, Baroda and Central India Railway Co. Secretary, Offices, 91, Petty France, Westminster, S.W.1. Fee 10s.

SEPTEMBER 12.—**Manchester.**—CHASSIS.—Supply of a new motor chassis, about 20 h.p., suitable for ambulance work, for the B.G. Mr. J. Macdonald, Clerk, Union Offices, All Saints', Manchester.

SEPTEMBER 12.—**Stoke-on-Trent.**—COOLING TOWERS.—For two cooling towers, 200,000 gallons each, with cooling ponds and accessories, for the T.C. Borough Electrical Engineer, St. Peter's Chambers, Stoke-on-Trent.

SEPTEMBER 14.—**Nottingham.**—PIPING, &C.—Manufacture and erection of steam water and other pipework, valves, tanks, &c., at the Power Station, for the T.C. Messrs. Preece, Cardew & Rider, 8, Queen Anne's Gate, Westminster, S.W.1. Deposit £5.

SEPTEMBER 15.—**Halifax.**—PARAPET.—For supplying and fixing a new ornamental cast iron parapet to existing cast iron parapet at North Bridge, Halifax, for the T.C. Borough Engineer, Crossley-street, Halifax. Deposit £1 1s.

SEPTEMBER 15.—**Manchester.**—PUMPS.—For one set of electrically driven high-pressure centrifugal pumps, to deliver 1,000 g.p.m. against a pressure of 1,120 lb. per square inch. Secretary, Waterworks Offices, Town Hall, Manchester. Deposit £2 2s.

SEPTEMBER 15.—**Weaste.**—HEATING, &C., APPARATUS.—For heating and hot-water service apparatus, for Union Infirmary, Stott-lane, Weaste, for the Salford B.G. Mr. T. Roland Wollaston, M.I.M.E., Lord's Chambers, 26, Corporation-street, Manchester. Deposit £2 2s.

SEPTEMBER 17.—**Aberdeen.**—COAL HANDLING PLANT.—Supply and erection of a 40-ton coal handling plant, with band conveyor, gravity bucket conveyor, and steel hopper and chute. Mr. J. A. Bell, Borough Electrical Engineer, Milburn-street, Aberdeen. Deposit £1.

SEPTEMBER 17.—**Farnworth.**—ELECTRICAL PLANT.—For a 50 K.W. rotary converter, complete with transformer, switchgear, &c., for U.D.C. Chief Electrical Engineer, Mr. A. J. Hutchinson, Electricity Works, Farnworth, near Bolton. Deposit £1 1s.

SEPTEMBER 17.—**London.**—MACHINE TOOLS.—Supply of machine tools, for the Council's Tramway Central Repair Depot, Charlton. General Manager, London County Council Tramways, Victoria-embankment, W.C.2. Deposit £2.

SEPTEMBER 18.—**London, S.W.**—RAILWAY MATERIAL.—Supply of steel material and wheels and axles for carriages and wagons, for the Bombay, Baroda, and Central India Railway Co. Mr. G. S. Young, Secretary, 91, Petty France, Westminster, S.W. 1. Fee £1.

SEPTEMBER 18.—**Tottenham.**—BITUMEN BOILERS.—Supply of two bitumen boilers, each 360 gallons capacity, for the U.D.C. Captain H. F. Wilkinson, R.E., Engineer of the Council, Town Hall, Tottenham, N.15.

SEPTEMBER 19.—**Fulham.**—FILTRATION PLANT.—Supply and erection of filters and plant at the Fulham Public Baths. Superintendent and Engineer at the Baths, Walham Green, S.W.6.

SEPTEMBER 22.—**Manchester.**—COMPRESSOR.—For a portable air compressor; also paving breakers and caulking hammers, for T.C. Secretary, Waterworks Offices, Town Hall, Manchester.

SEPTEMBER 22.—**Salford.**—HOT-WATER SUPPLY.—For heating and hot water service apparatus for the Infirmary and Nurses' Home extension of the Board of Guardians. Mr. T. Roland Wollaston, Lord's Chambers, 26, Corporation-street Manchester. Deposit £2 2s.

SEPTEMBER 24.—**Salford.**—COOLING AND PUMPING PLANT.—For cooling towers, pumping plant, and pipework, at Agecroft Power Station, for the T.C. Mr. J. A. Robertson, Consulting Engineer, 20, Braze nose-street, Manchester. Deposit £1 1s. per specification.

SEPTEMBER 25.—**Adwick-le-Street.**—STEEL ROOF.—Supplying and erecting of a steel-framed roof in two spans, about 100 ft. × 40 ft. each, in connection with the Council's storage reservoir, also the necessary steel stanchions, gutters, &c., for the U.D.C. Mr. George Gledhill, Surveyor, Council Offices, Adwick-le-Street, near Doncaster. Deposit £2.

SEPTEMBER 25.—**Dublin.**—PUMP.—For one pumping unit (oil engine and centrifugal pump), for the T.C. City Engineer, 28, Castle-street, Dublin, and Mr. J. S. Aflord, M.Inst.C.E., 11, Victoria-street, Westminster, London, S.W.1. Deposit £2 2s.

SEPTEMBER 27.—**Chelsfield.**—RESERVOIR.—Construction of covered service reservoir at Chelsfield, Kent, for the Metropolitan Water Board. Mr. H. E. Stilgoe, Chief Engineer, 173, Rosebery-avenue, E.C. Deposit £10.

SEPTEMBER 27.—**Chile.**—PORT IMPROVEMENT.—Improvement of the Harbour of Constitucion, for the Chilean Government. Chilean Legation, 22, Grosvenor square, W.1.

SEPTEMBER 29.—**Sankey.**—BRIDGE.—For the reconstruction of Barnes Bridge, in the township of Sankey, on the Liverpool and Manchester main road, for the ancashire C.C. County Surveyor and Bridge Master, County Offices, Preston.

OCTOBER 1.—**Egypt.**—STEAM LAUNCHES.—For three 40 ft. steam launches, for Ministry of Public Works, Egypt. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Westminster, S.W.1.

OCTOBER 9.—**Toronto.**—Alternating current generator, for T.C. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

OCTOBER 24.—**Australia.**—BRIDGE.—Construction of bridge for Country Roads Board, Victoria. Agent-General for Victoria (Australia), Melbourne-place, Strand, W.C.2. Preliminary deposit £500.

OCTOBER 31.—**Australia.**—ELECTRIC CRANES.—Supply and erection at Port Adelaide of four 7-ton electric coal-handling cranes, for the South Australian Harbours Board. Agent-General for South Australia, Australia House, Strand, W.C.2.

NOVEMBER 1.—**Siam.**—BRIDGES.—Supply of superstructures of steel railway bridges to Siam State Railways. Messrs. C. P. Sandberg, 40, Grosvenor-gardens, S.W. 1. Charge 28s.

NOVEMBER 30.—**Sydney.**—BRIDGE.—Construction of the superstructure and substructure of a cantilever bridge across Sydney Harbour; also an alternative tender for the construction of the superstructure and substructure of an arch bridge across Sydney Harbour. Agent-General for New South Wales, Australia House, Strand, W.C.

DECEMBER 3.—**Sydney.**—High tension switchgear for Municipal Council. Department of Overseas Trade (Room 52), 35, Old Queen-street, S.W.1.

NO DATE.—**Ammanford.**—DRIVAGE.—For driving two cross measure drifts at the Gellyceidrim Collieries from the surface to the Middle and Lower Tyllwyd veins. Intake drift dipping 12 in. per yd., and will be 422 yds. in length and 7 ft. high and 10 ft. wide. Return drift dipping 18 in. per yd. and 262 yds. in length, and dimensions 9 ft. wide and 6 ft. high. Drills and compressed air supplied by Company. Secretary, Gellyceidrim Coal Co., Central Offices, Ammanford.

NO DATE.—**Wibsey.**—WIRING.—For wiring, &c., Club Premises, Wibsey. Mr. Jackson, architect, Sunbridge-road, Wibsey.

ROAD, SANITARY, AND WATER WORKS.

SEPTEMBER 10.—**Barnes.**—STREETS.—For private street works, for the U.D.C. Closing date extended to September 10. Mr. G. Bruce Tomes, A.M.I.C.E., Surveyor, Council House, High-st., Mortlake, S.W.14

SEPTEMBER 10.—**Blofield.**—SEWER.—About 3½ miles of 6 in., 7 in., and 9 in. sewer, a pumping station, and 1,100 yards of 8 in. cast iron rising main, at Thorpe Saint Andrew, for the R.D.C. Office of the Rural District Council, 17, Prince of Wales-road, Norwich, or Messrs. Martin & Roberts, MM.Inst.C.E., 44, St George's-square, Westminster, S.W. Deposit £3 3s.

SEPTEMBER 10.—**Manchester.**—STREET WORKS.—For sewering, draining, flagging, paving, &c., various streets, for the T.C. Paving, &c., Department (District Surveyor's Office), Town Hall, Manchester. Deposit £1 1s.

SEPTEMBER 10.—**Torquay.**—ROAD.—For road widening and wood-paving works, Torbay-road, Torquay, for the T.C. Mr. Henry A. Garrett, A.M.I.C.E., Borough Engineer. Deposit £2 2s.

SEPTEMBER 10.—**Wombwell.**—ROADS.—Reconstruction, widening and improvement of part of Barnsley-road, for the U.D.C. Mr. W. Quest, Surveyor, Town Hall, Wombwell. Deposit £2 2s.

SEPTEMBER 11.—**Egham.**—ROADS.—For making up Park and South-avenues, Egham Hythe, for the U.D.C. Mr. G. W. Booth, Surveyor, Council Offices, Egham. Deposit £9.

SEPTEMBER 11.—**Leeds.**—ROADS.—(*a*) Paving, concreting, &c., of portion of highways in Town-street, Stanningley, Wellington-road, and St. Junction; (*b*) paving, concreting, &c., of a portion of tramway track in Headingley lane; (*c*) reinstating of trench openings in the city for a period of six months (paviors' and masons' work), for the T.C. Mr. J. B. Hamilton, General and Commercial Manager, 1, Swinegate, Leeds. Deposit £1 1s.——Kerbing, macadamising and laying of tar-paved footpaths in a number of streets on the Meanwood Harehills lane, Middleton and Wyther House Housing Estate, for the T.C. Highways and Permanent Way Department, 1, Swinegate, Leeds. Deposit £1 1s.

SEPTEMBER 12.—**Buxton.**—DRAINAGE.—For reconstruction of drainage, and alteration of sanitary conveniences in connection with 18 houses, for the T.C. Mr. Wm. Owen Coates, Sanitary Inspector, Town Hall, Buxton.

SEPTEMBER 12.—**Middleton.**—ROADS.—For making up and completing six streets. Borough Engineer and Surveyor, Town Hall, Middleton, Lancashire.

SEPTEMBER 12.—**Middleton.**—SEWER.—Reconstructing (*a*) the joint Middleton-Chadderton sewer, and (*b*) the Middleton branch sewer. Unemployment Relief Works, for the T.C. Borough Engineer, Town Hall, Middleton, Lancashire.

SEPTEMBER 12.—**Morley.**—STREETS AND SEWERS.—For street forming and sewering of Middleton-road for the T.C. Mr. F. Turner, B.Sc., A.M.I.C.E., Borough Engineer and Surveyor. Deposit £1 1s.

SEPTEMBER 13.—**Greenwich.**—ROAD AND SEWER.—Road and sewer works on Charlton Housing Estate for the Borough Council. Borough Engineer, Town Hall, Greenwich, S.E.10.

SEPTEMBER 14.—**Stockport.**—SEWAGE WORKS.—For manual and team labour and materials in the construction of precipitation tanks, &c., at Stockport Sewage Works, Cheadle Heath (Unemployment Relief Works), for the T.C. Mr. Herbert Hamer, A.M.Inst.C.E., Borough Surveyor, Town Hall, Stockport. Deposit £5 5s.

SEPTEMBER 14.—**Ushaw Moor.**—STREETS.—Making up of private streets and construction of surface-water drains, for the Durham R.D.C. Mr. Geo. Gregson, Surveyor of the Council, 38, Saddler-street, Durham. Deposit £2.

SEPTEMBER 15.—**Bedwas.**—SEWERS.—For constructing, for the Bedwas and Machen U.D.C., subsidiary sewers at Bedwas, Machen and Maesycwmmer, work to include providing and laying of stoneware pipes with manholes, and all incidental work. The work will be in three separate contracts. Mr. A. S. V. Taylor, Queen's Chambers, Orchard-street, Neath. Deposit £2 2s.

SEPTEMBER 15.—**Halifax.**—SEWER.—For laying about 218 yds. of 18 in. earthenware pipe sewer in Queen's-road, Halifax, for the T.C. Borough Engineer, Crossley-street, Halifax. Deposit £2 2s.

SEPTEMBER 15.—**Wem.**—ROADS.—For resurfacing 800 yds. of road in tarred slag, for the U.D.C. Mr. F. Hill, Surveyor, Town Hall, Wem.

SEPTEMBER 15.—**Westhampnett.**—BRIDGE.—For reconstruction in ferro-concrete of small bridge over the Aldingbourne Rife, near Gas Works at South Berstead, for the R.D.C. Surveyor of Highways, Council Offices, Pallant House, Chichester. Deposit £2 2s.

SEPTEMBER 17.—**Birmingham.**—SEWER.—Construction of about 2,200 yds. of stoneware pipe sewer for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

SEPTEMBER 17.—**Hendon.**—ROADS.—Widening and improvement of Queen's-road, for the U.D.C. Mr. A. C. Knight, Surveyor, Town Hall, Hendon, N.W. Deposit £3 3s.

SEPTEMBER 17.—**Rochdale.**—ASPHALTE WORK.—For granited rock asphalte work required at the planade, Rochdale, for the T.C. Borough Surveyor, wn Hall, Rochdale.

SEPTEMBER 19.—**Greenock.**—ROADS.—Extension of rnhaddock-street, a distance of about 900 yds., h sewers, for the T.C. Office of Public Works, nicipal Buildings, Greenock. Deposit £1 1s.

SEPTEMBER 19.—**Rugby.**—ROADS AND SEWERS.—admaking, sewering, &c., in connection with the lmorton Estate, for the Rugby Benefit Building iety. Mr. C. J. Newman, Lic.R.I.B.A., M.S.A., ert-street, Rugby. Deposit £2 2s.

SEPTEMBER 19.—**Southport.**—ROAD.—For levelling, ving, metalling, and making good Mossgiel-avenue, sdale, for the T.C. Mr. A. E. Jackson, M.I.C.E., rough Engineer, Town Hall, Southport. Deposit 2s.

SEPTEMBER 20.—**Gateshead.**—ROADS.—For paving k Wilson-terrace, Low Fell, and Jane Eyre-terrace, the T.C. Mr. N. L. Pattinson, Borough Engineer, wn Hall, Gateshead.

SEPTEMBER 21.—**Bognor.**—ROADS.—For making up ssett-road, for the U.D.C. Mr. A. O. Bridge, Sur- or, Bognor.

SEPTEMBER 24.—**Blaenavon (Mon).**—FERRO-CONCRETE WORKS.—For construction for the Blaenavon D.C. of a ferro-concrete lining to the existing No. 4 servoir, comprising about 6,000 square yards of nforced concrete. Messrs. Thomas & Morgan & rtners, architects, Gelliwasted-road, Pontypridd. posit £5 5s.

SEPTEMBER 24.—**Kensington.**—SEWER WORKS.—r the construction of a number of manholes, together h incidental means of ventilation, for the Royal rough. Borough Engineer and Surveyor, Town ll, Kensington, W.8. Deposit £1 1s.

SEPTEMBER 28.—**Hemsworth.**—SEWAGE WORKS.—tensions of Kinsley Sewage Disposal Works, includ- storm tank, percolating filter, sludge beds, humus nks, engine-house, pump well, &c., for the U.D.C. W. T. Lynam, A.M.I.C.E., Engineer and Surveyor, msworth. Deposit £2 2s.

SEPTEMBER 29.—**Sankey.**—BRIDGE.—Reconstruction Barnes Bridge, Sankey, for the Lancashire C.C. ices of the County Surveyor and Bridge Master, unty Offices, Preston.

OCTOBER 1.—**Beckenham.**—ROAD WIDENING.—r the widening of a portion of Bromley-road, for the D.C. Mr. John A. Angell, Surveyor, Council Offices, ckenham. Deposit £2.

NO DATE.—**Cottingham.**—STREET.—For making new eet at Cottingham. Messrs. Watson & Ritson, chitects, Mercantile Chambers, Market-place, Hull.

NO DATE.—**Durham.**—STREET WORKS AND DRAINS The R.D.C. invite tenders for the making-up of vate streets and the construction of surface-water ins, at Ushaw Moor.

NO DATE.—**Gellyceidrim.**—DRIFTS.—For driving o cross measure drifts at Gellyceidrim Collieries. ills and compressed air provided. Central Offices, rydall, Amm nford.

NO DATE.—**Slaithwaite.**—ROAD.—For concreting, ving, kerbing, &c., of a portion of the Wakefield and sterlands main road, for the Slaithwaite U.D.C. . Edgar Freeman, Town Hall, Slaithwaite.

Competitions.

(*See Competition News, page* 356.)

Auction Sales, Tenders, etc.

SEPTEMBER 11.—**Near Eye, Suffolk.**—Messrs. yard & Yates, F.A.I., will sell building materials fittings arising from demolition of "Oakley Hall." ctioneers, 365, Norwood-road, S.E.27.

SEPTEMBER 13.—**London, S.E.**—Messrs. Veryard Yates, F.A.I., will sell, without reserve, at 126, wood-road, building plant and materials. Auc- eers, 365, Norwood-road, S.E.27.

SEPTEMBER 13.—**Maidenhead, Berks.**—Messrs. rles R. Davis & Co. will sell by order of the Trustee whole of the stock-in-trade, plant and machinery builder and decorator, at the premises, No. 91, g-street, at 11.30 a.m. Auctioneers, 285, Borough h-street, S.E.1.

SEPTEMBER 20.—**Canning Town.**—Messrs. Joseph bard & Sons will sell without reserve, by order of rs. W. W. Howard Bros. & Co., hardwoods and ish timber upon the premises, Crown Wharf, ing Town, at 11 o'clock. Auctioneers, 15, ington-green, Islington, N.16.

SEPTEMBER 25.—**London, E.C.**—Messrs. Rutley, & Gurney will sell, *re* J. R. Chalmers, deceased, 5, Queen Victoria-street, building land plots at eigh Park (frontages 117 ft.), Friern Barnet t.), Herne Bay (120 ft.), Harrietsham (70 ft.), Kent (80 ft.), Denton, Newhaven (50 ft.), Lee-on- t (60 ft.). Auctioneers, 6, George-street, Euston- N.W.1.

OCTOBER 4 AND 5.—**Longfield and Swanley, Kent.**—s. C. C. & T. Moore will sell, at the London on Mart, by order of executors of the late Mr. Hickmott (the elder), 40 acres of land with frontage rtford and Meopham road, Longfield; 16¼ acres d, with frontages to London-road and Swanley- Swanley. Auctioneers, 7, Leadenhall-street,

Public Appointments.

TEMBER 15.—**Rodbaston.**—Clerk of Works ed by Staffordshire Education Committee to ise erection of dairy at County Farm Institute, ston, near Penkridge. Mr. Graham Balfour, or of Education, County Education Offices, d.

EPTEMBER 19.—**Birkenhead.**—Architectural ant required in the Borough Engineer and yor's Office, by the Corporation. Mr. Chas. ridge, M.I.C.E., Borough Engineer and Surveyor, Hall, Birkenhead.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERDARE.—The extension of the Aberaman, Aberdare, generating station of the Powell Duffryn Coal Co. is to be undertaken, which will involve considerable building work. Plant, however, has already been ordered.

ABERGELE.—Plans passed by the U.D.C.: House for the Countess of Dundonald.

ACCRINGTON.—The possibility of utilising more fully the river water from the weir at the Old Corn Mill, Accrington, for the electricity undertaking, is to be reported on by the Borough Engineer (Mr. Newton) and the Electrical Engineer (Mr. Clegg). The Employment Exchange having proved too small, the former post office building in the Church-street Arcade has been taken over.

AMPTHILL.—Plans passed by the U.D.C.: Extension of the Cottage Hospital.

AMMANFORD.—In order to facilitate water supply, the U.D.C. has decided to lay additional 9-in. mains at estimated cost £4,400. The Council is also considering the supply to the Cwmamman district which would involve considerable main laying.

AMPTHILL.—Plan passed by the U.D.C.: New buildings at 17, Church-street, for Mr. F. Nott.—Plans passed by R.D.C.: House, Holt Estate, Aspley Guise, for Mrs. Lloyd; two houses, near recreation ground, Flitwick, for Mr. C. E. Shrives; house, Station-road, Aspley Guise, for Mr. E. H. D. Image; house, Marston Caulcott, for Mr. Harry Roberts; two houses and workshop, Ampthill-road, Maulden, for Mr. W. H. Taylor.

BANBURY.—Plans passed by the R.D.C.: House at Adderbury East, for Mr. C. P. Stanton; implement shed at Mollington for Banbury Co-operative Society, Ltd.

BARKING.—Among the schemes put forward by the U.D.C. for relief of unemployment is the extension of Barking Park lake, at an estimated cost of £10,000 to £12,000.

BEDWELLTY.—The U.D.C. has applied for £10,000 loan for an electricity scheme and has instructed the surveyor to press on for an additional 12 houses to be erected on the Pengam and Blackwood sites.

BILSBORROW.—The late Miss Salesbury, of Myerscough Hall, has bequeathed £20,000 for building and endowing a new church and the formation of a new parish. A local committee has been formed to meet a Bishop's Committee at the Parish Church Vestry, Preston, to recommend that the bequest be gratefully accepted.

BINGLEY.—Plans passed by the U.D.C.: Extension of garage at Crow Nest, for Mr. J. B. Lister; three temporary garages, Priesthorpe-lane, for Mr. J. B. Lister; garage at Harecrofts, for Mr. E. Firth; garage, Birchen Lea Farm, Wilsden, for Messrs. H. Drake & Son; butcher's wooden shop, Main-street, Bingley, for Mr. F. W. Mountain; house and shop, Keighley-road, Crossflats, for Mr. C. Noble; bungalow, Beckfoot-lane, for Mr. James Earnshaw; dwelling-house, Park-avenue, Bingley, for Mr. F. Johnson; amended plan for two villas, Park-road, Bingley, for Messrs. D. Wildman & Son; pair of semi-detached villas, Slenington-road, Crossflats, for Mr. F. Weatherhead; conversion of house into offices, and additions, in Bradley-street, Bingley, for Messrs. J. H. Beaver, Ltd.; garage and shed, Lime-street, Bingley, for Messrs. Wilkinson & Whitley, Ltd.; garage and shop, Fernbank-drive, for Mr. I. Dawson.

BIRKENHEAD.—Plans approved by the T.C.: Amended plan for the erection of a music and dancing hall above the garage and showroom in Park-road, north, opposite the Birkenhead Park entrance; erection of dwelling-house, north side of Ashburton-road; erection of garage, 12, Beech-road; addition in the rear of 45, Devonshire-road; addition at side of 15, Rock-park; erection of five houses, west side of Palmgrove; erection of temporary building to be used as an aviary in rear of 16, Keightley-street; erection of temporary building to be used as a smithy, adjoining the Albert Memorial Schools; erection of temporary building to be used as a dwelling-house on Small Holding No. 1b; erection of temporary cycle shed, No. 71, Cavendish-drive; erection of lock-up garages, 56, Whetstone-lane; erection of tennis pavilion, Egerton-park; erection of lecture hall, north side of Whetstone-lane, in connection with Beechcroft Settlement.—The lay-out plan for the town's war memorial has been approved on a site opposite the Town Hall.

BIRSTALL.—Plans passed:—Motor garage at Belle Vue House, Nab-lane, for Mr. J. Akeroyd.

BLACKPOOL.—Plans passed by the T.C.: D. D. Hough, two houses, Bournemouth-road; Whiteside & Threlfall, two houses, Layton-lane; Hargreaves & Emery, 12 houses, Squire's-gate-lane; T. Brierley two houses, Bispham-road; R. Leach, two houses, Boscombe-road; G. Slater, 14 houses, Bispham-road; T. Hill, two houses, St. Anne's-road; R. Brotherton & Sons, two houses, Central-drive; C. Barkham, bungalow, Pedder's-lane; W. J. Rushworth, four houses, Westmorland-avenue; Miss Nicholl, bungalow, Central-drive; P. Rounds, four houses, Liverpool-road; J. England & Sons, two houses, Bank-avenue, Bispham; J. W. Docking, bungalow, Bispham-road; G. Francis, six houses, Bournemouth-road; Ormerod & Ogden, five houses, Romney-avenue; Suthers, Wilson & Randall, bungalow, Osbourne-road; Suthers, Wilson & Randall, bungalow, Balmoral-road; J. & J. Senior, two houses, King Edward-avenue; H. T. Martin, house, South-avenue; J. A. Hayhurst, house, Boscombe-road; Wright & Fitton, two houses, Birchall-avenue; R. Taylor, two houses, Frederick-street; J. Taylor, four houses, Leamington-road; H. Riley, four houses, Central-drive; Dickinson & Sainter, two houses, Gosport-road; C. W. Norris, 22 houses, Ord-avenue; Barlow & Midgley, two bungalows, Abbeyville; J. Hodgkinson, three houses, Durley-road; J. C. Jenning, bungalow, Bispham-road; Miss Armitage, house, Kingston-avenue; W. Marsden, three houses, Warley and Lichfield-roads; Parker & Allen, four houses, Salisbury-avenue; W. Briggs, two houses, Highfield-road; E. Mazurk, five houses, Fir-grove; M. Dickinson, two houses, Whitegate-drive; A. J. Lomax, house, Fleetwood-road; Parker & Allen, house, Keswick-road; J. Foster, two houses, Boscombe-road; S. Thomas, two houses, Newton-drive; J. Foster, three houses, Abbey-road; A. Hindle, house, Argyll-road.——Plans for 100 houses to be erected off Devonshire-road, North Shore, for the B.C., have been approved and tenders are to be obtained.

BOLTON.—Plans approved by T.C.: Mr. Brownlow, bay window, 640, Tonge Moor-road; J. H. Clayton, attic, 31, Devonshire-road; W. H. Pilling & Sons, petrol pump and tank, Maple-street; H. Whitehurst & Sons, petrol pump and tank, Crown-street; Francis H. Buckle, bungalow, Withins-lane; William Ingham, scullery, 167, Settle-street; John Stewart, wooden garage, off Bayley-street; George Mercer, extension to premises, 81, Radcliffe-road; T. R. Bridson & Sons, Ltd., cart shed, Bolton bleachworks; Rawsthorne & Co., wooden garage, Lark-street; Cooper & Cooper, additions to offices, 10–12, Bowkers-row; G. M. & T. D. Tyson, amended plan, outbuildings, 36–38, Green-lane; John Davies, wooden motor shed, Punch-street; Stewarts Clothiers, Ltd., alterations, &c., 80, Deansgate; George Proffitt, additions, &c., 9, Burlington-street; Bolton Church Institute, cloak rooms, &c., Institute-street; London Joint City and Midland Bank, alterations, &c., 232, Chorley Old-road; A. Bromiley & Co., Ltd., mechanics' shop, Folds-mill, Turner-bridge; Corporation Gas Committee, covering to coal hoppers, Gas-street; James Hodkinson, petrol tank and pump, 40, Bridgman-street; A. Douglas, house, Sherbourne-road; John Archer, four houses, off Colenso-road; Norman S. Kemp, amended plan for addition to house, 252, St. Helens-road; W. W. Pickup, four houses, Constance-road; Thos. Cross & Co., Ltd., canteen and pavilion, Avenue-street; Thos. Collinson & Son, Ltd., alterations, &c., Knowsley-street; William Hall, wooden motor shed, John-street. Plans approved conditionally: E. Roocroft, wooden garage, 112, Lonsdale-road; Walter Taylor, wooden store shed, 60, Albert-road west; J. Urmston, portable wooden shed, 416, Bury-road; H. Seymour, extension to wooden shed, 42, Bradford-street; Mr. Morton, wood and glass shed, 26, St. Augustine-street; E. Claydon, wooden sheds, 641, St. Helens-road; F. Wilcocks, wood and glass shed, 24, Church-avenue; T. H. Boothman, wood and glass shed, 18, Silverdale-road; Thos. A. Shippobottom, wood and glass shed, 28, Church-avenue. Plans of the following houses to be subsidised have been approved: Mr. John Archer, eight houses; Mr. Joseph Uttley, 16 houses; Messrs. E. & S. Street, two houses; Mr. A. S. Woods, two houses; Messrs. Horrocks & Andrews, three houses Mr. T. H. Cartwright, 24 houses.

BOURNE.—The R.D.C. has received a letter from the Ministry of Health offering no objection to the proposal of the Council to build cottages under the Housing Scheme at Corby, Market Deeping, Deeping St. James, and Rippingale; and, subject to satisfactory tenders being received, they are prepared to recognise the houses as eligible for financial assistance under the Act.

BRADFORD.—The lay-out plans of 380 houses at Heights-lane, which are to be erected by private enterprise, have been approved. Owing to the contemplated improvement at the junction of Manchester-road and Horton-lane, a site is now being sought by the Leeds Permanent Benefit Building Society, whereon to erect new premises along Horton-lane. Messrs. A. & F. Mosleys, Wormald-row, Leeds, are the architects.

BRAINTREE.—Towards the total cost of £39,608 for resurfacing a number of roads, the R.D.C. has received a grant of £29,706.

BREDBURY.—The Hyde and District Co-operative Laundries' Association, of Russell-street, Hyde, have purchased a large building and land adjoining formerly in the occupation of Messrs. Henry Simons, Ltd. The building is 214 ft. long by 45 ft. wide and there is a corrugated iron garage 51 ft. by 25 ft. It will be necessary before they enter into occupation to build a chimney, boiler house, engine house and mechanics' shop, and install a dry-cleaning process. The association propose to transfer their whole business at Hyde later, and dispose of these premises, which, it has been suggested, would be very suitable for a cinema.

BRIDLINGTON.—A number of improvements on the sea front at Bridlington are in contemplation. It has been proposed to build two sea walls along the south side of the Spa and on the north side of the town. At present the sea wall roadway in front of Sands Cottage Estate is being widened as a government-assisted unemployment scheme, to a width of 80 ft. When a new sea wall is erected in front of it, the roadway will be widened to 100 ft. The improvements are to cost between £150,000 and £180,000.

BRIGHTON.—The T.C. has received a report from Professor Adshead embodying suggestions regarding the Aquarium site, in which he advocates a scheme

* See also our List of Contracts, Competitions, etc.

which will link up other features in the environment —the covered promenade on the Madeira-drive, and the widening of the road round the property must form part of the plan. He proposes a concert hall to hold 1,500 people, in semi-circular form, with a wide promenade, the orchestra being placed in an alcove. On the promenade section, refreshments would be provided. At the western end of the site, the scheme provides for a sea water swimming bath, offices and a terrace garden. The scheme, which could be carried out in sections, is being considered by a Special Committee of the Corporation.

BUILTH WELLS.—The Council is to consider reconcreting, at estimated cost £2,000, of bottom of Ty Capel Reservoir, which is reported to badly require such work.

BURNHAM (ESSEX).—Plans passed by the U.D.C.: Bungalow, in Ship-road, for Mr. F. J. Handley; pair of cottages in Princes-road, for Mr. E. Read, jun., and alterations to house in Mill-road, for Mr. Slaughter.

BURNLEY.—Plans passed by T.C.: Shop front at No. 1, Doris-street, Mr. Croston; water tower at Calder Vale Mill, The Calder Vale Room & Power Co., Ltd.; house at Pasture Gate, Mr. T. H. Grey; alterations at Fulledge Conservative Club, Plumbe-street, Messrs. Vowles & Johnson; two houses in Moseley Hill-road, Mr. J. Nuttall; additions to "The Grange," Marsden-road, Mr. J. Stuttard; office in Colne-road, The Burnley Building Society, Ltd.; doorway at garage in Queen-street, Messrs. Lupton & Place; alterations at 418 and 420, Colne-road, Mrs. Fennell; shop front at 138, Padiham-road, Mr. J. O. Smith; washhouse at 14, Carlton-road, Mrs. Dawson; shop front at 130, Abel-street, Messrs. W & M. Rooke; two houses in Queen's-road, Messrs. Butson, Clegg & Holdsworth; shop front at 165 and 167, Padiham-road, Mr. James Binney; additions to Victoria Hospital; eight houses in Marsden-road, Mr. W. Taylor; branch library in Colne-road, the Public Library Committee. Subsidies approved for the following: Butson, Clegg & Holdsworth, two houses in Queen's-road; Mr. W. Taylor, eight houses in Marsden-road; Mr. F. Thornton, six houses in Marsden-road.——The Electricity Committee have decided to approach Accrington Corporation concerning an electricity main between Accrington and Burnley, which will enable either authority to supply the other in case of need. There is also a scheme for the laying of an electricity main in the Rosegrove district. These schemes will probably involve an expenditure of about £60,000.— —Mr. C. Thornber has left £5,000 to the Victoria Hospital, for the erection of a new operating theatre.

CARLISLE.—Plans approved by the Health Committee: Bungalow, Burgh-road, for Mr. J. Ainsworth; rebuilding premises, 23, Botchergate, for Messrs. Fisher & Sons; two houses, Bedford-row, for Messrs. Lovett & Nichol; business premises, Scotch-street, for Mr. W. Smith; factory additions, Lorne-crescent, for Messrs. Morton's London Fabrics, Ltd.; bungalow, Goodman-terrace, for Mr. J. P. Tanner; three houses, Upperby-road, for Mr. E. Musgrave; garage, Duke-street, for County Garage Co., Ltd.; alterations, Botchergate premises, for Messrs. Harrison & Son.

CARSHALTON.—The local Council has decided to erect a pavilion on the Stafford-road Recreation Ground, at a cost of £700.

CASTLEFORD.—Plans passed:—Drill hall and miniature range in Eastfield-lane, for the 5th K.O.Y.L.I.; conversion of room into shop in Vicker-street, for Mr. Fawcett; alterations and additions to the Star Cinema in Aire-street; two houses in Smawthorne-lane, for Mr. A. Keech; alterations to No. 1, Medley-street, for Mrs. Thomas; and four cottages and shop in Charles-street, for Mr. Sainter. The Surveyor has been instructed to prepare a scheme for the improvement of the ventilation to the shops of the butchering department in the covered market.

CHEADLE.—An effort is being made to obtain funds to defray the cost of lighting the parish church throughout by electricity.

CHEPSTOW.—The U.D.C. has received sanction of Ministry of Health, as result of recent public inquiry, to Caldicott sewerage scheme, estimate £4,500, of which grant has been promised to extent of £3,000, subject to a direct pump for lifting being used instead of ejectors. The Council has decided to advertise for tenders for the work. The Council is considering the widening of Blackrock-road, Portskewett.

CHELMSFORD.—The T.C. has received sanction to loans of £4,394 for the purchase of land for the construction of a road, and £650 for public lighting works.

CHORLEY.—The scheme for extensions at the main sewage works at Common Bank has been forwarded to the Ministry of Health, and an inquiry is to be held.

CLITHEROE.—Arrangements have now been completed for letting 9½ acres of land in Pendle-road, Clitheroe, as a site for the erection of houses. The land, which is 336 ft. above sea level, is the property of the Corporation; and the lay-out, which has been approved by the Ministry of Health, provides for sixty semi-detached and detached houses. The site is to be divided into plots of 900 and 600 square yards, for which annual rents of £6 10s. and £5 respectively will be charged. These amounts, however, include all road and street-making, sewering and law charges, and the laying of gas and water. The idea is to develop the land on garden city lines, and the plans of all houses will have to be submitted to the Corporation for approval. No house of a less annual value than £20 will be permitted.

COLNE.—It has been decided to erect a combined post office and telephone exchange to replace the present premises.

CROYDON.—The question of repairing the pinnacles of the parish church has been considered by the Parochial Church Council, who have been obtaining expert opinion on the causes of decay in stone.

CUCKFIELD.—A report submitted by the architect, Mr. P. M. Johnston, recommends extensive repairs to the roof of the parish church, which is to be covered with Horsham stone. The repair of the south side is estimated to cost £600, while the north side will cost more.

DARWEN.—The Corporation are applying for powers to purchase land and premises for widening and improving Market-street, Green-street, Arch-street, School street, and Union-street.

DOVER.—The T.C. has accepted an offer by Major Astor, M.P., to build an adult dental clinic, on a site to be provided by the town.

DUBLIN.—Plans passed: Premises, 8, Prussia-street, for Miss M. Norton; garage, Arran-quay, rear Presbytery, for the Very Rev. E. McCarthy, P.P.; workshop, rear 11, Wicklow-street, for Messrs. Tanner, Squire & Byrne; drainage, Botanic-road, tobacco factory, for Messrs. John Player & Sons; factory, 61–64, Jervis-street and 15–17, Abbey-street Upper, for Messrs. S. Robinson & Sons; shops, dwellings and cattle sheds, 28–29, Brunswick-street North, for Mr. M. Greene; garage, Blessington-street, for Mr. T. Brogan; alterations, 53, Amiens-street, for Mr. J. Cross; reconstruction of premises, 32, Kevin-street Upper, for Mr. M. Held; rebuilding 33–34, Westmoreland-street, for Messrs. Isaacs; alterations, Red Bank Restaurant, D'Olier-street; alterations, 23, Nassau-street, for Mr. J. V. Bradley; new story, 20, Talbot-street, for Mr. T. Dunne.

DUNDEE.—Plans passed by T.C.: Albert-street, additions to house, for Dr. W. E. A. Buchanan; Ancrum-road, house, for John Cree; Anstruther-road, garage, for D. B. Ruthven; Blackness-road, garage, for Johnston & Baxter; Blackness-road, shed, &c., for Dr. J. Valentine and Mrs. R. H. Dobson; Blackness-road and Glamis-road, house and garage, for A. M. Burns; Kemback-street, additions, for Caledon Shipbuilding and Engineering Co., Ltd.; Kingsway, shed, for A. S. McCann; Loons-road, shed, for George Langlands; Mains-loan, additions to piggery, for Dundee Combination Parish Council; Meadowside, alterations, for Royal Exchange Assurance Corporation; Shepherd's-loan, alterations, for George Bathie; Strathmartine-road, additions, for A. E. Murray; Strips of Craigie-road, garage, &c., for Godfrey Shepherd; West Milne's-wynd, additions, for the Victoria Spinning Co., Ltd.

EASTRY.—Plans passed by the R.D.C.: Bungalow, Preston-hill, for Mr. R. W. Maxted; two cottages, at Cherry-lane, Great Mongeham, for Mr. Williamson; drainage alterations, for Mr. H. E. H. Rice, North Court, Tilmanstone; and for the Rev. H. G. South, Eastry Vicarage.

EAST PRESTON.—The B.G. has accepted the tender of Paine & Mainwaring, of Worthing, at £253, for installing a low-pressure hot water apparatus in the board room block.

EDLINGTON.—The Industrial Housing Association are to build another 64 houses, which are the forerunner of another 300 in which to house the colliery company's workmen. It is estimated that 700 houses will be erected by the company during the next two years.

EPSOM.—The R.D.C. has offered Cobham builders £75 per house towards new houses complying with the Government regulations, and loans on mortgage.

FAREHAM.—The B.G. have appointed a sub-committee to consider the provision of additional accommodation for the nurses at the workhouse, at an estimated cost of £2,000.

FELTHAM.—A scheme to develop some 220 acres of land at Feltham, forming part of the security of the Debenture holders of Whitehead Aircraft (1917), Ltd., has received the sanction of the Court. It is proposed to create a garden suburb, consisting of 1,800 houses (eight to the acre), thirty shops, six public buildings, open spaces, and factory accommodation. A small company will be formed for the purpose, with Sir Ernest Hatch as chairman. Mr. Charles Cuzman, managing director, explaining the scheme to a Press representative, said it was proposed to build 500 houses at £500 each, 500 at £630 each, 200 at £750 each, 200 at £800 each, and 400 others, ranging from £900 to £1,250 each. The £500 houses will have three bedrooms, parlour, sitting-room, kitchen, and bath-room. The site is within twenty-five minutes of Waterloo.

GREENOCK.—The Corporation at a special meeting fixed contracts for the erection of ten tenements on four different sites, the total number of houses being 60.

GOSPORT.—The T.C. has appointed a sub-committee to confer with a committee of Portsmouth T.C. in regard to the proposed purchase of the Floating Bridge undertaking by the two councils.

HACKNEY.—The B.G. has received sanction to borrow £29,750 for the construction of a new laundry, coal bunker, and other works, at Homerton.

HARTLEPOOL.—The Board of Guardians has instructed its architect to prepare a scheme to provide dormitory accommodation for 20 or more nurses, at a cost not exceeding £5,000.

HASLEMERE.—It is proposed to hold a conference of Haslemere, Shottermill, Fernhurst and Linchmere Councils to discuss a main drainage scheme to meet the needs of the district.

HAVANT.—Plans approved by the U.D.C.: New pumping station in Brockhampton-road, for the Portsmouth Water Works Co.

HAVERFORDWEST.—Plan passed by T.C.: House in Reservoir Fields, for Mr. T. N. Carter.—The T.C. is to invite tenders for painting and repairing of houses in Stepney-terrace.—The T.C. has requested the County Council to co-operate in road work from bottom of Merlin's hill to Borough boundary, restoration, and the tar-macadaming of Merlin's-hill; and has requested Perrott Charities to lay down pavement in certain roadways.

HEMSWORTH.—Plans passed:—42 houses for the Hemsworth, Featherstone and South Kirby Collieries Ltd.

HORSHAM.—The West Sussex C.C. has agreed to advance £3,000 required by the Governors of the Horsham Grammar School for purchasing and adapting the old Cottage Hospital premises as a school hostel.

ILFORD.—The U.D.C. has prepared a scheme for the erection of a maternity home, at a cost of £21,000.

ISLE OF WIGHT.—Over 50 acres of the estate of the late Lord Alverstone is being developed as a garden village.

KIDWELLY.—Rumsey House has been acquired at cost of £1,525 by Capel Sul Independent Chu Trustees, and is to be converted into a church.

KIRKBURTON.—A scheme for new church scho to cost £7,500, has been approved by the local chu authorities.

LANCASTER.—Plans passed by the R.D.C.: Hest Be house on the Hatlex estate, for Mr. H. W. Hargrea Heaton-with-Oxcliffe, two cottages at White Lt for Mr. Gorst; two bungalows at White Lund, Messrs. Hall & Procter: bungalow for Mr. Mor Scotforth; bungalow, Hala-road, for Mr. Simps Slyne-with-Hest, two semi-detached houses, for M White and Mr. Turner; Warton-with-Lindeth, bungalows, for Miss Barker.

LEEDS.—At its next meeting the T.C. will be as to sanction the erection of a new golf club hous Templenewsam, at an estimated cost of £8,500.

LIMEHURST.—Limehurst D.C. passed a resolu authorising the surveyor, Mr. R. Thompson, to ad tise for competitive plans and tenders for the construction of a new bridge in reinforced concrete, masc or brickwork. It was suggested that the new br should have a carriage-way of 24 ft. with footpath 4 ft. and 1 ft., and parapets 4½ ft. in height. bridge should also be so constructed as to carr weight of 30 tons.

LITTLEBOROUGH.—Electric light is to be insta throughout at Littleborough Conservative Club, the work is expected to begin soon.

LITTLE LEVER.—The U.D.C. propose to erect houses of the "A" type. Mr. Roscoe, builder, Le street, proposes to erect four houses in Tonge-r 16 houses in Victory-road, and 14 houses off Vict road.

LLANDYSSUL.—The R.D.C. has passed plans follows: Bungalow at Tresanth, for Mr. Thor Bronllwyn; new hall for parish church at Ba Teify, Carmarthenshire; new house at Rha Llangranog, for Mr. Griffiths; house for Mr. Ja Davies, Tegfan, Llandyssul. The Council has req ted approval of road improvement scheme estima at £5,680.

LYMM.—Applications have been sent to the U.D for assistance by way of subsidy in the erection cottages and bungalows by Mr. A. Reid, Higher-la Messrs. J. H. Holt & Son, builders, Barrs Bank; Mr. L. Cox, Booths-lane. It has been decided to w Mr. Reid and Messrs. Holts to submit plans and posals at an early date.

MAESTEG.—The Council is to put in operation sec 28 of the Public Health Act; and will repair a consi able number of houses under its authority.

MAIDSTONE.—Plans for the erection by Mes Clarke & Epps of twenty houses in Hastings-road h been approved.

MANCHESTER.—The Town-Planning Committee decided to recommend considerable new road wo to absorb local unemployed during the winter.

MARKET BOSWORTH.—Plans passed by R.D Two cottages for the Coalville Co-operative Society Barlestone; house at Merry Lees for Mr. Hollow cottage at Markfield; an addition to the British Le Club at Groby; and additions to the Parish Roon Witherley.

MERTHYR TYDFIL.—The Borough Council received grant of £6,588, being half cost, for roadwo to be carried out, from the Ministry of Transp At the half-yearly meeting of the Hospital Gover a gift of £1,000, to be spent on furnishing, was nounced from district workmen. Lord Merthyr also contributed £500 for improvements. The erec of children's ward is to be arranged.

MIDDLETON.—Plans have been approved fo detached double-fronted house in Manchester R road, Altrington, for Mrs. Barraclough. Mr. H Ogden, builder, Oldham-road, is the contractor. work has been started on the foundations.

MILHURST.—The B.G. has decided to put in a boiler at the workhouse, and a sub-committee been appointed to deal with the matter.

NEWCASTLE.—The Corporation Town Improver Committee have approved plans for the erectio sixteen self-contained houses in various parts of city; and the erection of a garage and motor sh rooms, for Messrs. Travers, Ltd., in New Bri street.

NORTHALLERTON.—Six schemes of road impr ment, which would cost £7,568, have been appro by the R.D.C., subject to 75 per cent. being tributed by the Road Board.

OAKHAM.—A scheme for road improvement, to £7,880, is proposed.

OSWALDTWISTLE.—The town hall is to be electri lighted and painted at a cost of £260. A plan o proposed widening of the corner of Haslingden and Knuzden Brow by the Oswaldthistle Dis Council is being submitted to Blackburn Corpora for approval.

PEMBROKE DOCK.—The Pater Ward Committee decided to spend £1,500 on district roads improve and has appointed a committee to make a selectio

PENARTH.—The U.D.C. has given formal notic erect underground conveniences in Albert-street, work will soon be put in hand.

PERTH.—The reconstruction of the old church o John has been decided on, and plans have been proved, the estimated cost being £50,000. intended to convert the three existing churches int by gutting the west and middle churches and remo the division walls between them and the east ch A new heating system is to be introduced and th constructed edifice will stand as a war memorial

PETERSFIELD.—The Farmers' Union has take improved market accommodation with the U The Union suggests that a suitable market ca provided by private enterprise if the Council is u to help matters.

PONTEFRACT.—Plans passed:—House and sho Airedale for Mr. D. Pagan; house and shop n P fract-road, for Mr. W. H. Watson; house for Mr. S

ling Stubbs; lay-out plan for Mr. Preston at ughton; and drains for new pay office for the ughton Collieries, Ltd., Leeds-road.

SMOUTH.—The Corporation has completed the e of Southsea Common for £45,000, and an ement scheme is to be carried out for which tive designs are to be invited. The tender of G. F. Smith & Co. has been accepted for a new balcony at East Portsmouth Hospital. e Education Committee of the T.C. has decided future firms tendering for its requirements will led on the King's Roll.

TON.—Mr. Gibson, the general secretary of the nfirmary, has been informed that Sir Charles as transferred his donation of £2,000, which about 18 months ago towards the erection of g for the treatment of special diseases, for the at the Royal Infirmary of a new accident ward, urgently needed.

TORTH.—The Nottingham Education Com- ave accepted a tender of £14,600 for the erec- new elementary school.

H.—The bridge near the saw mill at Reeth is be very inadequate to cope with the present affic, and it has been suggested that the North County Council be approached on the question ing a new one.

DDA.—The Ynysfeio Colliery Co., Treherbert, chased land adjoining colliery and will extend xi ting sidings. In addition, an up-to-date building is to be erected.

—The Board of Governors of the Intermediate ave decided to proceed with the erection of asium.

NEY.—Notices have been posted in the town ject that it is intended to convert a house into l elementary school to accommodate 240

.—The construction of a new swimming 0 ft. by 30 ft., is projected by the City Council.

DALE.—Plans passed by T.C.: Sidebottoms le), Ltd., extension of offices, Woodbine-street; Bros. Asbestos Co., Ltd., alteration of offices, d-road; S. Heap & Son, Ltd., wash-houses rooms, Healey Hall Bottoms; The Northern , Ltd., additions, Theatre Royal; Trustees urch, Baillie-street, alterations to School, Penn- J. Fishburn, alterations and additions, 108, -road; Thos. Dewhurst, dwelling-house with eston-avenue; F. B. Petrie, additional bed- d bathroom, Roche Bank.——At the next of the T.C. the Housing Committee is to a scheme for the erection of 200 more One hundred of the houses will be built Corporation and the remainder by private —— The housing committee propose to urther 50 houses on the Turf Hill estate to be owner occupiers, and another 50 to let to These 100 houses at Turf Hill would be contract, not by direct labour. This is quite from the scheme already sanctioned by the to erect 83 houses to replace those which are molished on the Victoria Yard site, which has demned. Of these 83, 20 are to be erected te and 63 in other parts of the town.

RD.—Works to be carried out by the R.D.C. the widening and improvement of Haynes d and Slewins-road, Hornchurch Junction, timated cost of £1,550; the construction of yards of new road to Nelmes-road, Horn- t £175; and the building of a 9-in. sewer from s to Kings-gardens, Cranham, at about £2,300. oads also are to be made up and lighting entailing lamp standards, paving, metalling, cottages for sewage works employees are to at a cost of £1,350.—Plans approved by the nclude: Conversion of a store into a dwelling, d-road, Hornchurch, for the Romford Research Society; bungalow, Moore-lane, for Mr. S. A. Watmore; house, Gordon- adwell Heath, Dagenham, for Mrs. Burt; d coal shed, Mill Park-avenue, Hornchurch, W. E. Harris; bungalow, Wingletye-lane, ch, for Mr. W. H. Goold; and additions to a . Craigdale-road, Hornchurch, for Mr. V. E. am.

D.—Plans passed by T.C.: Construction of— chamber, Ascension Schools, Church-road, n; roller store, Hayfield Mills, Percy-street, ; sanitary accommodation, 105 and 107, eet, Pendleton; offices, stores, &c., Woden- ford; garage, Wilburn-street Depot, Salford; accommodation, "Brown Cow," Oldfield- ord; sanitary accommodation, Grove Inn, Is- rove, Salford; extension of—Milk dairy, arson-street, Broughton; works, Ordsall- ford; alterations to—Cinema, Halliwell- ford; National Schools, Great George-street, construction of—Sewer, Cavendish-road, ; sanitary accommodation, Withington- ndleton; offices, Adelphi-street, Salford; garage, 254, Regent-road, Salford; con- works, garage and new street, Cow-lane, sanitary accommodation, Mount Tavern, eet, Salford; alterations to—Sanitary accom- Albert Inn, 10, Short-street, Broughton; tion of roof of dye works and wall, Dyer- ford; construction of—Garage, Kent-street, ; garage and stores, Edmund-street, ; alterations to—Sanitary accommodation, n, Chaney-street, Pendleton; sanitary ation, William Mather Institute, Queen- ord; premises, 75–77, Tatton-street, Salford; of dwelling-houses into showrooms, 3, 4 cent, Salford.

TON.—The Corporation are making appli- he Ministry of Health to borrow £14,751, ction of roads and sewers on the Prospect re and Edge Hill Park Estate, and for the r a sewer in Seamer-road.

The U.D.C. proposes to construct a new st of £4,000; also the completion of a new laying-out and sewering of building sites road, for which a loan of £3,000 is sought.

SEVEN SISTERS.—The Ministry of Health has held public inquiry into proposed layout of 3¼ acres of land, received as a gift, as a burial ground by the Council. No objection was offered.

SHOREHAM.—Two prospective bungalow builders on the Sweethill Estate, Patcham, whose plans were rejected by the Steyning East R.D.C., have appealed to the Ministry of Health.

SKIPTON.—An inquiry has been held into the T.C.'s application for sanction to borrow £240 for purchasing a site for a small-pox hospital at Airton.

STANLEY (YORKSHIRE).—Plans passed:—Bungalow off Leeds-road, Outwood, for Mr. T. Armitage; mistals at Lake Lock-road, Stanley, for Mr. Bramley; new entrance and pay boxes at the Alford Ground, Outwood, for the Wakefield R.F.C.

SOUTH CROSLAND.—Plans passed by U.D.C.: New boiler house and coke room at the Netherton Wesleyan Church; extension to weaving shed at Park Valley Mills.

SOUTHEND-ON-SEA.—Plans approved by T.C.: Store and coal shed, Galton-road, A. Mousley; four bungalows, Duke of Manchester-drive, A. Butt; stores, rear of 1 & 2, Northview-drive, O. Tramontini; two houses, Oakley Park-drive, F. J. Green & Sons; bungalow, Kingswood-chase, P. R. King; bungalow, Ronald Hill-grove, A. Markwick; house, Hamstel-road, P. Stanton; three houses, Westbourne-grove, A. Bint; garage, Clieveden-road, A. Garwood; house, Shakespeare-drive, F. Priest; house, Chadwick-road, F. G. Bethley; lock-up shop, Fairfax-drive, R. Rudd; house, Chalkwell-avenue, A. J. Cross; eight houses, Ilfracombe-road, Mrs. Samme and Mr. Carruthers; two houses and garage, Cheltenham-road, Thorby Bros.; two bungalows, St. Benet's-road, E. E. Everitt; house, Hainault-avenue, B. & E. Dow; alterations and additions, St. Helen's School, St. Helen's-road, Canon P. McKenna; two houses, Woodcote-road, J. French; house and garage, Woodcote-road, J. French; two houses, Woodcote-road, J. French; two houses, Eastwood-lane, Burrill Bros.; two bungalows, Olivia-drive, J. Wood; house and garage, Second-avenue, R. T. Howard; bungalow, Swanage-road, J. Tate; bungalow, Western-road, Miss Hambleton; bungalow, Nelson-road, H. Lummis; house, Chalkwell-avenue, A. J. Cross; two bungalows, Lonsdale-road, South & Jones; bungalow, Fairview-gardens, Mrs. C. E. Gray; bungalow, Belfairs-drive, A. J. Davisson; conversion of house into two shops, 104, Hamlet Court-road, W. H. O. Ainslie; six houses and shops, Glendale-gardens, Miss T. Pilbrow; eighteen houses, Warwick-road, S. Leigh; four houses, Marine-parade, Leigh, A. Hood; twelve houses, Leamington-road, E. Wingrave; house and shop, London-road, H. A. Corney; house and shop, London-road, W. S. Ryan; two bungalows, Glenbervie-drive, W. Dawes; drainage, Leighcliff-drive, D. R. Wells; house, Riviera-drive, Miss Barker; bungalow, Barnard-road Twitchett & Co.; two houses, Woodfield Park-drive, J. Diggle; sixteen flats, Westminster-drive, T. J. Dennis; two houses, Southbourne-grove, J. French; two houses, Lonsdale-road, W. Pennell; two bungalows, Olivia-drive, W. A. Gardner; garages, Westborough-road, P. & D. Barham; house, Westminster-drive, H. E. Harrowing; two houses, Northview-drive, F. H. Whale; bungalow, Recreation-avenue, A. W. Goodhew; bungalow, Trinity-road, F. Bacon; two houses, Woodfield-gardens, W. A. Schrier; two houses, Southbourne-grove, P. & D. Barham; bungalow, Durham-road, W. A. Thornton; house, Tyrone-road, E. Price; bungalow, Lavender-grove, Mrs. J. Sawkins; house, Chalkwell-avenue, Tomkins & Smith; house, Queen Anne's-drive, W. H. Campion; four houses, Branksome-road, Upson & Bentley; bungalow, Victoria-avenue, L. Sellwood; two houses, Burlescoombe-road, Southend-on-Sea Estates Co., Ltd.; two bungalows, Olivia-drive, W. A. Gardner; house, Woodfield Park-drive, Mrs. C. M. Lomax; house, Grassmead-avenue, A. Denny; house, Hadleigh-road, C. Haysey; two flats, Chalkwell-avenue, F. May; three bungalows, Madeira-avenue, J. W. Palmer; conversion of house into flats and six new flats, Westcliff-parade, P. Raven; estate office, Chalkwell-avenue, F. May; shop and two lock-up shops, Westborough-road, F. M. Holman; three houses, Woodfield Park-drive, Sampsom & Elsom; four houses, St. Benet's-road, E. E. Everitt; bungalow, and garage, Hadleigh-road, J. Hunkin; two flats, Maple-avenue, E. H. Brewer; bungalow, Sandleigh-road, H. Bray; two bungalows, Crossfield-road, D. J. Standen; house, King's-road, J. Mordecai; house, Grand-drive, W. A. Easton.

SUSSEX.—The West Sussex C.C. has agreed to advance £4,000 for works to be carried out by the Shoreham and Lancing Sea Defence Commissioners, and for which Ministry of Health sanction has been obtained.

TADCASTER.—Plans passed:—House in Sparrow Hall-lane, Kippax, for Mr. Wilman; alterations to house in Station-road. Scholes, for Messrs. Fryer & Fairburn.

TENTERDEN.—Plans passed by the R.D.C.: Hut at Grove Wood, Biddenden, for Mr. Martin; bungalow, Benenden-road, Rolvenden, for Mr. Morphee; bungalow, Terry Farm, Stone, for Mr. S. Boorman.

THIRSK.—The directors of the recently formed Regent Picture Theatre (Thirsk), Ltd., propose to erect a picture house on the site of premises in the Market Place, to be completed early next year.

THURSTONLAND.—Plans have been passed by the U.D.C. for four houses by Mr. C. E. Smith in the wood at Scar End, Brockholes, and for 22 houses by the Brockholes Building Co. The architect to the company, Mr. Bradburn, was in attendance, and consented to give the land necessary for the widening proposed by the County Council, a distance of over 500 yds.

TREDEGAR.—At a meeting of the management of Tredegar Park Cottage Hospital it was announced that at an estimated cost of £7,000 to £8,000 it is intended to erect an up-to-date and equipped operating theatre, together with alterations to out-patients' department and kitchen. A reserve of £2,500 is in hand for this.

WEST HARTLEPOOL.—The T.C. has decided to proceed with a scheme for the widening of the Promenade at Seaton Carew, and the construction of a bathing pool. A sea-wall, approximately 1,600 ft. in length, is to be constructed commencing from the existing wall at Staincliffe and extending to Station-lane. The bathing-pool will be 200 ft. by 100 ft. A large shelter is also included in the proposals, the total cost of which is estimated at £42,000.

WITHERNSEA.—Plans for eleven new houses and one bungalow have been passed by the U.D.C.

WOLVERHAMPTON.—A new drill-hall is to be built at Willenhall for the local company of Territorials.

WORCESTER.—A plan has been submitted to the T.C. by Mr. A. V. Rowe, of an estate laid out for 12 houses estimated to cost £1,500 each, and to stand on an acre of land each, and 17 houses each standing on a quarter-of-an-acre. The T.C. proposes to build 42 more houses in the Bromyard-road district, the tender, which has been accepted, being £666 for a pair of houses, and £1,332 for a block of four.

WORTHING.—The T.C. has had plans for 27 dwelling houses submitted. During June plans for 42 houses and 16 other buildings were passed, the estimated cost being £73,000. Application has been made to the Electricity Commissioners for sanction to the borrowing of £8,170 for extending the engine room at the Electricity Works. The T.C. has decided to apply for sanction to borrow £13,500 and £2,483 for laying out Beach House Park and Denton Recreation Gound, respectively. It is proposed in Beach House Park to construct six hard and six grass tennis courts, two bowling greens, ornamental gardens, a covered parking place for motors, together with a sports pavilion which will contain a bowlers' club room, tea lounge and restaurant. At Denton Recreation Ground a sunk garden, and lily pond, and two golf putting courses are to be constructed.——The T.C. is to purchase "Fairlawn," a property adjoining the Municipal Offices, for increasing the accommodation of the latter building. The cost will be £5,500; the Council rejected the same property at £1,600 before the war.

YEOVIL.—The T.C. has agreed to erect another 160 houses, and 60 of these will be built in a new part of the town known as Westland.

FIRES.

BARRHEAD.—A fire has occurred in a five-story building situated in West Arthurlie-street, occupied by the Proofing Co., Ltd.

BARRY.—Fire broke out early on Saturday morning on the premises of the Barry District Co-operative Society, and an extensive block of buildings, housing several departments was completely destroyed, involving a loss of £10,000.

BIRMINGHAM.—A serious fire has done considerable damage to the premises of the Stentophone Motor Accessories Company (incorporating Messrs. William Sames, pianoforte manufacturers, Woodfield-road, Birmingham). Half of a range of buildings, 500 ft. long, was gutted. A huge stack of timber was also destroyed. The flames reached a draper's shop at the corner of Woodfield-road, and burnt the greater part of the premises. The roofs of four adjoining houses were damaged.

CHICHESTER.—Fire broke out on Saturday morning in Binderton House, an Elizabethan residence near Chichester, occupied by Colonel Cecil Hankey. One wing was burnt out.

PEASENHALL.—Damage estimated to exceed £10,000 has been done to the agricultural drill works of James Smyth & Son, at Peasenhall. Almost the whole of the works were gutted.

PONTARDULAIS.—The second fire within four days at Pontardulais caused damage of between £5,000 and £6,000 by wrecking the building and saw mills of Mr. Lewis, Llangennech, Pontardulais.

WALSALL.—The new Picture House, Walsall, erected at a cost of about £120,000, and opened only three years ago, has been destroyed by fire.

PATENTS.*

APPLICATIONS PUBLISHED.

195,585.—I. E. Lanhoffer: Apparatus for the roasting or calcining of cement.

199,318.—O. K. J. Bydall: Support devices for guttering.

189,129.—P. Kajanoff and J. M. Kinzler: Rock drilling machines.

199,326.—R. A. Blakeborough: Device for detecting water leakages by sound.

195,097.—N. Z. Butterick: Flexible roof-covering.

199,420.—H. W. Johnson, A. V. Boyd and C. S. Shapley: Domestic grates and ranges.

199,421.—E. C. R. Marks (Dura Mechanical Hardware Co.): Window control mechanisms.

199,459.—F. Gilman and G. H. Thompson: Apparatus for removing scale and rust.

199,468.—J. E. Wallis: Building blocks.

199,470.—M. Hutchinson: Wood-working machines.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	2 15 3	Do. Bullnose	10 1 6
Do. Bullnose	3 8 3	Blue Wire Cuts	7 11 6
Best Stourbridge Fire brick :— 2½ in.	11 3 0	3 in.	13 2 0
GLAZED BRICKS— Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
		Two Sides and one End	32 10 0
		Splays and Squints	30 0 0
Headers	21 10 0		
Quoins. Bullnose and 4½ in. Flats	28 10 0		

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. ,,	2 5	4 in. ,,	3 7

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	,, ,,
Thames Sand	15 6	,, ,,
Best Washed Sand	15 6	,, ,,
½ in. Shingle for Ferro-Concrete	14 0	,, ,,
¼ in. ,, ,,	15 0	,, ,,
¾ in. Broken Brick	10 6	,, ,,
Pan Breeze	5 6	,, ,,

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6 51/- alongside at Vauxhall in 80-ton lots.

	£ s. d.
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 13 0
Keene's Cement, White	5 8 0
,, ,, Pink	5 3 0
Plaster, Coarse, Pink	3 0 0
,, ,, White	3 12 6
,, Fine	5 12 0
Sirapite, Coarse	3 9 6
,, Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube — s. 2, d. 9½

Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube — 2 11½

PORTLAND STONE—

Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube — 4 4

Do. do. delivered on road wagons at above stations, per ft. cube — 4 5

White basebed, 3d. per ft. cube extra.

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ¼d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over ,,	17/-
Sawn two sides ,,	27/-
Sawn three or four sides ,,	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London. s. d.

6 in. sawn two sides landings to sizes (under 30 ft. super.)	Per Ft. Super	5 3
6 in. rubbed two sides, ditto	,,	5 9
3 in. sawn two sides slabs (random sizes)	,,	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes)	,,	1 5½
1½ in. to 2 in. ditto, ditto	,,	1 3

HARD YORK—

Delivered at any Goods Station London.

Scappled random blocks	Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.)	Per Ft. Super	5 4½
6 in. rubbed two sides ditto	,,	6 0½
4 in. sawn two sides slabs (random sizes)	,,	2 10
3 in. ditto. ditto	,,	2 5
2 in. self-faced random flags	Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s. d.
Plain per ft. cube	6 6
Moulded ,, ,,	7 9
Cills ,, ,,	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	35 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅜	21/-	1¼	33/6
½	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅛	17/6
¼	22/-
1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¾ in. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 6	to	0	4 0
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt.	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Hip and valley tiles (per dozen) Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
,, ,, Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2¾ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¾	3½d.
4 in.	1/4	1/1¾	3¾d.
4½ in.	1/5¼	1/4	4d.
5 in.	1/7¾	1/5¼	5d.

O.G. GUTTERS.

3 in.	1/6¼	1/2¾	3¾d.
3½ in.	1/6¼	1/2¾	3¾d.
4 in.	1/7¾	1/4	3¾d.
4½ in.	1/9¼	1/6¼	4d.
5 in.	2/1¾	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. ,,	1/9½	1/4	2/0½
3 in. ,,	2/1½	1/8	2/5¾
3½ in. ,,	2/6¼	1/11½	2/10½
4 in. ,,	2/11½	2/4¾	3/5¼

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0¼	2 2½	2 8
2½ in. ,,	3 6¼	2 5½	3 3¾
3 in. ,,	4 2½	2 8	4 0¾
3½ in. ,,	4 7	3 3¾	4 8½
4 in. ,,	5 1	3 9¼	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. ,, ,,	6 3	6 8	11 4
5 in. ,, ,,	7 6	11 6	18 2
6 in. ,, ,,	8 10	14 4	23 5

Per ton in London.

	£ s. d.		£ s. d.
IRON—			
Common Bars	14 0 0	to	15 0 0
Staffordshire Crown Bars—good merchant quality	14 10 0	..	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	13 10 0	..	14 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 10 0	..	14 10
Hoop iron, basis price	16 10 0	..	17 10
,, Galvanised	31 0 0	..	32 0
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	15 10 0	..	16 10
,, ,, ,, 24 g.	16 10 0	..	17 10
,, ,, ,, 26 g.	18 10 0	..	19 10
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24 10
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	21 10 0	..	23 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting coats, and delivery to job, average price about to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.		
LEAD—Sheet, English, 4 lb. and up	34 0 0	..	—
Pipe in coils	34 10 0	..	—
Soil Pipe	37 0 0	..	—
Compo pipe	38 0 0	..	—

NOTE—Country delivery, 30s. per ton extra : lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. 6d. extra.

Old lead, ex London area, at Mills per ton	21 10 0	..	—
Do., ex country, carriage forward per ton	22 10 0	..	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AS UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1½ in.	1¾ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES. S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per d.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per
8 lbs. S. traps	35/-	45/-	66/-	126/-

COPPER—	£ s. d.		
Strong Sheet per lb.	0 2 3	..	—
Thin ,, ,,	0 2 4	..	—
Copper nails ,,	0 2 3	..	—
Copper wire ,,	0 2 4	..	—
TIN—English Ingots ,,	0 2 0	..	—
SOLDER—Plumbers' ,,	0 0 11	..	—
Tinmen's ,,	0 1 1	..	—
Blowpipe ,,	0 1 3	..	—

PAINTS, &c.

	£
Raw Linseed Oil, in pipes per gallon	0
,, ,, ,, in barrels ,,	0
,, ,, ,, in drums ,,	0
Boiled ,, ,, in barrels ,,	0
,, ,, ,, in drums ,,	0
Turpentine in barrels ,,	0
,, ,, in drums (10 gall.) ,,	0
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	55

GENUINE WHITE LEAD PAINT—

"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered 77

Red Lead, Dry (packages extra) per ton	42
Best Linseed Oil Putty per cwt.	0 1
Filloco per cwt.	0 1
Size. XD Quality fkn.	0

[Concluded on next page.]

* The information given on this page has specially compiled for THE BUILDER and is copyr Our aim in this list is to give, as far as possible *average* prices of materials, not necessarily the hi or lowest. Quality and quantity obviously prices—a fact which should be remembered by who make use of this information.

RICES CURRENT OF MATERIALS (*contd.*)

GLASS.

NGLISH SHEET GLASS IN CRATES OF STOCK ZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft
oz. fourths	3½d.	32 oz. fourths.....	8½d
„ thirds	4½d.	32 „ thirds.....	10½d.
„ fourths	5d.	Obscured Sheet, 15oz.	4d.
„ thirds	6½d.	21 „	5½d.
„ fourths	6d.	Fluted 15oz.	6½d. 21oz. 9½d.
„ thirds.....	7½d.	En'lled 15 „	5½d., 21 „ 7½d.

tra price according to size and substance for ares cut from stock.

NGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
Rolled plate	4½d.
Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
k Varnish	Outside	0 14 0
ie ditto	ditto	0 16 0
ie Copal	ditto	0 18 0
le Copal	ditto	1 0 0
le Copal Carriage	ditto	1 4 0
st ditto	ditto	1 12 0
or Varnish	Inside	0 18 0
ie Pale Paper	ditto	0 18 0
ie Copal Cabinet	ditto	1 2 6
ie Copal flatting	ditto	1 0 6
rd drying Oak	ditto	0 18 0
ie Hard drying Oak	ditto	0 19 0
ie Copal Varnish	ditto	1 0 0
le ditto	ditto	1 2 0
st ditto	ditto	1 12 0
st Japan Gold Size		0 12 0
st Black Japan		0 12 0
k and Mahogany Stain (water)		0 12 0
unswick Black		0 9 0
din Black		0 14 0
otting (patent)		1 5 0
nch and Brush Polish		0 17 6
uid Dryers in Terebine		0 9 0
rass Black Enamel		0 7 0

NEW BUILDINGS IN SCOTLAND.

Dundee.—Houses.—The Scottish Board of alth has approved of contracts for the con-ction of 88 flatted houses to be erected by ndee Corporation on Dudhope Estate. The tracts amounted to £34,698 6s. 1d. in all. Convener expects that the schedules for 72 cottage dwellings will be issued in nt three weeks, and after that there were houses at Gardiner-street under the slum rance scheme.

irling.—Baths.—The T.C. is proceeding the erection of the public baths, estimated £10,400.

'ness.—Factory.—Plans have been ap-ed for a hosiery factory at Dean-road, for Seaforth Hosiery Co., Ltd.

vah.—Public Hall.—Efforts are being to raise funds for the erection of a public-or the parish of Alvah, in Banffshire.

enock.—Slaughterhouse.—The Corpora-re going to submit to the Government a e for a new slaughterhouse, estimated to £36,000.

sgow.—Bandstands.—The Corporation dopted a scheme for the improvement of andstands and enclosures at the Kelvin-Park, at a probable cost of £3,000.

rn.—Manse.—£1,800 has been raised ds providing a new manse and organ for airn United Free Church.

rdeen.—Dwellings.—The Corporation Committee has passed the plans for a low in Queen's-road to cost £1,100, and a on the east side of Anderson-drive, to 1,500, and a house in Queen's-road, for A. L. Mackinnon. Plans for a number of uildings, including a church, halls, and house at Regent-quay and Water-lane, en submitted to the Corporation.

NEW COMPANIES.

The particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C. 2, from the documents available at the Companies' Regi try.

Beswick's Lime Works, Ltd. (191,854). Registered August 13. Brierlow, Hindlow, near Buxton, Derby. Limestone quarry proprietors, now carried on by Percy James Beswick at Hindlow and Brierlow, Derby, under the style of Beswick's Lime Works. Nominal capital, £25,000.

Browne & Woolley, Ltd. (191,771). Registered August 7. 36, Brooke-street, Holborn, E.C. 1. Builders, contractors, land and estate developers. Nominal capital, £100.

James Nuttall & Son, Ltd. (191,807). Registered August 8. 30, Colldale-terrace, Haslingden, Lancaster. Builders and contractors, plasterers, &c. Nominal capital, £1,000.

Geo. Andrews & Co. (Builders and Decorators), Ltd. (191,776). 137, Inverness-terrace, W. 2. Registered August 7. Builders, decorators, public works and general contractors, &c. Nominal capital, £2,000.

W. B. Cooper & Sons, Ltd. (191,768). Registered August 4. Sans-street, south, Sunderland. Builders and contractors, &c. Nominal capital, £2,000.

Invicta Building Co., Ltd. (191,960). Registered August 17. The Paddock, Chatham, Kent. To purchase, build, erect and sell private dwelling houses or tenements, shops, buildings and premises of every description. Nominal capital, £600.

George Kemp, Stroud & Co., Ltd. (191,909). Registered August 15. To acquire and take over as a going concern the business now carried on by George Kemp at Elms-road, Aldershot, as a building contractor under the style of George Kemp & Co. Nominal capital, £8,000.

William Pinchin & Co., Ltd. (191,927). Registered August 15. 2, Hague-street, E. 2. Colour, paint and varnish manufacturers and white lead merchants, hitherto carried on by the trustees of the late Mrs. A. B. Pinchin (deceased), under the name of William Pinchin & Co., at Hague-street, and 8, Church-street, both in the County of London. Nominal capital, £6,000.

Workmen's Dwellings on Easy Terms.

As he is of the opinion that some of his workmen may desire to own their own houses, Lord Londonderry is giving effect to a building scheme at his Durham collieries. He has arranged to build houses, of which he will sell one house only to any one official or workman in his employ who wishes to purchase. The purchaser pays a deposit of £5 on account of the price, and will get the benefit of the Government subsidy, which is calculated at about £75 per house. The cost of the house, less the deposit, and after giving credit for the Government subsidy, will be payable by weekly instalments of 10s., which will pay for both principal and interest in a period of fourteen years, the principal bearing interest at 3 per cent. per annum. The purchaser may anticipate the weekly instalments if he wishes to expedite his complete ownership of the house.

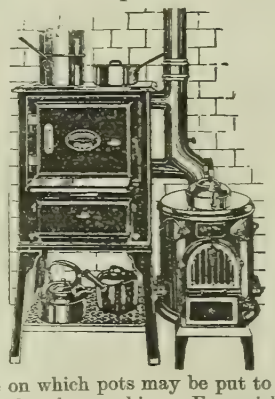
The houses will probably be of the three-roomed type, with scullery and bathroom, and it is estimated that they will cost about £300 each, after deducting the subsidy. The purchaser will be entitled to the possession of the house on its completion, and the balance unpaid will remain on mortgage at 3 per cent., the money being advanced by Lord Londonderry.

Most of the men who are expected to become purchasers of these houses are miners receiving a rent allowance of 5s. per week, and they will thus be able to buy them for an additional 5s. per week. As an experiment, Lord Londonderry offers to build twenty houses at Dawdon and twenty at Seaham, and it is understood that he will extend the scheme if the demand arises.

TRADE NEWS.

That the firm of Grey & Marten, Ltd., of City Lead Works, Southwark Bridge, S.E. 1, founded in 1833, is not only keeping abreast of the times but leading in many respects, is shown by their latest catalogue. This substantial and well-produced volume, of 250 pages, covers every description of builders' ironmongery, sanitary goods, and fittings, and reference is made easy by a very comprehensive index. Each item listed is illustrated and priced, and although the prices are subject to alteration owing to market fluctuations, this is a valuable feature which is not found in many catalogues nowadays. Some attractive mantel registers and well-designed lavatory basins are particularly noticeable. A large range of sheet lead and lead pipe is priced at low figures, as is perhaps to be expected from the first firm to manufacture lead pipe by the hydraulic press.

The new "Sentry" oven, which we illustrate is provided with an oven 16 in. wide, 15½ in. deep, and 12 in. high, below which is a hot chest measuring 21½ in. wide, 15½ in. deep, and 6 in. high, for heating plates or for baking at low temperatures. On top of the oven is a large



hot plate on which pots may be put to simmer or for similar slow cooking. For quick boiling the hot plate on the "Sentry" boiler itself is available, and the cooking facilities on the boiler hot plate are in no wise impaired by employing an oven. The whole apparatus forms a very compact unit which will do all the cooking and supply all the hot water to baths, sinks, hot taps, towel rail, &c. An attractive leaflet describing the oven is issued by Wood Russell & Co., of 34–36, Oxford-street, London, W., the manufacturers.

Messrs. Charles Churchill & Co., Ltd., of 9-15, Leonard-street, Finsbury, have issued an attractive booklet illustrating their "Alundum" safety products, which are in use in some of the leading buildings in the country. The walking surfaces of stairs, corridors and subways, stations, trains and 'buses, lift landings, &c., are rendered safe and durable by these products.

Owing to the expiration of Messrs. Francis Polden & Co., Ltd.'s lease, at 17, Wells-street, W., more extensive premises adjoining the company's head offices, 55, Cannon-street, London, E.C., have been obtained, and a showroom for the display of electrical fittings, domestic appliances, and accessories, has been opened. (The telephone number is City 5538–9.) From time to time the company are arranging for special demonstrations to be given to show the advantages of a particular piece of electrical apparatus, and a technical staff is always available to explain any appliance displayed.

To meet the increasing demand for their manufactures, Fuller's United Electric Works, Ltd., of Chadwell Heath, Essex, have opened a London depot at 58, High-street, W.C.2 (close to Tottenham Court-road Tube Station).

At the Shipping, Engineering and Machinery Exhibition, Olympia, Nobel Industries, Ltd., have a comprehensive display of their numerous products, which are of great interest to those engaged in mining, blasting work, civil engineering, road-making, railways, &c.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

	¾"	1"	1¼"	2"
Deal rough close boarding per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers .. "		50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.	¾"	1"	1¼"	1½"
Deal-edges shot per sq.		49/-	58/-	67/-
Do. tongued and grooved "		54/-	65/-	72/-
Do. matchings "	45/-	55/-		
Moulded skirting, including backings and grounds per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.	1½"	1¾"	2"
Two-panel square framed per ft. sup.	2/1	2/4	2/6
Four-panel Do. "	2/5	2/8	2/11
Two-panel moulded both sides "	2/8	2/11	3/2
Four-panel Do. Do. "	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/1
Add if cross tongued	"	2d.	2d	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and	
Casement stays	1/2	making good	19/
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/
Ogee Do. Do.	"	2/4½	3/1	3/10	4/
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/
Do. nozzles for inlets	"	2/2	2/7	3/10	4/

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	51	0
Do. Do. in flats	"	49	0
Extra labour and solder in coated cesspools	each	6	
Welt joint	per ft. run.	0	
Soldered seam	" "	1	
Copper nailing	" "	0	

	½"	¾"	1"	1½"	2"	4"
Drawn lead waste per ft. run	10d.	1/6	1/9	3/1	3/10	
Do. service "	1/5	1/11	2/3	3/6		
Do. soil "						6/
Bends in lead pipe each					3/3	8/
Soldered stop ends "	1/2	1/8	2/1	2/10	3/6	
Red lead joints "	11d.	1/-	1/3	1/11	2/4	4/
Wiped soldered joints "	2/10	3/6	4/-	4/11	6/6	9/
Lead traps and cleaning screws "				14/7	19/6	
Bib cocks and joints "	6/4	9/7	15/4	41/-		
Stop cocks and joints "	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	
Do. Do. Sirapite	" "	2	
Do. Do. Keen's	" "	3	
Add sawn lathing	" "	1	
Add metal lathing	" "	2	
Portland cement screed	" "	1	
Do. plain face	" "	3	
Mouldings in plaster	per 1 girth	0	
One-and-a-half granolithic pavings	per yard sup.	5	

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	
26 oz. Do.	" "	1	
Obscured sheet	" "	1	
⅛ in. rolled plate	" "	0	
¼ in. rough rolled or cast plate	" "	0	
¼ in. wired cast plate	" "	1	

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	
Knotting and priming	" "	0	
Plain painting 1 coat	" "	0	
Do. 2 coats	" "	0	
Do. 3 coats	" "	0	
Do. 4 coats	" "	0	
Graining	" "	0	
Varnishing twice	" "	0	
Sizing	" "	0	
Flatting	" "	0	
Enamel	" "	0	
Wax polishing	per foot sup.	0	
French polishing	"	0	
Preparing for and hanging paper	per piece	2/- to	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. The whole of percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance

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TENDERS.

unications for insertion under this heading should ressed to "The Editor," and must reach him not han Tuesday evening.

otes *accepted.* † Denotes *provisionally accepted.* otes *recommended for acceptance.* notes *accepted subject to modifications.*

VICK.—Work in connection with construction r Woodlands sewer :—
rift Bros. & Haslam..... £3,381

ON.—For the new wards and operating theatre, tage Hospital :—
apman, Lowry & Puttick.
Grayshott ..... £3,495 .. £787
Grace & Son, Catford.... 3,469 .. 761
J. Kemp, Alton ..... 3,016 .. 680
lls & Sons, Farnham .... 3,000 .. 650

SHAM.—For new water tower and pump-house pes, for the B.G. :—
yth, Foulsham ..... £790 .. £80

CHINGTON-ON-SEA.—For erection of house ard-avenue, for Mr. C. Ward. Mr. Hugh W. architect, Birchington-on-Sea :—
ght & Anstin, Birchington-on-Sea.

KENHEAD.—For making up and completing passages, for the T.C. :—
arles L. Warren, Wallasey (aggregate)—£543 5s. 6d.
r switchgear in connection with gas works lighting—*British Thomson-Houston Co., Ltd. Rugby—£120.
r wiring 5 houses for electricity, *Campbell & Son, Birkenhead.
pply and fixing of skylights at electricity station, *J. Braham, Ltd., Liverpool.

TON.—For patent glazing sashes, gearing and ctional steel work at Moss-street Baths :—
nry Hope & Sons., Ltd.
r sanitary fittings for Moss-street Baths—*W. R. Pickup & Co., Ltd.
ovision of bowl-houses, shelters and conveniences t Leverhulme and Haslam Parks—*J. C. & F. Woods.
ovision of bowl-house and conveniences at Darbishire Park—*Wm. Burrow & Son.
ovision of shelter at Bridgeman Park—*Wm. Wood & Sons, Ltd.
ection of boundary wall, Bridgeman-street—*Wm. Burrow & Son.

DFORD.—For new turbo-alternator, exciter essories, capacity of 20,000 kw., for the Elec- Committee of the Corporation :—
rbines: *The English Electric Co., Ltd.
ernator and exciter: *C. A. Parsons, Ltd.
Approx. £60,000.

BRADFORD.—For extensions to the banking premises of the London Joint City and Midland Banking Co., Ltd., in Market-street, Bradford :—
*Wm. Nicholson & Sons, Ltd., Leeds.

BURNLEY.—For various works in connection with the erection of a branch library in Colne-road, for the T.C. :—

Mason, etc.—*Mullen & Durkin, Ltd., Burnley	£2,245	0	0
Carpenters and joiners—*J. H. Naylor & Son, Burnley	1,275	0	0
Slaters—*Whitaker & Clegg, Burnley	157	18	3
Plasterers—*Richard Guest, Brierfield	328	0	0
Painters—*Latham Bros., Burnley	79	10	2

BURTON-ON-TRENT.—For erection of strong room at Union Offices, for the B.G. Mr. R. S. Litherland, 10, High-street, Burton-on-Trent. Quantities by architect :—

T. Lowe & Sons, Burton-on-Trent	£546	0
W. Sharp & Sons, Burton-on-Trent	524	0
G. Hodges & Son, Burton-on-Trent	497	10
Worthington Willson & Co., Burton-on-Trent	494	0
R. Kershaw & Son, Burton-on-Trent	490	0
G. H. Adams, Burton-on-Trent	475	10
T. Litherland & Sons, Burton-on-Trent	458	0
‡Henry Edwards, Burton-on-Trent	423	0

DARWEN.—For the erection of houses, for the Darwen Corporation, on the Anchor and Marsh-lane sites :—
‡The Co-operative Wholesale Society, Ltd., Manchester.

EBBW VALE.—For erection of sexton's house, for the U.D.C. Mr. P. I. Davies, Surveyor, Ebbw Vale :—

W. Miles & Sons, Ebbw Vale	£765	0	0
Batten & Jones, Ebbw Vale	700	0	0
W. & H. W. Bate, Ebbw Vale	624	0	0
T. Evans & Sons, Ebbw Vale	611	6	4
*S. D. Bevan, Ebbw Vale	575	0	0

ELGIN.—For erection of block of four houses in Maisondieu-road, for the T.C. Mr. A. G. Cockburn, Town Clerk, Elgin :—

Builders—			
David Forsyth & Co., Elgin	£902	0	0
Carpenter—			
W. H. McKilligan, Elgin	478	9	11
Painters and glaziers—			
John Kintrea & Son, Elgin	11	4	11
Slaters—			
A. Davidson & Son, Elgin	84	18	10
Plumber—J. A. Russell, Elgin	237	11	3
Plasterer—John Ross, Elgin	121	12	10

GLASGOW.—Construction of ferro-concrete bridge over the Clyde at Oswald-street :—
*Melville, Dundas & Whitson, Glasgow—(over £100,000 (approximately).

GUILDFORD.—For erection of house for Mr. A. E. Evershed. Messrs. H. G. Warren & W. L. Evershed, architects, 27, Farnham-road, Guildford :—

Hart & Searle	£1,250
George Franks	1,170
*Tribe & Robinson	1,129

HAMPSTEAD.—For erection of three pairs of semi-detached houses. Mr. E. B. Musman, architect, 73, Gower-street, W.C. 1 :—

W. Quennell, Hampstead	£15,613	0	0
Higgs & Hill, Ltd., Lambeth	15,350	0	0
Rowley Bros., West Green	14,328	0	0
Bovis, Ltd., London	13,857	0	0
C. Miskin & Sons, Ltd., London	13,418	0	0
*Garsubil, Ltd., London	13,404	19	11

HAMPSTEAD.—For conversion of existing buildings into two detached houses. Mr. E. B. Musman, architect, 73, Gower-street, W.C. 1 :—

Rowley Bros., West Green	£3,670	0	0
W. Quennell, Hampstead	3,538	0	0
Higgs & Hill, Ltd., Lambeth	3,264	0	0
*Garsubil, Ltd., London	2,866	16	6

HARROGATE.—For the erection of a new residence in Harcourt-road, for Messrs. Stead & Tranmer :—
*Wm. Thompson & Son, Leeds.

LEEDS.—For supply, erection and completion of a steam turbo-alternator, three-phase and exciter, with condensing plant and accessories :—
†The British Thomson-Houston Co., Ltd., Rugby £31,470

LEEDS.—For alterations and extensions to the premises of the Y.W.C.A., Cookridge-street, Leeds :—
*J. T. Wright & Sons, Leeds £4,000

LEEDS.—For erection of 100 houses for the Corporation, 50 at Crossgates and 50 at Middleton :—
*Paul Rhodes, Leeds :
50 Type "A," at Crossgates, £355 each.
50 Type "B," at Crossgates, £409 each.
50 Type "A," at Middleton, £349 each.
50 Type "B," at Middleton, £409 each.

LEEK.—For 14 Type "A" houses and 4 type "B" houses, for the U.D.C. :—

	Per house.
*Sampson Salt. "A" Type	£382
"B" Type	415
*Johnson (Audley), Ltd., "A" Type	382
"B" Type	415

MANCHESTER.—For food warehouse in Cross Keys-street and Addington-street, Shude-hill, Mr. E. Ogden, architect, 10, Corporation-street, Manchester :—
*P. Hodkinson, Manchester.

MANCHESTER.—For new central offices, on the site of the Blackfriars Hotel, Blackfriars-street, for the Bleachers' Association. Mr. H. S. Fairhurst, architect, 90, King-street, Manchester :—
*J. Gerrard & Sons (1920), Ltd., Swinton.

NEWCASTLE.—For the construction of the Heaton and Walker main drainage scheme, for the Corporation :—
*Nuttall, Sons & Co., Manchester £55,913

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OFFICE & WORKS:
PORTLAND, DORSET.

OSSETT.—For pointing and repairing of chimney at the Kildacre Water Scheme :—
*M. T. Austin & Son, Leeds..... £67 10

OSSETT.—For the construction of a new roof at the caretaker's house at the Infectious Hospital :—
*Messrs. Luther Ingham & Co., Ltd. £42 10 7

PONTARDAWE.—For laying of water mains and sewers, for the R.D.C. (three contracts) :—
(1) *At Craigcefnparc* :

Standard Construction Co., Swansea	£1,097 2 10
Robert Clarke, Pontardawe	777 19 6
Thomas Bros., Pontardawe	757 17 11
Harvey Bros., Swansea	709 12 3
T. Evans, Neath	640 9 1
*T. Walker, Clydach	487 5 6

(2) *At Alltycham* :

Standard Construction Co.	£243 18 0
Robert Clarke	145 10 0
Thomas Bros.	132 5 6
T. Evans	128 8 6
Harvey Bros.	109 1 0
*T Walker	93 5 0

(3) *At Gwaun-cae-Gurwen and Brynamman* :

Standard Construction Co.	£154 2 3
Robert Clarke	106 10 0
T. Evans	101 6 0
Harvey Bros.	80 17 6
Thomas Bros., Pontardawe	78 0 3
J. O. Howells, Brynamman	70 11 6
Bowen, Jones & Co., Ammanford	70 5 6
*T. Walker	64 3 0

PORTSMOUTH.—For rebuilding of pavilion, &c., for Southsea Waverley Bowling Club. Messrs. A. E. Cogswell & Sons, architects and surveyors, Portsmouth. Quantities by architects :—

	Estimate Genl. Work.	Credit for old Building.	Amount of Tender.
Jno. Croad	£4,080	£50	£4,030
John Lay & Co.	3,999	—	3,999
Jas. Crockerell	3,957	—	3,957
G. J. Davis & Son	3,900	50	3,850
Frank Bevis, Ltd.	3,746	150	3,596
F. H. Jordan	3,450	70	3,380
E. & A. Sprigings	3,395	50	3,345
Tanner Bros.	3,343	—	3,343
F. J. Privett	3,377	50	3,327
L. Hoad	3,333	85	3,248
‡Saml. Salter	3,392	165	3,227

PURBROOK.—For repairs and improvements at Purbrook Church :—
Repairs to tower—
*A. H. Clear & Sons, Purbrook..... £188 10
Iron railings for churchyard :
*J. Edwards & Son, Waterlooville .. 69 10

SCUNTHORPE.—For the erection and completion of a disinfector station for the U.D.C. :—
*G. Smith, Scunthorpe £125

SCUNTHORPE.—The U.D.C. has accepted the following tenders :—
Sewerage extensions on the Burringham and Messingham-road:
*Carter Helsby Construction Co., Ltd., Sheffield £655 10 1
Putting down a borehole by percussion boring :
*F. Smith & Son, Grimsby..... 481 12 6
Supply of steam connectors :
*J. Thompson & Son 87 10 0
Supply of purifier grids :
*J. Hawley & Co., 5s. 9½d. per sq. yd.

SHEFFIELD.—For the construction of a new automatic telephone exchange, with Post Office, for the Commissioners of H.M. Office of Works, in Bow-street Sheffield :—
*Henry Boot & Sons (London), Ltd.

SNYDALE.—For widening of railway and provision of new sidings and bridges, between Chevet Junction and Snydale Junction, for the L.M. & S.W. Railway :—
*Sir W. G. Armstrong, Whitworth & Co., Ltd., Newcastle..... £344,233

SOUTHAMPTON.—For a new Wesleyan Central Hall. Messrs. A. Bracklehurst & Co., architects, 10, Norfolk-street, Manchester :—
*Tinker & Young, Ltd., Newton, Manchester.

STANNINGLEY.—For the erection of a new automatic Telephone Exchange, in Town-street, for the Commissioners of H.M. Office of Works :—
*Arthur Mitchell, Ltd., Leeds..... £2,775
Asphalter : *Tunstall's Rock Asphalte Co., Ltd., Leeds.


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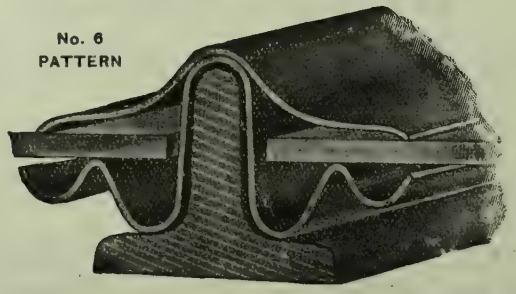
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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXV.—No. 4206. SEPTEMBER 14, 1923

LABOUR IN THE BUILDING INDUSTRY.

RECENTLY there has been a slight revival in building, and the immediate consequence has been a shortage in skilled labour. This revival cannot by any stretch of imagination be called a boom; it is merely an increase in activity cessation of the slump. That such a comparatively small ount of work should create difficulty in obtaining labour most serious matter, and it is necessary that those who e the welfare of the industry at heart and are dependent n it for their livelihood should immediately take stock of situation.

Mr. F. J. Gayer, whose foresight in these matters is well wn, draws public attention to the fact in a letter which we lish this week (see p. 418), and makes some piquant remarks n the subject. In a short letter it is only possible to touch fly upon one or two salient points in a complicated situation, very little more can be done in a short article: the matter f vital importance and requires exhaustive consideration, a few facts and tendencies may be noted. In the first ce, it is necessary to probe the reason for the shortage, and sk three questions:—

1. Are there actually fewer skilled men in building than ore the war?
2. Is there a greater amount of work?
3. Are the conditions of work in the industry different?

To this may be added a fourth question:—

4. Is there a shortage of unskilled labour?

The last point may be answered first, because the reply is ond doubt. There is an ample and apparently unlimited ply of labourers, and no shortage appears to be in the least pable. To see young men of this generation entirely killed and with apparently no ambition to improve is ething in the nature of a tragedy, especially when we se that many of them are condemned to work for thirty orty years at their present tasks without showing any ress or improvement. It must be reluctantly admitted this is one of the blots on trade unionism. It is criminal rbid these men to rise, especially if they have the necessary tive and skill, and that in effect is what happens. It is that, by a roundabout method, a labourer may eventually lassed as a craftsman if he can gain the necessary know- and skill, but this is in spite of, and not because of, the iling system of recruiting skilled labour.

he question as to whether there are actually fewer skilled in building than before the war is difficult to answer, but tigations are in hand to obtain this information. It may finitely stated that at present, at any rate, the volume ork available is less than that in progress in 1914, and this is not a cause of the shortage. The question, "Are tions of work in the industry changing?" is less easy to r. In many ways they are. For instance, the cost of ng has necessitated the keenest possible scrutiny of ways eans of saving money, and one of these means has been duction of the time spent on erecting a building. By this overhead charges and supervision are reduced, hire of is reduced, and interest on capital sunk but not available for trade is lessened. For all these and other reasons, most buildings must now be built and brought into use in the shortest possible space of time. The result of speeding up erection is two-fold:—

1. (*a*) Work becomes more precarious, but more men are required for short periods; (*b*) alternatively, men can earn higher wages for a limited period if they are allowed to work overtime. This would provide the thrifty ones with the necessary money to tide over periods of unemployment.

2. It has tended to eliminate the apprentice because the foreman will not be worried by any possible clog upon the speed of his job.

These matters are all strongly emphasised by a short working week.

The result of the investigation so far shows that conditions have undoubtedly become more difficult, but that there has been no corresponding change in current customs and methods to counterbalance them. It will be found, however, that the fluctuations in building work are even more marked than is indicated by causes already enumerated, and one of the important factors increasing the fluctuation of employment in particular firms is the advent of the large building. Large buildings mean a large amount of employment for a particular firm for periods of six months, one, two, three, or more years. At the end of such a contract the particular firm in question may or may not immediately replace this work by a similar contract, and if they do not two events take place:—

1. Their men must find other employment in the same town or district with another contractor.

2. The proportion of apprentices employed by that firm (assuming there are any) becomes altogether disproportionate, with corresponding difficulty in arranging labour and teaching the youngsters their trade.

Formerly the flow of work in firms of standing was much more steady. Large contracts were spread over a number of years with the possibility of adjusting labour and of taking and training a given number of apprentices. These conditions have disappeared completely for the present, and, as far as can be seen, seem unlikely to return. During the war there was a serious stoppage of building work, a stoppage that was more complete than the interruption experienced in any other industry. Before the war, weather, unemployment, and other factors tended to keep men out of the industry; and since the war absence of attractive conditions of labour has still further depleted numbers. The whole country is likely to suffer in consequence because building is vital to progress.

It is impossible to say whether the solution to the problem will be found in elastic working hours and arrangements to work overtime for limited periods or during a boom; whether it will be found in some system of payment by results, with its consequent reward to the industrious and highly skilled mechanic; or whether it will be found in the training of apprentices, improvers or labourers. Whatever the solution, it is necessary that the leaders of the industry should endeavour to find a way out, and until a commencement is made real progress in the country is impossible.

NOTES.

Ancient Buildings Preservation.

IN a very interesting letter to *The Builder* last week Mr. Powys deals with the various points of view which may be considered in relation to ancient buildings, and he ably illustrates the attitude of the Society for the Preservation of Ancient Buildings. Such letters as this help to clear the air and show where the varying points of view lead. It is quite clear that the different values of history, architecture, sentiment, or archæology cannot appeal to all alike, and that a balance of judgment between all the varying values is likely to be somewhat rare in the individual. In the case of old churches there may be complication of other things, such as need for economy, continuity of worship, &c. Who is to deal fairly with all this?

Photography and Art.

PHOTOGRAPHY has added greatly to the interest of our modern life; it has been of immense practical and economic value, and even in an artistic sense has been the vehicle of much value in the hands of artists. At the same time, its widespread use as a means of illustration has impoverished us to a very serious extent. We have never, perhaps, had abler artists at our command for the suggestion of the beauties which lie around us, and yet we look in vain for the regular succession of beautiful and sympathetic suggestions of the beauties of nature and art, which could so readily be given to us.

Royal College of Art.

THERE is some inaccuracy in stating, as reported of Sir M. Barlow in his address to the students of the R.C.A., that the great painters, sculptors and architects "showed the way," and the great works themselves were achieved by the "common people." It is quite the opposite of the true conception of greatness, which is to impose the heaviest labours on itself. To take the case of art, how far the great works of Turner, Reynolds and Alfred Stevens were achieved for them we are at a loss to discover. It is true that some painters and sculptors have had assistance, or "ghosts," but we are not aware of this being regarded as proof of their greatness; and the exact contrary is witnessed, too, in such masters as Michelangelo or Leonardo da Vinci. But even in the case of the architect, where the share taken by the community in their work is larger, this remote greatness, like the "Almighty watching it go," is far from the fact, though architecture suffers enormously at the present time because the architect is not nearer to his work. Sir M. Barlow was on surer ground when stating that "they wanted to improve the conception of the craftsman in art, and, indeed, the conception of the craftsman's life generally."

Liverpool School of Architecture.

THE prospectus of the School of Architecture, Liverpool University, 1923–24, is before us. It may be remembered that the school was founded in 1894, and offers courses designed to provide a full professional education at a University standard for all who intend to practise as architects and who wish to acquire their training in an atmosphere of liberal studies alongside students of other professions. The studies lead to a degree of Bachelor of Architecture or a Diploma in Architecture. The School was the first to formulate and to present Degree and Diploma courses of a full professional kind to the Board of Architectural Education of the Royal Institute of British Architects, and was the first o the six schools now recognised by th Institute to secure for its graduate exemption from all subjects but one o the Institute's Final Examination. Som excellent illustrations of students' wor give added interest to a well-produce prospectus.

Knossos Frescoes.

THE account of the frescoe discovered at Knossos b Sir Arthur Evans, of whic particulars are given in *Th Times*, is full of interest. These pain ings were found heaped together i a room, having been taken down fo removal at some time, in the hous of a Minoan burgher, and are repr sentative of the golden age of Minoa Crete. Though primitive in characte by the side of such paintings as have bee recently discovered in Eton College chape and dating back to 1600 B.C., they hav their own vivid identity and fulness life. The success of any art at any perio may be said to be in the power to reali its ideas and interpret them in forms beauty, and in the accompanying freedo to do so. In this sense these very ancie wall decorations are as fully represent tive as any others. The technical rang of their expression and realisation is n so wide, but we feel the influence nature and beauty, and the fulness life which they portray. We are, perhap suffering now from the burden of our ow knowledge, knowing so exactly how to d these things, aided by such ample techn cal resource yet lacking the impulse f what is worth doing, as one feels much with our war memorials. We see to lack the liberty to express anythi very vital, or is it that we have so litt to express? Like all art at its be wall painting and ornament general seem to flow out of civilisations—clas



Le pont d'Avignon. From an Etching by [MR. PERCY J. WESTWOOD, A.R.I.B.A.



A View in Avignon.

an Etching by MR. PERCY J. WESTWOOD, A.R.I.B.A.

diæval—almost unconsciously, little ened by the preponderance of theo- knowledge and prepossession which s down our own. Is it better to more to nature and endowment to foster it so much? The famili- with nature and the character of escoes, as described by Sir Arthur s, fill the mind with gracious im- ons, liberating it to enjoyment. Modern organisation would appear to set a barrier against nature and sensibility, understanding only what is like itself. It is in this sense that these frescoes are so important as representing that rich overflowing freedom to expression which is lacking in our own art because it is lacking in life.

Eton College Wall Paintings.

THE mural paintings recently uncovered at Eton College are of very considerable artistic importance, being exceedingly well realised and graceful compositions, having as their subject "Miracles of the Virgin." Done straight on to the walls, over a thin undercoat of plaster, they are said to have occupied the ten years, from 1479 to 1488, and were rediscovered after a century and a half of oblivion. Though the name of one of the artists responsible for these mural pictures has been handed down as William Baker, they bear an unmistakably Flemish origin, and we know that Flemish painters were working over here at about that time. The figures painted in niches, and which divide the larger paintings, are both dignified and expressive of noble character; while the subjects themselves are finely designed and well realised. Some have suffered more than others, but what remains is, perhaps, the most complete example of ancient wall painting in the country, though it cannot, we think, be credited to English artists. These examples show us with what directness and confidence these mediæval painters approached their work. They were not much concerned by the joints of the masonry underneath, nor too precise in the way they looked at it. In the photographs of these paintings, so well reproduced in the *Times*, the joints of the masonry are to be discerned coming through the paintings, which were divided from them only by this thin coat, probably quite the best way possible for such work, in spite of the toll that time has taken of it. We do not hear in what material they are painted, but should expect it to have been tempera, perhaps the most beautiful and resourceful medium for the purpose. We may learn from such work that the simpler and more direct ways are better than indirect ones, for their freedom from so many prepossessions as to method and approach.

Old Masters Again.

IF the present season does not reveal its usual sea serpent, its place would appear to have been taken with the discovery of "old masters," quite a crop of which have emerged but lately. In addition to Mrs. Hahn's "La Belle Ferronnière," which will appear, so we are told, next week in the Louvre, alongside of Leonardo's picture of the same name, we have a new Rubens at the National Gallery, and the "Glenconner" Reynolds' pictures which have just been acquired by Messrs. Duveen Brothers; while over and above these we have now the discovery in Vienna of a number of pictures "which prove to be genuine Rubens and Van Dycks." These last were badly overpainted and were believed to be cheap copies, but now, so we are told, "the coating has been removed and the original pictures are revealed." From reproductions appearing in a contemporary, we do not think much of two of them, *i.e.*, the two Rubens illustrated. They have the usual characteristics which pall from familiarity, and are quite like "old masters." It must always be remembered that "dealing" in old masters has little or nothing to do with love of art, and is concerned only with commercial interests. A little plain speaking about "old masters" is not, therefore, out of place. Rubens painted some good pictures and a far greater number of very bad ones; it is not the name but the thing that matters. Evidence of progress in national taste will be recorded more through the slump in "old masters;" which it will entail, than in the present demand for them. When our values are truer we shall no longer be able to conjure with names, and at the time of buying and selling, to quote the Eastern proverb, "glass will be glass and jewels, jewels."



Avignon, from Villeneuve From an Etching by MR. PERCY J. WESTWOOD, A.R.I.B.A.

GENERAL NEWS.

Professional Announcement.

The offices of Professor Beresford Pite, F.R.I.B.A., have been changed from the Royal College of Art, South Kensington, to 101, Great Russell-street, W.C. 1, and his telephone number is Museum 2481.

New Radnorshire Magistrate.

Mr. Thomas Lant, a well-known Radnorshire quarry proprietor, of Llanybed, near Builth Wells, has been appointed a magistrate for the county. Mr. Lant has a residence at Roath, Cardiff.

Appointment.

The Horwich D.C. has appointed Mr. W. J. H. Wood, Borough Electrical Engineer of Bolton, to be their consulting engineer for two years in connection with their agreement with the Lancashire Electric Power Co. to supply electricity to the district, and to supervise the carrying out of the scheme.

Architects' Estates.

Mr. Augustus William Tanner, A.R.I.B.A., of Erpingham-road, Putney, S.W., left £7,192 (net personalty, £7,108).

Sir James Lemon, J.P., M.I.C.E., F.R.I.B.A., F.S.I., of Stockwell Lodge, The Avenue, Southampton, retired civil engineer, past president and hon. treasurer of the Institution of Municipal and County Engineers, Alderman and twice Mayor of Southampton, who died on May 9, aged 90 years, left £13,125 19s. 1d., with net personalty, £8,476 11s. 4d.

R.I.B.A. Problems in Design.

Attention is drawn to the fact that, owing to a printer's error, the requirements for the drawings as set forth in (*b*) Working drawings of design subject No. LXIX (a school library), are incorrect. The requirements should read as follows: "The design for a school library may, after it has been approved, be re-submitted with the addition of one ½ in. scale elevation and two ½ in. scale sections finished as working drawings. The section to show the book-case fittings."

Rebuilding of Japan's Cities.

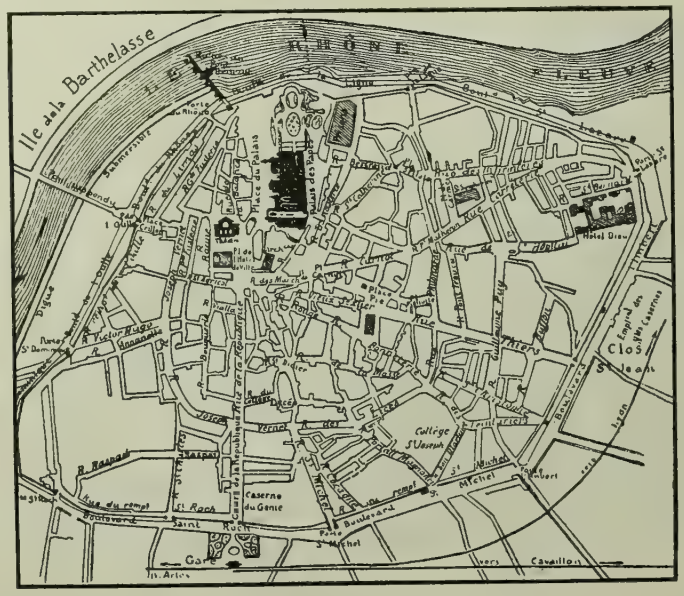
Official representatives of Japan in this country, Japanese business men and Americans in close touch with Japan's commercial affairs, believe (wires the *Morning Post* Washington correspondent) the effect of the great tragedy will be practically the rebuilding of all large cities in the island kingdom. The latest most reliable reports from Tokio show that modern buildings of steel and concrete stood the shock of the earthquake and resisted fire, while buildings of native construction were quickly destroyed. If these earlier reports are confirmed, it is the belief of men familiar with the Japanese temperament that in the rebuilding of the ruined cities the Japanese, with their quickness to seize upon the latest in discovery and invention, will make the new Tokio a city of steel and concrete, which may rob it of some of its former picturesque charm, but will be a protection against future disaster.

Housing Loans.

In a circular just issued the Minister of Health states:—By the Ministry of Health (Rate of Interest) Amendment Order, 1923, dated August 14, 1923, the Minister has now fixed 5 per cent. as the rate of interest at which local authorities after the date of the order may make advances under the Small Dwellings Acquisition Acts. This order supersedes the order of December 5, 1922 (in so far as that order related to the Small Dwellings Acquisition Act). The Minister will be prepared to give consideration to an application for fixing a higher rate than 5 per cent. in respect of any authority who are of opinion that having regard to terms at which they can raise loans or for other reasons the above rate is not sufficient to cover the expenses likely to be incurred in respect of advances made by them under the Acts.

Garden City for Glasgow.

The Housing Committee of Glasgow Corporation had before them last week a report by the Director of Housing as to negotiations with the factor for Elderslie estate for the acquisition of 195 acres of ground at Bankhead, adjacent to the ground at Knightswood, already owned by the Corporation. It was decided to recommend the purchase of the ground with a view to carrying out a garden city scheme, with a park and recreation ground. The complete scheme outlined by the Housing Director provides for a public park of 175 acres, surrounded by avenues of houses. The total number of houses would be over 2,000, and these, added to the 1,100 proposed to be erected at Knightswood, would make the complete scheme about twice the size of Mosspark, at present the biggest of the Corporation's housing concerns. A lay-out plan was also agreed to for Sandyhills, Shettleston, where about 240 houses are to be erected on the purchase system, prospective owners paying £50 down and the balance in instalments, spread over twenty years. It was further agreed to recommend a scheme for about 220 houses at Bellahouston.



Plan of Avignon (*See p.* 399.)



A View in Avignon.
From an Etching by MR. PERCY J. WESTWOOD, A.R.I.B.A.

COMPETITION NE

Dudley.

FOR THE TOWN COUNCIL.—Designs f memorial building and tower. Premi £300, £200, and £100. Sending-in day, Jar 5, 1924. (See advertisement this week.)

Southsea Common Lay-out Competitic

FOR THE B.C.—Conditions and particul premiums will be forwarded on applicati the Town Clerk. Sending-in date, October Banned by R.I.B.A.

Other Competitions.

Other competitions still open includ following (the dates given are, first the sen in date, and second the issue of *The Buil* which full particulars were given):—Sing College (Jan. 1, 1924; March 30). Hul Gallery (Nov. 5; May 4). Mint compe for plaques (Sept. 30; May 25). (scheme (Sept. 30; June 29). Memorials Missing (Jan. 1, 1924; Aug. 3). Halifax out—*Banned by R.I.B.A.* (Oct. 1). Sw Masonic Hall (Oct. 3). Eastleigh and B stoke Assembly Hall (Aug. 24). House, Manchester (Oct. 15; Sept Chiswick Embankment—*Banned by R.* (Oct. 15; Sept. 7). Coatbridge War Me Aug. 31).

RMSTRONG COLLEGE BRARY COMPETITION.

E Council of Armstrong College, by their y of instituting a competition for their library, have adopted a precedent that t well be followed by other universities. irable conditions were drawn up and de- l information supplied of fittings, &c., so all competitors were placed on an equal ng. Briefly, the conditions asked for a reading room and stack room, six small nistrative rooms and entrance. The site ntiguous to existing buildings, with a frontage of 118 ft.

viewing the designs generally, the majority ding the winner) have placed the reading facing the main front, with the stack room d, which seems right and proper. The native of placing the two main rooms end the front offers possibilities, but it does ook architecturally correct. After placing ain rooms, finding a home for the etceteras here competitors failed or succeeded, ding to their interpretation of the assessor's cut conditions.

the first and second premiated designs, the rs have taken liberties with regard to the important minor room, viz.—cataloguing . The conditions clearly state that it is " adjacent to and overlooking the reading ." The importance of this is obvious, and, ally, it will be found that all the designs complied with this condition except those ioned above. The second design could r overcome this defect without alteration n, but the design to be executed could not. ask for special conditions for this room hen give the job to the competitor who not comply with it, and cannot, without ng his plans ? This condition could hardly d as of a " suggestive character." It must been definitely fixed for a purpose, and the rity of competitors have handicapped them- s with the other minor rooms by meeting nditions laid down.

e placing of the entrance hall has caused etitors some trouble, but disposing of this e centre of the reading room and walking the latter to the issue desk is, clearly, ionable. This seems to have been the over which the majority of competitors led. The fashionable symmetrical plan rs to have swayed their better judgment. rst premiated design (Mr. Dunbar Smith) entrance hall at one side, from which a r leads to the centre of the reading room. t very direct, but it does keep the traffic the reading room proper. The stack s at the back and also under the reading a basement. The photographic labora- nd the female staff room are placed in of the basement stack room. This ment leaves a good deal to be desired. in elevation is broad in treatment, and materials are carefully selected should y well. The bay windows look small on The roof lighting to the reading room adequate, but no doubt this will receive consideration.

second premiated design (Mr. W. G. has a plan with the two important end-on to the main front, with the hall and smaller rooms between. The rk reception space and corridor in the t do not look happy. The elevations and dignified, but the side looks more ng than the front.

third premiated design (Messrs. n & Weightman) has reading room and stack room behind, with card ng and issue desk between and The way into the issue desk in the oom from the entrance hall is not very ry, and the authors have been at some work out the minor rooms, which are one side. The stack room is in one ich is good, and the working arrange- good. The elevations are interesting, letail is very carefully studied.

. C. Bradshaw has submitted two In each case the plans are symmetrical with side entrances. One set is worked out on Tudor Gothic lines, and the other set is on ambitious lines, with a circular reading room and interesting elevations.

Messrs. Marshall & Tweedy have two schemes with pleasing elevations vigorously drawn. The saw-tooth roofs over the stack rooms give one a bit of a shock. Messrs. Cackett & Burns Dick submit a scheme which provides a good working arrangement. The entrance and access to the issue desk are well arranged. The clerestory lighting to the reading room would be very effective. The design by Mr. J. H. Morton and Mr. A. W. S. Cross is on Gothic lines. The plan does not seem happy, and too much stress appears to have been laid on the future stack room extension. The main elevation is drawn to the basement level and looks imposing. The ground line appears to be about 10 feet above basement level, which would rather destroy the effect.

Messrs. W. & T. R. Milburn provide a plan with pleasing elevations in the Early Renaissance manner. Mr. C. S. Errington divides his stack room into two blocks, which does not seem right. The elevation looks very satisfactory.

Mr. H. L. Honeyman has no less than three schemes. One set has a reading room 113 ft. long by 40 ft. wide by 19 ft. high, and another set has a main elevation which looks unsuitable for a library. Mr. H. T. Wright has two schemes with plans on similar lines. In one set the treatment of the reading room appears a little strained.

Messrs. Knowles, Oliver & Leeson place their reading room on the first floor with the stack room under. The main elevation would not look very satisfactory with the entrance door off the centre axis.

Messrs. Harrison, Ash & Blythe submit a very interesting design. The entrance to the reading room is not very good, and there is a rather dark basement corridor. The elevations are very good, though the fleche does not look happy in section. Messrs. Newcombe & Newcombe's design has rather jumpy elevations.

Messrs. Hicks & Charlewood's design has the main rooms end-on to the front with a roomy central entrance hall. The elevations are good, but the centre feature seems a little over-emphasised.

The designs on the whole attain a high standard, and the College authorities may congratulate themselves on having a good run for their money.

CORRESPONDENCE.

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Architectural Competitions.

SIR,—In reading the correspondence evoked by Mr. Robertson's excellent article, I have been struck by the unanimity of opinion as to the failure of the "single assessor" system working happily and producing the best results. Thirty years ago a similar correspondence on the same lines was ventilated by the professional press, and it is to be hoped that thirty years hence the same abuse of the architect's confiding nature and love of unrequited labour will not again provoke apparently fruitless protest.

I am far from agreeing with one of your correspondents, who states that twenty-five years ago competitions were decided by influence. Whatever competitions may have been a quarter of a century ago, they have become progressively more galling in their conditions and less satisfactory in their awards in a large number of instances, and it is high time that the representative architectural societies took steps to protect architects not only against exploitation by promoters of competitions, but also against the architects themselves. For without a doubt if the method of assessing may be regarded as the culminating cruelty, the initial weakness rests with the unbusinesslike attitude of the architect who spends thought, time and money in producing a design knowing that the chances are anything from a hundred to one against his being successful, and handicapped at the outset by "conditions" that, generally, are more or less unintelligible and often contradictory.

The Bournemouth Pavilion Competition is a case in point, and has already been exposed by Mr. Robertson.

I also deny emphatically that architecture gains prestige from competitions. Very few laymen realise the amount of time and out-of-pocket expenses necessitated by the preparation of a set of competition drawings. The general opinion seems to be (if one successfully impresses upon an inquirer what is involved) that the architect is a man of wealth, is hard up for a job, or a lunatic. What other profession seeks to gain prestige in this way ?

Briefly, I consider the competitive system is to be condemned under the following headings : (1) Where the exact requirements are known a client should have no difficulty in selecting an architect. (2) The work demanded is excessive. (3) Conditions are badly framed. (4) Single assessorship.

Taking these seriatim, very glaring instances in the last few years have occurred under all of these headings. First, we have promoters holding competitions, obviously for their own advertisement, for a type of house or decoration which could have been arranged quite simply in a few interviews between a bona-fide client and an architect of average ability. Of the second objection, there is no reason (given competent assessors) why preliminary line plans and sketch elevations and sections to one-sixteenth of an inch could not adequately illustrate any design—as would be the case between architect and client. Should the assessors be unable to make a final selection three or four of the most original or best designs could be selected for a more detailed competition (approximately to what is now thought necessary), the competitors each receiving an honorarium sufficient to cover out-of-pocket expenses in making the drawings.

The remedy of the third objection is obvious. Lastly, we come to the assessor. So much has been written that I feel there is no excuse for more except as an amendment. Possibly my idea is full of faults, but I give it for what it is worth. I endorse the demand for three assessors, but consider that one of these should be nominated by the promoter of the competition, and two by the competitors themselves. This could be done quite simply (it seems to me) by sending with each set of conditions a list of (say) twelve architects of repute. Each competitor would vote for one of these gentlemen, and the two receiving the highest number of votes would, with the architect selected by the promoter, form the panel. In this connection I may add that I think it is absurd to expect professional gentlemen to give their valuable services without adequate remuneration, and that those who promote competitions should be prepared to shoulder some of the burden extra to what would be incurred by accepting the responsibility of selecting an architect and instructing him in the usual way.

London. G. L. W. BLOUNT.

Apprenticeship in the Building Industry.

A letter by Mr. F. J. Gayer on apprenticeship in the building industry is given on p. 418.

Obituary.

Mr. John Henry Kelly, who died recently at the age of 73, was for fifty years a prominent builder and contractor in Hull. He was for a long period on the board of the Hull Dispensary. He retired from business twenty years ago.

Mr. Richard Bellwood, a well-known builder, of Newcastle, died last week at his residence, in his 84th year. Deceased carried on a building business for about half a century, chiefly in house property in Arthur's Hill district, but retired some years ago. He had been a director of the St. Andrew's Permanent Building Society since 1867, and vice-chairman since 1902.

THE SOCIETY FOR THE PROTECTION OF ANCIENT BUILDINGS.

WE have received from "Isis" the following reply to the letter from Mr. A. R. Powys, Secretary of the Society for the Protection of Ancient Buildings, published in the *Builder* last week:—

Amidst the benison of these delicious autumn days I am little inclined for controversy, rather towards reconciling the division between us. I am, therefore, rather sorry for the tone of Mr. Powys's letter. He evidently knows so much more than I do of newspaper methods and what he calls "the game of newspaper controversy," since he says so much about it in his letter, that I cheerfully yield the palm to him, knowing so little about them myself. He complains of misquotations, and I will at once say, in comparing them with his actual words, that in the interests of brevity I condensed them and certain of them should not have appeared as actual quotations. For instance, whereas I wrote "puerile imitation," what he actually said was (*The Times*, August 4), "puerile efforts to renew the unrenewable past"; whereas I referred to "forgery" and "falsification of history," he spoke of "deceptive imitation" and "subversive alike of historical value." I leave the reader to distinguish between them, and to those familiar with the utterances of the Society's Secretary, have I not rather understated than overstated the case? At the same time I apologise to him for the quotation marks which, in a precis of what he said, should not have been in certain cases included.

Mr. Powys made certain statements, such as "Tinkering with stone surface is as harmful to old masonry as the addition of modern stained glass to ancient stained glass windows," to which I replied that exceptions must be made to any such doctrine. I deprecated this and other remarks of his as setting up an abstract approach towards practical matters, which are better judged on their own merits. I thought such an attitude rather stereotyped and likely to do harm, and am less concerned with pious generalisations—all very nice but rather woolly—than with the way in which they are interpreted in practice, and his interpretation seemed to me lacking in imagination. Our love of the past should not lead us to become the mere lackeys of it, and properly understood—to value it rightly we should value it lightly.

There are cases, I venture to think, where the harmony which has melted away, in such cases of decay as I instanced, can be recreated if the right sort of craftsmen were employed to do it. I do not, any more than your correspondent, like sham Norman or other revivals attached to old cathedrals as though they were the same, and was not talking about new buildings, but repairs to old ones, and said that it was better in the case of a few missing pieces of glass in an ancient window, "to renew in sympathetic treatment with the original, than to disfigure it with bits of plain matted glass, and I instanced certain windows at Fairford; nor is there any falsification of history or puerile imitation in so doing. Your correspondent, basing his arguments apparently on bad restoration only, falls into the error of comdemning all restoration.

Kubla Khan, which he adduces as an argument against restoration, is the fragment of a poem left unfinished by Coleridge, a case in which we do not know the poet's intention (he is said not to have known it himself). In the case of the window I instanced, we have the context of the whole finished window to direct us, save for the missing fragments. There is, therefore, no application in his illustration. But enough of this, and let us inquire a little closer into the ethics of restoration—and the word is one of such beneficial meaning that to clear it of the misapprehensions with which it is surrounded is a thing we should welcome, for the abuses identified with its name have led us to mix up things very unfortunately. There comes a period when we need to restate our beliefs, lest the adhesions of time, and the changes wrought through it, detach them from life, so that they become mere doctrine and survival, no longer reflecting living thought. This is the case, I think, in regard to restoration which, because of the misuse connected with the name, has prejudiced us against a truer and more reasonable interpretation. The recent controversy over the western towers of Canterbury Cathedral set me thinking furiously, for an air of unreality seemed to be growing over the arguments on the subject, which had the appearance of a set of formulæ only, and of wildly beating the air.

Nineteenth-century restorations present a dismal enough record of replacement and destruction rather than restoration, but what I am anxious to discuss is whether in the altogether healthy reaction against such we may not have fallen into prejudices on the other side. Is such a thing as restoration possible? The purist will answer "No," and in the light of the loss to architecture owing to so-called restoration in the past, he has every excuse for saying so. But why mix up things? Why call this restoration when "mutilation" would fit it so much better? And if that is so, ought we not to distinguish a little better between the two? Is, then, restoration under any circumstances desirable or possible? I have no doubt it is both the one and the other. The purist will tell me that to replace a piece of perished stone carving with new stone work, or cusp to a quatrefoil, a finial to a pinnacle, is but further mutilation and to be characterised as forgery. But is it so, necessarily? Surely the endowment which guides us, the spirit in which we approach it, determines the act more than such phrases.

What is this impenetrable darkness between the past and ourselves which prevents us from feeling and expressing even as they did, unless some retrogression has overtaken life? Were it conceivable that a mason to-day could be in such sympathy with the craftsmanship of an earlier century as to feel without pretence of it and express the same temper—in such a case is it not more desirable to have that stone work renewed, that finial to the pinnacle? I should say certainly, even were it different to other pinnacles near by. Restoration is, therefore, not wrong in itself, but to be judged according to the merits of the case; and is only wrong *because we are not artists enough.* I am not suggesting here that we should restore historic ruins, or that in the case of a largely perished stained glass window we should attempt its rehabilitation. There are many instances, however, in which the renewal required is only of a few pieces of lost or damaged glass or stone work, and to renew these in the likeness of the original, is far better than patches of matted white glass left spotting the window or unworked stone.

Far be it from me to suggest any new campaign of restoration on the old lines. None the less, it is noticeable, if we regard the free period of the best Roman work, or the culmination of the Greek period—or for that matter Egyptian, Assyrian, or any other—that there is a freedom and variety of vital craftsmanship which unites them all together, that life at any time when poised high enough is directed to more or less the same ends, revealing aims which have much in common; that underneath every variety of civilisation there is disclosed a common purpose uniting them all as religion and beauty only can, in a kinship with all humanity. If this is beyond conjecture, and I am certain it is the fact, it is able to relate the spirit of our own work to the ancient past, as the best work belongs to all time. What, then, becomes of charges such as the falsification of history, of puerile imitation and forgery?

When I look at so noble and human a group as that of "An official and his wife (eighth Dynasty)," in the British Museum, the temp of the work, apart from externals of dress, mig adorn any ancient Gothic cathedral, so identic is the spirit and nobility of the work, so timele is its attachment to all that is beautiful and be We have all of us one human heart, and if so of us were not clouded by the abuse of restorati in the past we should find below that the spri of the best human endeavour differs very litt having always as its object to record the mo precious things, which belong to all time. talk, therefore, of "the unrenewable past" only a superficial view of it, because so mu of it can be renewed in ourselves. Why, the should we not, where possible with tender han supply the temporal loss with a like spirit, what it is possible—not much, no doubt to restore? Every man really incorpora humanity in himself whether realised or not, a all the arbitrary distinctions set up between pa and present, thrusting a wedge between the are inventions encouraged by our own dislocat and uncertain aims, which disappear when look at it all a little deeper. All ages at t best have sought much the same things, ev stretching beyond temporal necessities towa beauty and the divine. Is it, then, surprisi that at a certain height there is found unity, division, between them? That when beauty a religion have governed life it has bound together, bound it as the shibboleths of politi liberty and economic necessity in our own d dislocate and undermine it.

Do we not, therefore, exaggerate differen for the purposes of our argument in talking restoration as in itself a crime? But if we lo at it unprejudiced by the abuses of so-call restoration, the gulf between past and pres largely disappears. Nor is it to those who f their common parentage any great thing th they should be able to feel and express in mu the same way. What divides us from the pa is that chiefly which also despoils us of ourselv —the want of freedom and intuition, the deper ence on knowledge and taste as enough themselves.

When we clear away the accumulations wh have hidden from us the reality, there is fou no such difference between past and present some would wish to prove, and it is this nig mare we need to get off our shoulders. allowing abuses to divide us from our inherita or invent a gulf between us.

Demeter's nose must not be omitted from discussion, because it illustrates the importa of resting each case on its merits. There w practical objections in this case which in s others there are not, though still prepared admit, that apart from the practical difficu an Alfred Stevens might even here have justi himself. We can leave Demeter quite hap without her nose, and really to the artist th no great matter, but the window must some sort of glass inserted to preserve it at and this is often the case with masonry. No I refuse my name to a petition for the rem of the nose of that divine patroness of mo earth, so here at least my attitude was "corre

But do not let us be terrified by a word much comfort as that of "restoration," whe are all feeling the need of it so much, or fear it is puerile imitation of the unrenewable to "restore" and enlarge our own concep about it. Past, present and future belon each other as one garment enfolding all and to value the past rightly we must val lightly, but only in the sense that it is the shadow of ourselves, and that its substar within us, linking us with all time and ena us to understand it. For we are men also when I look at some ancient building, wind sculpture I look at myself. This also is m Why, then, should I renounce the patri which thus endows me, and find myself and puerile for feeling as they did? Fo rest I only wished very gently to suggest t S.P.A.B. to keep near to life, to avoid doctrines and a "pedestal" attitude, tha usefulness of its work, with which I so sympathise, may not be impaired.

WITH THE A.A. AT AVIGNON.

(Notes by Our Correspondent.)

Avignon, *Monday.*

PUNCTUALLY at 8 p.m. on September 6 some members of the Architectural Association Victoria en route for Avignon. At Folke- they embarked for Boulogne, which was ed at 12 midnight. A pleasant crossing experienced, and after a short stay the left for Paris, arriving there at 5.15 a.m. early morning ride across Paris in a motor-, which was waiting, took the members to Gare de Lyons, where welcome coffee and were obtained. After a short stroll Paris eft at 8.35 a.m. All arrangements worked thly, and an excellent lunch was obtained he train. Despite the long journey the arrived cheerful and happy, and all sat to dinner at the Hotel du Louvre at 9 p.m. ame day. Here they were joined by Mr. ey Hamp (Past President of the A.A.), thers. On Saturday they were at liberty plore the town at their leisure.

ignon retains all its old-world character, ilt by the work of the pre-war jerry-builder his post-war prototype.

s indeed pleasant to dwell on the charm- d buildings here, coloured by age, the great to pleasant harmonious tones or pleasing sts, the local materials blending so ly with the landscape. The town is n the left bank of the Rhone, above which a rock crowned by the ancient palace of pes and the cathedral. There the build- verlooks the town, and the old fortifica- surrounding it give a remarkably pic- ue appearance.

inhabitants appear to take life easily pleasantly; hustling seems unknown, ps not altogether a disadvantage. The n p. 396 will give an idea of Avignon and roundings, also the position of the bridge uildings illustrated.

weather has been delightfully fine, ng the old town to a great advantage. e members of the party are greatly im- d by its beauty and look forward keenly coming week. Members have come from ections, including Lancashire and Dublin.



The Pope's Palace, Avignon.
From an Etching by Mr. Percy J. Westwood, A.R.I.B.A.



General View of Avignon.

THE DOME: ITS HISTORY AND CONSTRUCTION.—III.

BY SIDNEY TOY, F.S.A., A.R.I.B.A.

THE most successful dome of the Byzantine period, both in respect to beauty of design and science of construction, is that of the Church of S. Sophia, Constantinople, built, after the fall of a previous structure, about A.D. 562. This dome is constructed of brick conical rings, has an internal diameter of 107 ft., and a height of about 48 ft. from the springing level. At its base forty windows divide the brickwork into a like number of buttresses (Fig. 24). The thrust of the dome is counteracted at the east and west by great semi-domes, and on the north and south by barrel vaults reinforced by massive buttresses. These abut against the pendentives in the manner shown in Figs. 24 and 25, the semi-domes themselves being abutted by barrel vaults flanked by smaller semi-domes. Most of the domes built by the Byzantines were abutted on all four sides by barrel vaults, as at S. Sophia, Salonica (Figs. 26 and 20), but in some of the mosques built after the fall of Constantinople abutment was formed on all sides by semi-domes, while in others the two systems were associated, as shown in Fig. 27.

Squinch arches were often employed instead of large pendentives. These are arches thrown across the angles of the square base thereby developing an octagonal form, small pendentives being built at the angles of the octagon, as illustrated in Fig. 28. Early forms of this treatment exist in the Palace at Serbistan in Persia, dating from about A.D. 350, and in some of the tombs in the Via Palestrina at Rome. This construction was adopted at S. Nicodemus, Athens, at Daphni—both dating from the eleventh century—and elsewhere, and became the type of many of the later domes in Western Europe.

From about the tenth century drums were interposed between the dome and its supports, as in the churches at Athens and Daphni, mentioned above, and the church of the Theotokos, Constantinople, the last dating from the thirteenth century. Windows were then pierced in the drum and not in the dome itself, and the buttresses between the windows were decorated with engaged columns with connecting arches above; these arches helping considerably to strengthen the dome at its haunches. If the dome was rib internally the ribs were carried down to base of the drum. In the later phases Byzantine work these drums became virtu towers, as in the Church of The H Apostles, Salonica (Fig. 29). Drums v usually braced by one or more girdle tie timber which were frankly carried stra across the windows.

During the Middle Ages domes were b by the Christians in Italy and France, by the Saracens in Persia, Syria, and Eg



FIG. 24.—ST. SOPHIA, CONSTANTINOPLE.

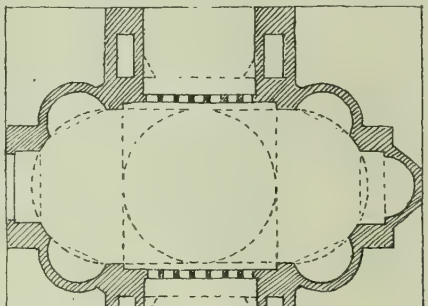


FIG. 25.

their construction in these countries deve ing according to local conditions and requ ments. In Italy brick, stone, or marble used, as the material of the neighbourhood the resources of the community dictated. five domes surmounting the Church of Mark, Venice, dating from the eleventh tury, rest upon pendentives and are of sim character—except that their inner surfa are not ribbed—to that of S. Sophia, C stantinople; the present timber cupolas them being of later date. In the succeed centuries before the Classic Renaissance was the general practice to support the do at the angles of rectangular or polyg spaces on squinch arches, as at the cathed of Siena and Pisa. The dome over the tistery at Pisa is composed of two dist shells, one a cone which covers the cen space and was probably open at the top w first constructed, and the other a sphe cupola pierced at the crown by the inte cone. These shells, which are built of br work, are connected by twelve marble which are spaced at equal intervals round dome and rest upon cross arches in the ga below (Figs. 30 and 31). The main par this work was built between 1153 and 1 but the attic and probably the cupol carries are additions of the fourteenth cent From an æsthetic standpoint the general e of this dome is not happy (Fig. 31). circular and octagonal baptisteries elsew in Italy are usually covered by domes many cases, as at Parma, visible only within since the external wall is ca above the dome and the whole covered secondary roof.

In France, where the material used i construction of domes was chiefly stone, r peculiarities are observed. The ea example is that over the west bay of Church of St. Etienne, Périgueux. This has an ovoid form and rests upon pender which are built in horizontal courses. S. Front, in the same city, built about there are five domes. The pendentives are not parts of true spheres but, in ord diminish their projection, are deflected wards and a curious twist is develope their faces in their adjustment to the verse arches. The domes above hav ovoid form, and their faces at the spri are set back slightly from the upper ed the pendentives. All these variations the Byzantine forms have the effect o flecting the lateral thrust in a vertical tion. Both of the churches at Périg



FIG. 31.—THE BAPTISTERY, PISA.

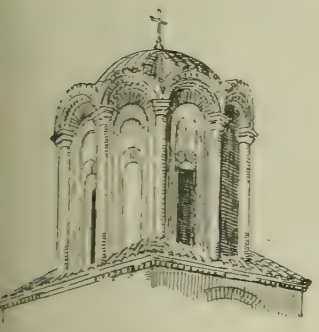


FIG. 29.

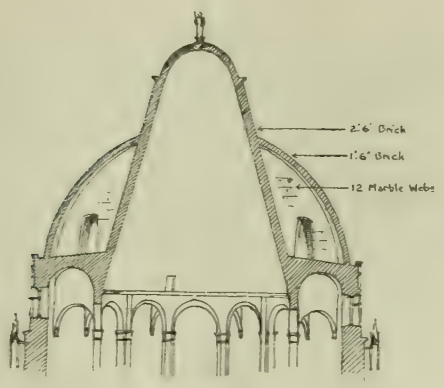


FIG. 30.

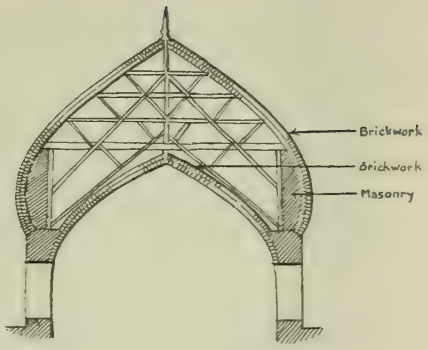


FIG. 32.

oned above, have been considerably
ed. but the peculiarities noted are
al.

Persia the pointed bulbous forms were
d with little variation. The domes
generally composed of two shells, the
one exposed to the interior, and the
and bulbous shell, which is supported
on timber framework, seen only from
tside, as shown in Fig. 32. In Egypt
yzantine forms were followed in the
mosques. At Constantinople, after its
1453, a great number of mosques were
y the conquerors under the direction of
architects. These were covered with
constructed after the pattern of S.
and differing from that model mainly
manner of abutment offered to the
of the pendentives. In the
aniyeh, built 1550-56, the dual method,
s, partly by semi-domes and partly by
vaults reinforced by buttresses, as at
hia (Fig. 24), is adopted, though here
rrel vaults are enclosed within the
g and the end walls erected near their
faces. In the mosques of Shah-Zadeh,
8, and of Ahmed I, 1608-14, the pen-
es are abutted on all four sides by
omes.

HIBITION NOTES.

NSTITUTE OF INDUSTRIAL ART.

uthorities of the Victoria and Albert
, in housing yet another exhibition of
stitute, have, no doubt, in view to en-
the drawing together of art and industry,
n industry with art. Anything which
her this aim deserves our warm approval,
ld we lose heart because the enterprise
ded with many difficulties. At the
me, in the exhibits brought together,
evidence of progress. We must not,
ask every artist to divert the direction
wn work to accommodate industrial
It is not all art that is near to
l production, and perhaps the finest
bly farthest away. Nor should we
at some of the best artists would be
such an exhibition. At the same time
ork of craftsmen working more within
e of industrial production setting a
tter standard, and this is seen parti-
be the case in the type printing and
The present exhibition, well worth
veals better than previous ones the
purpose of the Institute, even though
e and there below its own aim. But
from the exhibition work of some of
eminent artists it should not lead us
the exhibition as failing in its own
hich, making the present level of
production its starting point, selects
t of it, or at any rate aims to do so,
ines with it the more personal pro-
artists and craftsmen working in
directions as an inspiration towards
utlook.

Though far from being wholly representative of modern craftsmanship, the exhibition shows a very wide range of creditable work, which we propose to review in a later issue. It is somewhat anomalous in such an exhibition to find as one pole of it the very personal and accomplished work of Mrs. Phœbe Stabler, and as the other the stand labelled "Nottingham Lace," for what may not such a scope include? Yet we realise the great difficulties which are perhaps inherent in such an aim. Whether one or other of such exhibits should not be there were difficult to decide, but in such case why not the whole of Oxford or Regent-street? We would only say to the promoters, do not ask too much from the good craftsman, lest the trade should establish in his mind that his place is elsewhere.

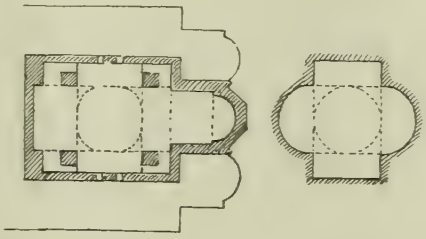


FIG. 26. FIG. 27.

LONDON SALON OF PHOTOGRAPHY.

The first impression of the London Salon of Photography Exhibition is more that of a series of pleasing tone pictures than of photography as we usually think of it. Take such examples as Nos. 244, 130, 86, 79, 76, 57, 38 or 29 and one sees that herein the artist has made his medium subservient to his will. Scores of photographs published in our daily papers could be controlled and modified with little effort from the hands of an artist to soften and distinguish the appeal. Where the technical values in the photograph are at their highest the picture value is sometimes the worst, but in such a subject as "The Abyss" (86), by Alex. Keighley, the technician and the artist achieve a very fine result. When you come to a photograph by the new reticulating process (374), by L. J. G. van Ewyk, you may rouse the instincts of the mosaicist, for such prints translated into colour mosaics might be admirable. Amongst excellent architectural subjects should be noted 244, 262, 300, 164, 53 and 42.

The Incorporation of Architects in Scotland.

We have received the Summer number of the *Quarterly Illustrated* of the Incorporation of Architects in Scotland, which is an attractive publication. It contains a paper on "Reinforced Concrete Construction," by Mr. George Allen; "Towns and Town Planning—Ancient and Modern," by Messrs. T. H. Hughes and E. A. C. Lamborn; an account of the Editor's holiday on the Norfolk Broads, &c.; particulars of the British Architects' Conference in Edinburgh this year; and Council notes. (Edinburgh: 15, Rutland-square. Price, 1s.).

HAMPSHIRE ARCHITECTS' ASSOCIATION.

HAMPSHIRE and Isle of Wight Architects' Association held their annual exhibition at the Municipal Art School, Bournemouth, last week. There were drawings loaned by the Royal Institute of British Architects, and executed by competitors for the various studentships offered annually by the Institute. The exhibition also comprised work done by the students of the local Association and illustrations of the work of Hampshire architects who are members of the Association. Drawings loaned by the Royal Institute of British Architects included the design for the Campidoglio, Rome, which won the silver medal, and a design for the Italian Embassy, which was awarded the Tite prize. At the opening ceremony, the Mayor of Bournemouth (Alderman C. H. Cartwright) officially welcomed the members, and referred to the presence of Mr. J. A. Gotch, president of the Royal Institute of British Architects. Mr. A. L. Roberts, the Hampshire County Council Architect (occupying the chair in the absence of the President, Sir William Portal), highly eulogised the services to architecture of Mr. Gotch, whose election to the presidency of the R.I.B.A. stood, he believed, for a closer bond of union between the Institution and its allied societies. The architectural education of the public was equal to, if not of greater importance than, that of students.

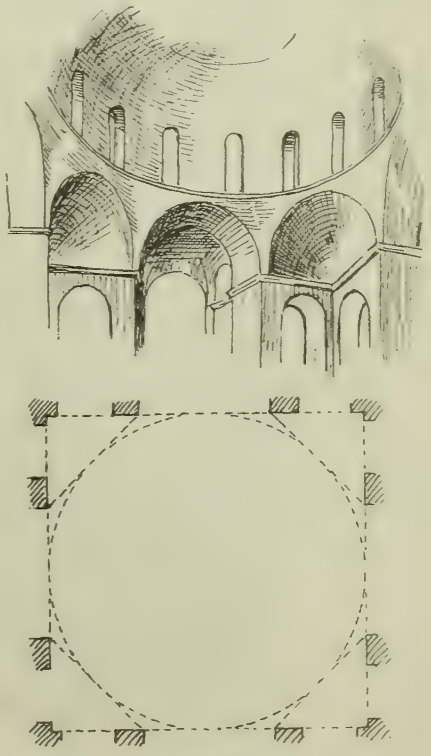


FIG. 28.

LEADING CONTENTS.

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ILLUSTRATIONS.

Armstrong College Library Competition.

We illustrate this week the second and third premiated designs in the Armstrong College Library Competition, by Mr. W. G. Newton, F.R.I.B.A., and Messrs. Mauchlen and Weightman, respectively. The first premiated design, by Mr. A. Dunbar Smith, F.R.I.B.A., was given in our last issue. Some notes on the designs submitted are given on p. 397.

St. Catherine's Church, Hammersmith.

St. Catherine's Church, Hammersmith, has been erected out of the proceeds of the sale of the site of St. Katherine Coleman, one of the condemned City churches, and direct continuation between the two churches has been secured by the re-erection of all fixtures of St. Katherine Coleman worthy of preservation.

The problem has been to provide at a reasonable cost a thoroughly well-built church, with a seating capacity of 500 in the nave, 40 in the choir, and 60 in the chapel.

The interior is one large hall, 44 ft. in width and 45 ft. in height, barrel vaulted, in fibrous plasterwork. Owing to the employment of steel in the construction of this church it was erected in a little over six months, at a cost of £16,000, a cost which would have been double under the old conditions. Steel framing has enabled the walls to be kept thin, and spaces have been left to form ducts. Dr. Oscar Faber, O.B.E., was the consulting engineer for the steel work. London stocks have been used throughout, and effect has been obtained by simplicity of mass and proportion, without the addition of ornaments or moulding. The roof is covered with buff pantiles.

The question of acoustics has been carefully considered and the end wall padded to avoid any ill effects due to the barrel vaulting. Mr. Hope Bagenal, A.R.I.B.A., was consulted on the question of acoustics.

The general contractors were Messrs. John McManus, Ltd., and the sub-contractors included:—Bricks, Eastwoods, Ltd.; casements, R. E. Pearse & Co., Ltd.; pantiles, William Saint, Ltd.; constructional steel, A. Dawnay & Sons, Ltd.; door and window furniture, James Gibbons, Ltd.; electric light installation, Grierson, Ltd.; special electric fittings, Louis Dernier & Hamlyn, and Heal & Sons; wood flooring, Stevens & Adams; heating and ventilation, J. Jeffreys & Co.; pews, Hampshire House Workshops, Ltd.; marble work, Fenning & Co.; ornamental metal work, Thos. Elsley, Ltd.; plasterwork, Samuel Wright & Co.

Mr. Robert Atkinson, F.R.I.B.A., is the architect.

House at Hamble.

Messrs. Baillie Scott & Beresford are the architects of this house, which occupies a fine site overlooking the liner anchorage in Southampton Water. Lawrence's bricks of mixed colours are used for facings, with old tiled roof. The plans illustrated show the lay-out and position of the various rooms. The interior is on Georgian lines, with panelled rooms. A feature will be made of the garden, which will be laid out on formal lines by the architects. The builder is Mr. H. G. Ross, of Netley Abbey; casements and leaded lights were supplied by Messrs. George Wragge, Ltd., of London.

Design for Residential Club, Chelsea.

This design, by Mr. Arthur T. Bolton, F.R.I.B.A., was made for a client interested in Ingram House, Stockwell, as a development of that scheme in the direction of providing, in place of the large number of club rooms of the former scheme, a series of private studies. It was also desired to utilise a more expensive site, but on the same scale of members' payments. A further condition was that the resident manager's house should be in the main building, instead of being in a detached house on the site, as in the club actually built. Certain other modifications were also introduced into the original scheme.

Proposed Flats, Eastbourne.

The block illustrated consists of sixteen self-contained flats, served by two staircases. Each flat comprises a sitting-room, kitchen, two bedrooms, bath, and w.c., the idea being that they would be used by people of small means. Economy of planning has been one of the main objects, and an effort has been made to keep the building in harmony with the locality. The architects are Messrs. Cheadle & Harding, of 2, New-square, Lincoln's-inn, W.C.2.

House near Guildford.

This house is 1½ miles from Guildford, and was recently completed. The view shown is of the south and west sides. The materials used are:—Walls: Local wire-cut bricks distempered cream. Chimneys and plinth: Local purple stocks. Roof: Cornish green and rustic slates mixed (Roberts, Adlard & Co.). Windows: Lead casements (G. E. Welstead, of Croydon) in wood frames. The contractors were Messrs. Chapman, Lowry & Puttick, Ltd., Grayshott.

The house has a large sitting-room, 40 by 21 ft., divisible into two by sliding doo and the whole panelled in walnut; a ha small study, 7 bedrooms, 2 bathrooms, a usual offices; with gardener's cottage attache and with approach from the house for p poses of caretaking. The loggia, shown the drawing, is of teak, untreated.

The architects are Messrs. Knapp-Fish Powell & Russell, of 133, Ebury-street.

Messrs. Cassells' New Premises.

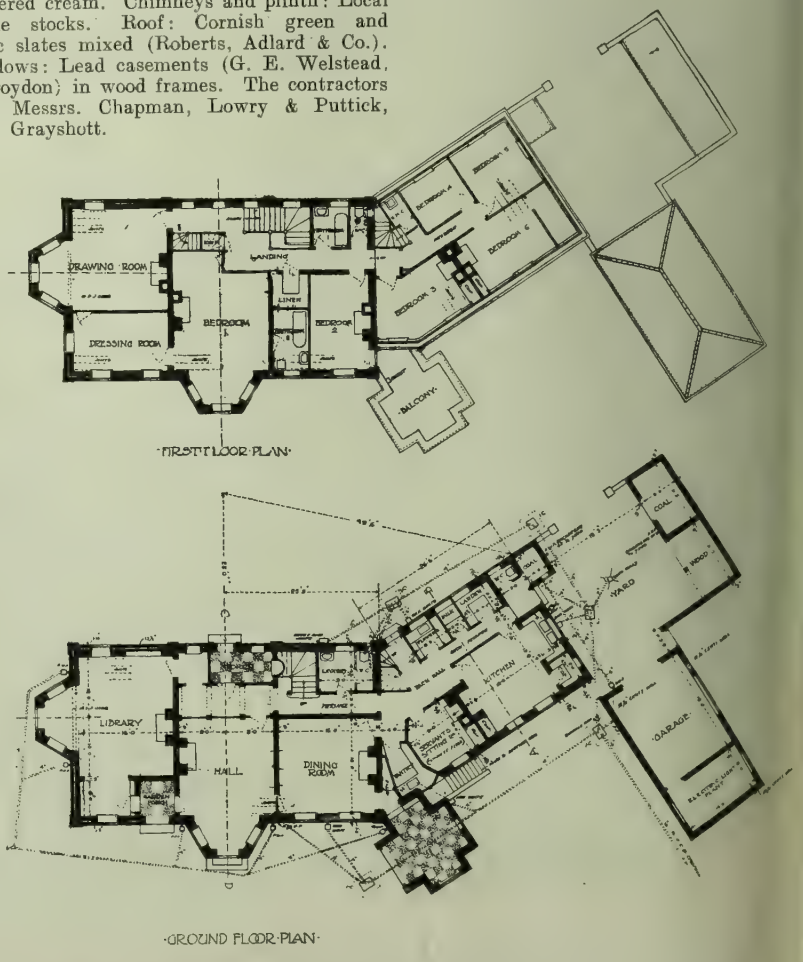
In conjunction with the reconstruction Messrs. Cassells' premises in La Be Sauvage-yard, Ludgate-hill, E.C., we ill trate the new front to No. 5 Building, wh is now the chief entrance at the north end La Belle Sauvage-yard.

The main buildings internally are being modelled and equipped with central heatin electric lighting, sprinklers, and vacu cleaning; the extension of the floors to ca very heavy machinery; erection of goods lif and other works.

For the sculpture over the entrance d inspiration has been sought in "The Beau ful Savage" as the chief *motif*.

The architects are Mr. Sydney Tatche F.R.I.B.A., and his partner, Mr. Geoffrey Wilson, A.R.I.B.A. (Messrs. Bourchi Tatchell & Galsworthy); the carving has be executed by Mr. George Alexander.

Messrs. Higgs & Hill are the general co tractors, and the principal sub-contracto are:—Constructional steelwork, J. Lysag Ltd.; lifts, Wm. Wadsworth & Sons; me windows, C. E. Welstead, Ltd.; lanter skylights, etc., Luxfer Co., Ltd.; sprinkle Mather & Platt, Ltd.; grille and bronze wo F. G. & S. H. Frost; heating, J. Jeffreys Co., Ltd.; electric light, Jacob, White & C Ltd.; vacuum cleaning, British Vacu Cleaner Co., Ltd.; decorations, G. & Brown, Ltd.



House at Hamble. MESSRS. BAILLIE SCOTT & BERESFORD, Architects.

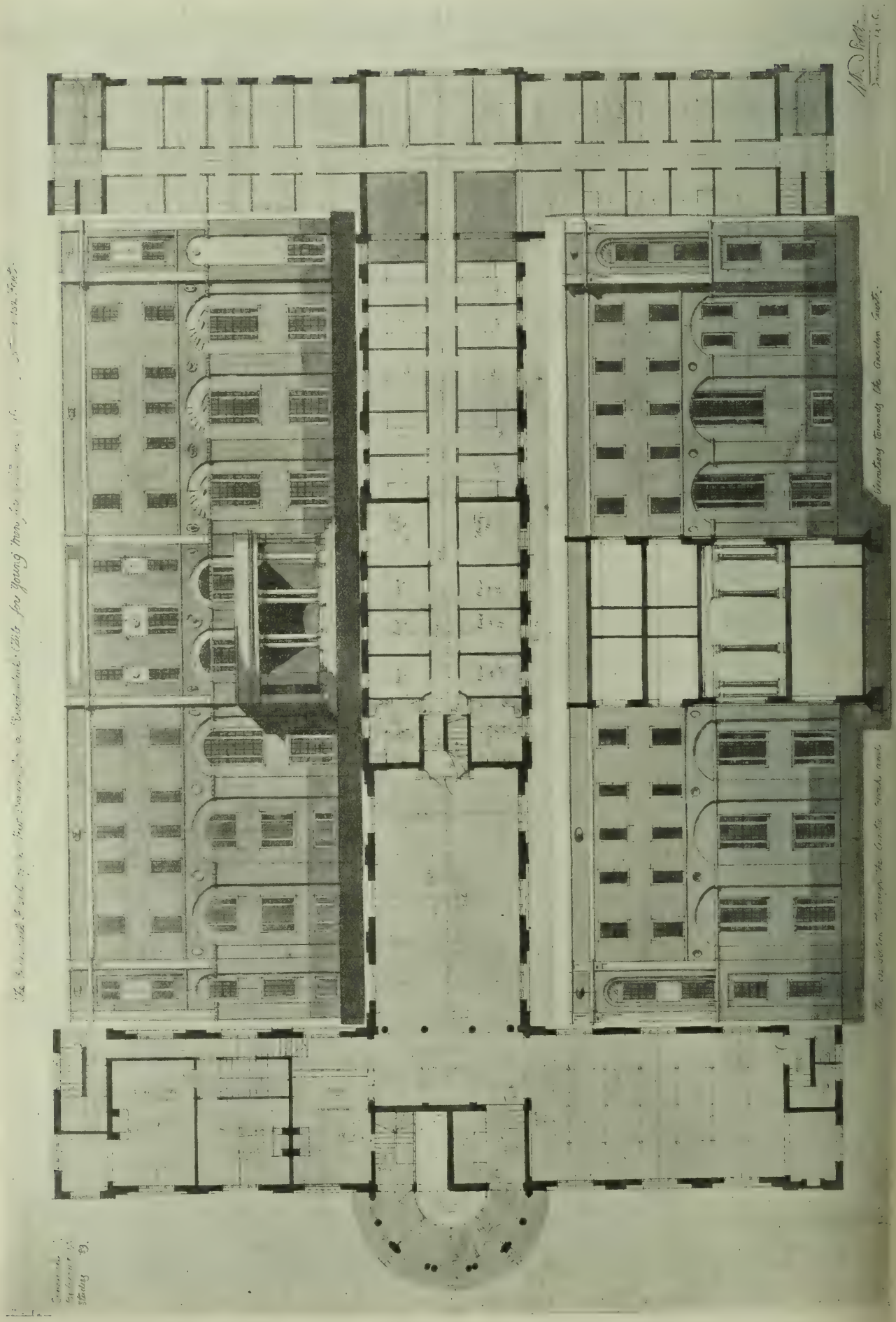


Detail of Carving over Door.

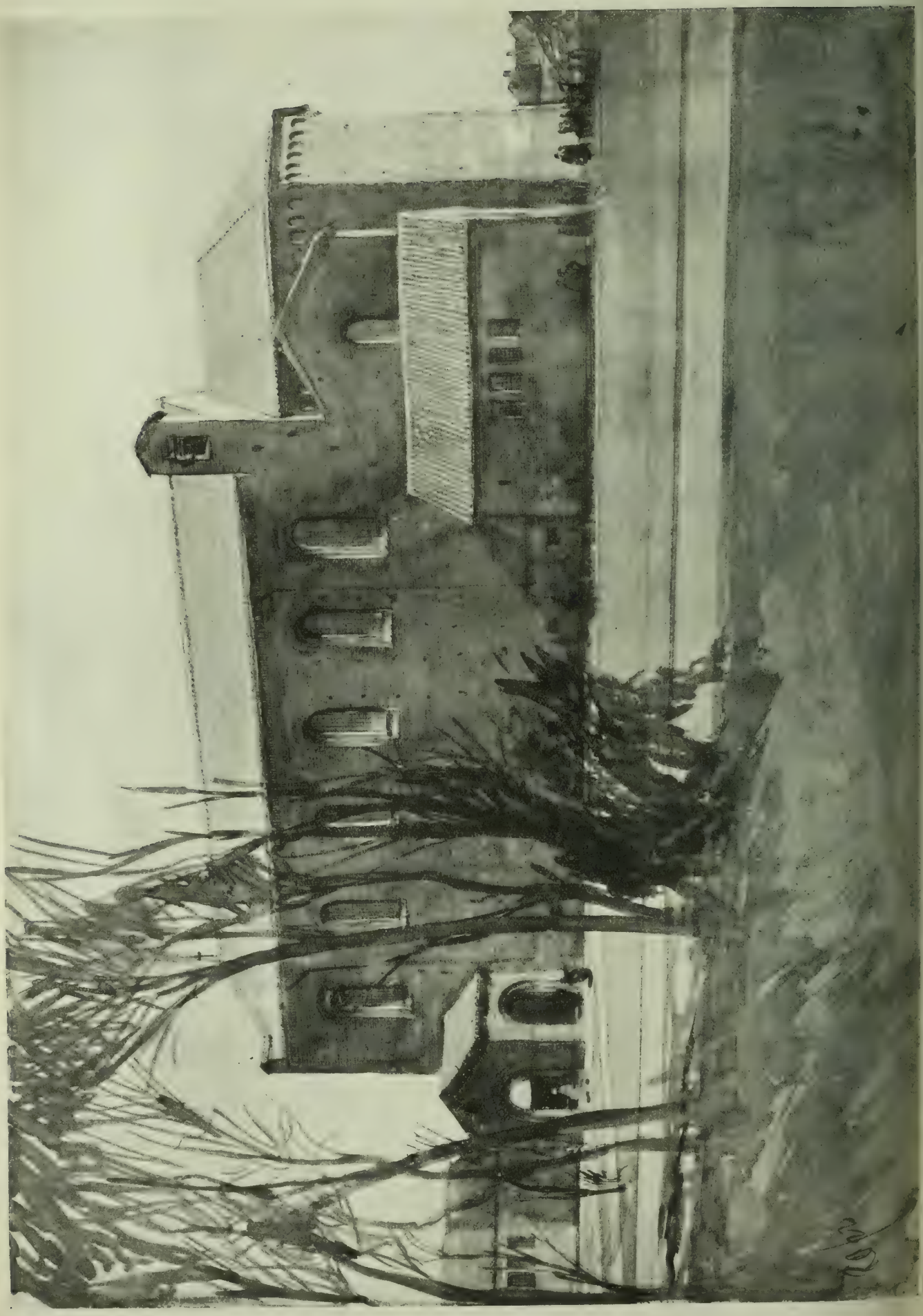


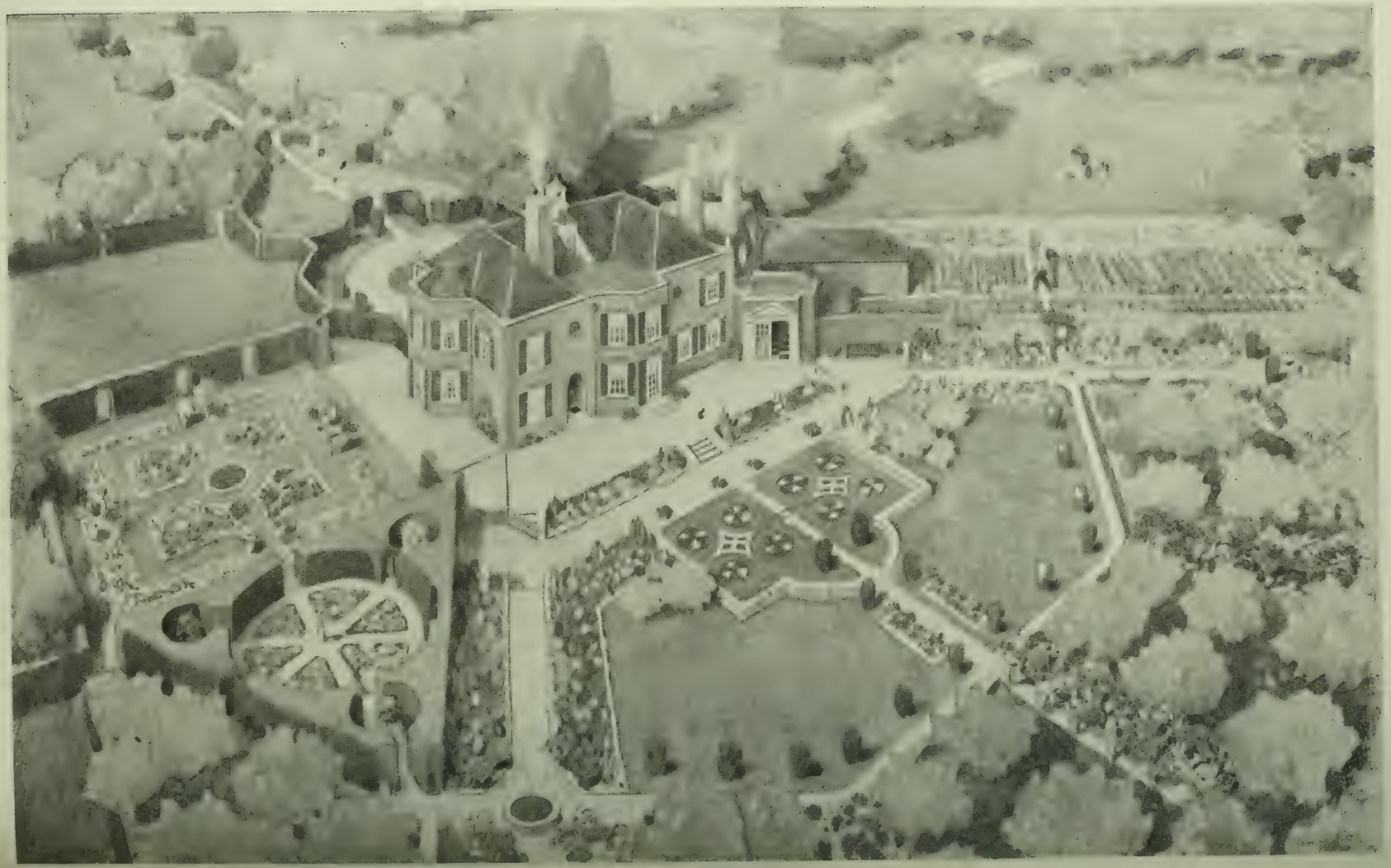
Entrance-Front of Messrs. Cassells' New Premises.

Mr. Sydney Tatchell, F.R.I.B.A., and Mr. Geoffrey C. Wilson, A.R.I.B.A. (Messrs. Bourchier, Tatchell & Galsworthy), Architects. (*See p.* 402).



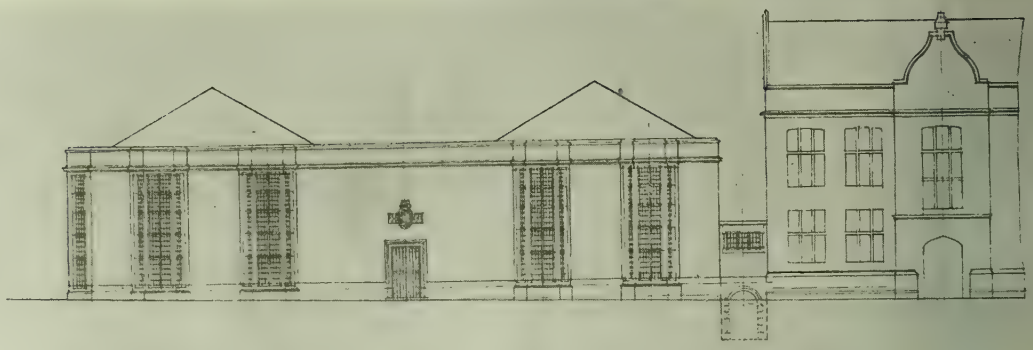
The Principal Front of a new design for a Residential Club for Young Men.



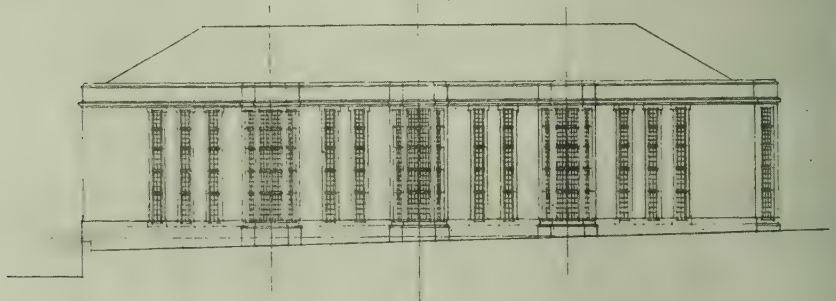


HOUSE AT HAMBLE.

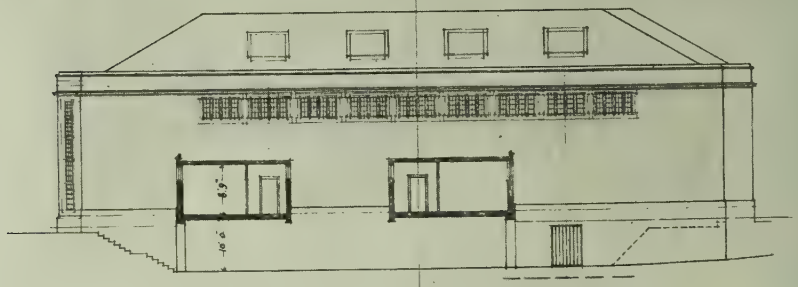
MESSRS BAILLIE SCOTT & BERESFORD, Architects.



SOUTH-WEST ELEVATION



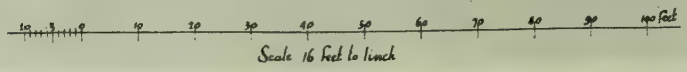
NORTH-WEST ELEVATION



SOUTH-EAST ELEVATION



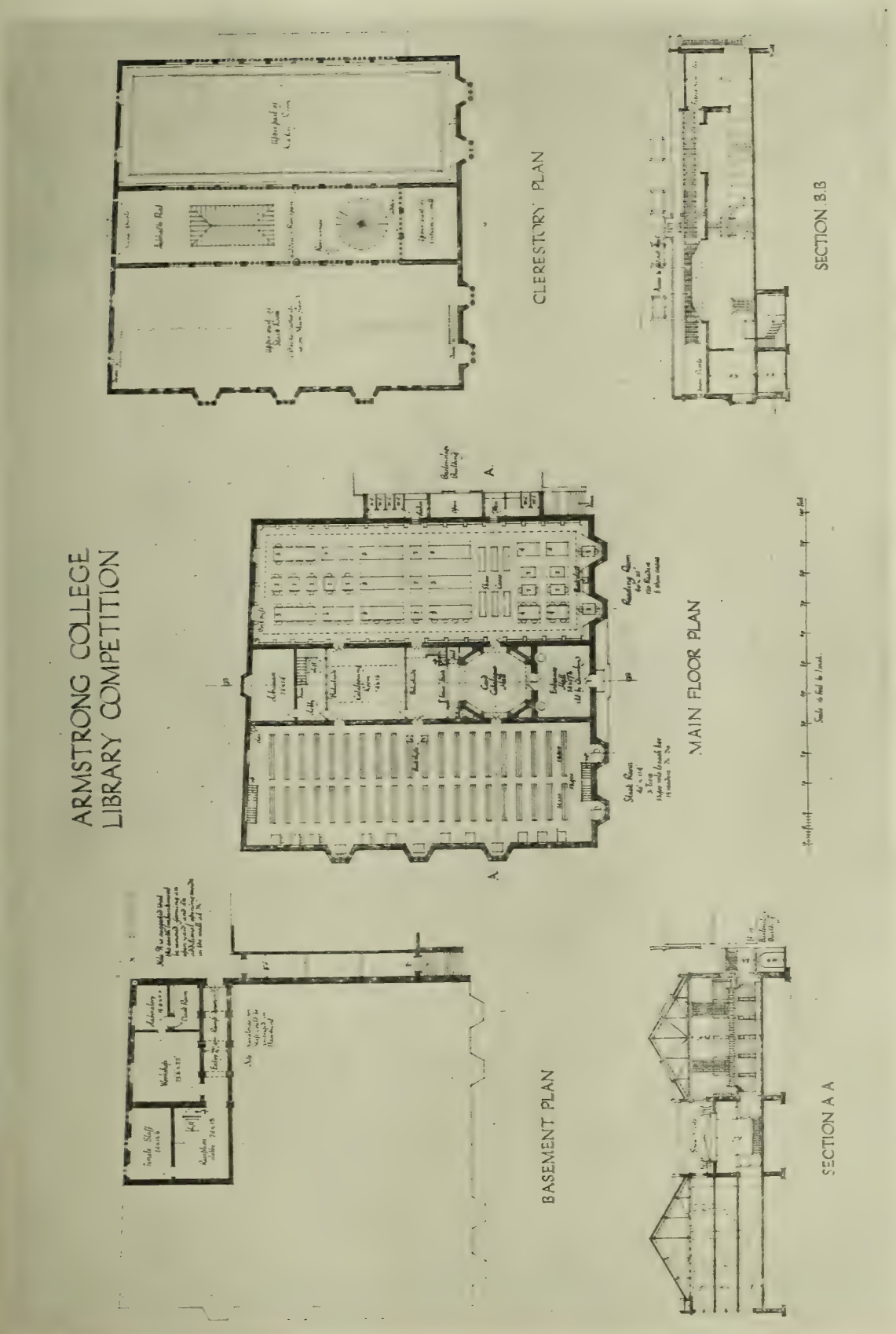
NORTH-EAST ELEVATION



Scale 16 Feet to Inch

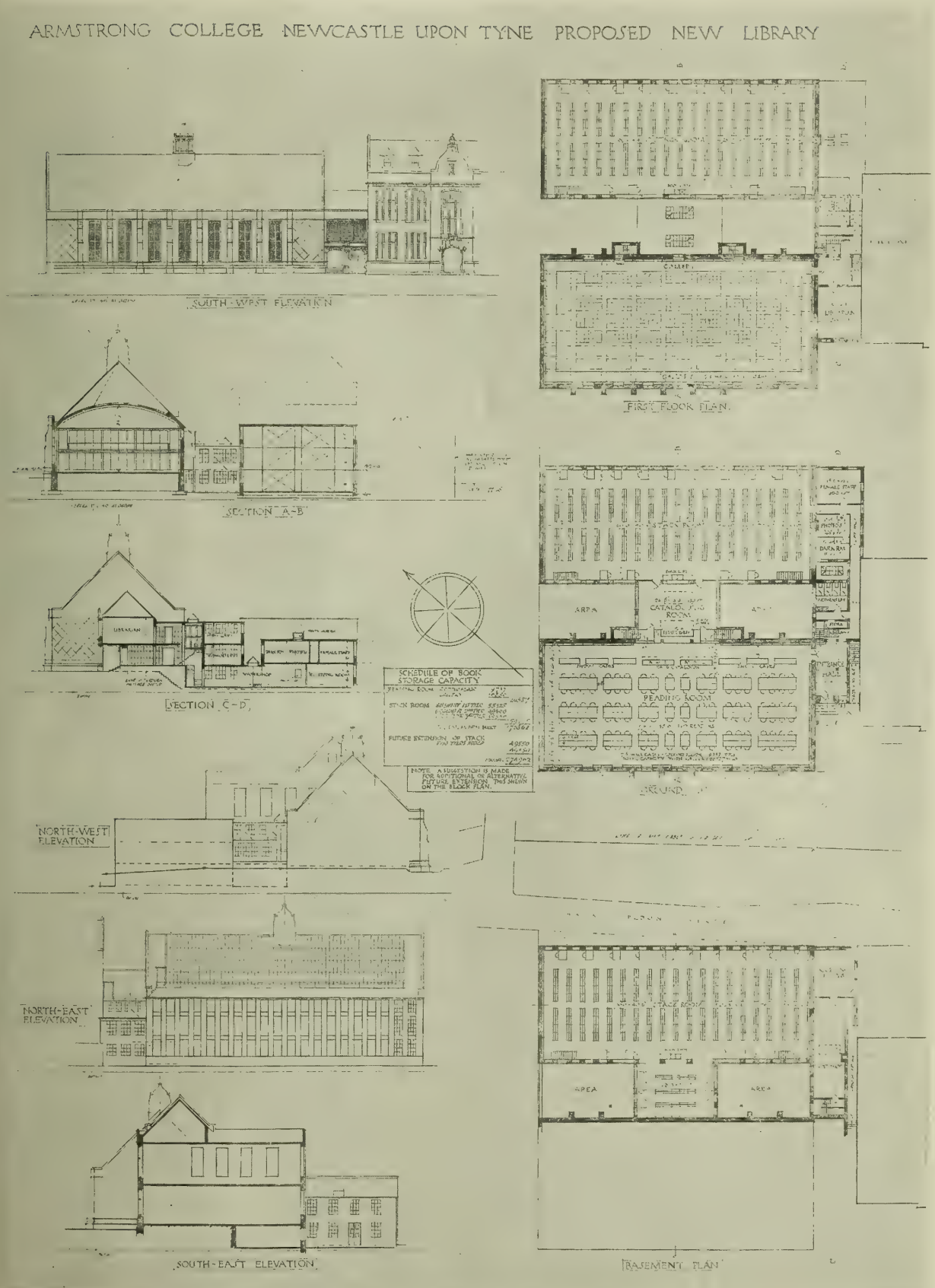
ARMSTRONG COLLEGE LIBRARY COMPETITION.

SECOND PREMIATED DESIGN, BY MR. W. G. NEWTON, M.A., F.R.I.B.A



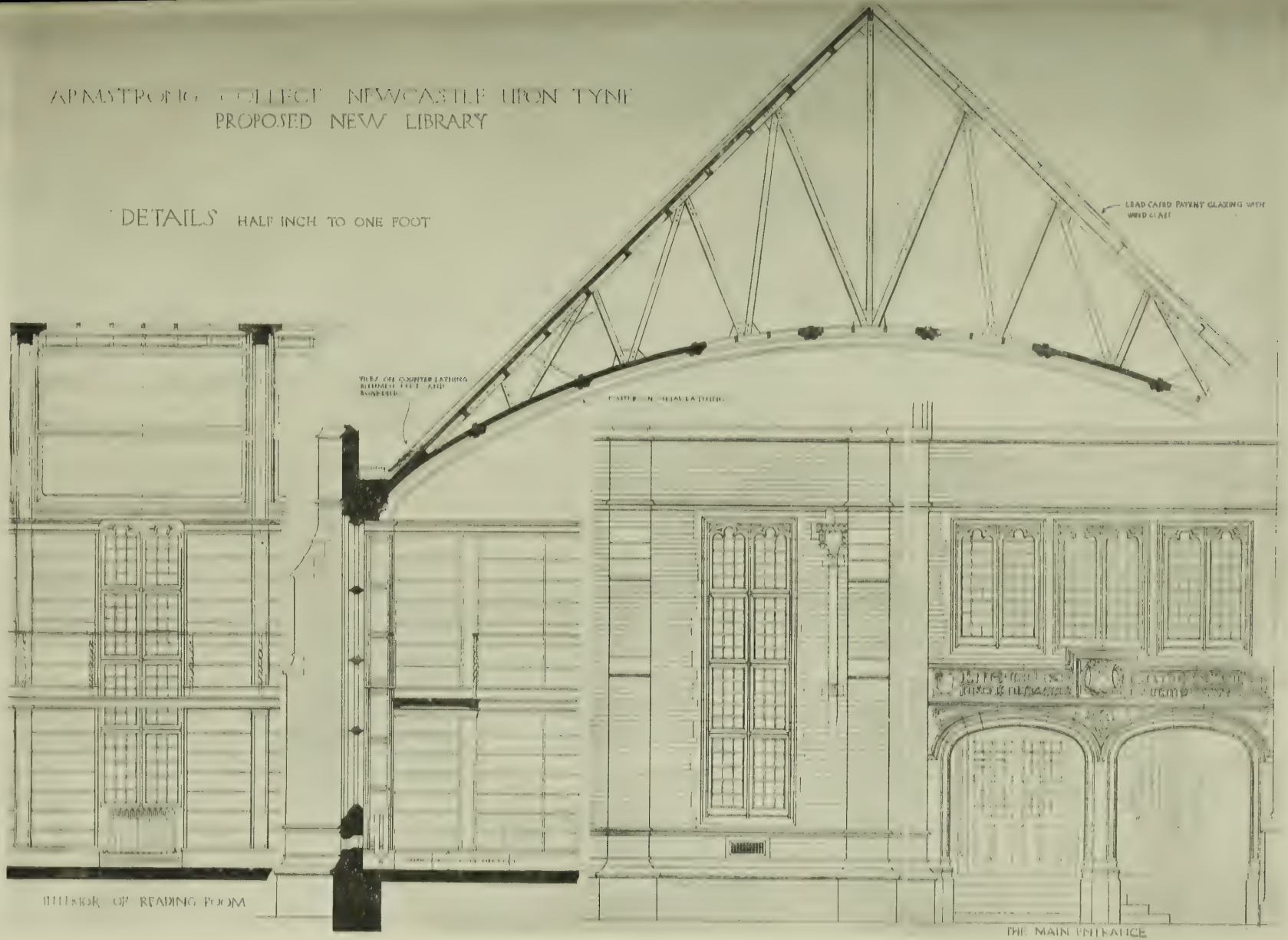
ARMSTRONG COLLEGE LIBRARY COMPETITION.

SECOND PREMIATED DESIGN, BY MR. W. G. NEWTON, M.A., F.R.I.B.A.



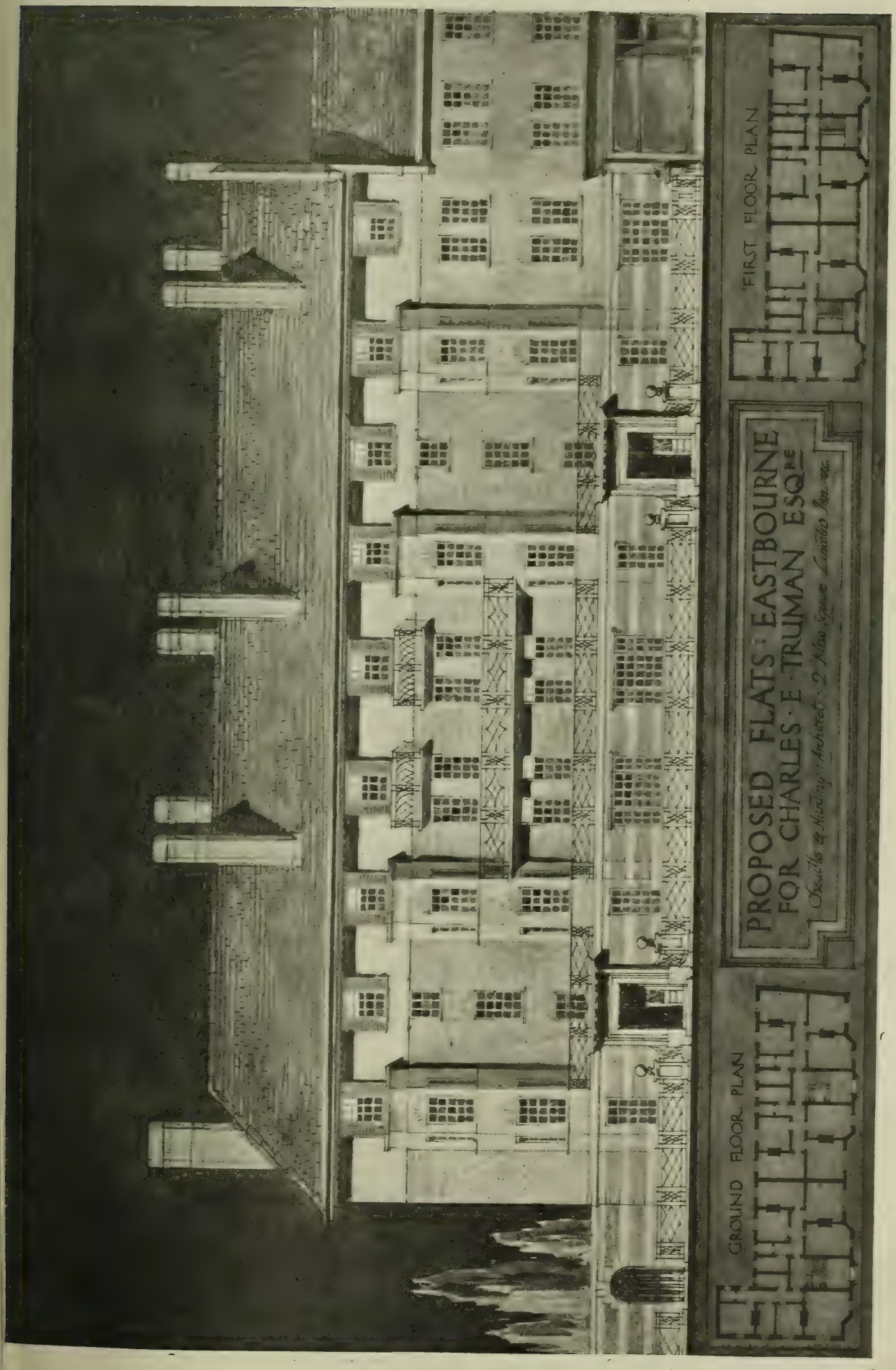
ARMSTRONG COLLEGE LIBRARY COMPETITION.

THIRD PREMIATED DESIGN, BY MESSRS. MAUCHLEN & WEIGHTMAN.

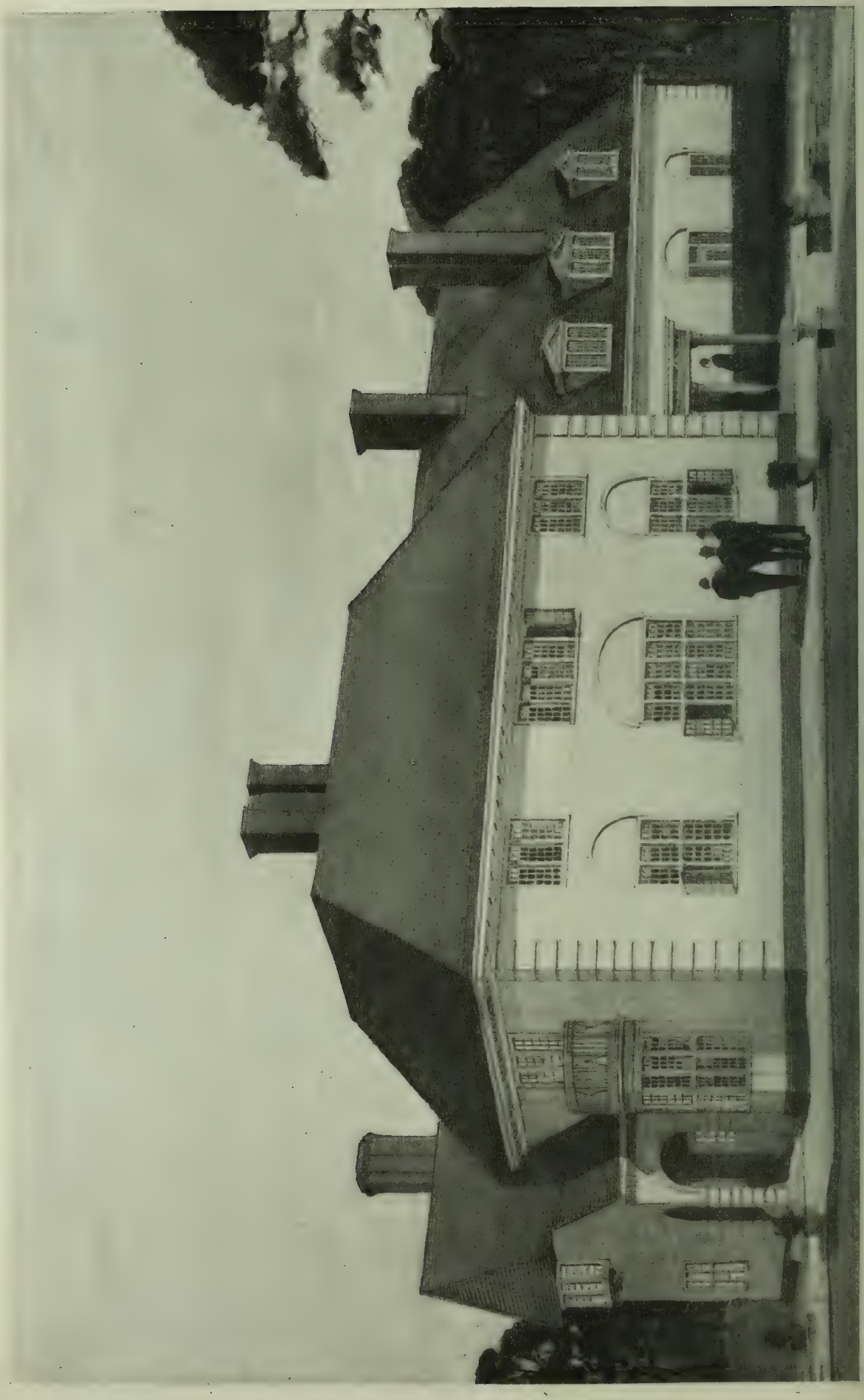


ARMSTRONG COLLEGE LIBRARY COMPETITION.

Third Premiated Design, by Messrs. Mauchlen & Weightman.



Messrs. Cheadle & Harding, Architects. (*See p.* 402).



House near Guildford.

Messrs. Knapp-Fisher, Powell & Russell, Architects. (*See p.* 402.)

COLLINGWOOD TOWER CAMBERLEY SURREY

Mr. H. Reginald Poulter, Architect.



Design for Nurses' Home, The Retreat, York.

By Messrs. Ernest G. Allen, F.R.I.B.A., & Partners.

[This design was submitted by Messrs. Ernest G. Allen, F.R.I.B.A., & Partners, in the limited competition recently held. The materials proposed to be used were brindled stocks with red quoins and string courses, stone centre feature, and sand-faced tiled roof.]

LONDON BRICKWORK.

By A. E. RICHARDSON, F.R.I.B.A.

THE brickwork of London in substance and aracter is as familiar as the plane trees that d kindly shade to the protected oases in the y's midst. To metropolitan eyes it appears vitable, and for that reason is accepted hout enquiry. The foreigner, unaccustomed its precision and reticence, sighs for the erficial brightness of the Continental cities h which he is acquainted. Such conventional nery as is presented by the older quarters of ndon does not enter into French, Spanish or lian conceptions of building values in masses. ing English, the average citizen, who is a ndoner as well, is prone to listen to censure l to take for granted all that he is told; thus as come about that brickwork is relegated the level of a corduroy material, rough in ture and not fit for polite society.

A little reflection will show the reverse to be case. Here is a fine building system of glish mould, stern and unbending it is true; irst glance forbidding, but capable and strong. h a reserve and dignity holding the secrets centuries. We hear to-day of schemes for ivening the town; some there are who uld have the house fronts, now plain, be-ened with ceramics, while others suggest the dual rebuilding of the streets in Portland ne. Such ideas rouse little zest, for it is rious that London has a character of its own ich no Jacob's coating would better. Is it not mly that modern Babylon should in the main built of rectangular blocks of burnt clay, with ly dressed Portland stone to carry the lence of the public buildings? Does not this at city possess the glories of Wren's mind, silhouette of Paul's and the attendant fleet churches, as well as the pencilled lines of the bey and the palace of Westminster? The ventional scenery of inner London is mighty l impressive; it is as a stage set for the coming l going of myriads of players; the exits and entrances defy analysis. It is an assemblage vertical walls pierced into countless openings, surface of a colour and texture indefinable, mass, of an obscurity remote; by day teem-with movement, at night populous with the rits of other times. Here within the acres of kwork is concentrated the genius of the race; e the seemingly expressionless house fronts e gathered on their external surface a stallisation of thought and action denied to superficialities of Paris or the forbidding ects of Berlin.

t one time the Londoner took a pride in his ve brickwork; we have the authority of yle for the beauty of Chelsea, and are aware he scorn he poured upon the acrid putre-ces of Belgravia. To ordinary eyes London kwork is dull, drab and dirty; no thought ven to its humane properties, to the beauty s proportions, or to the size of the indi-al bricks which come so readily to hand are an index to the vastness of the idea. le outwardly expressing contempt, the hetic Londoner does not suggest that t clay for walling is bad in itself, any more he sees fit to question the squared flag-es of the ancient footways or the official ing of the street lamp-post. His penul-te reason is that common brickwork is as ane to the fact of his being as the clay dation upon which the city stands and gh which the river flows.

is a pleasant thought, the bricky nature of netropolis, the cube masses made up of l cubes, the comparatively insignificant and nonplace giving scale and coherence to whole. Egypt and Babylonia never saw ike. The Roman who strengthened the of Verulamium with courses of long bricks unknowingly provided ready-made material he Norman), in his rare visionary moods not foresee the day when the shores of hames would stand stiff with the clay he trod underfoot. The diversity of London walling is a study in itself; every house-has a marked individuality, every street possesses a clannish aloofness. Where to the casual observer everything seems alike, to the penetrating eye there is as much expression and interest as exists among the crowd of faces that pass and repass. For the truth is that brick-work is graded as is humanity.

There is rich brickwork and middling, shabby gentility stands nigh poverty, arrogance keeps company with dignity. The learned wax eloquent of the secrets of cuneiform and remain ignorant of the story set forth in the straightened lines of London walls, truths indelibly impressed in terms of dressed clay. It is a fascinating theme, so apparent and so alluring, perhaps because of its familiarity; in all but the plain telling of the tale can be explained the reason for the neglect. All writers and poets have felt the mighty spell of the city and have sung its praises; artists have limned its changing countenance; yet the epic value of its principal building material has escaped the points of mighty pens. It is both false and unfair to say that with such a material the old town is dull. The very nature of the burnt earth blocks, the size, the shape, and the colour, forbid defamation. With what readiness bricks can be lifted, with what regularity they can be spaced; and how monotonously interesting the coursed masses appear, demonstrating as nothing else does or can the ceaseless persistency of the English, no less than the *terribilita* of modern development. With such walls and such interest London can never become a Babiuitha. From the Conquest to the Great Fire it was a city of timber, of tile and thatch. At the time of the Reformation parts of the capital were expressed in terms of mediæval brickwork and terracotta in imitation of Wolsey's ambitions at Hampton Court.

After the Fire, when London, like a phœnix, rose anew from the embers of mediævalism, brick was the material universally adopted by Act of Parliament and Corporation behest for the new houses. With Sir Christopher Wren at the head of affairs a new complexion was given to the narrow streets and alleys—Portland stone for the ruling buildings and brick for the lesser. Men remembered the line of fortifications set up in Old Noll's time to the north of the city against the forces of the king, as well as the fields beyond; and it was hereabouts that London's bricks of the late seventeenth century were made. So revived the craft and mystery of brickmaking and bricklaying on a scale which rendered the labours of Inigo Jones insignificant, and threw into obscurity the bricky essays of Lincoln's Inn, which Ben Jonson, as an unwilling votary, rang his trowel upon.

Under the hands of Wren's men the forest of scaffold poles quickly gave place to walling of plum-coloured London brick, enriched, as taste decreed and purse allowed, with cutters for the string courses to mark floor levels, and purpose-moulded sections for cornices fully charged, denticular, or plain. Then it was that King Clay came to the assistance of Gog and Magog, still smarting from their burns, attended by a host of rubicund and leather-aproned courtiers, who could pick up the mysteries of gauged work recently out of Holland, construct the rubbed brick enrichments of King's Bench Walk or the pilasters of Christ's Hospital from Wren's "details in great," or temper the varying surfaces of the master's additions to Hampton Court. Nor was the art of the chiseller neglected, for the finely-gauged brickwork with its delicate putty joints admitted of carved ornament such as palmettes and the dimpled heads of cherubs, so expressive of the new era. With so much building the bricklayer became a man of consequence and, as history records, even an aspirant to the status of architect.

As the walls show, the modern spirit of London began with the works of Wren. Save for surface differences, an increased busyness, or additional interest of misplaced ornament, the aspect of things insular is much the same as when Charles the Second sauntered at Whitehall. What is true of the house fronts applies equally to those who inhabit them. Kind houses, pleasant people, repellent walls and hard faces. There are times when the brickwork becomes friendly, even on days of murk; there are hours when one longs to escape into the distant fields, especially when the mood tends to feelings of hypochondria and the vastness of the labyrinth depresses. There is something of fantasy in the different heights of the bricky cliffs, something so extraordinary and unexpected, so grotesque yet so explicit as to cause speculation why Englishmen consent to voluntary imprisonment within such neatly sashed boxes. The conventional scenery is the natural dress; it is inexpensive, it is conducive to privacy, it is at once democratic and unassuming. Outwardly, to all but the initiated, the houses look the same; but personal idiosyncrasies are expressed at a score of points. Is not the earthy character of the bulk of London, its disciplinings and rulings, its ultra-respectability and aloofness necessary to the brilliancy of Cockney wit?

Londoners glory in horizontality; they have no shame about their chimney-pots, which they affect not to see. It needed a Canaletti to climb the roof and draw the skyline of the City which Wren devised before the average man realised the contour of Paul's dome and the fingers of the churches extolling the majesty of the skyscape. Study the brickwork of London and the minute history of the last three centuries stands forth; it is as though one had at one's disposal a mighty diary of events wherewith to gauge modern progress. It is possible to read history anew, course by course, so to speak, for the burnt clay is always true. Stuart brickwork has the interest of being the lineal successor to the Tudor tradition as well as parent to the walling of Queen Anne's day. It is a voluminous material, as intriguing as the draperies of Lely's beauties or the cloaks of Kneller's men.

It has its lighter expressions, such as the bowtells to the arrises of windows, its swathing bands of the rebirth of Classicism, its gauged brick arches and quoins, with a gamut of ornamental quips and conceits, as self-searching, condemnatory and good-humoured as the most entertaining extracts from the gossip of the inimitable secretary.

From the days of the Great Fire to the hour of Queen Anne's death, English brickwork had a prestige to which homage was paid in the distant lands of Virginia or Pennsylvania. Not only could the craft claim ancestry from Plantagenet and Tudor England, but it had taken lessons in deportment from the polite masters of Flanders and Holland. King Clay, with his lesser king and queen, closers, his head-men, longmen and batmen had made great advances. His was a cheerful countenance, as yet ungrimed by the conspiracies of King Coal and his myrmidons, his rulings acknowledged by city and court alike. He was truly free of London and at home east of Temple Bar or at the Court of St. James's. Common Clay, indeed, not in those times. A right royal material, forsooth, and one most fitting for the walls of English homes.

The compromise between things mediæval and things modern can be dated from the rebuilding after the Fire. London, it is true, came under the thawing influence of Classicism at this time, but she found material for her physical substance from the neighbouring soil, nay, from among the very bones of those of her dead, whose bodies in a sufficiency commingled with the earth. Perhaps the gloomy thought, common to all, of Cockayne, "When I am bricks and mortar," originated with Wren's building activity. Will Mr. Austin oblige and set the theme to harpsichord music to jingle with "Oranges and Lemons," or other catches equally rich and gay? The bricklayers, who, in the days of Old Rowley, worked their will upon the streets of London, took more than a passing interest in their craft; they were men of longevity, but all did not live to see the prolific outpourings of Hogarth who, in his delineations of life and scenery in London, acted as the chief missioner of mid-eighteenth-century custom. With the advent of George the First, a slight departure came over the

external treatment of brickwork. The master bricklayers, quick to respond to novelty, expressed the new regime of Walpole and the heavy German retainers of the Hanoverian court by forming segmental arches over the windows to the house fronts. It was as though the humbler sort of people wished to register their resentment at the appearance of such interlopers by raising a protesting eyebrow *in perpetuo*.

So we pass in review, aided by the topography of the streets, to the year 1728—a fine period and a merry—with Ripley building the Admiralty, London going out of town westerly from Holborn along the Oxford-road, and Mayfair in the making. What a delectable background for Gay's "Trivia," and how delightfully the panniers of the women's skirts and the frogged coats of the men harmonised with the brickwork and white paint. To the eyes of Lord Burlington, as Kipps shows in his views, the best streets stood at attention, accoutred and pipeclayed like Grenadiers on parade. The scene changes again. Another George succeeds to the emblem of Lion and Unicorn. Windows are straightened at the heads; plum-coloured brick gives place to the latest mode of yellow stocks or malms—the best kind of building bricks. Then his Grace of Devonshire instructs Mr. Kent to build the mansion in Piccadilly (which will soon be hacked down). It is reasonable to think on all the bricklayers of London making trips in their Sunday finery to the ruralities of Piccadilly to see the cut of the latest Palladian mode. The benchers of the Inner Temple, eager to be in the fashion, order the new buildings of Crown Office-row to be devised in similar taste; and it is not long before Mr. Robert Taylor, the rising city architect, follows suit for his building, No. 35, Lincoln's Inn-fields. The years pass. Wren's bells toll; another George is gathered to his fathers; and then a clash—long live George the Third. There is great activity among the stage hands; new figures appear to add their quota, for the settings have to stand for sixty years.

There is Mr. William Chambers, high in Court favour; there are the Paines (father and son); and Athenian Stuart, fresh from the stone quarries of Greece; as well as the loquacious Adelphi from North Britain, who are to cast their oatmeal upon the very waters of the River. Small wonder that the latter caused surprise to the Tory craftsmen of London by importing bricklayers from Caledonia to lay bricks in the Strand to the skirl of the bagpipes, at a rate of pay lower than that allowed in the capital. It was not long before the Scotch bricklayers were enticed away, to be replaced by Irishmen from Dublin, who walked the scaffolding and founded the Irish colony in Seven Dials. Now we are in touch with the bricky fastnesses that Dr. Johnson and his circle knew, the homes of Reynolds and the coterie who established the Royal Academy and kept great state within the austerities of Berners-street; or we can make pilgrimage to the mansion in Portman-square, which Stuart built for Mrs. Montague, the blue stocking, who discomfited both wits and fops. It is apparent that the Brothers Adam and the tribe of Wyatt's knew how to interpret the Macaroni spirit of Carlisle House and the Pantheon. By the year 1770, it became the rage to add stringings of Liardet's cement to the honest facing of London brick, both old and new work being thus furbished to accord with the lacings of genteel tailoring. Robert Adam and his able brothers were forced to use brickwork for their speculations in the Adelphi and Portland-place, but their instinct for finely jointed stone never departed, and when they built the two sides of Fitzroy-square, towards the end of their lives, they chose to face the work with a veneer of marbled Portland.

At the close of the eighteenth century, by virtue of years, not the termination of its spirit, we are to see the passing of those whose labours had lent lustre to the streets. Mr. Henry Holland, the unofficial architect of the Whig party, is to engage on his speculations at Albany-chambers and to tempt London society to rent his houses in Sloane-street. We are confronted at this date with an abnormal building development—the heights of Pentonville are to be bricked, the meadows of Somers Town and Camden to be cut up into lots, and new dormitories to spring up at Stamford Hill and Clapton. Even the years of depression and volunteering by parishes, when Pitt saw no further use for the map of Europe, did not check the passion for bricks and mortar. The Regency brought forth Nash as the chief exponent of vast building schemes; he it was who devised the uniform of stucco, over rough brickwork, for the Crown properties; but there were a few nobles, such as the owner of Bath House, in Piccadilly, who preferred experiments in rubbed stock brick for the whole of the exterior walling. And so, through the succeeding reigns of George the Fourth and William (the sailor king), London developed its brickwork for the housing of its population. From 1805 onwards, the vacant lands of Bloomsbury were shaped into squares and crescents, thanks to Repton and Burton (the builder). While the Oxford-road, jealous of the new road to Paddington, extended its dressings to Tyburn preparatory to turning northwesterly along the Edgware-road. The late seventeenth century tradition persisted, but the brickwork took on the colour of sherry and marsala; it was losing the cheery figuring of earlier times. By this day, the inner ring of brickfields were encumbered with piles of buildings and the workers of burnt clay had perforce to carry their trade into the suburbs. There were kilns at Ball's Pond; at Camden Town; and near the York-road; there were others at New North-road, at Upper Clapton, Highgate and Finchley; and a few brickfields existed at Canonbury and Stoke Newington. All have served their turn and have long been swallowed in the capacious maw of London.

Such is the romance of brickwork that one ceases to wonder why so much can be said for a rectangular block of clay; but such are the varieties of its colouring, of its size and moulding, no less than the concentrated thought spent upon its production, that the greater wonder is that its properties are not now generally valued. With the accession of Queen Victoria and the perfecting of machinery, the technique of brickmaking underwent many changes. The railroad era brought into being the hard bakings beloved of railway practic There were tunnels and viaducts to construc immense embankments to buttress, and buil ings of a design and purpose without precede Such examples could not fail to change t style of town domestic architecture, and things became more matter of fact and le soulful, until the newer streets took on t frigidity of the 'forties and 'fifties, which d so much to harm the reputation of the earli work.

It is half-a-century since the interest in sou brickwork of a pleasant texture was first revive thanks to the skill of Norman Shaw and Ed Nesfield and the drawings of Kate Greenaw and Caldecott. In the hurly-burly of to-da we are prone to ignore the experimental subu of Bedford Park and its imitations. But it good to notice that English brickwork, as fi if not better than that of the best periods, now recognised as of value even for Governme housing. Never again must this nation material be allowed to sink into mediocrit It has not been possible in this article to avoi a few technical expressions—the jargon of th trade is best stated in the standard works but observant Londoners have a real affectio for the brick walls of their city; they hav sympathy for the velvet coating added by time and hail the coming of spring as much for th newness of white paint contrasting with the so sooty renderings, as they do when they see th lilac budding in the squares. London is a cit of fascination, a city of surprises of breadt and mileage; it is both transient and permanen if that be possible. There is a warm look abou the shabby coat that hides a pleasant heart It may, as Shelley states, be like Hell, bot populous and smoky, but its memory neve fades and its character is adamant.

Seventeenth-Century Art.

Dr. Percy Dearmer's course of lantern lectur on Seventeenth-Century Art will begin this ter in the Great Hall of King's College on October The lectures will be on the ten Tuesdays of ter at 5.30 p.m. Admission for non-members of th University is by a shilling ticket, obtainable the door. The course will begin with summari of sixteenth-century painting, and will inclu Baroque architecture, Bernini, El Greco ar Velasquez.



Woodbury Court House, U.S.A.
MR. W. L. STEELE, Architect.

HOUSES AND ESTATE AGENTS.

A PERUSAL of the advertisement columns of newspapers will show that the Rent triction Acts have put an end to the ing of houses, as, with hardly any excep-s, houses are only offered for sale. There class very hardly hit by this outcome of t Restriction, and that is the class who afford to rent a house at a good rental, whose financial circumstances do not ble them to purchase. Such persons were ing for some relief had the recommendation he Rent Committee been adopted and the ses of higher value been decontrolled at , but this class has received no consideration n Parliament, whose attention has been centrated on the sitting tenant who has ained and retained an entirely privileged tion, although he is very likely not so rving of sympathy as those persons who, ng to the war, were compelled to give up r houses, and now cannot secure another e. Rent Restriction is to be continued in form or another until the year 1930, and it ery doubtful if the provision inserted in the Act, section 2, subsection (2), will to any t degree lead to houses being offered on e so long as Rent Restriction is in force at

hen, as to the houses offered for sale in the ertisement columns of the newspapers, it ld appear to casual observers that there are reat many houses on the market, and so e are, but only *at a price*. Whilst rents are ricted prices of houses are not, and would-purchasers are finding out that prices are nibitive. Indeed, it may be doubted whether e are many really anxious sellers in the ket at all; but many owners, recognising the present boom cannot last, are tenta-ly offering their houses for sale whilst ding in them, feeling it wise if a fancy price be obtained to secure that price before a occurs in the market.

louses that were built for comparatively ll sums and for a different class of occupier, being offered as "gentlemen's residences" at e or four times their original value or cost, cially in the case of houses which are com-t and can be worked with a small staff. An er can ask what he pleases for his house, we who deprecate restrictions of any kind ld be the last to suggest any form of control; it must be remembered these high prices the result of Rent Restriction to a large ee, and they show the evils of a one-sided icted market. The Government's assurance assessments shall not be based upon the nt prices paid also tends to keep up prices, purchaser would hesitate to give a fancy if he felt he would be assessed for all time ne basis of the sum given.

may be wondered why we have headed article "Houses and House Agents," but hink the present state of the market has a of interest to agents. The public is begin-to weary of visiting small houses described uses of a superior character, and of finding price a purely speculative price, with the quence that house agents' advertisements eing discounted. Travelling is irksome and costly, and, after half-a-dozen or so wild chases, the would-be purchaser turns to te sources or gives up the search. If an r can ask what he likes for his property gent cannot restrain him, and he must e best he can for his client, who naturally is his own property through rose-tinted cles; but the agent also owes some duty e public, and this is what makes his task nely difficult—a fact not perhaps suffici-appreciated by the persons who deal gh agents. But perhaps agents can do hing to discourage owners from asking prices under a description unrecognisable to the owner, and thus save the public disappointment, which in the long run affect the agency business, and we think a matter deserving their serious attention.

Of course, in very many cases the agent has to rely entirely upon the owner's statement, but in some cases, after inspection, the description of the property may be termed too favourable, if not misleading. We must not be taken to be offering a criticism on the practice of agents, as our only object in the above observations is to point out that the present condition of affairs is bad for the business. If we are correct in our assumption that fancy prices in the nature of a speculation are now being asked for houses, the agents will be wise in their own interest if they can check this inclination on the part of owners and also secure greater accuracy in the description and particulars of the properties, and at the same time they will be doing a public service. When the lighter press begins to make serious jokes about house agents' advertisements it is a sign that the public is beginning to tire, and that something should be done to ensure greater accuracy.

We may conclude with one other suggestion. In advertisements it is too often the custom not to mention where the property is situated and the price. Now, even the most open-minded purchaser has preconceived ideas on both these questions, and does not desire to make useless inquiry, and thus it would encourage business if better information was always given on both these points.





Oakleigh Hall School Chapel, Cirencester.
Mr. LEONARD W. BARNARD, F.R.I.B.A., Architect.

PROBLEM OF COUNTRY HANDICRAFTS.

By JAMES GUTHRIE.

The handicrafts which belong to the soil, and have been passed on and developed from the days before history was written or æsthetics were invented, do not bear the touch of any self-conscious art nor competition with manufactured substitutes. In the labourer we see a social or political fact; but have forgotten that he was, and still sometimes is, a craftsman whose forefathers were skilled in many useful arts. Wood and straw and clay and iron were the raw material of houses and wagons and pots, things which belonged to everyday life, to be worn out and broken, but always in constant demand. Improvement came by no sudden burst of originality. A chair, a plough, a wheel, were beyond the reach of anything like singularity of form; recognised for what they were, use and use alone being the reason for variety.

George Sturt, writing of the craft of the wheelwright, says that "Wagons grew into beauty not to please artists who gushed about them, but to satisfy carters and to suit the exigencies of field and crop and road." This might be the text of handicraft as a whole at its best, for none of it—not even painting—exists to please artists who gush, but is in some sort the logic of the material and the fulfilment of some clear intention.

Plain ideas about what is right craftsmanship, however, are planted by familiarity with a craft, and are hardly within any writer's power to describe or prove. The bold definition of traditional handicraft on the land marks something established in the mind, something native and familiar, even in decay, which cannot be gainsaid. With equal certainty, unfortunately, it cannot be promoted in any lighthearted or superficial way by planting the product of the art school amid the puzzling and contrary conditions of the country. The culture of cities might bear within it some sound and fruitful seed; but the loss of old traditional handicraft which we suffer—by altered forms of locomotion, for example—cannot conceivably be made good. The rule of use still obtains in despite of outward change: art is still a function in the social body which recognises no class as superior or inferior, though itself often enough disguised as a mere amenity or recreation. But once the wagon, with its bow and stern, topsides, ribs, strakes, and gunwale, intricately beautiful and precise in design and workmanship, has been superseded by the motor-lorry, no wit or contrivance can assemble those craftsmen again, or bring into being a thing for the sake of beauty comparable in any way with that which was for the sake of use.

At the outset, therefore, much discouraging reflection lies between us and our desire to witness some real attempt at giving the arts and handicrafts a local habitation and a name beyond the bounds of cities and towns. Optimism does us no service in this cause so long as we adopt it by way of escape from doubts and uncomfortable facts that are less disquieting when they have been set upon their feet and measured. For, after all, the survival of the arts is a fact with the rest, and use is a term which might bear extension without arriving at the contrary belief in art as a detached unnecessary ebullience of high spirits which the modern world can only afford to indulge in after office hours.

The spirit of deliberation has been singularly wanting. Nobody has come forward and said "by planning upon this and that design we shall arrive at a certain end," because apparently it has not been thought that the analogy of graphic design holds good, or good enough, in broader, larger concerns. Since it obviously does and must hold good, since there is, indeed, no other way to arrive at the definition of an idea, the building of a liner, or at any kind of coherent structure whatever, it is more than time that we discarded idle scattered individualism, and sought by wit, experience, and imagination to build a comely weathertight house for the arts to live in.

It either is or is not a tangible benefit to a country and a nation that the arts and handicrafts exist. They have stood the test. But, although the choicest examples of the past are nobly housed and cared for, we are, as a nation, in no mind to divert a clerk or a salesman from a trade in order that from the strangeness of his gifts he may evolve anything more elusive than a row of figures or more logical than a bargain which we can understand. We believe in the things that have been accomplished. Those things that are problematical, difficult, and unlikely we set aside. Progress is a by-product, not a marketable commodity. We believe in it as we believe in dreams and fairies, totally unconscious of the wastage of talent and power which we have never learned how to use to the best advantage. The historian ranges over this field, reflecting how great cities absorb men and things, with some dim consciousness of a supply always forthcoming from the open. He hardly stays to consider conditions in the country and outlying districts, and remote seafaring and agricultural areas. That these yield new blood and fresh energies by adaptation to urban requirements is assumed in advance.

But what the actual conditions are under which this replenishment is made possible might undergo examination. They certainly do not remain unaffected by change; for the countryside is thrown open by motor traffic and flooded with newspapers. Everywhere along the seaboard the towns compete for popularity. and their rapidly extending suburbs encroach on the land and drive the native cottagers away. Corn gives place to golf, the fisherman and his antiquated tackle are banished from the beach. This pressure of cities increases year by year, altering in a thousand ways everything which it touches, introducing new values and improvements that may conceivably destroy more than they can make good. A land of holiday and sport, of apartment houses and week-end cottages, bears, indeed, very little resemblance to that upon which we have been accustomed to think the yeoman and the craftsman lived. For this is no longer a reservoir of strength and beauty, whatever may once have been the case.

Traditional handicrafts are therefore in steep decline. They perish as agriculture becomes more a business and less a vocation, and they are undermined also by half-educated urban ideas expressed in terms of "Ye Olde Craft Shoppe," which ministers to a paltry taste for ingle nooks, spindle-back chairs, and warming-pans. The shades of William Morris and Rossetti might well be abashed at our complete absence of volition in the arts, just as we ourselves might regard nearly all we see as a denial of what is serious and essential in the sense that a horseshoe or the structure of a barn have been serious and essential.

Conditions arising from large movements and popular causes, if simple as a spectacle, are exceedingly difficult to see in proper proportion and to use. Unspoiled minds and eyes, natural sensations of beauty and utility, are material which we have no warrant for, though they exist still. It might almost be said that no outward conditions have more to do with the arts in general than any single opinion beyond his own has to do with the work of a craftsman at any time. Yet amid the confusion of many contrary opinions he may suffer extinction, not because he is wrong, but because he is alone. Popular opinion does not connect art with life, hand craft with vocation; they are upon approva as goods from a store, only more costly. An in among ideas about art there is mixed suspicion that it invites charitable motives an needs help, a detrimental suspicion fostered b the folly of artists themselves.

Whatever mistakes have been made abou regaining lost arts, imitating old example compromising and bargaining upon any plan but his own, the artist must realise and unit his widely scattered forces, and bring to bea those powers of construction with which he endowed in setting his own house in orde It is not enough to fall in with popular errors they will yield him nothing but discourage ment. His academies and pseudo-learned so cieties, his whole sphere of professional in terest and advancement, so long as they are narrow preserve, will favour the artificial an the theoretic, and fail to grapple with tha larger call for freedom and security, for man liness and vitality, that becomes more an more insistent.

Various industries, and separate workshop for weaving, pottery, and other handicrafts and the successful women's institutes estab lished in country towns, prove that there is nucleus both of artistic energy and loca encouragement not as yet recognised by th official body. Many other valiant attempts t recover the spirit of place and pick up th lost connection of the arts with the land an the common people have withered before tha sterile philistinism which seems to be th accompaniment if not the logic of popula journalism and centralised shows.

It is perhaps, after all, of far more import ance in the arts that their design as a socia factor should be on a large and positive scal than that present drawbacks and past neglec should be magnified. Clearly enough the wid area of the country needs development withi some substantial and capably managed policy the centre needs its circumference. Up ti the present time our tendency has been t glorify a mere handful or remnant of me busy with their own ambitions within thei own orbit. We have admitted all sorts o dubious claims, and demanded for the resul ing mixture the attention of our own an other capitals. But times have altered now for better or worse. The young press fo ward, assailing those strongholds in which ol and middle-aged personages keep power an security for themselves. The arts have grow stuffy with the pretension of greatness an the friction of rivalry in a social and profe sional sense; but lack spirit and adventu and expansive generosity of temper. Wh may or may not be thought about the niceti of this or that method or work we can ver well afford to leave aside. As artists an craftsmen set among other men in this bus and exciting world we feel that our main co cern is rather with the means by which w can be at liberty to work and gain a livel hood. Greatness we shall in due course b glad to achieve. Meantime we cannot affo to be hindered by any arrangements mad over our heads, or in which we have no han The policy of groups and coteries effects t little in a sphere so wide, in a vocation beset. What is wanting to link up an strengthen the arts is an altogether manlie simpler community of human interests amo art workers all over the country. It wou be useless and dishonest to pretend that co ditions are not disquieting, or, on the oth hand, that there are not signs of an awake ing and quickening of a social sense in a and handicraft. The process of developme may be slow and tragic in detail, or it ma by deliberation and forethought, be hasten and simplified; but nothing less than t whole capacity is demanded to overthrow e and evil systems, and do away with th narrow individualism to which most of t distress, commonly laid at the door of an i different public, is due. For the impact of well-equipped confederacy of men and wom whose purpose is as friendly and agreeab

o say demonstrable, as beauty and fitness olour can be, is not one to examine with ndiced eye, or to be apprehensive of as h it were some unwelcome infliction. nay speak of bad conditions, because our do indeed lay the implication upon us any dull job affords a better shelter, and therefore we should sacrifice our gifts oury our desire and our faith away out ght. We may find our own environment bing or unlikely in a hundred ways, our harassing and precarious out of all pro- n to our sincerity and patience. But are the afflictions which, however they purge and try and eventually spiritualise re largely imposed by the same dull wits regard their own dullness as the true ire of human grandeur. Going by their ning, a place in a show once or twice a a line of notice in a newspaper, and the little tale of poverty, are all that any artist needs by way of sustenance. For ousand years we have listened to the d of how little is given for a great pic- or a noble book, till the legend has be- a rule, and art consents not to have any What we now have to realise is the ent futility of the dull, and that we give ng for nothing. Chelsea and Mont- asse may, for all we know, be crammed genius; we should prefer to find inde- ence at home in the little towns and es among all the various lives and scenes fortunes, which apparently Chelsea and -Parnasse have never heard of, using all implements, being workmen first, and when there is nothing else to do.

t, not to be alone, a wayfarer who pays ame tolls but has no footing or company the road, the artist must bestir himself, join hands, and claim and initiate every- e the work which he can do better than ody else can do it.



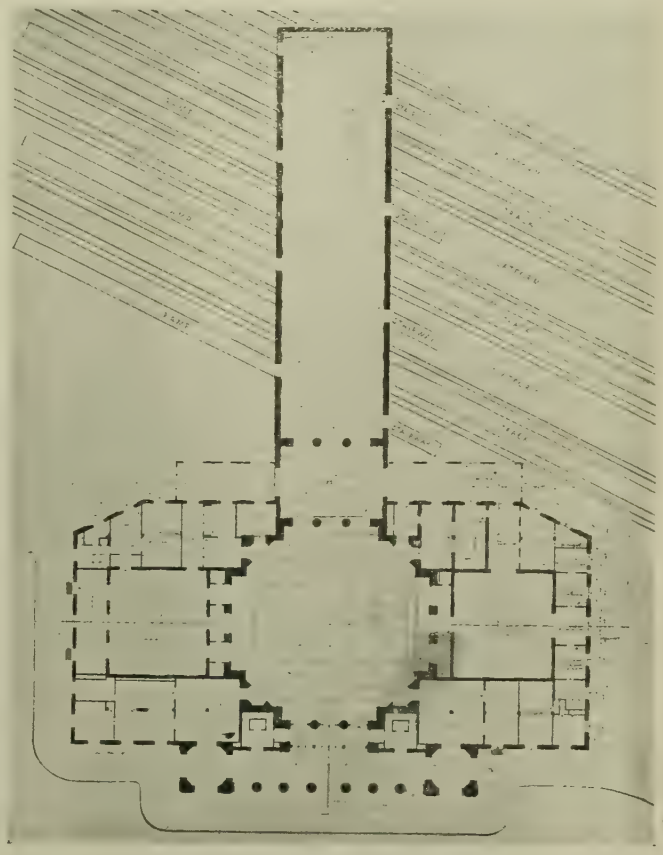
Union Station, Richmond, Va: View from the Plaza.

UNION PASSENGER STATION, RICHMOND, VA.

The dominating architectural feature of this building is a huge dome of classic proportions. Apart from the distinctiveness of this new use of a dome, Mr. John Russell Pope, the architect, has, says *The American Architect*, not gone far from the beaten path of railroad station architecture in the exterior dress of the building. The choice of scale and detail of the exterior has been very conservatively classic. The front of the building is 240 ft. long, and it is 118 ft. deep from front to rear. The material used in the exterior is Indiana limestone of the kind known as "American Travertine." The simple east and west wings are three stories high on the exterior, and on the interior courts each wing has an additional story, all of which above the ground story is used for railroad business offices. The only ornamentation on the building is that which is grouped about the large clock over the entrance portico, and the Roman panel reliefs beside the second story windows of the end pavilions of the portico.



Waiting Room, looking towards Concourse.



Plan of Main Building, Concourse, and Train Platforms.

Union Station, Richmond, Va. Mr. John Russell Pope, Architect.

BOOK REVIEWS.

The Romance of Building. By ALLEN S. WALKER. (London: George Philip & Son, Ltd. 2s. 6d. net.)

This book forms one of a series published as Philips' New Era Library. The books are designed for the general reader, and they assume little if any previous knowledge on the particular subject dealt with. The books do not profess to be encyclopædic in character; they give knowledge, but they suggest ideas. They are free from technicalities and excessive detail, the main object being to present a wide general view, emphasising in most cases the human aspect of the subjects. "The Romance of Building" is written on these lines, and is distinctly successful. It forms a pleasant relief from the usual text-book, and unquestionably the human interest which is given to the subject makes it a more intimate and fascinating study for the layman. It is obviously difficult to find a suitable analogy for everything and we cannot say that we agree entirely with the author's symbolism. The book is written with care and accuracy, and the architectural student will find it a valuable addition to read with his text-books. In Chapter XI the author sums up the duration of the three main architectural systems and we would suggest that the slow development in the beginning and the quickening of the pace in more recent times might be traced to the growth of reading, writing and travel. Similarly in the development of Gothic architecture, three hundred years may seem a comparatively short period, but to-day the possibilities of a style are exhausted in a few years. This fact seems to be important along with the value of tradition which undoubtedly was an important factor in the evolution and development of the great Gothic style.

The author mentions that Ruskin came to the conclusion that the Decorated period is to be held responsible for the decay and downfall of Gothic architecture. We think that the Renaissance, which stood for the re-birth of so many things, was responsible for the complete architectural change, quite apart from any signs of decay in the Gothic style. Incidentally, the author deals very successfully with the Renaissance period, which is generally a stumbling-block to the average layman.

The author attributes the great works of the Early English Gothic period to the religious fervour of the Crusades. The churches may have been memorials—as he suggests—but we think it is also true to say that religion or the Church had an immense hold on the people in this period and that the nation in her growing wealth at the time of the Renaissance was bound to develop, not necessarily a new architectural style, but certainly other types of buildings.

The suggestion that people do not feel reverent in a building built in the Italian style has frequently been commented upon, and in a book of this nature we had almost expected that the author might have something to say about the pagan idea often associated with Classic architecture.

We are not altogether convinced that it is wise to stress too much the various periods which go to make up the Renaissance style. The Renaissance work prior to the Anglo-Italian period is generally accepted as being purely transitional. Regarding the author's comment that he considers the Early English Gothic style for the Courts of Justice "has a severity and simplicity which befits the cold impartiality symbolical of the administration of Law," we would point out that many people hold quite the contrary opinion, maintaining that the feeling of mediævalism symbolises obsolete methods and an absence of light in the wide sense of the word. These suggestions are not put forward in a hypercritical spirit, and it may be that some of the points are merely matters of opinion.

The author and publishers are to be congratulated on this book; it is an excellent contribution to the literature of architecture, and it ought to be widely read by the general public.

H.

How to Get Houses. By GEORGE HICKS. (The Trade Union Congress and Labour Party, 32, 33, 34, Eccleston-square, London, S.W. 1.) Price, 3d.

This pamphlet is free from that curious class consciousness, perhaps better described as "class pride," that characterises so many of the utterances of Labour, and that is so bewildering and even provocative to the well-disposed reader; we find a trace of it, however, in the preface, written by the General Secretary, National Federation Building Trades' Operatives, where reference is made in the most casual and matter-of-fact way to "the capitalist newspapers." Turning to the pamphlet itself, Mr. Hicks insists on the evil results of bad housing generally and ably ranges his authorities to support him. While it would be hard, one hopes, to find anyone now who is so blind as not to realise the appalling results of our bad housing conditions, nevertheless it is a st that cannot be too strongly brought h In claiming that "social needs must over in this matter the more insidious influenc class interests," Mr. Hicks is voicing the ments of all right-minded people, and we regard it as established that slum clearance be treated as a national charge, even th £200,000 a year is an utterly absurd su devote to this purpose.

The main object of the pamphlet is desc in an italicised heading as follows:—

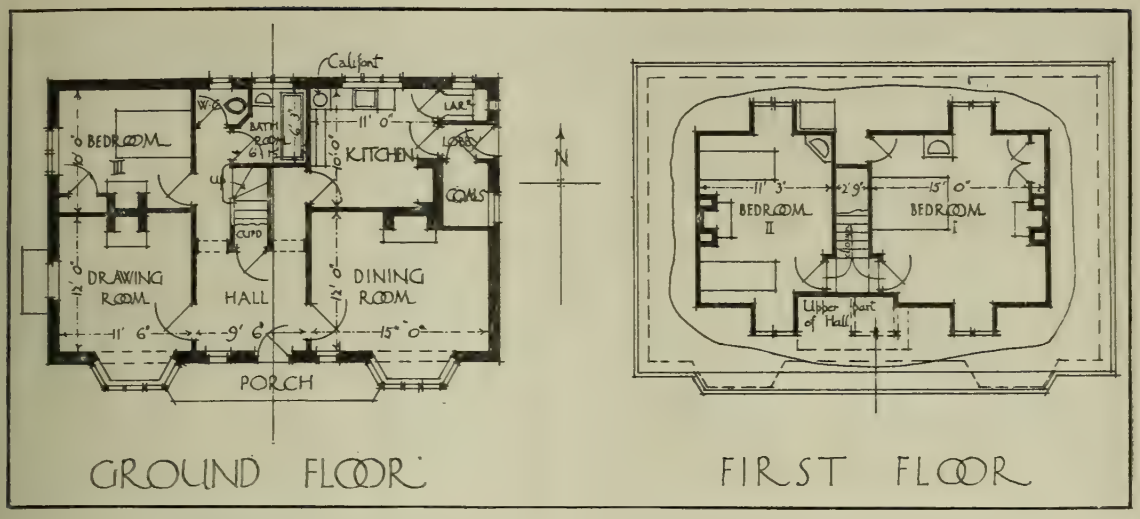
"This pamphlet has been written to the attention of all concerned about the ho question to the fact that municipal autho owing to the reduction in costs of bui may carry out housing schemes without in ing local rates because the new rateable created will bring an average local re sufficient to cover all loss."

It is, unfortunately, not very clear, at to the average mind, what this really m If it is that new houses are to be subs as to rates by raising or artificially prolo the life of existing recent assessments apparently increased value, a value tha in fact, in the overwhelming majority of been prevented by Act of Parliament coming into economic play, existing rate must clearly bear an extra burden, due t erection of new houses. Rates on ex houses may not actually be "increased," the effect is to make the ratepayer pay m rates than he would have to pay if new h were not erected, this can only be regard increase in rates, since it either preve reduction, or it means that rates are bas a higher assessment. As regards Mr. H figures, even if we accept the basis of h estimate of outgoings and management, hard to see how he can reasonably consid rates on new houses as *net* incomings w making any allowance for the expense o services, even taking these on a reduced That adequate housing ultimately mean economy both in rates and taxes is, opinion, indisputable, since increased cc ment and better health must save im sums in remedial measures and produce same time an increased output and interest and consequent value in the work

Measures of assistance are, unfortu unavoidable at the present moment, but not hold that any palliative contains ti mate solution. Such a solution can o sought in the power of industry to pay that shall enable its employees to m



"Marven," Beaconsfield. MESSRS. BURGESS, HOLDEN & WATSON, Architects. (*See p.* 415.)



"Marven," Beaconsfie'd. MESSRS. BURGESS, HOLDEN & WATSON, Architects.

nic rent and rates, and such conditions f course, only be achieved through the co-operation of labour as to output and ployers as to management and conditions, ng through the peaceful markets of the Ultimately, if conditions are stabilised, dustry that cannot afford to pay a wage ng the recipient to meet the responsi- s of citizenship and to anticipate periods mployment, must be regarded as parasitic, t throws its burdens and casualties on the lers of the general public. H.

Town-Planning Review: *The Quarterly ournal of the Department of Civic Design t the School of Architecture at the University f Liverpool.* Vol. X No. 2. (Liverpool: he University Press, Ltd.) (London: Iodder & Stoughton.) 15s. per annum, ost free.

s *Review* stands conspicuous as an example cellence, not only in its contents, but in ng and production generally. The out- ng feature of this issue is an article rofessor Patrick Abercrombie on Wren's for London after the Great Fire, and gh we may have been rather flooded with literature of late, yet an essay of this kind, ning a critical analysis of Wren's scheme producing plans of London, both as pro- and as realised, should be of value as a nent work of reference in any library. contributions include an article on rial development by Mr. V. M. Christy, survey of the development of the town by; a paper by Professor S. D. Adshead d "Imagination in Town Planning," in an appeal is made for a little more m in everyday life and its setting; and s by Mr. Christopher Dawson and Mr. Ramsey. The strength of the pro- centres and the great possibilities that ld are well illustrated in such periodicals *Town-Planning Review*, and we are con- hat public apathy will slowly but surely come by a movement that is constantly ing in vigour and influence.

Books on Old Furniture. 1, *Tudor to art.* 2, *Queen Anne.* By J. P. BLAKE l H. E. REVEIRS-HOPKINS. (London: inemann.) 4s. 6d. each net.

e little books are written in a lucid and manner, and so will appeal to the person s a genuine love for old pieces. The opens with a chapter on making a n, and contains many useful hints and ound advice. Quite rightly the authors t the lesser pieces coming from the old nd smaller houses, if not so elaborate, s much historical interest as the more e and much-sought-for pieces. In addi- might be added, these lesser pieces are less be tampered with than the show pieces.

Many a country-made Queen Anne chair, chest or bureau possesses all the pleasing lines and matured colouring of a more aristocratic specimen. Again, these lesser pieces are the most utilitarian. It is the student and genuine lover of the antique who get the real pleasure from their finds, even if their purses are light, whereas the wealthy person can command most things he may desire without the pleasure of the quest, so it is to him that these little volumes will appeal. The one dealing with the Stuart period treats fully, yet simply, with the many oak pieces of that age, and gives numerous illustrations of characteristic examples, some from private collections which are inaccessible to many, others from the Victoria and Albert Museum. In addition a useful table of dates is given, commencing from 1485 to 1688, which embraces the period dealt with.

The second volume, the Queen Anne period, is treated in a similarly interesting manner. To many this period has its attractions, and not without good reason, for the chairs, settees and tables with their beautiful lines and quiet dignity are particularly attractive, especially those possessing the claw and ball foot, and for these prices are high. The chairs are certainly the most comfortable, and on them the modern manufacturer bases much of the present-day furniture, and the bureau of to-day remains practically the same as in the days of Queen Anne—that is, as far as design is concerned. The volumes make an interesting addition to the collector's bookcase.

English Furniture Designs. By P. T. HILDESLEY. (London: Benn Bros.) 18s. net.

This volume contains 87 designs and scale drawings for modern furniture, with a foreword by Mr. H. P. Shapland, A.R.I.B.A. Included in this number are designs for the decoration and furnishing of various interiors. The book will be welcomed by modern craftsmen and furniture manufacturers, who at the present time do not receive the encouragement they should to produce fine furniture, the craze for the antique being so great. Signs of abatement in this direction, however, are becoming apparent and every inducement should be given them to produce well-proportioned and soundly-constructed pieces at a reasonable price. The present being an age of machinery, no craftsman can compete with mass production, but designer and manufacturer, in co-operation, should obtain good results, and it is here that this volume will be of service. Preference may be given to the simpler specimens such as the mahogany sideboards on pages 6 and 8, gentleman's wardrobe page 24, and small china cabinet page 32. The volume is the work of an experienced man who has drawn all the pieces to scale, with full-size details, making it of practical value to both manufacturer and amateur.

Marine Works. By ERNEST LATHAM, M.Inst. C.E. (London: Crosby Lockwood & Son.) Price 16s. net.

This little volume of 174 pages, comprises information useful to civil engineers when undertaking maritime work. As stated by the author in his preface, he has availed himself of excellent articles already produced in reliable publications, adding thereto examples that have come under his notice, and giving us the advantage of his views and experiences therein. A preface written by Mr. C. L. Maistre, C.B.E., Secretary of the British Engineering Standards Association, draws attention to the author's view of continuity of power, and in the case of tidal action to the fallacy of trying to obtain simultaneously power as well as navigation. The author's distinction between the studies of a civil and an electrical engineer are also described. To show the completeness of the volume, it may be mentioned that the author deals with the formation, action and effect of waves, the salvage of marine works, the maintenance of tidal berths, pile-driving and its records, the conservancy of marsh lands, groynes and coast defences, with an explanation of the use, under special circumstances, of stockade fences and of stud groynes. Other chapters relate to the structural problems on navigable rivers, the action of scour upon a foreshore and the construction of deep water quays. The letterpress is well compiled and the illustrations very clear and sufficient. An appendix of selected legal aspects of maritime engineering is added, and a comprehensive index enables any desired detail connected with the above list to be referred to by the reader.

"MARVEN" BEACONSFIELD.

THIS house or bungalow was built in 1921. Having one bedroom on the ground floor, the staircase was so planned as to give privacy of approach from this and the first-floor bedrooms to the bathroom and w.c., whilst the hall and living rooms are well separated from the bedrooms and kitchen premises. The planning of bathroom and kitchen sink gives a simple arrangement of drainage. Hot water is supplied by a "Califont" in the kitchen. The landing outside bedroom doors has an open handrail and balusters, giving the effect of a small gallery looking down into the hall. The house is built with cavity walls faced with red bricks of varied colour, and the roof is covered with hand-made tiles.

The architects were Messrs. Burgess, Holden & Watson, of 13, Gray's Inn square, W.C.1, and Beaconsfield, and the contractors Messrs. Y. J. Lovell & Son, of 6, Bathurst-street, W., and Beaconsfield.

HOUSING CONDITIONS IN BRUSSELS AND SUBURBS.

BRUSSELS, we are informed, is showing the same phenomena as other large towns with regard to its population and their abodes, the centre of the town (Brussels commune) showing, during the ten years 1910–1920, a loss of inhabitants of no fewer than 22,000; while since 1900 it has lost 28,885 inhabitants. The cause of this movement of the population is the same as elsewhere. The houses in the centre of the town have become too expensive to be used as dwellings, and families have moved out to make room for commercial houses which use the premises for offices.

This explains how it is that, in some districts, the population has not increased, and there is, really, no dwelling house shortage; in fact, the demand for rooms has enabled some people, who benefit from the Rent Restriction Act, to actually improve their situation by partial sub-letting.

In greater Brussels the number of houses increased, from 1910 to 1920, by 6.35 per cent., and the number of families living separately, in the same period, by 13.49 per cent., though the population itself increased by only 4.37 per cent. The number of families per house was 242 for every 100 houses in 1910 and 258 per 100 houses in 1920.

In Brussels town figures show opposite tendencies, for, though the number of houses has diminished, the proportion of persons living in them has diminished still more (by 7.73 per cent.).

In greater Brussels the number of insufficient lodgings (more than one person per room) have slightly increased. In 1910, there were 74,402 such lodgings with 314,287 occupants, making 43 per cent of the population. Now 74,826 families are inadequately housed.

In Brussels town, on the contrary, there are 2,000 fewer families insufficiently housed than there were in 1910, but the figure is still high, reaching 42 per cent. of the population, a percentage only exceeded in the Koekelberg commune, where 50 per cent. of the population is underhoused.

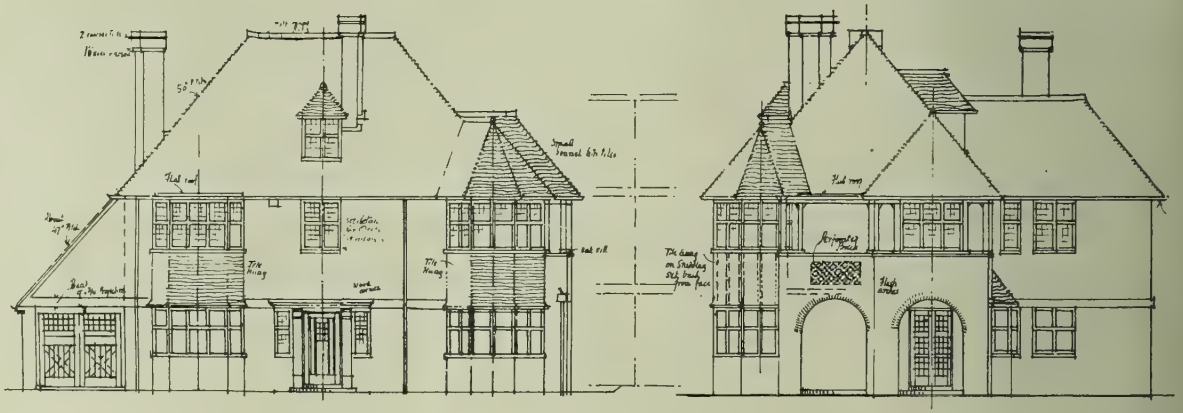
In all these figures, allowance must be made for the fact that, in these last years, all sorts of rooms, attics, out-houses and basements, have been included which, in former times, were not considered as habitable at all. It is, there rather rash to presume that the numbe rooms used by 100 persons is really more it used to be.

Another conclusion which appears from statistics is that smaller houses are much overcrowded than previously. Taking the area of greater Brussels, two-thirds of dwellings consist of one, two, or three ro and two-thirds of the population live in restricted surroundings. In the commun Molenbeek, Anderlecht, Koekelberg and Bru these proportions are surpassed, two-thirds population living in apartments of less four rooms. It is in these small flats that crowding is at its worst.

Here again there is a noticeable diffe between the central quarters, where crowding is the least, and the poorer dist The further away they are from the centre more do the districts receive an influx of families. Here also are to be found the wo and lower middle classes. It is in these subu localities that the housing crisis is at its and where its effect is most disastrous. Y families are obliged to live in conditions of crowding which must have effect on the h of the nation.

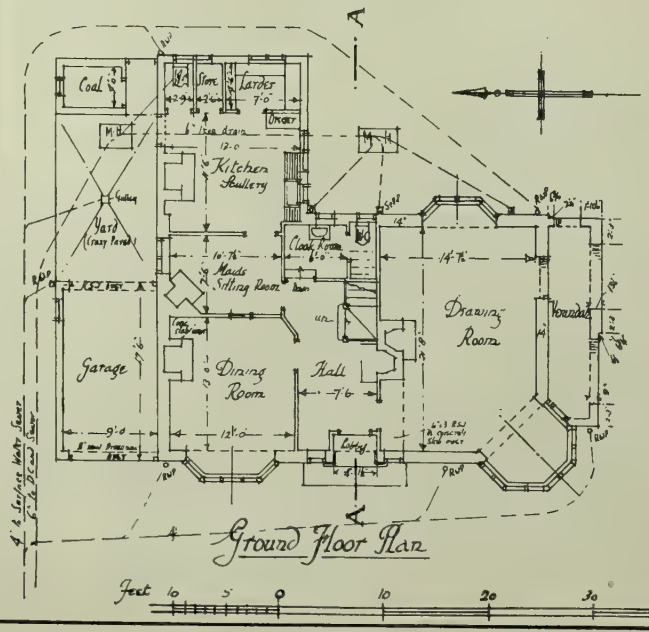
HOUSE IN WILDWOOD ROAD – HAMPSTEAD GARDEN SUBURB for W. HICKS, ESQ.

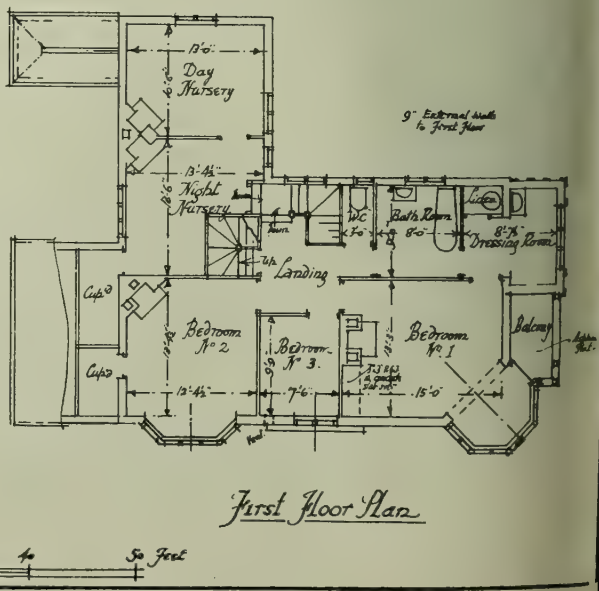
Scale – Eight Feet to One Inch



Front (West) Elevation

Side (South) Elevation





Feet 10 5 0 10 20 30 40 50 Feet

MR. EDWARD MEREDITH, A.R.I.B.A., Architect.

THE BUILDING TRADE.

THE TRADE UNION CONGRESS.

E Trade Union Congress which opened lymouth last week, is the fifty-fifth. It enty-four years since the Congress met at outh, representing a membership of some ,000, and that meeting marked the birth e political Labour Party. According to President's address, on the present occasion were 702 delegates, representing a member- of 4,369,000.

e President voiced that desire for peace h is present in every mind at the moment; there is little to be gained by advocating disarmament of one nation, and that our when a spirit of aggression is still abroad. ginning, however, could well be made by e at home in industrial matters, and we are to note that the President advocated liatory methods and arbitration in this ection.

e agenda was a peculiarly barren one, the resolution of the National Union of vaymen, advocating a six-hour working day, either be ironical or the unions are shutting eyes to the condition of the world. Our petitors abroad are working unlimited s to repair the ravages of the war, and it e for any one in this country to think that is the time for a leisured existence. We our own devastations to make good and competition to face, and this is no time lacking.

ere is very little that calls for any special nent in the proceedings of the Congress year, unless it be the absence of any prac- contribution towards the solution of the lems of the day. On the question of unem- ment, for instance, the resolution moved on sday last week only expressed dissatisfac- with the plans of the Government for ng with unemployment, and called upon Government to promote practical schemes ublic utility on a national scale as an alter- e to the vast expenditure of public money employment benefit and to provide a contri- n from State funds to heavily-rated cts towards unemployment relief.

solutions such as these are passed by the ress in a few minutes and arouse no dis- n, and they, therefore, are of no value. The ion as to how to provide relief combined work has exercised the Government for time, and it will be remembered that, in ction with unemployment benefit, a et Committee early in the year reluctantly mpelled to report that it was impracticable ply those funds in the provision of work. *The Builder*, March 9, 1923.) If the provi- f work was made a condition of relief from ates, the Congress would be the first to e that this was a retrograde movement ring of the principles associated with the ouse, and an outcry would be made. The unions are fully alive to the danger of ised industry competing with unsubsidised , and are aware of all the difficulties ed in putting the resolution they have into operation, but to move a general ion censuring the Government is a safe , whilst to devise or suggest any practical would involve offending the prejudices inions of many members, so the easier is adopted and the subject is dismissed practical suggestions on the part of the es of Congress towards the solution of tion which is of such difficulty that any al suggestions would be welcome.

n connected with this question of unem- nt and relief, there is the point, recently t prominently before the public, that nemployment and the necessity for relief en accentuated by insubordination in the and domestic questions between unions. was reported in the same paper that recorded the proceedings of the Congress that the unauthorised strike in the docks had caused the West Ham Guardians to pay £45,000 in relief; but, although some questions between unions were the subject of some rather acrimonious discussion at the Congress, the public must be disappointed that no serious attempt was made to deal with the co-ordination of unions, so as to give some lead as to how such profitless jealousies might be avoided in future, and obstacles to employment raised by disputes between the unions be removed. The fact is that greater ability is displayed at the Congress on purely political questions, with which we are not concerned in these pages, than in connection with the industrial questions of the day. This being the case, our notice of the proceedings of Congress must be somewhat critical, although we do not ignore the eloquence displayed and the higher level reached when political subjects are under discussion.

In connection with our observations above, it may be noted that a resolution, much on the same lines as that introduced last year, was again brought forward requiring affiliated unions to keep the General Council informed as to matters arising between unions and employers, and also between unions, particularly where large bodies of workmen were involved, and where negotiations broke down or a deadlock threatened to give the General Council the initiative to call a conference and tender advice. If such advice were adopted and the employers forced a stoppage, then the General Council "should organise all such moral and material support as the circumstances of the dispute might appear to justify." This resolution also required differences between unions to be submitted to the final Council for adjustment. It was, however, negatived by a large majority, and this to some extent explains the inability of the Congress to grapple with the questions arising recently between unions.

On the last day but one of the Congress two important resolutions were introduced, one relating to unemployed insurance by industries and the other to co-partnership schemes. The Congress was invited to declare that insurance by industries was inequitable and anti-social, and that unemployment insurance should be general, mutual and national; but the Congress took the statesmanlike course of subjecting the question to an inquiry by the General Council. As regards co-partnership, the same course appears to have been adopted. A resolution was moved which declared that co-partnership schemes were designed to mislead the workers and prevent trade union solidarity. The mover of this resolution frankly stated that the object of capitalist co-partnership was to increase production, but it undermined the loyalty of the worker to his union. These arguments were used in the Lever case, but the figures as to the profits made by the men showed that co-partnership was certainly to their advantage, and the other arguments that it increases production and tends to peaceful relations with employers can hardly be taken as conclusive against the system. As the crying needs of the time are increased production and industrial peace, the mover of the resolution appears rather to have strengthened the case for co-partnership than to have destroyed it. The proceedings are, however, shortly reported, and both the resolution and the addendum recommending a reference to the General Council appear to have been carried.

A resolution was carried instructing the General Council to promote a Bill to establish an eight-hour day and a 48-hour week. This has to be noted in connection with the unlimited hours being worked on the Continent by our competitors in trade, and before we have in the least recovered from a devastating war, and a sufficient comment was provided by a resolution moved by Mr. C. T. Cramp, of the National Union of Railwaymen, that the time has arrived when a six-hour day should be demanded. It would, indeed, be interesting to know on what particular signs of the times the Railwaymen's Union base this contention. If production is to be retarded and working hours to be limited to six hours, it will soon be hard to distinguish between the employed and the unemployed, and certainly all relief measures will perforce come to an end for want of funds. The resolution in question appears, however, only to have been moved as an amendment to the eight-hour resolution, and, of course, it was not carried as its mover was so candid as to admit that it was incapable of immediate translation into effect.

An interesting point was raised on the question as to whether the voluntary agreements of Joint Industrial Councils should be given legal effect. The General Council had left this point for the decision of the Congress, but a sub-committee had recommended the adoption of a Bill promoted by the Association of Joint Industrial Councils which provides that the agreements registered by the Minister of Labour should be legally enforceable at law, with the proviso, however, added that the Whitley Council should represent 75 per cent. of the industry concerned and that the responsibility for taking proceedings against employers violating a registered agreement should be taken by and at the expense of the Ministry. The recommendations of the sub-committee were rejected by the Congress and the discussion was interesting. There was some weight in the argument of Mr. Robinson that to legalise voluntary agreements might be hazardous, and employers might secede from the Councils to prevent the 75 per cent. principle from applying, and, in any case, it would not be easy to get the Ministry to undertake proceedings; but some of the speakers used two-edged arguments, as, for instance, that if agreements were made enforceable there would be no further inducement to men to join the unions. After all, the trade unions exist for the general benefit of the members and to shape a policy favourable for them, but some trade unionists overlook this and consider that the men only exist for the unions.

A very important resolution related to the identification of the supervisory and technical staff, foremen and others with the unions. There was considerable discussion, but the resolution was finally adopted. This is a very serious question, but only one speaker, according to the report, recognised that they were asking these men to serve two masters at the same time, whilst the argument that the co-operation of the supervisory grades would be essential to the workers' control of industry seems a little premature at the present time.

A resolution was also carried disapproving the recommendations of the Cave Committee on Trade Boards.

It will be seen from this brief notice that the Congress covered some ground in its deliberations and raised some very interesting questions, and thus showed an advance on pre-war congresses, which often merely moved stereotyped resolutions year in and year out. There is every reason to expect that in the future the same advance will be shown in the treatment of industrial questions as is already apparent in the political side since Labour has been more represented in Parliament and its members have gained in breadth and experience.

Thorneycroft House.

The sculptor of the panel at Thorneycroft House, Westminster, illustrated in *The Builder* last week, was Mr. E. S. Frith, of Elgin Studio, Trafalgar-square, Chelsea, S.W. 3.

APPRENTICES IN THE BUILDING TRADE.

Mr. F. J. GAYER, Past President of the London Master Builders' Association, writes:—

SIR,—In the midst of an unparalleled state of unemployment in industry generally it is interesting to note that there is quite an appreciable volume of building work available, but unfortunately the amount of skilled labour is totally inadequate. In fact, it has been foreseen for some time that the number of skilled building trade workers is such that can only cope with a slump, and there are not sufficient to cope with a normal demand, much less than a boom, such as could be rightly looked for following the depression and the only partly diminished demand for houses.

The peculiar position is such that naturally invites attention to the cause and remedy. The shortage to a small extent can be attributed to the war, it being easy to understand that the building trade is no exception to the consequent chaos. The other reason is obviously the lack of new blood, since the only entry is at present by means of apprenticeship.

All are agreed that the best method of augmentation of labour is by the apprenticeship scheme, and at first blush one is naturally inclined to ask, if this is agreed, why not carry on and so solve the problem. It must be recognised that the building trade is exceptional. The extent of the ebb and flow of the volume of work is probably more marked in this than in any other industry, with its consequential losses not only to the operative but to the employer. The existing apprenticeship schemes provide for guaranteed continuity of labour for the apprentice until he is 21 years of age; and while many of the employers can face the risk of guaranteeing employment by means of apprenticeship to a limited number, yet quite a large number of apprentices are not taken because the employer, owing to the casual nature of the industry, is not in a position to guarantee continuity of employment to the full quota.

It is also undoubtedly a fact that the trade unions view the shortage of labour as an asset to their bargaining powers, in lieu of taking a wider view of the benefit of increasing their ranks to more adequately fit the demands. If the unions could be persuaded to vary the apprenticeship scheme to recognise the following suggestions, much of the shortage would disappear. The unions would really be in a healthier position, the community in general would gain, and much of the demoralising influence of the dole would disappear.

The apprenticeship scheme should by mutual consent be modified to provide that in the event of any employer being unable to find sufficient employment for his apprentices, they should stand off until such time as they can be restarted, in a like manner to that in which the craftsmen are stood off. Where, by the misfortune of slackness of trade, the craftsmen are stood off, it seems illogical and even unfair to the craftsmen to be stood off while the proportion of apprentices to craftsmen consequently increases. Further, there are many trade union labourers used to building work who could, quite reasonably, by training with the help of the craft unions, perform many of the simpler craft operations.

The more highly-skilled craftsmen would have nothing to fear from this augmentation of labour, since, in the event of a falling-off in employment, the builder obviously and naturally retains his best men. Much more consideration might be reasonably given by the employers and unions to an endeavour to regulate the volume of building work with a view to levelling up the valleys of depression and levelling down the hills of booms, &c., and so to some extent guard against unemployment on the one hand and high costs on the other. It can reasonably be anticipated that for the next few years there will be sufficient building work to more than absorb the available skilled labour, hence action is required promptly to devise a scheme that will transfer many of the unemployed to the ranks of useful producers.

No doubt it is very tempting to the operatives to maintain a shortage in their ranks in order to draw rates higher than the standard from the unscrupulous unfederated builder; but it must not be lost sight of that these unfederated builders pay less than standard rates when trade is adverse.

Even under current conditions enquiry will show that certain unfederated builders are paying higher rates to bricklayers, carpenters and plasterers because of the shortage, and paying on the same jobs lower than standard rates to painters and labourers owing to a sufficienty of this type of labour.

PAYMENT BY RESULTS IN THE BUILDING INDUSTRY.

IN the last issue of *The Builder* we gave a letter to *The Times* from Mr. Roland B. Chessum, Past President of the London Master Builders' Association, supporting the principle of payment by results in British industry with the object of securing a boom in trade. Sir Edwin Stockton, M.P., discusses the subject in a letter in *The Times* on Monday. He writes:—

"Absence from home on a brief holiday must explain the delay on my part in sending you a very short note expressing the approval which many employers must feel with regard to the able and interesting articles you recently published by Mr. P. J. Pybus on payment by results.

"To my mind, the difficulty in giving effect to his suggestion that district appeal tribunals might be established by the State and given statutory authority to deal with charges of rate cutting and evasions of wage bargains—thereby increasing confidence in this method of working—lies in the obvious fact that it would be impossible to enforce resort to them. If you are intending to establish them in order that the well-disposed might profit by their existence, then it seems to me that an educational campaign should precede their creation. More harm than good would be done by establishing tribunals of this nature, whose operations would be largely sterilised by hostility or indifference. On the other hand, if we are to make a beginning, then I can well imagine that such an effort would be most advantageously attempted in those trades where unemployment is less pronounced and where craft workmanship predominates. It seems to me most unlikely—to use no stronger term—that much can be hoped from industrial unionism at the pres time, not merely because this is especia affected by economic depression, but beca though its aim and object may be for hig wages and better conditions of work, there not shared by all the members of any dustrial union the same hope of relative provement in their common prospects wh might be realised by craft workers deciding test the advantages of payment by results. rather agree with Mr. Pybus, as I read articles, that industrial unionism shows t dencies of progress in the direction of Syn calism—the control of the industry for benefit of the workers by the workers. So may call it progress towards nationalisati we will not bother about the exact designati Under these circumstances you will have more difficulty in converting industrial union to the payment by results system than you the craft unions, which can easily see, if t wish, personal benefits of a very tangible nat

"Personally, I am not altogether enamou of the idea of State intervention in the mat I am not sure that the desired result could be achieved by voluntary action, the more s any beginning must be on a relatively restric scale. Afterwards, when progress was recor then the State might intervene, or at least might discuss the value of such intervention.

"For the present we have to combat the doubted industrial tendencies to preach supposed superlative advantages of wage equa spread over the widest area. We have to sh that this ultimately means disaster in markets of the world, unless there is the centive of maximum efficient output. And o an educational campaign will effect a w understanding of this by the workers."

BUILDING MATERIAL PRICES.

The third interim report of the In Departmental Committee which is conside the prices of building materials has just issued, and is signed by the Chairman, Halford J. Mackinder. The report, w covers the month of August, states:—

Since July, there have been only a few changes. In the case of timber, t has been an advance of £2 per standar Birmingham, while the special purchase the London County Council for their hou schemes have been made at an increas £4 per standard over those made in the pre month. Apart from these, there are no preciable changes, either in any particular or class of material, to which attention be drawn.



Shop front in Balham-hill, S.W. MR. ELFRIC H. SMITH, Architect.

[The old front of this shop was entirely removed and a lobby formed with new windo The showcases are in Japanese oak; backs and floors of windows and cases are in sycamore with egg-shell finish; lead lights to stall-boards in dove grey marble with gl tile name panels; panels over windows filled in with blue and white Dutch tiles.

ESTIMATING FOR SMALL BUILDERS.—VI.

By J. H. BARNS, F.I.O.B.

STONE MASON.

It is hardly likely that the small builder in the London district will run his own mason's yard, and more likely that he will arrange for such work to be done by some local firm of stone masons. In the event of an estimate being required for stonework, he would obtain a figure from the masons, add on for scaffolding, "on-costs," and profit. It is necessary that a small builder should have some idea of the value of worked stonework, and the various items which go to make up the total cost.

As each job may vary considerably, it is impossible to state a general figure to meet all contingencies. An attempt will be made to give some idea of the value of stonework by the following examples:—It is usual for stonework to be bought at a price per foot cube inclusive of labour and materials. Considerations of space will not allow more than four items of worked stone being taken, but these as far as they go should prove helpful. Without seriously considering the subject, many would think that a large moulded cornice would be worth more per ft. cube than a little plain step, whereas the reverse is the case. The price per cu. ft. of worked stone will largely depend upon the amount of labour on the stone. It may be taken quite generally that the smaller the stones the more expensive they will be per ft. cube, as in the large stones there is a greater measure of cubic feet over which to spread the cost of labour, and therefore the larger stones will work out at a cheaper rate per cubic foot. This can easily be seen from the examples taken, that a 12 in. by 6 in. rubbed Portland stone threshold would work out cheaper at current rates than a 9 in. by 4 in. threshold similarly worked. A similar result is shown in the case of a weathered and moulded cornice where the 24 in. by 12 in. section comes out at 15s. 10d. per ft. cube, and the 12 in. by 6 in. section totals 21s. 3d.

Although the current market rates are stated it is necessary that they should be verified in every case, as each job usually has some circumstance likely to affect the price.



Fig. 1.

Example:—

FT. RUN PORTLAND STONE MOULDED CORNICE 24 IN. BY 12 IN. (as Fig. 1).

			£	s.	d.
4.0					
2.0		Portland Stone delivered and			
1.0	8.0	waste .. @ 5/8	2	5	4
—		Cartage .. .. /4		2	8
/ 4.0		*Labour*—			
1.0	8.0	Beds (top and bottom) .. 1/–		8	0
4.0					
1.0	4.0	Do. (back) .. /7		2	4
/ 2.0					
1.0	4.0	Joints 2/–		8	0
4.0					
1.0	4.0	Sunk face to weathering .. 1/6		6	0
4.0					
2.0	8.0	Moulded face .. 4/8	1	17	4
		Mortar .. .. say			8
		Hoisting & setting and cleaning down, 8 ft. cu. 2/–		16	0
		Cost of 8 cu. ft. ..	£6	6	4
		Per ft. cu. ..		15	10
		Scaffolding .. say		1	0
				16	10
		Add profit and on-costs 15 per cent.		2	6
		Total—per cu. ft.		19	4

4 FT. PORTLAND STONE MOULDED CORNICE AS BEFORE, BUT 12 IN. BY 6 IN.

			£	s.	d.
4.0					
1.0		Portland stone delivered and			
6	2.0	waste .. @ 5/8		11	4
—					
2/ 4.0		*Labour*—			
6	4.0	Beds (top and bottom) .. 1/–		4	0
—					
4.0					
6	2.0	Back .. .. /7		1	2
—					
2/ 1.0					
6	1.0	Joint 2/–		2	0
—					
4.0					
6	2.0	Sunk face to weathering .. 1/6		3	0
—					
4.0					
9	3.0	Moulded face .. 4/8		14	0
—					
		Mortar .. .. say			4
		Cartage—2 ft. .. /4			8
		Hoisting, setting and cleaning down—2ft. cube 2/–		4	0
		Total for 2 cu. ft.	2	0	6
		Per ft. cube ..	1	0	3
		Scaffolding ..		1	0
			1	1	3
		Add profit and on-costs 15 per cent.		3	2
		Per cubic ft. ..	£1	4	5

The rates for labour stated are in the main for machine work. The "bed" includes the preliminary labour of half sawing and the truing up. The "back" is at a lower rate, as it is unlikely that any truing up would be required. Sometimes the back is left rough, resulting in a saving of labour and material. The sunk face to weathering rate includes cost half sawing and cost of weathering by machine. The moulded face stated is the girt of the moulding and price includes the preliminary labours. In the cost of mortar is included an amount for the small quantity of Portland cement often used for grouting in, to form joggle joints. This practice is sometimes objected to as it tends to stain the stonework. To obviate this, white cement is sometimes used at a cost of about 2d. per ft. cube additional. In the cost of stone is included the cost of the block delivered to the railway station and transport to mason's yard for working, and waste consequent upon sawing to size. Cartage from mason's yard to job is stated separately. Price of block stone can be seen each week in *The Builder* list of prices.

Example:—

4 FT. RUN 12 IN. BY 6 IN. PORTLAND STONE THRESHOLD RUBBED ALL EXPOSED FACES, AND JOINTED ALL ROUND.

			£	s.	d.
4.0					
1.0					
6	2.0	Portland stone delivered and waste .. @ 5/8		11	4
—					
4.0		*Labour*—			
1.0	4.0	Bed (top and bottom) .. /10		3	4
—					
4.0					
6	2.0	Do. (back) .. /7		1	2
—					
4.0					
1.0	4.0	Plain rubbed face (top) 1/3		7	6
—					
4.0					
6	2.0	Do. (front) ..			
—					
	6.0				
2/ 1.0					
6	1.0	Do. (ends) .. 3/–		3	0
—					
		Mortar .. .. say			4
		2 ft. cu. cartage /4			8
		2 ft. cu. hoisting and setting .. 2/–		4	0
		Cost of 2 cu. ft.	1	11	4
		Per ft. cube ..		15	8
		Add scaffolding		1	0
				16	8
		Add profit and on-costs 15 per cent.		2	6
				19	2

4 FT. RUN 9 IN. BY 4 IN. PORTLAND STONE THRESHOLD, AS BEFORE.

			£	s.	d.
4.0					
9					
4	1.0	Portland stone delivered and waste @ 5/8		5	8
—					
4.0		*Labour*—			
9	3.0	Bed .. .. /10		2	6
—					
4.0					
4	1.4	Back .. .. /7			10
—					
4.0					
9	3.0	Plain rubbed face			
—					
4.0					
4	1.4	Do. 1/3		5	5
—					
	4.4				
2/ –.9					
–4	–.6	Do. (ends) .. 3/–		1	6
		Mortar			3
		Cartage			4
		Hoisting and setting		2	0
				18	6
		Add scaffolding say		1	0
				19	6
		Add profit and on-costs, 15 per cent.		3	0
		Per cu. ft.	1	2	6

The plain rubbed face to top and front of step would be worked by machine, and the ends by hand labour. The cost of scaffolding will, of course, vary greatly, as in most cases some arrangement must be made for the rolling tackle. It is not unusual for an all-round price to be quoted for the stonework of a particular job, which would probably be arrived at by averaging the value of the masonry, as some portions may figure out at a much higher price than the examples taken. Although two examples are given of worked stone and called threshold, one can easily imagine a similar stone worked another way up and termed

ashlar, seen two or four faces, in which case the cost would be about the same.

A fair all-round price for an average Portland stone job, fixed complete, would be about 20s. per ft. cube, to which must be added scaffolding, &c.

Price is for Whitbed stone laid on its natural bed. This is always particularly specified to be done, as there is no doubt that the stone weathers much better, but sometimes mistakes occur and stones are not properly bedded.

It is, therefore, essential for the small builder to get some little knowledge of the bed of stone if he is to give proper satisfaction to his customer.

The price for box ground Bath stone would be arrived at in a similar manner to that indicated above, except that it would be worth about 40 per cent. less, except for fixing, mortar and scaffolding, which items would probably cost about the same.

In the case of some of these stones it is considered necessary to coat the outside face with some preservative to protect the material against the acids present in the London atmosphere. Some of these are considered so to harden the face that they prevent any moisture in the stone from drying out and may cause scabbing or erosion. The cost of protective treatment varies considerably, and may be roughly stated at from 4d. to 1s. per yard super of surface treated.

YORK STONE.

There are many districts quarrying this material, and some kinds of the stone are very much harder than others and, therefore, more expensive and more costly to work. Presuming the block stone cost about the same as Portland, the labours (if worked in London) would cost about 10 per cent. more, with exception of fixing, &c. In the case of plain steps, &c., the preparation is usually worked at the quarries where the sawing, &c., can be done for about 50 per cent. less than the rates quoted for London prepared stone. It is therefore advisable, where the size of the job will permit of it, to get ordinary Yorkshire stone items direct from the quarries, worked to the required dimensions.

A 12 in. by 3 in. hard York threshold, rubbed top and front edge, would be worth about 12s. 6d. per ft. cube delivered, or 3s. 2d. ft. run.

12 in. by 4 in. ditto, at 12s. per ft. cube, 4s. ft. run.

12 in. by 6 in. ditto, at 11s. per ft. cube, 5s. 6d. ft. run.

Harder York stone, say equal to "Silex" brand, would cost about 21s. ft. cube delivered.

If steps sawn instead of rubbed, deduct 4d. ft. sup. for each face.

Example :—

— ft. run 12 in. by 6 in. hard York stone threshold rubbed top and front edge.

	s.	d.
1 ft. run stone	5	6
Mortar, &c.		3
Labour, say 1s. 6d. ft. cube		9
	6	6
Add profit and on-costs 15 per cent.	1	0
	7	6

Quarry worked York stone, sunk weathered throated and grooved window sills, would cost about 18s. ft. cube delivered on job, and fixing is worth about 1s. 6d. ft. cube.

TOOLED YORK STONE TEMPLATES.

3 in. templates tooled on top are worth about 1s. 9d. per ft. super. (delivered) cut to sizes, with the addition of 5d. per ft. run for tooling edges.

6 in. templates cost 3s. 6d. per ft. super, and tooled edges 9d. per ft. run. York stone of a harder description would cost about 2s. 4d. per ft. super for 3 in., and 4s. 6d. per ft. super for 6 in.

York templates tooled on top.

	s.	d.	
9″ × 9″ × 3″	1	2	each.
14″ × 9″ × 3″	1	8	,,
14″ × 14″ × 3″	2	6	,,
14″ × 18″ × 6″	6	6	,,
18″ × 18″ × 6″	8	0	,,

Example :—

1—9 in. by 9 in. by 3 in. York stone template tooled top and front edge, and bedding in cement.

	s.	d.
9″ × 9″ × 3″ template	1	2
9″ run tooled edge say		4
Cement		1
Fixing say		3
	1	10
Add profit and on-costs .. 15 per cent.		3
	2	1

Example :—

1—18 in. by 18 in. by 6 in. York stone template tooled top and front edge, and setting in cement.

	s.	d.
18″ × 18″ × 6″ template	8	0
1′ 6″ tooled edge at 9d.	1	2
Cement at 2d.		2
Fixing	1	6
	10	10
Add profit and on-costs .. 15 per cent.	1	8
	12	6

GRANOLITHIC OR ARTIFICIAL STONEWORK.

This is usually made of crushed granite and Portland cement either by wet mixing or some semi-dry process, placed into a mould and pressed. The former seems to give much the better result but is slightly dearer. It is often prepared by specialists although there is no difficulty in the matter provided there are the necessary skill and attention used in its preparation. Prices will, of course, vary with the quantity and quality of the work, but the following are for fair average quality pre-cast work delivered on to job :—

	per ft. run.
9″ × 3″ sunk weathered throated and grooved window sills including fair ends	2/–
9″ × 6″ ditto	3/3
14″ × 3″ weathered and twice throated coping	2/3
12″ × 3″ plain steps	2/3
12″ × 3″ moulded steps	2/6
12″ × 6″ plain steps	4/–
12″ × 6″ moulded steps	4/6

Moulded steps for fireproof staircases would be about 14 in. by 9 in. precast with steel reinforcement, and to a spandril shape with square wall hold one end and with moulded return the other end and two baluster holes cast in. The top of tread either to be grooved or sprinkled with carborundum to prevent slipping.

Cost per ft. run about 4/–.

Example :—

— ft. run 9″ × 6″ step sunk weathered throated and grooved granolithic window sills, including fair ends.

	s.	d.
1 ft. run 9″ × 6″	3	3
Cement, &c.		2
Labour fixing, say at 1/6 per ft. cu.		7
	4	0
Add profit and on-costs—15 per cent.		7
	4	7

— ft. run 14″ × 9″ moulded steps for fireproof staircase all as above.

	s.	d.
1 ft. run 14″ × 9″	4	0
Cement, &c.		2
Labour fixing, 1/6 per ft. cu.	1	4
	5	6
Add profit and on-costs—15 per cent.		10
	6	4

4″ granolithic precast landings, 4/– per ft. sup.

It is much better to cast these landings *in situ* as the precast landings are very difficult to fix, being heavy and awkward to handle on a staircase. The landing step or front part of the landing can be precast to match the other steps, and the rest of the landing can be cast *in situ*, or, to put the matter another way, can be concreted with a concrete formed of crushed granite containing the necessary reinforcement for its support. Granolithic stonework can be precast for architectural dressings to any design; the cost would be about equal to Bath stone.

Grano paving 1″ thick, per yd. 3/– to 3/6
,, ,, 1½″ ,, ,, 3/6 to 4/–
,, ,, 2″ ,, ,, 4/6 to 5/–

ASPHALTE.

	per yd. super.
½ in. thick damp-proof course	4/–
¾ in. paving in one layer	5/3 to 6/3
1 in. ,, ,, ,, ,,	6/3 to 7/–
¾ in. paving in two layers in roof	5/9 to 6/9
1 in. ,, ,, ,, ,, ,,	6/9 to 8/–
¾ in. vertical rendering to walls	8/3 to 9/6
Extra labour to outlets to roof	2/– each.
Extra labour forming channel in flats	6d. each.
Asphalte skirting, 6 in. high, tucked into brickwork at top and with angle fillet at bottom	10d. to 1/– per ft. run.
Do., 4 in. high	8d. to 10d. per ft. run.
Do., do., fillet only	2d. per ft. run.
¾ in. asphalte lining to roof gutters in two thicknesses	1/3 per ft. super.
Labour to outlets	1/– each.
Bull-nosed angle or external angle and drip	2d. per ft. run.

The above are approximate prices for reasonable quantities of asphalte work and would probably cover Seyssel, Limmer, Sicilian, and other good asphaltes, which would be guaranteed for three years. Asphalte is a fairly good material for dampcourse, and if laid by a first-class firm is usually satisfactory. Instances have occurred where the heat of the sun on the brickwork has softened the asphalte and caused it to squeeze out, allowing the brickwork over to move bodily forward. The foundation for asphalte paving is usually a screed of Portland cement and sand. Most asphalters refuse to lay their material on a screed of coke breeze. There is no extra charge for laying asphalte on boarding. The objection is that the heat of the sun usually causes the boards to twist or become uneven and the asphalte cracks. This can be obviated by laying the asphalte on thin expanded metal at a very small extra charge (if any) for labour, the expanded metal, of course being additional. Some firms prefer to use felt (either inodorous or tarred), instead of expanded metal last mentioned. Where concrete flat roofs are likely to crack, it is advisable to fix a little thin felt on the concrete before asphalting, so that any movement of concrete at this point will not cause cracks in asphalte.

The joints of brickwork must be raked out (when work is green) by the builder to receive vertical asphalte. The joints are then primed with asphalte and the whole surface covered with two coats which finish about ¾ in. thick. If it is thicker than ¾ in., it is usually unsatisfactory and it is apt to bulge. Asphalte is simply a waterproofing material and has little strength of its own, and where used to cover the whole area of the site to prevent flooding of basements, &c., it is necessary to weight down the asphalte dampcourse with a loading coat of 6 in. or 9 in. concrete to stop any pressure of water bursting up the asphalte. Asphalte expect ladders, scaffolding and hoisting tackle to be provided for them, and the estimator should add on about 2½ per cent. for these facilities.

St. Mary's, Whitby.

A restoration scheme is being carried on at the Parish Church of St. Mary, Whitby. The repair to the south wall of the nave are nearing completion. The treatment of the Norman doorway has been deferred until inspected by the architect, Mr. Caroe. The lead sheets of the roof have been welded together at a cost of £100. It is estimated roughly that it will cost £900 to repair the tower.

HE LIGHTING OF THE "TIVOLI" CINEMA.

The lighting effects at the new Tivoli nema in the Strand have been designed by e General Electric Co., Ltd., in collabora-n with Mr. Bertie Crewe, the principal chitect. The designs of the architects, Mr. rtie Crewe and Messrs. Gunton & Gunton, ve been carried out by Mr. F. G. Minter. e exterior is treated in a classic style and interior is decorated in Empire style. The ctrical installation work was entrusted to Berkeley Electrical Engineering Co.

The exterior of the building facing the and is floodlighted by 24 G.E.C. floodlights, equipped with 500 watt Osram gasfilled ps and 12 with 200 watt lamps. These mounted on ornamental bronze brackets l hidden by bronze screens which form an ractive feature of the frontage. The photo-ph reproduced in Fig. 1 is a night view en solely by the light of the floodlighting tallation, and shows in a most convincing nner the brilliant effect produced. Inside building interest naturally centres around auditorium lighting. The novelty of the tallation lies in the fact that practically the ole of the lamps are concealed. As far as auditorium is concerned, there is a total ence of fittings projecting from ceiling or lls, even the police lighting, except the exit ns, being included in the indirect lighting eme.

The main illumination is derived from the ned ceiling. As will be seen from the ing plan and sectional view, reproduced in s 2 and 3, the ceiling consists of one large llow dome, 54 ft. in diameter, and six sub-iary domes, 16 ft. in diameter. Hidden hin a moulded cornice around the circum-ence of each dome is a row of Osram lamps specially designed reflectors. These are anged in three circuits and are coloured ber, blue and rose respectively. Each cir-t is controlled by a dimmer, and the tching is so arranged that the colours may used independently or may be blended ether to obtain an almost endless variety exquisite colour effects. Under the gallery l balcony the lighting is supplemented by umber of ceiling panels of special design ich are arranged to reproduce the same ur effects as the main ceiling lights.

dditional illumination is obtained in ious parts of the house by amber-coloured els let into the walls. A number of .C. projectors with colour-sprayed Osram filled lamps are also sunk flush in the t of the gallery to illuminate the pros-um arch.



Fig. 1.—Exterior of the New Tivoli, showing the effect of the Floodlighting Equipment.

Chirk Housing Scheme.

A large gathering of the members of the Chirk Rural District Council and friends took place at Chirk recently, when the chairman, Mr. Geo. Rowley, formally announced the completion of the first portion of the Council's housing scheme. The principal site, forming the garden suburb of Rhos-y-Waen, provides for 136 houses: 56 "A" Type, 74 "B" Type, and six "B4" Type. This site is believed to be the second largest completed housing site in North Wales, and the cost has been about £130,000. The smaller sites at Glyn Ceiriog and Pont Fadog, providing for 25 and six houses respectively, were afterwards visited. The Council's architect, Mr. Ernest E. W. Berrington, of Wolverhampton and Oswestry, accompanied the party and explained the details of the scheme. The contractor for the houses was Mr. W. Higley, of Pontesbury, Shropshire, and for the lay-out, roads and sewers, Messrs. Hussey & Egan, of Birmingham.

The formal opening of the Chirk sewerage and sewage disposal scheme works took place on the day. The cost of the scheme was £11,400. The engineers were Messrs. Berrington, Son & Watney, of Wolverhampton, and the contractors Messrs. Hussey & Egan.

Housing in York.

The York Gas Co. have offered to lay the necessary mains for the supply of gas to some 100 houses proposed to be erected on the south-east portion of Tang Hall estate, if the Housing Committee will provide for each house a gas cooker, gas copper, and lay on a pipe for the best-bedroom fire; or, instead, if the committee would provide a gas cooker and lay on for the best-bedroom a pipe for a gas fire, and pay the sum of £2 for each house; and in the event of any parlour house, a pipe to be laid to the fire-place. The Housing Committee cannot agree to either proposal, and have suggested to the company that they are willing to lay gas pipes to the cooker, copper and bedroom fire, and buy the copper only. The Gas Co. does not agree to the proposal.

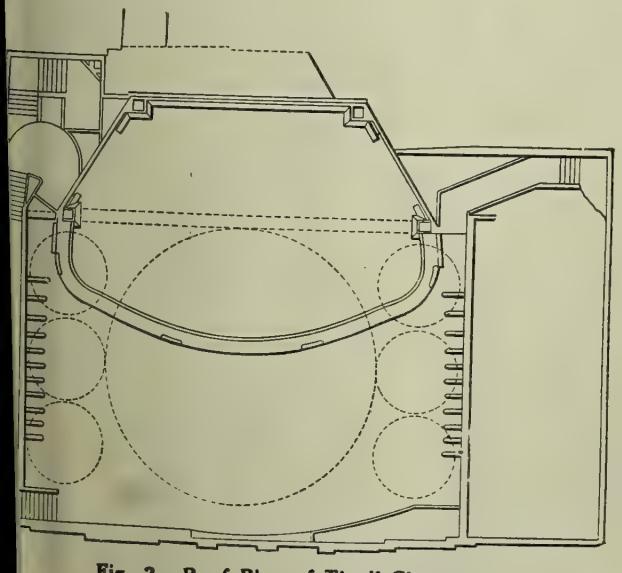


Fig. 2.—Roof Plan of Tivoli Cinema.

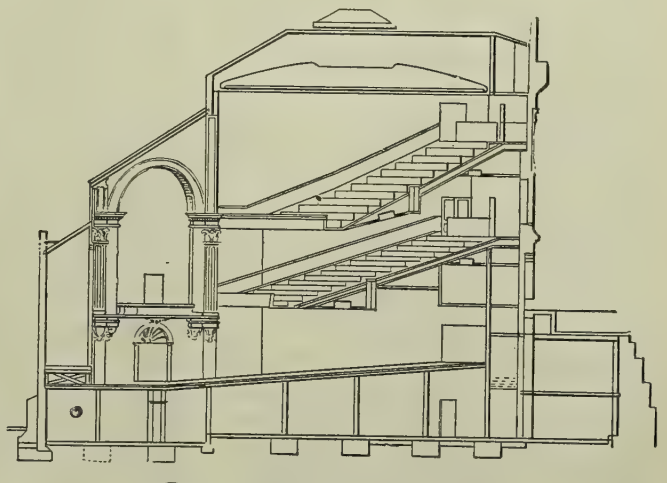


Fig. 3.—Section of Tivoli Cinema.

CHISWICK EMBANKMENT SCHEME.

A PUBLIC inquiry, instituted by the Ministry of Health and presided over by Mr. H. R. Hooper, M.Inst.C.E., was held at Chiswick Town Hall last week to hear the application of the Town Council to conclude an agreement with the Chiswick Riverside Sand & Ballast Co. to dig sand and gravel from the lands on the riverside which the Council has acquired from the Duke of Devonshire. There were present several Councillors, representatives of the ratepayers and other parties interested.

Mr. E. F. Collins, the Town Clerk, read the agreement with the company which, *inter alia*, sets out that the Council have recently acquired the riverside lands for public walks and pleasure grounds, but is unable immediately to develop the whole of such lands for such purposes. The terms of the agreement have been agreed with the company, and it will be executed as soon as the Minister of Health has given his consent. The consideration is £120,000, payable by four equal instalments of £30,000 each, and an annual rental of £700. The Council are to let to the company six pieces of land:—(1) Cubitt's Dock and basin and buildings, about five acres; (2) piece of land between the extension of Hartington-road and the boathouses, six acres; (3) the piece of land immediately to the east of the new arterial road, 14 acres; (4) the piece adjoining No. (3), 20 acres; (5) a further 20 acres, and (6) the final piece, 20 acres in extent, nearer Barnes Bridge. The lease does not include a strip of land about 200 ft. wide, adjoining the river Thames, which is reserved for an embankment, nor does it include 40 ft. of land immediately adjoining the arterial road and the railway. The term is twenty years. The Council are to have the right to the use of the surface of three of the plots until the second, third, and fourth payments are made respectively. The company are to have power to excavate and carry away sand, gravel, and ballast.

The company are to surrender to the Council for the purposes for which the lands were acquired such parts of the land from which the sand, gravel, and ballast have been excavated and the ground filled in, and the rent of £700 per annum is reduced 20s. an acre per annum in respect of the areas surrendered.

In the course of a statement, Mr. Collins said the actual excavation of the deposit and the screening and putting into water and road transport will be entrusted primarily to the Tilbury Contracting and Dredging Company, Ltd. Transport by water will be mainly dealt with by Messrs. William Cory & Sons, whose storage and distribution facilities will be at the disposal of the company. Road transport, in addition to the facilities afforded by Cory's and their subsidiaries, will be more directly under the supervision of Messrs. P. & W. Anderson, Ltd., whose motor lorries and other facilities will also be at the disposal of the company. The agreement which the Council had entered into with the company was fair and reasonable in all the terms to both parties. The Council was fully protected, and the interests of the ratepayers safeguarded. The cost to the Council of the riverside lands and properties, excluding the new burial ground, the parts sold to the Chiswick Polish Company, Ltd., and to the Middlesex County Council for the arterial road, is £130,000. The ideal proposal would have been, went on the clerk, to lay out at once the whole of the lands as open spaces, but the question of ways and means was all-important.

The Council had taken the broad view that the provision of an open space 200 acres in extent within five miles of Charing Cross was of general and incalculable public benefit, and not in the interest of only the inhabitants of Chiswick. The action of the Council was one of which Chiswick, Middlesex, and London might justly be proud. As far as he was aware, no Chiswick ratepayer had raised a word of protest against the purchase of the lands.

RATES OF WAGES IN THE BUILDING TRADE

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Bedford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½		1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3		0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Cambridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Chelmsford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Colchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
E. Glam. (Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½		1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Great Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Ipswich	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6		1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½		1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½		1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Luton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Norwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6		1/1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
St. Albans	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Scarborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7		0/11½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3		1/2½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/0
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3		0/11½
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		1/0½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/2½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/1½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/2½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/0½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/2½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/1½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
York	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½

(For rates of wages in the Building Trade in Scotland, see page 423.)

CONTRACTS, COMPETITIONS, &c.

r some contracts still open, but not included in this List, see previous issues. Those with an asterisk advertised in this number. Certain conditions beyond those given in the following information mposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any er; that a fair wages clause shall be observed; that no allowance will be made for tenders; and deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

e date given at the commencement of each paragraph is the latest date when the tender, or the names se willing to submit tenders, may be sent in; the name and address at the end is the person from whom ace where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

TEMBER 15.—**Gravesend.**—HOSPITAL ADDITIONS.—ction of additional accommodation at the Graves- ospital. Mr. E. J. Bennett, A.R.I.B.A., honorary ect, 191, Parrock-street, Gravesend.

TEMBER 15.—**Leeds.**—SCHOOL.—For various in erection of secondary school for 500 boys, lhay, for the Leeds Education Committee. tion Offices (Architect's Section), Calverley- , Leeds.

TEMBER 15.—**St. Mellon's (Mon).**—42 HOUSES.—ecting 42 houses for the St. Mellon's R.D.C. within ea, as follows:—14 houses at Rogerstone; 20 s at Bassaleg: 8 houses at Rhiwderin. Tende s e made for houses on one, two or all three sites, must be clearly stated which site is referred to. , Thomas & Morgan & Partners, architects, 23, asted-road, Pontypridd. Deposit £5.

TEMBER 15.—**Swindon.**—BAKERY.—Erection of a in Station-road, for the Swindon Co-operative lent Society, Ltd. Messrs. R. J. Beswick & Son, ., A.R.I.B.A., architects, 10, Victoria-road, on. Deposit £2 2s.

TEMBER 17.—**Downderry.**—INSTITUTE.—Erection hurch Institute at Downderry, for the Committee. . R. Venning, Lic.R.I.B.A., Green Bank-lane, rd.

TEMBER 17.—**Eastbourne.**—ALTERATIONS.—For g and enlarging discharge tower, for the T.C. gh Engineer, Eastbourne.

TEMBER 17.—**Fartown.**—HOUSE.—Erection of a ng-house, Avenues Estate, Fartown. Messrs. H. Hall & Son, architects and surveyors, Ex- e Buildings, Market-street, Huddersfield.

TEMBER 17.—**Hendon.**—Construction of public nience at the Broadway, for the U.D.C. Mr. O. Knight, Surveyor, Town Hall, Hendon. it £2 2s.

TEMBER 17.—**Hopwas.**—ENGINE HOUSE.—Erec- f a new engine house, &c., at Hopwas Pumping n, near Tamworth, for the Tamworth Water- Joint Committee. Mr. Robert H. Briggs, Clerk Joint Committee, Municipal Offices, Tamworth. it £2 2s.

TEMBER 17.—**Laleham, Middlesex.**—ENGINE E, &c.—Construction of the superstructure for gine house, boiler house, elevated coal bunkers, ey shaft, fitters' shop, stores, ash hoist building, e disposal plant, and other contingent works, Littleton Reservoir, in the Parish of Laleham, e County of Middlesex, for the Metropolitan Board. Mr. Henry E. Stilgoe, Chief Engineer, s of the Board, New River Head, 173, Rosebery- e, E.C. 1. Deposit £10, to Accountant to the

TEMBER 17.—**Lochgelly.**—HOUSES.—Offers are d for works in connection with the erection of uses for the third development at the Newton site. Mr. R. Small, Town Clerk, Town House, elly. Deposit £2 2s.

TEMBER 17.—**Marchwiel.**—PAINTING.—For re- tion of St. Deiniol's Church. Mr. J. H. Swainson, ect, 1, Hill-street, Wrexham.

TEMBER 17.—**Monkton Combe.**—HOUSE.—Erec- d house. Mr. A. J. Picton, architect, Bath. t £1 1s.

TEMBER 17.—**Northampton.**—For the T.C., 30 B3 r and three-bedroom houses; 72 A3 non-parlour ree-bedroom houses. Mr. Herbert Hankinson, Clerk, Guildhall, Northampton. Deposit £5.

TEMBER 17.—**Senghenydd.**—ADDITIONS, &C.—rrying out reconstructional works and additions Senghenydd Workmen's Library and Institute, Committee. Mr. Sidney Williams, architect, gh Chambers, Wharton-street, Cardiff.

TEMBER 17.—**Southend-on-Sea.**—PAVILION.—n and completion of a pavilion at the Victory Ground, Sutton-road, for the County Borough. bert H. Dyer, Borough Engineer, Municipal s, Southend-on-Sea. Deposit £2 2s.

EMBER 17.—**Spilsby.**—SCHOOLROOM.—Erection oolroom, &c., adjoining Toynton St. Peter n Chapel. Rev. G. T. Douthwaite, Spilsby.

TEMBER 17.—**West Hartlepool.**—STORE.—For the of a seed store for the West Hartlepool and Allotment Holders' and Gardeners' Association. F. Burton, F.S.Arc., architect, George-street, artlepool. Deposit £1.

EMBER 17.—**West Hendon.**—CONVENIENCE.—erection of a public convenience at The Broad- r the U.D.C. Mr. A. O. Knight, A.M.I.C.E., r to the Council, Town Hall, Hendon, N.W.4. £2 2s.

MBER 18.—**Abertillery.**—POST OFFICE.—Erec- ost office, for H.M. Office of Works. Contracts , H.M. Office of Works, King Charles-street, Deposit £1 1s.

MBER 18.—**Barnsbury-grove, N.**—EXTEN- For the extension of the North Telephone e, for the Commissioners of H.M. Office of ks, Contracts Branch, H.M. Office of Works, harles-street, S.W.1. Deposit £1 1s.

MBER 18.—**Glasgow.**—PAINTING.—For the work of houses in Logan-street, Polmadie, for Director of Housing, Town Hall, Govan.

SEPTEMBER 18.—**Glasgow.**—VARIOUS.—The Corporation invite offers for the various works in connection with the erection of 1,140 houses at Knightswood, areas Nos. 1 and 2. Mr. John Lindsay, Town Clerk, City Chambers, Glasgow.

*SEPTEMBER 18.—**Kettering.**—HOUSES.—Erection of 24 houses on the Council's Housing Estate, Stamford-road, Kettering, for the Urban District Council. Mr. John Bond, Clerk to the Council, Council Offices, Kettering.

SEPTEMBER 18.—**Kingsbury.**—HOUSES.—Erection of 24 houses and roads and sewers, for the U.D.C. Mr. R. C. N. Newport, Surveyor, Council Offices, Kingsbury. Deposit £3 3s.

SEPTEMBER 18.—**Marazion.**—HOUSE.—Erection of house, for Mr. A. J. Hosking. Messrs. T. F. Hosking & Co., Marazion, Cornwall.

SEPTEMBER 18.—**Nuneaton.**—HOUSES.—For the erection of 40 houses on the Attleborough Housing Estate in two contracts of 20 houses each for the Borough of Nuneaton. Mr. R. C. Moon, A.M.Inst.C.E., Borough Surveyor, Municipal Offices, Nuneaton. Deposit £2 2s.

SEPTEMBER 18.—**Pleasley.**—DWELLINGS AND ROADS.—Erection of 80 workmen's dwelling houses, and construction of roads and sewers, in Terrace-lane, Pleasley, Derbyshire, for the Stanton Ironworks Co., Ltd. Mr. A. E. Lambert, architect, 28, Park-row, Nottingham. Deposit £2 2s.

SEPTEMBER 18.—**Selby.**—BRIDGE WORK.—Strengthening of timber-piled buttresses in the reconstruction of a land arch, and in painting and incidental works to Cawood Bridge, near Selby. West Riding Surveyor, County Hall, Wakefield. Deposit £1 1s.

SEPTEMBER 18.—**Swansea.**—HOUSES.—Erection of 21 houses on the "Fforest Fach" Estate, for the T.C. Mr. Ernest E. Morgan, A.R.I.B.A., Borough Architect, 3, Prospect Place, Swansea. Deposit £3 3s.

SEPTEMBER 18.—**Warlingnam (Surrey).**—TELEPHONE EXCHANGE.—Erection of a new telephone exchange, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

SEPTEMBER 19.—**Acaster Malbis.**—REPAIRS.—For works of repair to Poplars Farm, Acaster Malbis, near York, for the West Riding Small Holdings Committee. County Land Agent, County Hall, Wakefield. Deposit £1.

SEPTEMBER 19.—**Bainton, &c.**—HOUSES.—Erection of teachers' houses at Bainton, Langtoft, and Weaverthorpe, for the East Riding E.C. County Architect, County Hall, Beverley.

SEPTEMBER 19.—**Crewe.**—HOUSES.—Erection of thirty houses, for the T.C. Mr. L. St. G. Wilkinson, Borough Engineer, Municipal Buildings, Crewe. Deposit £2 2s.

SEPTEMBER 19.—**Gilfach Goch (Glam).**—ALTERATIONS TO CLUB.—For erecting additions and making alterations to present premises of the Gilfach Goch Constitutional Club, Ltd. Mr. William Maidment, Secretary, Constitutional Club, Gilfach Goch (Glam.).

SEPTEMBER 19.—**Glasgow.**—PAINTING.—For the painter work of the doctor's house at Robroyston Hospital, for the T.C.. Office of Public Works, 64, Cochrane-street, Glasgow.

SEPTEMBER 19.—**Mapplewell.**—ALTERATIONS.—The W.R. Committee invite tenders for alterations at Darton Mapplewell Council School. The Education Department, County Hall, Wakefield.

SEPTEMBER 19.—**Mirfield.**—HOUSE.—Erection of a house off Parker-lane (near the Old Rectory), Mirfield. Messrs. Kirk, Sons & Ridgway, F.R.I.B.A., architects and surveyors, Market-place, Dewsbury.

SEPTEMBER 19.—**Plymouth.**—REPAIRS.—Repairs to and part reconstruction of the Devonport Guildhall, for the T.C. Mr. J. Wibberley, Borough Engineer, Municipal Offices, Plymouth. Deposit £2 2s.

SEPTEMBER 19.—**Preston.**—ALTERATIONS.—Additions and alterations to the Grammar School, Moor Park, for the T.C. Borough Surveyor, Town Hall, Preston.

SEPTEMBER 19.—**Stafford.**—HOUSES.—Erection of 20 houses of the parlour type on the Lammascote Housing Estate, for the T.C. Mr. W. Plant, Borough Engineer and Surveyor, Borough Hall, Stafford. Deposit £2 2s.

SEPTEMBER 19.—**Thorne.**—RE-ROOFING.—For the re-roofing of nineteen houses at Darlington-grove, Moorends, for the R.D.C. Surveyor, Council Offices, Thorne.

SEPTEMBER 19.—**Tutbury.**—BRIDGE.—Construction of a reinforced concrete bridge close to Belmont Green, for the R.D.C. Mr. Frank Rist, surveyor, "Drakelowe View," Branstone-road, Burton-on-Trent.

SEPTEMBER 20.—**Blackburn.**—HOUSES AND FLATS.—Erection of 16 flats and 20 houses (type "L") on the Intack Housing Site, for the T.C. Mr. A. T. Gooseman, M.Inst.C.E., Borough and Water Engineer, Town Hall, Blackburn. Deposit £3.

SEPTEMBER 20.—**Calton.**—SCHOOLROOM.—Enlargement of the Church of England Schoolroom at Calton, near Waterhouses. Rev. J. Grindrod, Calton Vicarage, Stoke-on-Trent.

SEPTEMBER 20.—**Cheselbourne.**—TOWER.—For the repair of the tower and belfry of the parish church, for the Cheselbourne Parochial Church Council. Rector.

SEPTEMBER 20.—**London, S.E. 6.**—PAINTING, &C.—For internal and external decorations, &c., of club premises, for the Committee of the Lower Sydenham Social Club, Meadowcroft, Perry-hill, Catford, S.E. 6. Deposit 5s.

SEPTEMBER 20.—**Tedavnet, Co. Monaghan.**—CHURCH.—For the reconstruction and enlargement of Tedavnet Church, Co. Monaghan, for the Rev. Philip Mulligan, P.P., Scotstown, Co. Monaghan. Mr. R. M. Butler, F.R.I.B.A., architect, 23, Kildare-street, Dublin.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick- layers' Labourers.	Plas- terers' Labourers.
Aberdeen	1/7	1/8	1/7	1/7	1/8	1/8½	1/4½	1/-	
Airdrie	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/5	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/7	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Fort William	1/7	1/6	1/6	1/6	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/7	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 422.

★SEPTEMBER 20.—**Tooting, S.W.**—BRICKWORK.—For the taking down and rebuilding of four bays and four piers of the brick boundary wall of the cemetery, Blackshaw-road, for the Metropolitan Borough of Lambeth. Mr. Osmond Cattlin, M.Inst.C.E., Borough Engineer, Town Hall, Brixton-hill, S.W.2.

SEPTEMBER 20.—**West Ham.**—PAINTING—For painting, cleaning, &c., of the interior of Administrative Block of Hospital, Whipps Cross-road, Leytonstone, E. 11, for the B.G. Mr. Thomas Smith, Clerk, Union Offices, Leytonstone, E. 11.

SEPTEMBER 21.—**Blackpool.**—HOUSES.—Construction of 80 or more houses, for the T.C. Mr. Francis Wood, M.Inst.C.E., Borough Engineer, Municipal Buildings, Blackpool. Deposit £2 2s.

SEPTEMBER 21.—**Bradford.**—HOUSES.—Erection of 36 houses, Class A, and 12 Houses, Class A2, for the T.C. City Architect, Town Hall, Bradford.

SEPTEMBER 21.—**Glasgow.**—VARIOUS WORKS.—Erection of public halls for South Govan, for the T.C. Office of Public Works, 64, Cochrane-street. Deposit £2 2s.

SEPTEMBER 21.—**Welney.**—COTTAGE.—Erecting a cottage at Bank Farm, Welney, West Norfolk, for the C.C. County Land Agent, The Shirehouse, Norwich. Deposit £1 1s.

SEPTEMBER 22.—**Bradford.**—ALTERATIONS.—For fittings and alteration to fittings at the Central Library for the T.C. City Architect, Town Hall, Bradford.

SEPTEMBER 22.—**Broadstairs.**—PAINTING.—For painting at Wainwright Home, for the Managers of the North Surrey School District. Mr. H. J. Chaldecott, Clerk, 2, Staple Inn, London.

SEPTEMBER 22.—**Dorchester.**—ALTERATIONS.—For alterations and additions to the Electric Power Station, for the T.C. Mr. H. D. Strange, Borough Surveyor, 21, North-square, Dorchester.

★SEPTEMBER 22.—**East Ham.**—HOUSES.—Erection of 99 houses on the Central Site, High-street South, for the B.C. Borough Engineer, Town Hall, East Ham, E.6. Deposit £2.

SEPTEMBER 22.—**Holme Cultram.**—FOUNDATION.—For concrete foundation for a steel gasholder tank at Silloth Gas Works. Mr. James Shiel, 30, Caldew-street, Silloth.

SEPTEMBER 22.—**Salford.**—SUB-STATION.—Erection of sub-station at Prestwich, for the T.C. Borough electrical engineer, Salford.

SEPTEMBER 22.—**Tottington.**—MORTUARY.—For the provision of a public mortuary in buildings situated at the Town Hall, for the U.D.C. Mr. L. Kenyon, Surveyor, Town Hall, Tottington.

SEPTEMBER 22.—**Tranent.**—HOUSES.—Erection of four houses at Tranent, for the T.C. Messrs. Morham & Brotchie, surveyors, 29, Hanover-street, Edinburgh.

SEPTEMBER 22.—**Tynemouth.**—TENEMENTS.—Erection of three blocks of tenements, for the T.C. Mr. John F. Smillie, Borough Surveyor, Tynemouth. Deposit £2 2s.

SEPTEMBER 24.—**Aldershot.**—W.D. WORKS CONTRACT.—For the works contract for repairs and materials, from October 6, 1923, at North Aldershot Station, including Marlborough Lines, Pinehurst and Mytchett, Commanding Royal Engineer, R.E. Office, Marlborough Lines, North Aldershot, Hants.

SEPTEMBER 24.—**Ansdell.**—SCHOOL.—For a new Sunday School, for the Baptist Church, Ansdell. Mr. Fred. Harrison, architect, 30, Willow-street, Accrington. Deposit £2.

SEPTEMBER 24.—**Barnsley.**—HOUSES.—Erection of 44 houses, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley.

SEPTEMBER 24.—**Inverkeithing.**—HOUSES.—Erection of ten houses of the second development at Spencerfield site, for the T.C. Mr. Peter Reid, architect, Park House, Inverkeithing. Deposit £1 1s.

★SEPTEMBER 24.—**Tyseley.**—HOUSES.—For the erection of 44 parlour type houses, Mayfield-road, for City of Birmingham. Mr. Herbert H. Humphries, M.Inst. C.E., City Engineer and Surveyor, The Council House, Birmingham. Deposit £1.

SEPTEMBER 24.—**Watchet.**—QUAY BUILDING, &C.—For construction of certain works, including building of a concrete quay, sheeting and bulkhead walls, for the improvement of Watchet Harbour. Mr. Frank Risdon, Clerk, U.D.C. Offices, Watchet.

SEPTEMBER 24.—**Workington.**—HOUSES.—Erection of 24 houses, drainage, &c., for the T.C. Mr. H. B. Williams, Borough Engineer, Town Hall, Workington. Deposit £2 2s.

SEPTEMBER 25.—**Brighton.**—SORTING OFFICE, &C.—For the completion of Brighton Sorting Office and Telephone Exchange, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s.

SEPTEMBER 25.—**Bristol.**—NURSES' HOME.—Extension of the Nurses' Home, for the Committee of the Bristol Royal Infirmary. Messrs. Bernard & Son, quantity surveyors, 26, Orchard-street, Bristol. Deposit £2 2s.

SEPTEMBER 25.—**East Molesey.**—HOUSES.—Erection of six houses at Hurst-lane, East Molesey, in pairs (cost not exceeding £900 per pair), for the East and West Molesey U.D.C. Chairman of the Housing Committee, Council Offices, East Molesey.

SEPTEMBER 25.—**Glasgow.**—EXTENSION OF TIME.—For the several works in connection with the Glasgow Knightswood Housing scheme. (Time extended to September 25). Mr. J. Lindsay, Town Clerk, City Chambers, Glasgow.

SEPTEMBER 25.—**Teddington.**—EXTENSION.—Extension of the Admiralty Research Laboratory, National Physical Laboratory, Teddington, for H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

SEPTEMBER 25.—**Warrington.**—PAINTING.—Painting interior of the school buildings at the Cottage Homes, Padgate, for the Board of Guardians. Mr. F. J. Barnish, architect, Golden-square, Warrington. Deposit £1 1s.

SEPTEMBER 26.—**Herne Bay.**—SHELTER, &C.—For the erection of the superstructure of the proposed shelter and conveniences, West Cliff, on a prepared substructure, for the U.D.C. Mr. B. J. Wormleighton, F.S.I., Engineer and Surveyor to the Council, Town Hall, Herne Bay. Deposit £2 2s.

SEPTEMBER 27.—**Oadby.**—HOUSES.—Erection of two houses, for the U.D.C. Mr. G. E. Fryer, Council Offices, Oadby. Deposit £5 5s.

SEPTEMBER 27.—**Tuam (Ireland).**—CONVENT.—Erection of a new wing to the Presentation Convent, Tuam, co. Galway. Mr. R. M. Butler, architect, 23, Kildare-street, Dublin.

SEPTEMBER 28.—**Bristol.**—HOUSES.—Erection of houses: Fishponds Housing site (30 houses), Knowle Housing site (20 houses), for the T.C. City Engineer, Housing Department, 51, Prince-street, Bristol. Deposit £1.

SEPTEMBER 28.—**Hemsworth.**—COTTAGE.—Erection of a caretaker's cottage at Kinsley Sewage Disposal Works, for the U.D.C. Mr. W. T. Lynan, A.M.I.C.E., Engineer and Surveyor, Hemsworth. Deposit £2 2s.

SEPTEMBER 28.—**Tralee.**—HALL.—Erection of a new County Hall in the Green Park, Tralee, for the Kerry C.C. Mr. W. F. Quinlan, County Secretary, County Council Offices, Courthouse, Tralee. Deposit £2 2s.

OCTOBER 1.—**Hertfordshire.**—COTTAGES.—Erection and completion of 32 detached cottages at various places in Hertfordshire, for the C.C. Mr. A. Ernest Prescott, M.Inst.C.E., Lieut.-Col., County Surveyor and Architect, Hatfield. Deposit £1 1s.

★OCTOBER 2.—**Greenwich, S.E.10.**—HOUSES.—Erection and completion of 50 houses in two sections on the Carlton Housing Estate (portion of) for Metropolitan Borough of Greenwich Council: Section A, 28 houses, comprising 12 "A" type in blocks of six, 12 "A3" in blocks of six, and 4, "B3" in blocks of two. Section B, 22 houses, comprising 12 "A2" types in blocks of six, 6 "A3" in one block, 2 "A3" in one block and 2 "B3" in one block. Town Clerk's Department, Town Hall, Greenwich, S.E.10. Deposit £2 2s.

OCTOBER 3.—**Ramsgate.**—SEA WALL.—For the construction complete of a new reinforced concrete sea wall, on the indented bar principle, on the foreshore of the St. Lawrence Cliffs Estate, for the Borough. Mr. T. G. Taylor, Borough Engineer, Borough Engineer's Office, Albion House, Ramsgate.

★OCTOBER 4.—**Tilbury (Essex).**—TELEPHONE EXCHANGE.—Erection of a new telephone exchange at Tilbury, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s., payable to the Secretary.

OCTOBER 9.—**Yorkshire.**—REPAIRS.—Adaptation and repairs to four farmsteads on the Gargrave Estate, for the West Riding C.C. County Land Agent, County Hall, Wakefield. Deposit £1.

OCTOBER 20.—**Near Abergavenny (Mon).**—HALL, &C.—For erecting a parish hall at Llanvihangel Crucorney (near Abergavenny), with submission of alternative estimate for same, if erected, of timber framing and galvanised corrugated sheeting. Mr. B. J. Francis, architect, Abergavenny. Names of intending tenders must be sent to Mr. W. H. Wood, Clerk to Parish Council, 1, Pant Glas, Pandy, near Abergavenny, by September 15th.

★NOVEMBER 30.—**Singapore.**—POST OFFICE.—Erection of new general post office, Singapore. Crown Agents for the Colonies, 4, Millbank, S.W.1. Deposit £10.

NO DATE.—**Beachley (Chepstow).**—PAINTING.—For scaling and painting with two coats of red oxide of seven 4-ton luffing cranes and six 10-ton cantilever cranes, lying at Beachley. Messrs. George Cohen & Armstrong, Disposal Corporation, Abbey House, 2, Victoria-street, London, S.W. 1.

NO DATE.—**Hanging Heaton.**—DECORATION.—For interior decoration of United Methodist Church (Ebenezer), Hanging Heaton, and installation of electric lighting. Mr. C. Lodge, 99, Commonside, Hanging Heaton. Deposit £1 1s.

NO DATE.—**Leven.**—HOUSES.—Erection of eight blocks of four houses each at Leven, for the T.C. Mr. Alex. C. Dewar, Town Clerk, Municipal Offices, Leven. Deposit £2 2s.

NO DATE.—**Llanharan (Glam).**—CHAPEL.—For erecting a chapel at Llanharan, for the Trustees of Carmel Baptist Church. Mr. J. H. Davies, architect, 67, Taff-street, Pontypridd. Deposit £2 2s.

NO DATE.—**Porth (Rhondda).**—NURSES' HOSTEL.—For building for the Committee of the Porth and District Hospital, a nurses' hostel and laundry. Secretary, the Hospital, Porth; or Mr. J. B. Fletcher, 21, Dumfries-place, Cardiff. Deposit £3 3s.

NO DATE.—**Rhoose (near Barry).**—ROOFING.—For roofing at "Court Farm," Rhoose. Occupier, "Court Farm."

NO DATE.—**Roundhay.**—HOUSES.—For the erection of three houses at Roundhay, near Leeds, for Mr. John A. Brown. Messrs. Jones & Stocks, 56, Prudential Buildings, Leeds.

NO DATE.—**Wakefield.**—SCHOOL.—Tenders are invited (whole works or separate trades) for the erection of a new elementary school at Stainforth (Thorne), with accommodation for 500 scholars. Secretary, Education Department, County Hall, Wakefield.

FURNITURE, MATERIALS, etc.

SEPTEMBER 15.—**Bootle.**—GRANITE SETTS.—For 1,250 tons of 4 in. by 5 in. deep granite setts, for the T.C. Borough Engineer, Town Hall, Bootle.

SEPTEMBER 15.—**Colchester.**—SUPPLIES.—Supply (3 months) of oilman's goods, cement, &c., for Visitors of Severalls Asylums. Mr. H. H. Gépp, Clerk to Visitors.

SEPTEMBER 15.—**Stafford.**—MATERIALS.—Supply of ironmongery, tools, building and road material, &c., for the T.C. Mr. W. Plant, A.M.I.C.E., Borough Engineer, Borough Hall, Stafford.

SEPTEMBER 15.—**Wokingham.**—ROAD MATERIALS.—Supply of tarmacadam, granite, limestone and gravel for six months to the R.D.C. Mr. Arthur H. Prince, Surveyor, Council Offices, Barkham-road, Wokingham.

SEPTEMBER 17.—**Ilford.**—MATERIALS.—Suppl road materials, iron castings, &c., to the U.D.C. H. Shaw, Surveyor, Town Hall, Ilford.

SEPTEMBER 17.—**Port Talbot.**—SUPPLIES.—For ply to B.C of following:—(*a*) Linen goods, fectants; (*b*) ironmongery, hardware, castings, tu limestone, metalling, tarmac, fodder, scavengin haulage. For items (*a*) Health Department, C Office, Port Talbot, and items (*b*) Borough Eng Port Talbot. Stamped and addressed envelope cases.

SEPTEMBER 17.—**Warrington.**—ASHBINS, &C.—supply of 500 galvanised steel ashbins and 50 vanised steel sanitary pails, for the T.C. Cle Superintendent, Central Sanitary Depot, Ro Warrington.

SEPTEMBER 17.—**Worthing.**—TIMBER.—Suppl fifty squares of 1½ in. pitch pine floor boardi the T.C. Borough Surveyor, Worthing.

SEPTEMBER 18.—**Brentford.**—SUPPLIES.—For ware, oils, &c., for the B.G. Mr. F. E. Harmsw Clerk, Toolands House, 34, Twickenham-road, worth.

SEPTEMBER 18.—**Darlington.**—KERBING.—Sup 4,000 lin. yds. of 10 in. by 8 in. cement concrete for the T.C. Borough Surveyor, Town Hall, lington.

SEPTEMBER 18.—**Merthyr Tydfil.**—SUPPLIES, supply in bulk for period of six months from Octo next, for the Poor Law Institutions at Merthy Trecynon and the Cottage Homes, Aberdare, fo Merthyr Tydfil Board of Guardians, of the follo supplies:—Building materials, haulage, straw, trical fittings, earthenware, oils, paints, glass, mongery, shoemaking materials, leather, boots, drugs. The Clerk to the Guardians, Union O High-street, Merthyr Tydfil.

SEPTEMBER 19.—**Fulham.**—SUPPLIES.—Suppl ballast and sand, scavengers' brooms, oilman's g lime and cement, &c., for the B.C. Mr. J. P. Si Town Clerk, Town Hall, Fulham, S.W.

SEPTEMBER 19.—**Gloucestershire.**—FURNITU Supply of furniture to the Wotton and Barn Hospitals, for the Visitors of the County Mental pitals. Mr. E. B. Key, Clerk, County Mental Hos Gloucester.

SEPTEMBER 19.—**Wortley.**—MATERIALS.—Supp the R.D.C. of granite, limestone, oils, coal, pitch tar, kerb, iron castings. Mr. F. Thurlby, surv Grenoside, near Sheffield.

SEPTEMBER 20.—**Blackburn.**—GRANITE SETTS.—ply of granite setts to the T.C. Mr. A. T. Goose Borough Engineer, Blackburn.

SEPTEMBER 21.—**Bognor.**—MATERIALS.—Suppl road materials, &c., to the U.D.C. Surveyor, street, Bognor.

SEPTEMBER 21.—**London, S.E.**—OIL AND CAB Supply of lubricating oil and cable, lead sheathed to India Store Department. Director-General, B No. 14, Belvedere-road, Lambeth, S.E. 1.

SEPTEMBER 21.—**Salford.**—MATERIALS.—For months' miscellaneous supplies to Tramways De ment. General Manager, Tramways Department Blackfriars-street, Salford.

SEPTEMBER 22.—**Bucklow.**—MATERIALS.—Supp granite setts, broken granite, tarred macadam, & the R.D.C. Mr. R. C. Cordon, Highway Surv Knutsford.

SEPTEMBER 22.—**Eccleshall Bierlow.**—SUPPLI Supply of oils, paints, brooms, &c., for the B.G. Union Offices, The Edge, Sheffield.

SEPTEMBER 24.—**Dover.**—SUPPLIES.—Supply months) of bricklayer and plumber materials. mongery, &c., for the B.G. Mr. C. Dacre C Clerk, Market-square, Dover.

SEPTEMBER 24.—**Ilkeston.**—MATERIALS.—Supp granite slag, kerbs and concrete slabs, to the Borough Surveyor, Ilkeston.

SEPTEMBER 24.—**North Bierley.**—SUPPLIES.—S of paints, &c., for the B.G. Mr. W. G. Cooper, Union Offices, 4, Town Hall-street, Bradford.

SEPTEMBER 24.—**Yarmouth.**—MATERIALS.—S of various materials to the T.C. Mr. S. P. Thon Borough Engineer, Town Hall, Great Yarmouth

SEPTEMBER 25.—**Bedwellty.**—SUPPLIES.—For plying the Bedwellty Guardians' institutions at gar, Blackwood, and Ebbw Vale, with leathe grindery, ironmongery and cutlery, hardwar crockery, oils and brushes, drugs and surgical dre boots and shoes, coal, &c. Mr. William Hall, to the Guardians, Union Offices, Tredegar, Mo

SEPTEMBER 25.—**Hertford.**—MATERIALS.—Sup sewer ironwork, water fittings, &c., to the T.C. Bo Surveyor, Hertford.

SEPTEMBER 26.—**Cuckfield.**—MATERIALS.—Sup road materials and for road rolling, for the Mr. H. L. Richardson, Surveyor, Offices, Hay Heath.

SEPTEMBER 26.—**Gravesend.**—GRANITE SETTS.—ply of 100 tons of 4 in. by 4 in. by 4 in. granite to the T.C. Mr. H. H. Brown, Town Clerk, Grav

SEPTEMBER 28.—**Stoke-on-Trent.**—MATERI Supply of cement, bricks, cast-iron work, &c. Bo Surveyor, Stoke-on-Trent.

ENGINEERING, IRON AND STI

SEPTEMBER 15.—**Halifax.**—PARAPET.—For sup and fixing a new ornamental cast iron parapet to ing cast-iron parapet at North Bridge, Halifax. T.C. Borough Engineer, Crossley-street, H Deposit £1 1s.

SEPTEMBER 15.—**Manchester.**—PUMPS.—For set of electrically driven high-pressure cent pumps, to deliver 1,000 g.p.m. against a press 1,120 lb. per square inch. Secretary, Water Offices, Town Hall, Manchester. Deposit £2 2

SEPTEMBER 15.—**Weaste.**—HEATING, &C., A TUS.—For heating and hot-water service appa for Union Infirmary, Stott-lane, Weaste, fo Salford B.G. Mr. T. Roland Wollaston, M.I Lord's Chambers, 26, Corporation-street, Manc Deposit £2 2s.

SEPTEMBER 17.—**Aberdeen.**—COAL HANDLING PLANT.—Supply and erection of a 40-ton coal handling plant, with band conveyor, gravity bucket conveyor, and steel hopper and chute. Mr. J. A. Bell, Borough Electrical Engineer, Milburn-street, Aberdeen. Deposit £1.

SEPTEMBER 17.—**Abersychan (Mon).**—ELECTRIC LIGHT WORKS.—For carrying out, for the Abersychan U.D.C., certain electric light works. Dr. J. A. Purves, 15, Queen's-terrace, St. David's, Exeter; or Mr. W. H. V. Bythway, Clerk, Council Offices, Pontypool. Deposit £1 1s.

SEPTEMBER 17.—**Chorley.**—BOILER.—For new boiler at Library, for the T.C. Borough Surveyor, Chorley.

SEPTEMBER 17.—**Farnworth.**—ELECTRICAL PLANT.—For a 50 K.W. rotary converter, complete with transformer, switchgear, &c., for U.D.C. Chief Electrical Engineer, Mr. A. J. Hutchinson, Electricity Works, Farnworth, near Bolton. Deposit £1 1s.

SEPTEMBER 17.—**London.**—MACHINE TOOLS.—Supply of machine tools, for the Council's Tramway Central Repair Depot, Charlton. General Manager, London County Council Tramways, Victoria-embankment, W.C. 2. Deposit £2.

SEPTEMBER 18.—**Liverpool.**—BOILER.—For supplying and fixing two new Robin Hood boilers at Stanley, Park, Liverpool, also for clearing away existing boiler, &c., for the T.C. Land Steward and Surveyor, Municipal Buildings, Liverpool.

SEPTEMBER 18.—**London, S.W.**—RAILWAY MATERIAL.—Supply of steel material and wheels and axles for carriages and wagons, for the Bombay, Baroda, and Central India Railway Co. Mr. G. S. Young, Secretary. 1, Petty France, Westminster, S.W. 1. Fee £1.

SEPTEMBER 18.—**Tottenham.**—BITUMEN BOILERS.—Supply of two bitumen boilers, each 360 gallons capacity, for the U.D.C. Captain H. F. Wilkinson, M.E., Engineer of the Council, Town Hall, Tottenham, N.15.

SEPTEMBER 19.—**Atherton.**—PIPES.—Supply of cast-iron gas and water pipes, for the U.D.C. Mr. W. T. Duxbury, Gas and Water Manager, Atherton.

SEPTEMBER 19.—**Fulham.**—FILTRATION PLANT.—Supply and erection of filters and plant at the Fulham Public Baths. Superintendent and Engineer at the Baths, Walham Green, S.W.6.

SEPTEMBER 20.—**Manchester.**—FENCING.—Supply and erection of wrought-iron fencing at Queen's Park, Harpurhey, for the T.C. City Engineer, Town Hall, Manchester. Deposit £2 2s.

SEPTEMBER 21.—**Erpingham.**—SEA WALL.—Erection of new length of concrete sea wall, Overstrand, for the R.D.C. Messrs. A. F. Scott & Sons, 24, Castle Meadow, Norwich.

SEPTEMBER 21.—**Manchester.**—GAS PLANT.—Supply and erection at Bradford-road Works of two gas compressors and condensing plant, for the T.C. Mr. J. H. Millitoe, Secretary, Gas Department, Town Hall, Manchester.

SEPTEMBER 22.—**Bradford.**—STEEL POLES.—Supply of 200 steel poles to the T.C. Mr. F. Marsden, City Engineer, Town Hall, Bradford.

SEPTEMBER 22.—**Manchester.**—COMPRESSOR.—For a portable air compressor; also paving breakers and caulking hammers, for T.C. Secretary, Waterworks Offices, Town Hall, Manchester.

SEPTEMBER 22.—**Salford.**—HOT-WATER SUPPLY.—For heating and hot-water service apparatus for the Infirmary and Nurses' Home extension of the Board of Guardians. Mr. T. Roland Wollaston, Lord's Chambers, 26, Corporation-street, Manchester. Deposit £2 2s.

SEPTEMBER 24.—**Salford.**—COOLING AND PUMPING PLANT.—For cooling towers, pumping plant, and pipework, at Agecroft Power Station, for the T.C. Mr. J. Robertson, Consulting Engineer, 20, Braze nose-street, Manchester. Deposit £1 1s. per specification.

SEPTEMBER 25.—**Adwick-le-Street.**—STEEL ROOF.—Supplying and erecting of a steel-framed roof in two spans, about 100 ft. × 40 ft. each, in connection with the Council's storage reservoir, also the necessary steel stanchions, gutters, &c., for the U.D.C. Mr. George Gledhill, Surveyor, Council Offices, Adwick-le-Street, near Doncaster. Deposit £2.

SEPTEMBER 25.—**Duolin.**—PUMP.—For one pumping unit (oil engine and centrifugal pump), for the T.C. City Engineer, 28, Castle-street, Dublin, and Mr. J. S. Lord, M.Inst.C.E., 11, Victoria-street, Westminster, London, S.W.1. Deposit £2 2s.

SEPTEMBER 27.—**Chelsfield.**—RESERVOIR.—Construction of covered service reservoir at Chelsfield, Kent, for the Metropolitan Water Board. Mr. H. E. Stilgoe, Chief Engineer, 173, Rosebery-avenue, E.C. Deposit £5.

SEPTEMBER 27.—**Chile.**—PORT IMPROVEMENT.—Improvement of the Harbour of Constitucion, for the Chilean Government. Chilean Legation, 22, Grosvenor Square, W.1.

SEPTEMBER 27.—**Salford.**—BRIDGES.—Construction of bridges over railway at Stott-lane widening (South Side), for the T.C. Borough Engineer, Salford. Deposit £2 2s.

SEPTEMBER 29.—**Keel (Ireland).**—BRIDGE.—For renewing the superstructure of the iron bridge at Keel (near Ballinrobe), for Mayo C.C. County Surveyor, Courthouse, Castlebar, Co. Mayo.

SEPTEMBER 29.—**Sankey.**—BRIDGE.—For the reconstruction of Barnes Bridge, in the township of Sankey, on the Liverpool and Manchester main road, for the Lancashire C.C. County Surveyor and Bridge Master, County Offices, Preston.

OCTOBER 1.—**Bristol.**—HEATING, &C.—For the heating and ventilating of the Council School at Shirehampton, for the Bristol Education Committee. Mr. A. E. Wilson, P.A.S.I., Architect, Phœnix Chambers, 22, Clare-street, Bristol. Deposit £1 1s.

OCTOBER 1.—**Egypt.**—STEAM LAUNCHES.—For three steel steam launches, for Ministry of Public Works, Egypt. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Westminster, S.W.1.

OCTOBER 3.—**London.**—ELECTRIC LIGHTING.—For electric wiring of New Science Museum, South Kensington, for H.M. Commissioners of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. Deposit £1 1s.

OCTOBER 9.—**Toronto.**—Alternating current generator, for T.C. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

OCTOBER 15.—**St. Pancras.**—BOILER.—For a Cornish boiler, for the B.C. Mr. C. H. F. Barrett, Town Clerk, Town Hall, Pancras-road, N.W.1.

OCTOBER 24.—**Australia.**—BRIDGE.—Construction of bridge for Country Roads Board, Victoria. Agent-General for Victoria (Australia), Melbourne-place, Strand, W.C.2. Preliminary deposit £500.

OCTOBER 31.—**Australia.**—ELECTRIC CRANES.—Supply and erection at Port Adelaide of four 7-ton electric coal-handling cranes, for the South Australian Harbours Board. Agent-General for South Australia, Australia House, Strand, W.C.2.

NOVEMBER 1.—**Siam.**—BRIDGES.—Supply of superstructures of steel railway bridges to Siam State Railways. Messrs. C. P. Sandberg, 40, Grosvenor-gardens, S.W. 1. Charge 28s

NOVEMBER 9.—**India.**—STEELWORK.—Supply of structural steelwork for wagon repair shop, Trichinopoly workshops scheme, for the South Indian Railway Co. Company's Offices, 91, Petty France, Westminster, S.W. 1. Charge £1.

NOVEMBER 30.—**Sydney.**—BRIDGE.—Construction of the superstructure and substructure of a cantilever bridge across Sydney Harbour; also an alternative tender for the construction of the superstructure and substructure of an arch bridge across Sydney Harbour. Agent-General for New South Wales, Australia House, Strand, W.C.

DECEMBER 3.—**Sydney.**—High tension switchgear, for Municipal Council. Department of Overseas Trade (Room 52), 35, Old Queen-street, S.W.1.

ROAD, SANITARY, AND WATER WORKS.

SEPTEMBER 15.—**Bedwas.**—SEWERS.—For constructing, for the Bedwas and Machen U.D.C., subsidiary sewers at Bedwas, Machen and Maesycwmmer, work to include providing and laying of stoneware pipes, with manholes, and all incidental work. The work will be in three separate contracts. Mr. A. S. V. Taylor, Queen's Chambers, Orchard-street, Neath. Deposit £9 9s.

SEPTEMBER 15.—**Halifax.**—SEWER.—For laying about 218 yds. of 18 in. earthenware pipe sewer in Queen's-road, Halifax, for the T.C. Borough Engineer, Crossley-street, Halifax. Deposit £2 2s.

SEPTEMBER 15.—**Wem.**—ROADS.—For resurfacing 800 yds. of road in tarred slag, for the U.D.C. Mr. E. Hill, Surveyor, Town Hall, Wem.

SEPTEMBER 15.—**Westhampnett.**—BRIDGE.—For reconstruction in ferro-concrete of small bridge over the Aldingbourne Rife, near Gas Works at South Bersted, for the R.D.C. Surveyor of Highways, Council Offices, Pallant House, Chichester. Deposit £2 2s.

SEPTEMBER 17.—**Abersychan (Mon).**—ROAD WIDENING.—For widening of Cwmavon-road, for the U.D.C. Mr. F. C. Hatcher, Council Offices, Abersychan.

SEPTEMBER 17.—**Ayr.**—ROADS.—For the resurfacing of various roads within the parishes of Beith, Dalry, and Dunlop, with clinker or slag asphalt, for the Ayr C.C. Mr. Rod. M'Donald, Road Surveyor, District Offices, Kilwinning.

SEPTEMBER 17.—**Birmingham.**—SEWER.—Construction of about 2,200 yds. of stoneware pipe sewers, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

SEPTEMBER 17.—**Hendon.**—ROADS.—Widening and improvement of Queen's-road, for the U.D.C. Mr. A. O. Knight, Surveyor, Town Hall, Hendon, N.W. 4. Deposit £3 3s.

SEPTEMBER 17.—**Port Talbot.**—DRAINAGE.—For drainage of Goitre Cemetery, for the Borough Council. Borough Engineer, Council Offices, Aberavon.

SEPTEMBER 17.—**Rochdale.**—ASPHALTE WORK.—For granited rock asphalte work required in the Esplanade, for the T.C. Borough Surveyor, Town Hall, Rochdale.

SEPTEMBER 19.—**Greenock.**—ROADS.—Extension of Cornhaddock-street, a distance of about 900 yds., with sewers, for the T.C. Office of Public Works, Municipal Buildings, Greenock. Deposit £1 1s.

SEPTEMBER 19.—**Letchworth.**—ROADS.—For making up Common View and North-avenue, for the U.D.C. Mr. G. T. Hill, Council Offices, Letchworth. Deposit £2 2s.

SEPTEMBER 19.—**Rugby.**—ROADS AND SEWERS.—Roadmaking, sewering, &c., in connection with the Hillmorton Estate, for the Rugby Benefit Building Society. Mr. C. J. Newman, Llc.R.I.B.A., M.S.A., Albert-street, Rugby. Deposit £2 2s.

SEPTEMBER 19.—**Southport.**—ROADS.—For making up Mossgiel-avenue, Ainsdale, for the T.C. Mr. A. E. Jackson, Borough Engineer, Town Hall, Southport. Deposit £2 2s.

SEPTEMBER 20.—**Chepstow.**—SEWER.—For construction, for the R.D.C., of a 9 in. sewer with pumping plant and cast-iron rising main, &c., at Caldicott, Chepstow. Mr. H. J. Ward, Engineer, Union Offices, Chepstow. Deposit £1 1s.

SEPTEMBER 20.—**Gateshead.**—ROADS.—For paving back Wilson-terrace, Low Fell, and Jane Eyre-terrace, for the T.C. Mr. N. L. Pattinson, Borough Engineer, Town Hall, Gateshead.

SEPTEMBER 20.—**Llantwit Fardre (Glam).**—ROAD WORKS.—For making up, for the Llantrisant and Llantwit Fardre R.D.C., Parish-road, Commercial-street, and Mildred-street, with the ten cross streets and five lanes connected with same at Tyn-y-Nant, Llantwit Fardre. The work will include provision of stoneware pipe surface water sewers, with manholes and gullies, construction of carriage-ways in water-bound macadam, supply and laying of pavements (concrete), tar footpaths, &c. Mr. Thomas Saunders, Surveyor, Council Offices, Pontyclun (Glam.). Deposit £3 3s.

SEPTEMBER 21.—**Bognor.**—ROADS.—For making up Bassett-road, for the U.D.C. Mr. A. O. Bridge, Surveyor, Bognor.

SEPTEMBER 21.—**Meriden.**—SEWERS.—For the construction of about 700 yds. of stoneware pipe sewers, &c., for the U.D.C. Mr. Reginald S. Davey, M.Inst. M. & Co. Engrs., Surveyor to the Council, Marston Green, Birmingham. Deposit £2.

SEPTEMBER 21.—**Southampton.**—PAVING.—For laying 6,800 sq. yds. of asphalte paving in Wilton-road, for the T.C. Borough Engineer, Southampton. Deposit £1 1s.

SEPTEMBER 21.—**Wombwell (near Barnsley).**—ROAD WORKS.—The Council invite tenders for the reconstruction of part of their main road, Aldham. Mr. W. Quest, Engineer and Surveyor, Town Hall, Wombwell.

★SEPTEMBER 22.—**Kensington.**—ROAD WORKS.—For making-up the roadway of Colville Houses, for the Royal Borough. The Borough Engineer and Surveyor, Town Hall, Kensington, W.8.

★SEPTEMBER 22.—**Kensington.**—ROAD WORKS.—For making-up the northern portion of St. Mark's-road, for the Royal Borough. The Borough Engineer and Surveyor, Town Hall, Kensington, W.8.

★SEPTEMBER 22.—**Kensington.**—WOOD-PAVING WORKS.—For the work of providing and laying creosoted deal blocks, and, where required, a new concrete foundation, in Kensington Court Place, St. Alban's-road, and Victoria-road, and in a section of High-street, Notting-hill-gate, and in a section of Ladbroke-grove, for the Royal Borough. The Borough Engineer and Surveyor, Town Hall, Kensington, W.8.

SEPTEMBER 22.—**Westhampnett.**—ROADS.—For steam rolling upon the roads of the R.D.C. Mr. W. D. Rasell, Clerk, Council Offices, Pallant House, Chichester.

SEPTEMBER 24.—**Blaenavon (Mon).**—FERRO-CONCRETE WORKS.—For construction for the Blaenavon U.D.C. of a ferro-concrete lining to the existing No. 4 Reservoir, comprising about 6,000 square yards of reinforced concrete. Messrs. Thomas & Morgan & Partners, architects, Gelliwasted-road, Pontypridd. Deposit £5 5s.

SEPTEMBER 24.—**Kensington.**—MANHOLES.—Construction of a number of manholes, together with incidental means of ventilation on certain dead ends of sewers in the Borough, for the B.C. Borough Engineer, Town Hall, Kensington, W.8. Deposit £1 1s.

SEPTEMBER 24.—**Skipton.**—SEWAGE WORKS.—Construction of sedimentation tank, percolating filter, humus tank, &c., for the R.D.C. Mr. A. Rodwell, Surveyor, Council Offices, 16, Gargrave-road, Skipton. Deposit £2 2s.

SEPTEMBER 24.—**Stoke-on-Trent.**—SANITARY.—For conversion into water-closets of 40 privy cesspools and 400 pail closets at Hanley, for the T.C. Chief Sanitary Inspector, St. Peter's Chambers, Stoke.

SEPTEMBER 25.—**Glasgow.**—DAM.—For the raising and extending the masonry dam at the outlet of Loch Katrine, and the raising and strengthening the inlet basins to the tunnels at the upper end of the aqueducts, for the Glasgow T.C. Mr. J. R. Sutherland, Engineer, Water Department, 45, John-street, Glasgow. Deposit £2 2s.

SEPTEMBER 25.—**Glasgow.**—ROADS.—Construction of roads and sewers at Knightswood, for the T.C. Directors of Housing, Town Hall, Govan.

★SEPTEMBER 25.—**Isleworth.**—PAVING.—For relaying new concrete or alternatively wood-block paving to the stores yard at Warkworth House, for Brentford Union. Mr. F. E. Harmsworth, Clerk to the Guardians, Loolands House, 34, Twickenham-road, Isleworth, Middlesex.

★SEPTEMBER 25.—**Surrey.**—PUBLIC CONVENIENCE.—Erection of a public convenience, together with boundary walls, &c., within their area, for the Maldens and Coombe U.D.C. Mr. R. H. Jeffes, A.M.I.C.E., Engineer and Surveyor, Council Offices, New Malden. Deposit £2 2s.

★SEPTEMBER 26.—**East Molesey.**—SEWER.—Construction of 682 ft. run of 9 in. main sewer, for the U.D.C. Surveyor, Council Offices, East Molesey.

SEPTEMBER 26.—**Glasgow.**—SLUICE.—Construction of a sluice and pipe drains at Hogganfield Loch, for the T.C. Office of Public Works, City Chambers, 64, Cochrane-street, Glasgow.

★SEPTEMBER 26.—**Windsor.**—STONE PAVING.—For stone paving a portion of the East-terrace, Windsor Castle, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s., payable to the Secretary.

SEPTEMBER 27.—**Oadby.**—SEWAGE.—For providing and laying sewerage works, for the U.D.C. Mr. G. Edgar Fryer, Council Offices, Oadby. Deposit £5 5s.

SEPTEMBER 28.—**Hemsworth.**—SEWAGE DISPOSAL.—For extensions to sewage disposal works, for the U.D.C. Mr. W. T. Lynam, Surveyor, Hemsworth. Deposit £2 2s.

SEPTEMBER 28.—**Lymington.**—SEWERAGE.—For sewage disposal works at Milton, for the R.D.C. Mr. H. C. H. Shenton, 28, Victoria-street, S.W. Deposit £3 3s.

SEPTEMBER 29.—**Sankey.**—BRIDGE.—Reconstruction of Barnes Bridge, Sankey, for the Lancashire C.C. Offices of the County Surveyor and Bridge Master, County Offices, Preston.

OCTOBER 1.—**Beckenham.**—ROAD WIDENING.—For the widening of a portion of Bromley-road, for the U.D.C. Mr. John A. Angell, Surveyor, Council Offices, Beckenham. Deposit £2.

Competitions.

(*See Competition News, page* 336.)

Auction Sales, Tenders, etc.

✱SEPTEMBER 19 AND 20.—**Seaford, Sussex.**—Mr. F. H. Clark will sell at South Camp, Seaford, Sussex, clearing auction sale of timber and material, to be sold without reserve. Auctioneer, South Camp, Seaford.

SEPTEMBER 20.—**Canning Town.**—Messrs. Joseph Hibbard & Sons will sell without reserve, by order of Messrs. W. W. Howard Bros. & Co., hardwoods and English timber upon the premises, Crown Wharf, Canning Town, at 11 o'clock. Auctioneers, 15, Newington-green, Islington, N.16.

SEPTEMBER 25.—**London, E.C.**—Messrs. Rutley, Vine & Gurney will sell, *re* J. R. Chalmers, deceased, at 155, Queen Victoria-street, building land plots at Oakleigh Park (frontages 117 ft.), Friern Barnet (60 ft.), Herne Bay (120 ft.), Harrietsham (70 ft.), Hoo, Kent (80 ft.), Denton, Newhaven (50 ft.), Lee-on-Solent (60 ft.). Auctioneers, 6, George-street, Euston-road, N.W.1.

✱SEPTEMBER 26.—**Ripon.**—MATERIALS.—For the purchase of materials at Ripon Camp. Roads and Communications Officer, Ripon Camp.

✱SEPTEMBER 29.—**Carnarvon.**—Messrs. Wm. Dew & Son and R. Arthur Jones will sell in voluntary liquidation, by order of the liquidators, at the Royal Hotel, Carnarvon, valuable slate and granite quarries at Waunfawr, near Carnarvon, all those valuable slate and granite quarries and three farms, together with grazing rights on Douen Las sheep walk. Auctioneers, Bangor, Conway, and Colwyn Bay.

✱OCTOBER 2.—**Dalston, London, N.**—Messrs. Joseph Hibbard & Sons will sell, by order of the High Court of Justice, Chancery Division (Mr. Justice Russell), *re* W. Warden, Ltd., Temple *v.* Warden, at the Dalston Saw Mills, No. 26, Regent's-row, Queen's-road, Dalston, saw mill machinery and plant. Auctioneers, 15, Newington-green, Islington, N.16.

✱OCTOBER 2.—**Dalston, London, N.**—Messrs. Joseph Hibbard & Sons will sell, previously to the sale of plant, by order of the High Court of Justice, Chancery Division (Mr. Justice Russell), *re* W. Warden, Ltd., Temple *v.* Warden, at the most moderate reserve upon the premises, No. 26, Regent's-row, Dalston, brick-built conveniently arranged leasehold sawmill, timber yard and residence, known as Dalston Saw Mills, No. 26, Regent's-row, and 60, Pownall-road (situated by the side of the Regent's Canal), together with nine-roomed residence : vacant possession (except of the house) will be given upon completion. Auctioneers, 15, Newington-green, Islington, London, N.16.

OCTOBER 4 AND 5.—**Longfield and Swanley, Kent.**—Messrs. C. C. & T. Moore will sell, at the London Auction Mart, by order of executors of the late Mr. J. J. Hickmott (the elder), 40 acres of land with frontage to Dartford and Meopham road, Longfield ; 16¼ acres of land, with frontages to London-road and Swanley-road, Swanley. Auctioneers, 7, Leadenhall-street, E.C.3.

✱OCTOBER 9.—**Middlesex.**—Messrs. Allsop & Co. will sell by direction of the George Cohen & Armstrong Disposal Corporation at R.A.F. Depot, West Drayton, Middlesex (G.W.R.), timber, glass and other building materials. Auctioneers, 141, Park-road, N.W. 8, and 15, Soho-square, W. 1.

✱OCTOBER 25.—**Essex.**—Messrs. Knight, Frank & Rutley will offer for sale as a going concern the valuable freehold Portland cement, lime and whiting Works, Saffron Walden, Essex. Auctioneers, 20, Hanover-square, W.1.

✱OCTOBER 30.—**London, W.1.**—Messrs. Henry Holmes & Co. will sell at Mortimer Hall, 93, Mortimer-street, Oxford Circus, W. 1, important building site, 14, 16 and 18, Great Titchfield-street, and 9a, Margaret-street, Oxford Circus, W. Auctioneers, 82, Mortimer-street, W. 1.

Public Appointments.

SEPTEMBER 15.—**Rodbaston.**—Clerk of Works required by Staffordshire Education Committee, to supervise erection of dairy at County Farm Institute, Rodbaston, near Penkridge. Mr. Graham Balfour, Director of Education, County Education Offices, Stafford.

SEPTEMBER 19.—**Birkenhead.**—Architectural Assistant required in the Borough Engineer and Surveyor's Office, by the Corporation. Mr. Chas. Brownridge, M.I.C.E., Borough Engineer and Surveyor, Town Hall, Birkenhead.

✱SEPTEMBER 27.—**Ealing, London, W. 5.**—Assistant Building Inspector required, to act under the directions of the Borough Surveyor and the Chief Building Inspector in the supervision of building operations in accordance with the Council's Bye-laws, by the T.C. Mr. W. R. Hicks, A.M.Inst.C.E., F.S.I., Borough Engineer and Surveyor, Town Hall, Ealing, W. 5, endorsed "Assistant Building Inspector."

✱NO DATE.—**Poole, Dorset.**—Assistant required in drawing office by the Borough Council. Mr. Samuel J. Newman, F.R.I.B.A., Borough Surveyor, Municipal Offices, Market-street, Poole.

✱NO DATE.—**Preston.**—Quantity Surveyor required by Lancashire C.C. County Architect, 16, Ribbles-dale-place, Preston.

James Clark & Son, Ltd., glass merchants and manufacturers, of Blackfriars-road, S.E. 1, have glazed the last portion of Messrs. Peter Robinson's front in Oxford-street and alongside Oxford-street. It is claimed that the plates in these fronts constitute the largest ever supplied and glazed in England, the largest measuring 291 in. by 120 in.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations :—T.C. for Town Council ; U.D.C. for Urban District Council ; R.D.C for Rural District Council ; E.C. for Education Committee ; B.G. for Board of Guardians ; L.C.C. for London County Council ; B.C. for Borough Council ; and P.C. for Parish Council.

ABERDEEN.—Plans passed by T.C. : Bungalow, Queen's-road, for Messrs. Williamson & Bell ; garage, Anderson-drive, for Mr. Robert Ross, per Mr. George Watt ; garage, 11, Albert-terrace, for Mr. Alexander Winchester, Junr., per Mr. George Watt ; alterations, 30, Desswood-place, for Mr. John V. Sykes ; additions to house, Ruthrieston-road, for Mr. Charles Davidson ; addition to building, King's-crescent, for the Aberdeenshire Harriers, per Mr. A. H. L. Mackinnon ; shed, Mounthooly, for Messrs. Carnegie & Watson ; house, Queen's-road, for Major A. L. Mackinnon, per Messrs. A. Marshall Mackenzie & Son.

ABERSYCHAN.—The U.D.C. awaits reports from consultant engineers upon proposed construction of two new reinforced concrete bridges. It is hoped to be able to put work in hand at an early date.

ALTRINCHAM.—The T.C. has instructed their surveyor to prepare plans for the straightening of Timperley Brook, improvements at Broadheath Recreation Ground, and the provision of tennis courts at John Leigh Park, for the relief of unemployment.

ASHTON.—Sanction has been given by the Licensing Justices for rebuilding the old portion of the "Prince of Orange Inn," Wellington-road.

AUDENSHAW.—The U.D.C. are proposing a reconstruction of the Droylsden-road at an estimated cost of £8,000. Application is to be made to the Ministry of Transport for a loan of £4,000.

BACUP.—The Corporaton propose to lay a power cable from Market-street to Weir Mile, and have purchased a building at Stackstead, formerly used as a Catholic Club, for the erection of an electricity substation.

BAKEWELL.—The Ministry of Health has sanctioned a scheme to put in a hot-water installation at the Bakewell workhouse, for the use of the inmates, at a cost not exceeding £300.

BATHGATE.—The District Committee have decided to augment the Government subsidy of £78 per new house built by £22, thus bringing the subsidy per house to £100. Messrs. R. Forrester & Sons have decided to erect houses at Blackburn, while Craigrigg Colliery Company, Ltd., have arranged to erect houses at Westfield.

BELFAST.—Plans passed :—Public hall and additions to Homes for the Blind in Cliftonville-road, for the Society for Home Mission Work among the Blind—architect, Mr. R. I. Calwell ; two semi-detached villas on Innisfayle-road, for Mr. Frederick Carroll—architect Mr. Jackson G. Smyth ; alterations and additions to factory premises in Bedford-street, for the Newforth Weaving Co., Ltd.—architect, Mr. Samuel Stevenson ; alterations to church for the Board of the Ballynafeigh Methodist Church—architect, Mr. James A. Hanna ; two semi-detached villas in Florencevale-avenue, for Mr. H. W. Farr ; additions to factory in Ballarat-street, for Messrs. E. McCrea & Co.—architect, Mr. James Scott ; stables and sheds on Sydenham-road, for Mr. Hamilton Bodel—architect, Mr. Wm. Crook ; villa in Myrtlefield Park, for Mr. A. McDowell—architect, Mr. T. R. Eagar ; villa in Chichester Park, for Mr. R. Christy—architects, Messrs. Hobart & Heron ; shop and dwelling-house in Methuen-street, for Mr. Joseph Travers—architect, Mr. W. J. Convery ; shop and house in Cupar-street, for Mr. C. O'Neill—architect, Mr. W. J. Convery ; conversion of two shops into one shop in Castle-street, for Mr. M. Sharp—architect, Mr. J. Scott ; two houses in Grosvenor-place, for Mr. W. McCormick—architects, Messrs. McDonnell, Lamont & McDonnell ; Memorial Recreation Hall in Alexandra Park-avenue, for the trustees of North Belfast Memorial Hall—architect, Mr. G. W. C. Porte ; eight semi-detached villas on Westland-road, for Mr. W. F. Neill ; villa in Chlorine-gardens, for Mr. W. D. R. Taggart—architects, Messrs. Taggart & Silk ; alteration to shop and dwelling-house on Woodstock-road, for Mr J. Crawford—architect, Mr. R. Lynn ; electricity transformer house, for the Belfast Ropeworks Co.—architect, Mr. S. Stevenson ; villa in Chlorine-gardens, for Mrs. Helen McKean—architects, Messrs. Taggart & Silk ; alteration to shop and dwelling-house in Castlereagh-street, for Miss Agnes Irvine—architect, Mr. Norman H. Graham ; shop and dwelling-house in Crossland-street, for Mr. C. O'Neill—architect, Mr. W. J. Convery ; alteration to shop on Albert-bridge-road, for Mr. W. Scott—architect, Mr. W. C. Maxwell ; ten terrace houses on Rugby-road, for Mr. N. B. Kilpatrick—architect, Mr. T. A. Eagar.

BISHOP'S STORTFORD.—Plans passed by U.D.C. : House in Dunmow-road, near the corner of Manor-road, by Messrs. Cannon & Sons ; bungalows in Hallingbury-road, for Mr. T. Doe and Mrs. J. M. Beazley ; and two houses, Stansted-road, for Mr. Rackstraw.

BLACKBURN.—Among new schemes for finding work for the unemployed during the coming winter, Blackburn Corporation are considering covering the River Blakewater at Salford, improving the drainage system in George-street West, constructing an open air swimming bath, and providing further bowling greens in the Corporation parks.

BLACKPOOL.—Funds are to be raised for proposed extensions to the Victoria Hospital, estimated to cost £30,000. The Chairman of the Board of Management (Mr. J. R. Huddlestone) has outlined the scheme which they consider necessary, viz., a steam laundry, a children's ward, a new out-patients' department, surgeons' room, improved administrative offices, and a new covered approach to the building and a motor garage.

BLAENAVON.—The U.D.C. has received sanction to expend £2,945 on the Forge side sewerage scheme, and has decided to do the work by contract. The Council is framing a new housing scheme and considering an electricity scheme for Garn-yr-erw district.

BLYTH AND CUCKNEY.—Rapid progress with the housing schemes in connection with the sinking of the new collieries at Harbeck and Firbeck was reported at a meeting of the R.D.C. Plans for 200 more houses were submitted, and it was stated that 2,000 houses would be erected. The Surveyor said that he had received plans for the erection of 232 more houses at Harworth. Plans were also submitted for the erection of 46 more houses in connection with the sinking of a new colliery at Firbeck. It was stated that the company proposed to call the village Hadsock, but the Council decided to ask them to call it Langold, on the ground that it was not on the Firbeck estate, but in Langold.

BOURNE.—The R.D.C. has adopted schemes of housing at Corby, Deeping St. James, Market Deeping and Rippingale, the cost of which is estimated at £7,234.

BRADFORD.—The Corporation propose granting a subsidy of £100 per house for two-story houses, and £75 per house for one-story houses built by private enterprise, subject to the sanction of the Ministry of Health. The Clayton Council also propose offering similar subsidies subject to receiving the same approval.

BRAMLEY.—The local executive of the I.L.P. propose erecting a new hall. The work is to be completed by next spring.

BRIDGEND.—Plans passed by U.D.C. : Alterations to Oaklands, Park-street, for Mr. William Johnson ; three new moulding sheds at Quarella-road, for Crosby Concrete Co. ; two new houses at Cowbridge-road, for Mr. David Thomas ; alterations to premises in Wyndham-street for Messrs. South Wales Furnishers. Plans were also passed for erection of footbridge at Bridgefields by the U.D.C., and tenders are to be invited for building of same. The Penybont (Bridgend) R.D.C. has invited County Education Authority to proceed with erection of school for Larleston district.

BRIDLINGTON.—Plans passed by R.D.C. : House at Kingsgate, Bridlington, for Mr. P. J. Barugh, and house, at Primrose Valley, for Mrs. Sanderson Furness.

BUXTON.—Plans passed by T.C. : House in Greenlane, for Mr. G. H. Garlick ; house, in Carlisle-road, for Mr. Adam Wallace ; three lock-up motor garages at Palace Villas, for the Misses Scott ; bungalow in London-road, for Mr. W. M. Bagshaw ; six houses in Brown Edge-lane, for Mrs. R. Coxell ; alterations, "Bakers Arms," West-street, for Messrs. S. Allsopp & Sons, Ltd.

CAPE TOWN.—The Waterworks Committee have recommended the adoption of a scheme for the extension of the water supply at an estimated cost of £1,090,000. The following shows details of the Board's estimate of the cost of the works based upon current prices :—Raising dam, spillway, new outlet works, clearing reservoir site, engineering and contingencies, £260,000 ; pipe line from outlet tower to Newlands and all accessory works ; engineering and contingencies, £750,000 ; interest charges during period of construction (three years), £80,000.

CHEETHAM.—Messrs. S. Newton & Co., Ltd., of 32, Withy-grove, Manchester, have prepared plans for the conversion of one shop into two shops for the Northern Tea Stores at 563, Cheetham Hill-road.

CHEPSTOW.—The U.D.C. has decided to apply for a loan to widen Bulwark-road. Negotiations are proceeding for the conversion of the St. Lawrence-lane into a main road for through traffic. The Monmouthshire C.C. has given notice of intention to erect a new Chepstow, central, school at Larkfield.

CLAYTON-LE-MOORS.—The R.D.C. has instructed the Clerk to make application to the Unemployment Grants Committee for assistance in carrying out sewerage works during the winter for the relief of unemployment. The County Surveyor wrote respecting the raising of a loan to carry out reconstruction and tarmacadam, surfacing of part of the Blackburn Padiham main road, and the Council decided to apply to the Ministry of Health for power to borrow £2,250 half the proposed expenditure.

CRAGHEAD.—In connection with the Miners' Welfare scheme for South Moor, Holmside, and Craghead Collieries, county Durham, it is contemplated building a cottage hospital on a site between Craghead and South Moor. The erection will embrace two wards with twenty beds, an operating theatre, X-ray room, and quarters for the nurses, maids, &c. The estimated cost of the project is about £10,000, and tenders are now being sought.

DARWEN.—The T.C. has decided to seek power to carry through a great improvement scheme in the centre of the town. The Corporation's scheme is a very ambitious one, and may have the effect of changing the appearance of the centre of the town.

DEWSBURY.—Plans passed by T.C. : Mr. C. H. Ingram, extensions to "Brackenholme," Northfields ; Mrs. Aspey, dwelling-house, Wakefield-road ; Lloyds Bank, Ltd., alterations to premises, Northgate.

DONCASTER.—At a meeting of the Water Committee the Town Clerk submitted the sanction of the Ministry of Health to the borrowing of the sum of £10,000 for water mains.

DOUGLAS, I.O.M.—Plans are being prepared for a new secondary school in the Isle for boys and girls. The work is in the hands of Mr. Bottomley, and tenders for the work will be very shortly invited.

DUBLIN.—Plans passed : 15, St. Alphonsus-road, Drumcondra, store, Mr. Guilfoyle ; tobacco factory, S. C. road, lavatories, &c., Messrs. Clarke & Son, 42, Henry-street, additions and alterations, Mr. J.

* See also our List of Contracts, Competitions, etc.

er: adjoining tobacco factory, S. C. road, four Messrs. Clarke & Son; factory, Parkgate- lterations and additions, Messrs. Cahill & Co.,

NFIELD.—Alterations are to be effected at the n School, Old-road, to provide accommodation ses in the higher standards throughout the

RTONSHIRE.—The Eastern District Committee harton C.C. have decided to erect 136 houses, stimated cost of £5,500. The Board of Health reed to give £756 a year, and the estimated oss is set down at £1,470. Of the new houses, o be erected at Duntocher, 48 at Old Kilpatrick, e remainder will go to supply the needs of de. Condorrat, and Cumbernauld. In addition cheme, 200 additional houses are to be erected tocher.

AMPSTED.—The R.D.C. has founded plans extension of the Binfield drainage system to istry of Health. The engineer's estimate is

BURGH.—A proposal to construct a marine t Cramond was brought before a sub-committee Streets and Buildings Committee by Councillor and the committee agreed to have a report d as to the cost of the scheme.

.—Plans passed by R.D.C.: Bungalow, East- ive, for Mr. E. Clark; vestry, at St. Nicholas for the vicar and churchwardens; bungalow, d-road, for Mr. H. R. Puncher; house, Meadow- r Mr. P. G. Dunmer; house, Guildford-road, R. A. Bird.

IRE.—At a sitting of Falkirk Dean of Guild he Callendar Iron Co., Ltd., was granted a to erect a new enamelling shop at their Callen- ndry at an estimated cost of £2,100. Wm. draper, 100, High-street, was also granted a to erect a villa at Major's-place at a cost of

GOW.—The Housing Committee of Glasgow tion have had before them a report by th r of Housing as to negotiations which had been on with the factor for Elderslie Estate for the ion of 195 acres of ground at Bankhead, to the ground at Knightswood already owned Corporation. It was decided to recommend the e of the ground with a view to carrying out a city scheme, with a park and recreation ground. mplete scheme outlined by the Housing Director s for a public park of 175 acres, surrounded by of houses. The total number of houses would 2,000, and these, added to the 1,100 proposed ected at Knightswood, would make the complete about twice the size of Mosspark, at present zest of the Corporation's housing concerns. A plan was also agreed to for Sandyhills, Shettle- here about 240 houses are to be erected on the e system, prospective owners paying £50 down balance in instalments, spread over 20 years. further agreed to recommend a scheme for 20 houses at Bellahouston, provided that certain ons affecting the use of the ground could be d.— Plans for the erection of new buildings, ng of business premises on the east side of ell-street, have been passed by the Dean of Court. These relate to a reconstruction which the war delayed. The old buildings, e exception of the warehouse situated at the of Trongate and Stockwell-street—which, it is ood, is also included in the scheme of recon- n—have now been cleared away. Building ns, involving an expenditure of £190,827, will be ed as soon as possible. The following among ngs were granted:—Corporation Tramways— t shelter at Hawthorn-street, Balmore-road. ad Junior Football Club—To make enclosure otball park at Fountainwell-road. Alexander ll, 15, Gardiner-street, Cathcart—To erect house at Carmunnock-road. James Austin 91, West Regent-street—To erect a villa at Titwood-road and Herries-road, Pollokshields. nderson, 2, Northbank-terrace, North Kelvin- erect glazing shop at Church-street, Govan. Corporation City Improvements Department— business premises at Trongate and Stockwell- Campbell Achnach & Co., Ltd., india-rubber urers, 59, Wallace-street—To make additions there. The estimated cost is £19,744.

R.—The R.D.C. is supporting application to & S. Railway Co. for extension of platform at dd and erection of waiting room, &c. The s applying to Ministry of Transport for grant lawdd-Morlai road improvement.

S CHAPEL.—The Managers of the Victoria ills propose to erect 22 cottages to house ployees.

RTH.—Plans passed: Detached villa in road, for Mr. V. Calvert; and detached villa od-lane, for Mr. Kerby.

MBE.—The U.D.C. has considered plans onstruction of a new concert hall and ap- e scheme submitted by Messrs. Matcham & he construction of the new hall by altering ing Victoria Pavilion. Application is to be sanction to borrow £8,600 for this purpose.

LEY.—Plans passed by T.C.: Additions in -lane, for Mr. Midgely; paper-store off Brad- . Stocksbridge, for the Stocksbridge Finishing ges at Highfield-lane, for Mr. Walter Feather; at High Spring Gardens-lane, for Mrs. E. stable and cart shed at Sunderland-street, W. Parkinson; four houses at Park-lane, for nitaker; weft store at Beck Mill, for Smith Spencer. The T.C. propose to erect 150 the site of the Westgate Demolition Area. passed by R.D.C.: Six houses at Com- nue for Mr. G. Whitaker; two houses d-road, Morton, for Hird & Knowles; five houses and garage at Ilkley-road, Morton Mr. Grainger, and additions at West-lane, r Mr. Thompson.

—The T.C. has received sanction from the of Health to the borrowing of the following sums: £4,051 for the purchase of land, £1,297 for bridge works and £27,957 for road works in connection with the construction of the new road from Headingley to Moortown; £208 for cleaning out ponds at Temple Newsam; £70,000 for the erection of houses to be offered for sale to persons of the working class.—— Messrs. W. Thompson & Son propose laying out an estate outside the city boundary, at Moortown.—— The City Engineer is to submit plans of ladies' lavatories, on a site in Mansion-lane, Roundhay, to cost £1,000. ——It is proposed to grant subsidies of £100 per house to Messrs. Ford Bros., in respect of fifty-eight houses to be erected on the White Horse Estate.——The Corporation is making a contract for the erection of 100 houses at prices varying from £349 to £409.

LIVERPOOL.—The C.C. have approved of the engagement of Mr. T. Laurie Price, Consulting Engineer of Messrs. T. Laurie Price & Sons, Liverpool and London), to prepare plans and obtain tenders for the new abattoir scheme at a fee of 3,000 guineas. If the scheme does not go forward after tenders have been received, the fee to be 1,500 guineas.

LONDON (LEWISHAM).—The B.C. proposes reconstructing Sandhurst-road, Catford, at a cost of £6,000. Plans passed:—Rebuilding 185, Rushey Green, for Lovegrove & Papworth; houses, Randlesdown-road, Mr. F. Hunt, for L.C.C.; five houses, Bromley-road, for J. W. Reynolds & Co.; nine houses, Bellingham-road, for H. R. Watt; garage, 77, Bromley-road, for C. Farley & Sons; six houses, Ashgrove-road, for J. Dibben; four houses, Perry Rise, for Paine & Hobday; two houses, Lowther Hill, for Slade Betts; shop and house, Randlesdown-road, for G. W. Beattie; 10 houses, Coniston-road, for R. Goldstein; five shops and house, for Foster & Foster; two bungalows, for W. H. Bushman; three houses, Guibal-road, for C. Cutter & Sons; extension to Criterion Laundry, for Stephens & Son; addition, Crofton Park Cinema, for T. H. Sawyer & Son; six houses, Coniston-road, for W. Reynolds & Son; addition to St. Lawrence's Church Hall, for W. Harbrow; house, Brockley Park, for Rees & A. Bethem; house, Thorpewood-avenue, for A. Jenner; Congregational Church, Bellingham Green, for P. W. Meredith; chapel, Dartmouth-road, for Burt & Clarke; shop, Randlesdown-road, for G. Jackson & Lambert; eight lock-up shops, Randlesdown-road, for A. W. Wise; additions to Park Hall, Sydenham Park, for G. M. Yates; biscuit factory, Manor-lane, for W. Doddington.

MANCHESTER.—Mr. S. Ledger, of St. Mary's Parsonage, has prepared plans for a garage in Royton-street, for Mr. H. J. Ogden. The Manchester Brewery Co., Ltd., of Woodside Brewery Co., Ltd., are proposing alterations to the "Swan Inn," Everton-road and Freme-street, Chorlton-on-Medlock, to plans prepared by Mr. J. Lindores, of New Bailey-street, Salford. Mr. F. J. Riley, of Forge-lane, Bradford, has prepared plans for the conversion of house into shop and house, 27, Butler-street, Ancoats, for Messrs. Price Bros. Messrs. J. W. Beaumont & Sons, architects, 24, Braze - nose-street, Manchester, have prepared plans for alterations to Star Buildings, Deansgate, and King street, for Messrs. Kendal, Milne & Co., Ltd.

MERTHYR TY. FIL.—Nine relief of unemployment schemes, totally estimated at £40,000, are to be embarked upon by the Merthyr B.C.

MONTROSE.—The managers of Montrose Royal Infirmary have approved of a scheme of extension at an estimated cost of from £1,500 to £2,000.

MOUNTAIN ASH.—The U.D.C. has decided to take steps for compulsorily acquiring land at Abercynon for erection of a new central school.

NEATH.—The Glamorgan County Education Committee, on the recommendation of a sub-committee, has instructed the architect to prepare plans for a girls' school to accommodate 300 pupils, at intermediate stage, by the conversion of Gnoll Castle, Neath. The architect was requested to have regard to possibility of accommodating 100 additional scholars.

NEW MOSTON.—Messrs. W. Johnson & Sons, architects, of 27, Oldham-road, Miles Platting, have prepared plans for a detached house in Nuthurst-road, for Mr. S. B. Hall.

NEWPORT (MON).—The Corporation has received notification from Ministry of Transport of grant of £7,133 for roads and bridge works. The Ministry states, that formal notification of grant for the proposed new Queen's-hill to Malpas-road thoroughfare would be later issued. The Borough Engineer has been instructed to prepare a scheme for widening Shaftesbury-avenue on western side of G.W.R. bridge. Sanction has been received to borrowing by T.C. of £10,185 for proposed tram track reconstructions, and a further application to borrow £1,150 for additional works has been made.

OLDHAM.—Extensions are to be made to the Tay Mill, at Higginshaw, for the Tay Mills, Ltd. Mr. A. J. Howcroft, architect, Retiro Chambers, has prepared plans for extensive alterations to the Zion Day and Sunday Schools at Lees, for the Trustees. It is proposed to put two new classrooms on the upper floor at the north end of the school. These will be supported on pillars, and will form the roof of a covered playground.

OXFORD.—Plans passed by T.C.: Kingerlee & Sons, Queen-street, printing works, Pembroke-street, St. Aldate's-street; F. Organ, 367, Cowley-road, addition to Canterbury House, north-east side of Cowley-road; Mrs. Alexander, house, north-east side of Bartlemas-road.

PONTARDAWE.—It is reported that Messrs. Gilbertson are to take over the Pontardawe alloy works for conversion to sheet mills.

PORTHCAWL.—The G.W.R. Co. has agreed to giving the U.D.C. certain land at Nottage on condition that the work of widening the Nottage-road is put in hand immediately. By private treaty a fair number of private building plots on the west side of Porthcawl have been ceded recently and plans will shortly be presented to U.D.C.

RAMSGATE.—A big scheme for the alteration of the railway systems in Thanet has been adopted by the Southern Railways, and was detailed to the members of the T.C. The scheme will take until the summer of 1925 to complete, and involves the abolition of the existing Harbour Station at Ramsgate and the town station at Ramsgate, as well as the Sands station at Margate. Ramsgate will be served by a modern new station near St. Lawrence, and an extra station at Dumpton Park, between Ramsgate and Broadstairs.

ROCHDALE.—The Buildings Sub-Committee of the Rochdale Education Authority had tenders for an open-air school, but decision was deferred for further enquiries. The Licensing Justices have approved the plans for structural alterations to the "Mount Pleasant Inn," Whitehall-street, which entails increasing the present drinking accommodation. —The T.C. has sanctioned two building schemes for 100 houses each, one to be carried out by private enterprise with a subsidy of £100 per house, and the other a municipal scheme to be carried out by the Housing Committee.

SPENBOROUGH.—Plans passed: Alterations and additions to Providence Mills Rawfolds, for Messrs. Briggs Bros & Co., Ltd.; house at Halifax-road, Hightown, Liversedge, for Mr. H. Brook; two houses at Mistinglane, Gomersal, for Mr. T. Drake; garage at Leeds-road, Liversedge, for Mr. R. L. Bowling; two houses off Knowles-hill, Liversedge, for Mr. D. H. Beumont; additions to house at Bradford-road, Cleckheaton, for Dr. Magoveny; cooling tank at Victoria Mills, Bradford-road, Cleckheaton, for Messrs. Geo. Anderton & Sons, Ltd.; house at Leeds and Whitehall-road, Scholes, for Mr. L. Holland.

STAFFORD.—The Ministry of Health has given approval to the assisted housing scheme of the T.C., which involves the erection of 40 houses.

STOCKTON-ON-TEES.—Plans passed by T.C.: 100 houses to be erected by the Corporation on the Blue Hall Estate, Norton; alterations to 132, High-street, for Messrs. J. Smith & Sons (Cleaners), Ltd., Dewsbury; alterations to the Leeds Hotel, Bishopton-lane, for Messrs. Allsopp & Sons, Ltd., Burton-on-Trent; motor garage for Mr. J. B. Rowland, 10, Cranbourne-terrace; alterations to the Unicorn Hotel, High-street, for Messrs. J. W. Cameron & Co., Ltd.; outbuildings, Manor House Farm, Yarm-road, for Sir Gerald Fowler Burton; farmhouse and buildings at Burton House Farm, Hartburn, for Sir Gerald Fowler Burton; pair of semi-detached houses, Station-road, Norton, for Mr. J. F. Walker, 9, Cambridge-road, Thornaby.

STRETFORD.—A scheme was submitted by the Russell Building & Contracting Co., Ltd., Princess-street, Manchester, for the erection of flats in Seymour-grove, with financial assistance. Arrangements are being made for the provision of playing fields on the land at the rear of Longford Park. Application is to be made by the U.D.C. to the Ministry of Health for sanction to the borrowing of a sum of £8,700 to defray the cost of the provision of underground conveniences and contingent road widening at the apex of Chester and Stretford-roads, Old Trafford. —Plans passed: 18 houses, Rosthern-avenue, for the Artistic Housing Co., Ltd.; two houses, St. John's-road, for the Artistic Housing Co., Ltd.; six houses, Urmston-lane, for Mr. Richard Howard; garage, 53, Stamford-street, for Mr. James Houghton; conversion to shop, 530, Chester-road, for Mr. O. Harris; store shed, Westinghouse-road, for Messrs. Courtaulds, Ltd.; boiler-house extension, Westinghouse-road, for the Ford Motor Co. (England), Ltd.; additions to offices, &c., Dynamo-road, for the Lancashire Dynamo & Motor Co., Ltd.; pavilion, Victoria Park, for Stretford Urban District Council.

WAKEFIELD.—Plans passed by T.C.: Mr. J. P. Firth, house, Dewsbury-road, for Mr. W. Nettleton; Mr. W. H. Ogden, alterations and additions to house, Dewsbury-road, for Mr. A. Peckett; Messrs. E. Green & Son, Ltd., 26 houses, Doncaster-road and Sugar-lane; Mr. W. H. Watson, house, Carr-lane, for Mr. J. Clayton; Mr. W. H. Ogden, two houses, Bromley Mount, for Messrs. Wild & Atkinson; Mr. H. Dobson, two houses, Bromley-mount, for Mr. H. Rogers; Mr. H. Dobson, two houses, Barnsley-road and Welbeck-street, for Mr. E. Howe; Mr. W. Wrigley, alterations and additions to laundry to St. John's Home, Kilby-street, for the St. John's Home Committee; Mr. W. H. Ogden, store, back Bowman-street, for Mr. F. Gledhill; Mr. W. Wrigley, alterations and additions to the George Hotel and the conversion of a portion of the hotel and a lock-up shop into four lock-up shops, Kirkgate and Southgate, for Messrs. Clayton & Dews. ——Plans passed by R.D.C.: Shop at Calder-grove, for Mr. A. Sherwin; bungalow at Bullcliffe North Wood, for Denby Grain e Colliery Co., Ltd.; two houses in Durkas-lane, Crigglestone, for Mr. Lister.

FIRES

BARRY.—Damage estimated at £10,000 has been caused by fire at the premises of the Barry District Co-operative Society, Ltd.

CHALK FARM.—Extensive damage has been caused by fire at the premises of Messrs. T. H. Lewis, Ltd., van, carriage and motor-body builders, Gloucester-road, Chalk Farm, N.W.

DAWLISH.—Considerable damage has been done by a fire at the dwelling of Mr. F. Dart, fishmonger; Mr. A. H. Morton, cafe keeper; and Mr. A. Payton, bootmaker, Brunswick-place.

LLANDILO.—The Gurrey Tannery, Llandilo, has been completely gutted by fire.

RAMSBOTTOM.—Damage estimated at £11,000 has been caused by a fire in the cotton-waste breaking department of Messrs. J. Ramsbottom & Sons, Ltd., Lodge-lane, Shuttleworth.

SUTTON.—Heavy damage was done by fire, which broke out in Sutton High-street, in a timber yard about two acres in extent, belonging to Messrs. Wakeford & Co., and Leyton Timber Co. Five large iron and brickwork sheds filled with timber were burned to the ground.

TRURO.—A large portion of the premises occupied by the Royal Printeries, and the offices of the *Cornwall County News and Gazette* were destroyed by fire this week.

WALSALL.—The Picture House erected in 1920 has been completely destroyed by fire. Damage is estimated at £100,000.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	2 15 3	Do. Bullnose ..	10 1 6
Do. Bullnose ..	3 8 3	Blue Wire Cuts	7 11 6
Best Stourbridge Fire brick :—			
2½ in.	11 3 0	3 in.	13 2 0
GLAZED BRICKS—			
Best White Ivory, and Salt Glazed Stretchers ..	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends ..	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
Quoins. Bullnose and 4½in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. „	2 5	4 in. „	3 7

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand	15 6	„ „
¾ in. Shingle for Ferro-Concrete	14 0	„ „
½ in. „ „	15 0	„ „
¾ in. Broken Brick	10 6	„ „
Pan Breeze	5 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

	£ s. d.		£ s. d.
Best Portland Cement, British Standard Specification Test £2 18 0 to 51/- alongside at Vauxhall in 80-ton lots.			£3 3 6
Ferrocrete per ton extra on above			0 10 0
Super Cement			4 8 0
Roman Cement			8 15 0
Parian Cement			5 13 0
Keene's Cement, White			5 8 0
„ „ Pink			5 3 0
Plaster, Coarse, Pink			3 0 0
„ „ White			3 12 6
„ Fine			5 12 0
Sirapite, Coarse			3 9 6
„ Finish			3 17 6
Grey Stone Lime			2 10 9
Chalk Lime			2 10 9
Best Ground Blue Lias Lime			2 13 6
Hair			17 0 0
Granite Chippings			1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11¾
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ¼d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

	s. d.
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides „	27/-
Sawn three or four sides „	32/-
YORK STONE, BLUE—*Robin Hood Quality.*	
Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 5½
1½ in. to 2 in. ditto, ditto „	1 3
HARD YORK—	
Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto. ditto „	2 5
2 in. self-faced random flags Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s. d.
Plain per ft. cube	6 6
Moulded „ „	7 9
Cills „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	21/-	1¼	33/6
⅞	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING. Inches.	per sq.	MATCHINGS (BEST). Inches	per sq.
1	26/6	⅝	17/6
1¼	33/6	¾	22/-
1½	38/6	1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¾ in. do. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt.	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
„ Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2⅝ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¼	1/0¾	3½d.
4 in.	1/4	1/1¾	3½d.
4½ in.	1/5¼	1/4	4d.
5 in.	1/7¾	1/5½	5d.
O.G. GUTTERS.			
3 in.	1/6¼	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5½	3 3½
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3½	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

	Per ton in London. £ s. d.		£ s. d.
IRON—			
Common Bars	14 0 0	to	15 0 0
Staffordshire Crown Bars— good merchant quality	14 10 0	..	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	13 10 0	..	14 10 0

METALS (*Continued*).

	£ s. d.		£
Steel Bars, Ferro-Concrete quality, basis price	13 10 0	..	14
Hoop iron, basis price	16 10 0	..	17
„ Galvanised	31 0 0	..	32
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	15 10 0	..	16
„ „ „ 24 g.	16 10 0	..	17
„ „ „ 26 g.	18 10 0	..	19
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26
Best Soft Steel Sheets, 26 g.	26 0 0	..	27
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	21 10 0	..	23

METAL WINDOWS—Standard sizes suitable fo plete houses, including all fittings, paintin coats, and delivery to job, average price abo to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.	
LEAD—Sheet, English, 4 lb. and up	35 0 0	..
Pipe in coils	35 10 0	..
Soil Pipe	38 0 0	..
Compo pipe	39 0 0	..

NOTE—Country delivery, 30s. per ton extra ; lots 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2 extra.

Old lead, ex London area, at Mills per ton	22 10 0	..
Do., ex country, carriage forward per ton	23 10 0	..

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COC

IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- pe

NEW RIVER PATTERN SCREW DOWN STOP COC

UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- pe

NEW RIVER PATTERN SCREW DOWN MAIN FE

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per d

NEW RIVER PATTERN CROYDON BALL VALVES.

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
35/-	56/-	98/-	162/-	228/-

DRAWN LEAD P. & S. TRAPS WITH BRASS C SCREW.

	1½ in.	1¼ in.	2 in.	3 i
8 lbs. P. traps	33/-	41/-	56/-	101/-
8 lbs. S. traps	35/-	45/-	66/-	126/

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	..
Thin „ „	0 2 4	..
Copper nails „	0 2 3	..
Copper wire „	0 2 4	..
TIN—English Ingots „	0 2 0	..
SOLDER—Plumbers' „	0 0 11	..
Tinmen's „	0 1 1	..
Blowpipe „	0 1 3	..

PAINTS, &c.

Raw Linseed Oil, in pipes per gallon	
„ „ „ in barrels	„
„ „ „ in drums	„
Boiled „ „ in barrels	„
„ „ „ in drums	„
Turpentine in barrels	„
„ in drums (10 gall.)	„
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	
Red Lead, Dry (packages extra) per ton	
Best Linseed Oil Putty per cwt.	
Filocoi per cwt.	
Size. XD Quality	..lkn.

[Concluded on next page.]

* The information given on this page specially compiled for THE BUILDER and is Our aim in this list is to give, as far as pos *average* prices of materials, not necessarily t or lowest. Quality and quantity obviou prices—a fact which should be remembere who make use of this information.

ES CURRENT OF MATERIALS (*contd.*)

GLASS.

ISH SHEET GLASS IN CRATES OF STOCK AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft
fourths	3½d.	32 oz. fourths.....	8½d
thirds	4½d.	32 „ thirds.....	10½d.
fourths	5d.	Obscured Sheet, 15oz.	4d.
thirds	6½d.	21 „	5½d.
fourths	6d.	Fluted 15oz. 6½d. 21oz.	9½d.
thirds.....	7½d.	En'lled 15 „ 5½d., 21 „	7½d.

price according to size and substance for s cut from stock.

ISH ROLLED PLATE IN CRATES OF STOCK SIZES. Per Ft.

lled plate	4½d.
gh rolled	5½d.
gh rolled	5½d
ured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d
Ditto, tinted	9d.
lled Sheet	6d.
lte Rolled Cathedral	5½d.
ated do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
arnish	Outside	0 14 0
ditto	ditto	0 16 0
opal	ditto	0 18 0
opal	ditto	1 0 0
opal Carriage	ditto	1 4 0
ditto	ditto	1 12 0
Varnish	Inside	0 18 0
ale Paper	ditto	0 15 0
opal Cabinet	ditto	1 2 6
opal flatting	ditto	1 0 6
drying Oak	ditto	0 18 0
Hard drying Oak	ditto	0 19 0
opal Varnish	ditto	1 0 0
ditto	ditto	1 2 0
ditto	ditto	1 12 0
apan Gold Size		0 12 0
Black Japan		0 12 0
nd Mahogany Stain (water)		0 12 0
wick Black		0 9 0
Black		0 14 0
ing (patent)		1 5 0
h and Brush Polish		0 17 6
d Dryers in Terebine		0 9 0
s Black Enamel		0 7 0

NEW COMPANIES.

YSE, LTD. (191,890). Registered August 14. Villiers-street, Strand, W.C. Builders and ractors, &c. Nominal capital, £1,000.

LBERT PARK & SON, LTD. (191,862). stered August 13. 20, Dean-street, New- -upon-Tyne. To acquire and take over as a concern the business of builders and con- ors carried on at Borough Building Yard, mouth-road, North Shields, under the of Gilbert Park. Nominal capital, £5,000.

LE OF CLYWD BRICK & TILE CO., LTD. 574). Trefnant, near Denbigh. Registered st 13. Brick and tile manufacturers and pants, lately carried on by Samuel Jones deceased) at Trefnant, Denbigh, under yle of the Vale of Clywd Brick & Tile Works, ow carried on by Sarah Jones as executrix will of the said Samuel Jones. deceased. nal capital, £3,000.

NCH & CO., LTD. (192,085). Registered t 23. 177, Spring Bank, Hull. Painter, nanger and decorator, now carried on by rt Francis Smith at 177, Spring Bank, ton-upon-Hull, under the style of Winch Nominal capital, £1,500.

TELL & REVELL, LTD. (192,076). Regis- August 23. 5, St. Mary's-place, New- on-Tyne. Builders, building and general tors, &c. Nominal capital, £1,000.

OXENHEAD BUILDING CO., LTD. (192,065). ered August 23. 16, Cookham-road, head, Berks. Builders, decorators and facturers, contractors, &c. Nominal capi-).

MALTHOUSE, LTD. (192,008). Registered 20. 51, Rosedale-road, Sheffield. rs and contractors, now carried on by ucy Jane Malthouse, at 49, Rosedale- Sheffield, under the style of William se. Nominal capital, £3,000.

ERTS, ADLARD (BOURNEMOUTH), LTD. 3. Registered July 28. 49A, Southcote- Bournemouth. Slaters, tilers, builders, ors, &c. Nominal capital, £5,000.

NEW BUILDINGS IN SCOTLAND.

Elgin.—HOUSES.—The Board of Health has given provisional sanction to the erection of three more blocks of houses at Maisondieu, making 12 additional houses of three rooms each.

Kirkintilloch. — HOUSES. — The T.C. has decided to proceed with the erection of 100 houses of two apartments each, of the tenement type.

Linlithgow.—HOUSES.—At a recent meeting of the Housing Committee instructions were given to the architect to proceed with alternative plans for one block of four houses and two blocks of two houses each.

Dumfries.—HOUSES.—The T.C. will build 40 more houses at Cresswell, the total cost of which is estimated at £14,600. The plans have already been passed by the Dean of Guild Court.

Newton Stewart.—The Board of Health has agreed to the allocation of eight houses under the Town Planning (Scotland) Act, 1919, and the T.C. has decided to proceed with the work.

Broughty Ferry.—BATHS.—The members of the Corporation of Broughty Ferry have been asked to report on the site and plans for the baths at Broughty Ferry.

Ayr.—HOUSES.—Ayr Dean of Guild Court have passed plans for the building of houses, estimated to cost over £25,090. The majority of the plans are for houses to be built under the Corporation subsidy scheme. Grants of £100 per house have been offered to private builders. One builder is going to erect twenty two-story cottages at an estimated cost of £14,000; and another builder is to build seven dwelling-houses, estimated to cost £4,900.

Gourock. — CHURCH. — Plans have been approved for a Baptist church to be built at the corner of Shore-street and King-street, Gourock, with accommodation to seat 300 persons.

Edinburgh.—WAR MEMORIAL.—Intimation has been made to the National War Memorial Committee of Scotland that the Cabinet has granted permission to proceed with the erection of the Memorial within the precincts of Edinburgh Castle. The scheme includes the conversion of one of the modern buildings for a hall of honour.

NEW BUILDINGS IN LONDON.

Tottenham Court-road. — Messrs. John Mowlem & Co., Ltd., are installing escalators for the Underground Railways at Tottenham Court-road Tube Station.

Hammersmith, W. — BROADWAY HOUSE. — This building is situated at the junction of Broadway and Brook Green-road, having a frontage to these streets and abutting at the rear on the Hammersmith station of the Metropolitan and Great Western Railways. The building will have shops on the ground floor with basements connecting, and offices in upper portion. The area of building is approximately 6,500 sq. ft.; length of principal frontage, 164 ft.; height from pavement to parapet, 62 ft.; six floors (not including basement); steel-framed building (stone-faced up to first floor); brick above with stone dressings; back and side elevations terra-cotta; concrete floors. Mr. J. Ernest Franck, F.R.I.B.A., is the architect; and the general contractors are F. D. Huntington, Ltd., 11, Hanover-square. W.1. Sub-contracts already placed: Steelwork, Messrs. Dorman, Long & Co.; stonework, Messrs. F. J. Barnes, Ltd.; terra-cotta, Messrs. Doulton & Co., Ltd.

Hammersmith.—HOSPITAL WORKS.—Messrs. John McManus, Ltd., have signed a contract for the erection and completion of Hull Martin Ward, operating department, and paving patients' department at the West London Hospital, Hammersmith.

TRADE NEWS.

Of the many substitutes born of high prices and shortage but few can have reached the apparently perfect copy of a natural material which is the chief characteristic of "Dekart." This material has been produced to replace wood and tiles for interior use, and in addition to being cheaper than wood, the advantages of fire-resistance and the absence of any tendency to split or warp or otherwise lose shape are claimed for it. With this material any period of wood panelling can be faithfully copied, both in colouring and grain, and it has the same attributes as plaster in the manner in which it can be moulded to copy or form enrichments, carving, and other decorative features. The manufacturers and patentees of the material (Messrs. Associated Crafts, Ltd., of Bridge Works, Cricklewood Broadway, London, N.W.1) have issued an attractive brochure in which many of its applications are described. These include panelling, plaster work, friezes, ornamented pilasters, door framings, beams, rafters and doors, mantels and over-mantels, and ceilings. Duplicates of decorative metal-work, such as electric light and gas-fittings, are also provided in this material, and owing to the fact that it is waterproof it fulfils many of the functions of metal.

One of the objects of the Decorators' Exhibition to be opened at the Holland Park Hall on October 17th is to show the craft and the public the latest developments in the craft. Visitors will be shown the method of educating the young decorator, and new designs and inventions.

An attractive catalogue and price list of their various kinds of "Reliant" fencing is issued by the manufacturers, the Reliant Fencing Co., of Hildenborough, Kent. This company is entirely British and their fencing is made of British material by a British staff, who have had much practical experience in the work.

Messrs. Perkin and Co., of Leeds, are exhibiting on their stand at the Shipping, Engineering and Machinery Exhibition (No. 20, Row D), a new device, known as the "Rapid" stair-housing appliance, for the routing of stair strings, shelving strings and similar work, which may be applied to any vertical spindle moulder in a few minutes. The makers claim that work can be produced at least equal—and often superior—to that produced on an overhead routing machine. The main part of the apparatus is a universal guide plate or templet giving the outline of a rise and tread with nosing and wedge-room, and adjustable over a range of sizes covering all ordinary practice. This is arranged to clamp to the edges of the stringer, on the side opposite from that on which the routing is to be done, by means of a single thumb-nut. It is further arranged in such a manner that one setting will do either r.h. or l.h. stringers, and so secure perfect matching. The guide plate is graduated throughout its range in order to facilitate setting, and the only marking off required is the provision of pitch marks. After a riser and tread have been routed the guide plate is released by a quarter turn of the thumb-nut, slid along to the next pitch mark and reclamped. A fifteen-riser string can thus be completed easily in 25 minutes. A special cutter is inserted in the spindle of the machine and adjusted to project above the surface of the machine table a distance equal to the depth of routing desired, usually about 7-16 in. Vertically above the cutter a guide roller is carried on a steel adjustable arm, which is clamped to the edge of the machine table. This guide roller is the same diameter as the cutter and engages with the guide plate, so that the shape of the latter is faithfully copied by the routing cutter on the underside of the stringer. This arrangement has the further advantage of allowing the chips to fall under the machine, and the operator has an unobstructed view of the guide plate and roller.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0	
Add if in underpinning in short lengths	" "	7	6	
Add if in floors 6 in. thick	" "	3	6	
Add if in beams	" "	4	0	
Add if aggregate 1 : 2 : 4	" "	10	0	
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3	

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3	
Do. joists	" "	5	9	
Do. roofs, floors and partitions	" "	6	3	
Do. trusses	" "	8	3	

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/–	44/–	50/–	80/–

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/–	58/–	67/–
Do. tongued and grooved	"		54/–	65/–	72/–
Do. matchings	"	45/–	55/–		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights ; average size	" "	3	9

DOORS.

		1½"	1¾"	2"
Two-panel square framed	per ft. sup	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d	2d.

STAIRCASES.

		1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets		2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed		1/8	2/–	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail ; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/–
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/–
Ogee Do. Do.	"	2/4½	3/1	3/1	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/–
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt	51	0
Do. Do. in flats	"	49	0
Extra labour and solder in coated cesspools	each	6	6
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	10d	1/6	1/9	3/1	3/10	
Do. service	"	1/5	1/11	2/3	3/6		6/
Do. soil	"					3/3	8/
Bends in lead pipe	each						
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/–	1/3	1/11	2/4	4/
Wiped soldered joints	"	2/10	3/6	4/–	4/11	6/6	9/
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/–		
Stop cocks and joints	"	15/4	17/2	25/8	64/–		

PLASTERER.

		s.	
Render, float and set in lime and hair	per yard sup.	2	
Do. Do. Sirapite	" "	2	
Do. Do. Keen's	" "	3	
Add sawn lathing	" "	1	
Add metal lathing	" "	2	
Portland cement screed	" "	1	
Do. plain face	" "	3	
Mouldings in plaster	per 1 girth	0	
One-and-a-half granolithic pavings	per yard sup.	5	

GLAZIER.

21 oz. sheet plain	per foot sup.	0	
26 oz. Do.	" "	1	
Obscured sheet	" "	1	
⅛ in. rolled plate	" "	0	
¼ in. rough rolled or cast plate	" "	0	
¼ in. wired cast plate	" "	1	

PAINTER.

Preparing and distempering, 2 coats	per yard sup.	0	
Knotting and priming	" "	0	
Plain painting 1 coat	" "	0	
Do. 2 coats	" "	1	
Do. 3 coats	" "	1	
Do. 4 coats	" "	2	
Graining	" "	2	
Varnishing twice	" "	1	
Sizing	" "	0	
Flatting	" "	0	
Enamel	" "	1	
Wax polishing	per foot sup	0	
French polishing	" "	0	
Preparing for and hanging paper	per piece	2/–	to

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of information given on this page is copyright.

TENDERS.

unications for insertion under this heading should eased to "The Editor," and must reach him not an Tuesday evening.
tes accepted. †*Denotes provisionally accepted.*
tes recommended for acceptance.
otes accepted subject to modifications.

ENSHAW.—Supply of (*a*) 250 tons of granite nd (*b*) 30 tons of Portland cement for the :—
Newry Granite Co.....per ton £3 0
Humber Portland Cement Co. per ton 3 6

LEY.—For a police-court house in the Market- for the West Riding Constabulary :—
enby Bros., Leeds £13,988 17 8
Corporation will contribute £4,360 2s. 4d. the cost.

TH.—For the erection of coal loading staiths London & North-Eastern Railway Company h in completion of the work recently carried the firm in connection with the scheme. The will be similar to those constructed by the firm ston-on-Tyne for the North-Eastern Railway y in 1914 :—
chell Bros., Sons & Co., Ltd.—between £80,000 nd £90,000.

RNE.—For the erection of houses for the :—
non-parlour houses at Deeping St. James :—
H. Cruise, Holbeach (per block of our).....£1,350
non-parlour houses at Market Deeping :—
H. Cruise, Holbeach (per block of our).....£1,350
houses at Corpy :—
rwood Bros., Corby £1,584 14 2
parlour houses at Rippingale :—
rwood Bros., Corby £1,600

NLEY.—For various works at new bowling n, for the T.C. :—
ter—*Barnes & Oates £19 18 10
umber—*George Smith 26 0 0
sterer—*R. Rawlinson & Sons 22 0 0

NLEY.—For supply of 600 yds. of electric
ntosh Cable Co., Ltd. £203

BRIDGE.—For new dressing-room and other ral alterations at the Guildhall, for the T.C. h Surveyor, Guildhall, Cambridge :—
gus & Sons, Cambridge £312 0
W. Hunt, Cambridge 279 0
J. Hayles, Cambridge 269 10

CTON-ON-SEA.—For the erection of 20 houses ntral-avenue, for the U.D.C. The Surveyor, l Office, Station-road, Clacton-on-Sea :—
Watson, Chelmsford £9,220
W. Ellis & Co., Clacton 8,574
Dunningham, Raydon 8,916
W. King, Clacton 8,088
nler & Sons, Clacton 8,061
acton Joinery Co., Clacton 7,900
eld & Son, Clacton 7,842
Holbern, Walton-on-Naze 7,298
J. Arnold, Chelmsford 7,230

OK.—For erection of electrical sub-station, for D.C. :—
& F. Walton £544 15

TON.—For various road works, including rock e paving, for the Denton U.D.C. :—
ghways Construction Co., Ltd.

CASTER.—For sinking No. 2 borehole at l. for the Corporation :—
C. Potter & Co., London..... £2,794

DEE.—For erection of memorial in Cornish for the War Memorial Committee :—
Pert & Son, Montrose £7,950

TBOURNE.—For wiring 200 houses, for the
aine & Parris.....per point £0 18 6

AND.—For various street works, for the :—
en Edge-road, wall—David Ransom, Norland.
dlesworth-road paving—Hy. Kenyon, Mytholm-wd.
gate, pavement—D. Brooke, Halifax.

LING.—For improvement and paving of the and Main road from Gateshead boundary to village, for the U.D.C. :—
proved Roads Construction
., Ltd. £44,760 14 1

GOW.—Construction of boulevard from Dun- Bowling, for the T.C. :—
nks & M'Ewan, Glasgow..... £92,336

GOW.—Supply of two boilers at Govan Baths, T.C. :—
rock & Wilcox £2,435

GOW.—For various works in connection with of baths and washhouses at Whiteinch, for the
Fraser, & Co.—*Mason*..... £24,969 0 0
Brown—*Joiner*..... 6,994 1 0
Wright & Co.—*Glazier* 444 11 8
uthbertson & Son—*Slater*.. 103 8 2
Reid & Son—*Plaster* 1,303 8 10
all Asphalt Engineering Co. *phalte* 1,006 7 2
Munro—*Plumber* 4,976 11 3
Boote, Ltd.—*Tile, &c.* 6,421 7 5

GLASGOW.—Surfacing part of new road from Craigton-road to Drumoyne Housing site, for the T.C. :—
*Limmer and Trinidad Lake Asphalte Co.—11s. per square yard, with five years' free maintenance.

GLASGOW.—For pipes for the water supply for Bellefield Sanatorium, for the T.C. :—
*Macfarlane, Strang & Co..... £544 14

GUILDFORD.—For erection of 12 non-parlour houses on Newark-road site, for the R.D.C. Mr. John Anstee, Architect, Council Offices, Commercial-road, Guildford. Quantities by Architect :—

*Tribe & Robinson, Guildford ..	*£6,108 0	Type B
	5,760 ,,	D
H. Mullins, Woking	6,793 15 ,,	B
	6,856 5 ,,	D
T. G. Swayne & Son, Guildford ..	8,074 0 ,,	B
	7,337 0 ,,	D
W. G. Tarrant, Byfleet	6,336 0 ,,	B
	6,150 0 ,,	D
W. Bullen & Son, Guildford	6,767 0 ,,	B
	6,413 0 ,,	D
C. & S. Allwork, Ripley, Surrey..	6,160 8 ,,	B
	6,021 10 ,,	D

LEEDS.—Construction of hard tennis court at Seacroft Hospital, for the T.C. :—
*En-Tout-Cas Co. £119 17

LEEDS.—For (*a*) construction of platform over Lady Beck, and (*b*) erection of conveniences in connection with model lodging house, Dyer-street, for the T.C. :—
*(*a*) Yorkshire Hennebique Contracting Co. £115 0 0
*(*b*) G. Monkman 357 13 11

LEEDS.—For pointing work at the Town Hall, for the T.C. :—
*Tattersall & Sons £202

LIVERPOOL.—For new heating scheme throughout the church of St. James, Mill-lane, West Derby, for the trustees :—
The North British Pipeless Central Heating, Ltd., Manchester.
**Builder's Work*—W. D. Scott & Co., Manchester.

LIVERPOOL.—For repairs to 13, Elizabeth-street for the T.C. :—
*S. Hayes £138

LONDON.—For erection of premises, Carpenter's-road, E., for Messrs. Achille Serre, Ltd. Mr. F. Lindus Forge, rchitect, 3, Crooked-lane, King William-street, E.C.4 :—

Holland & Hannen, & Cubitts	£28,400
Limpus & Sons.....	25,747
C. J. Newby Bros.	25,326
Geo. Parker & Sons, Ltd.	25,293
Rowley Bros.	25,040
Gazes & Sons	24,973
Walter Lawrence & Sons	24,876
*Dove Bros.	24,595

LONDON.—For erection of a Police Station at Nine Elms. Mr. G. Mackenzie Trench, Police Architect and Surveyor. Quantities by Messrs. Thurgood, Son & Chidgey, 18, Adam-street, W.C. :—

Holland & Hannen & Cubitts, Ltd..	£15,673
Prestige & Co., Ltd.....	14,981
Higgs & Hill, Ltd.	14,944
Rice & Sons	14,767
Perry & Co. (Bow), Ltd.....	14,730
F. & F. H. Higgs, Ltd.	14,580
Adamson & Sons	14,515
Mowlem & Co., Ltd.	14,395
Holliday & Greenwood, Ltd.	14,243
Patman & Fotheringham, Ltd.	14,176
A. E. Symes	13,277

MANCHESTER.—For the Corporation :—
Sub-contractors in connection with the erection of a boiler house at the Moss Side Baths :
**Mason*—S. & J. Whitehead, Oldham.
**Carpenter and joiner*—Fearnley & Son Ltd., Salford.
**Slater*—Huntington, Ltd., Ardwick.
**Plumber*—R. Crabtree, Manchester.
**Painter*—Jones & Jackson, Manchester.

Sub-contractors in connection with the conversion of swimming bath at Mayfield into a public wash-house :
**Mason*—A. Halliwell.
**Carpenter and joiner*—F. C. Heys.
**Plumber and glazier*—Lightfoot Bros.
**Plasterer and painter*—John Gibbons.
**Slater*—T. Kilburn & Son.
All of Manchester.

For the supply of cranes at three electricity sub-stations :
*The Vaughan Crane Co., Ltd., and Higginbottom & Mannock, Ltd., of Manchester.

For heating plant and hot-water service apparatus for Dickinson-street Offices :
*Saunders & Taylor, Ltd., Manchester.

For the supply of timber :
*Fletcher & Evans, Ltd., Manchester.

For rebuilding the palm house in Alexandra Park :
*C. H. Normanton & Son, Ltd., Manchester.

For the draining, &c., of the portions of Wilbraham-road, extending from Alexandra-road South to Princess-road, and from Wilmslow-road to the housing estate :
*George Clarke & Sons, Manchester.

For the construction and erection of a fibrous plaster proscenium at the Lesser Free Trade Hall :
*J. Lenegan, Manchester.

Sub-contractors for work on the contract of the C.W.S., Ltd., for the erection of houses on the Newton Heath and Fallowfield Estates :
**Plumbing*—Baker & Kitson, Manchester.
**Brick work*—Fallow eld Estate : — Ormerod, Fallowfield.
**Brick work*—Newton Heath Estate : — H. Scott, Choriton-cum-Hardy.

METROPOLITAN ASYLUMS BOARD.—The following tenders for works have been received :—
Fountain Mental Hospital—Cleaning, painting and repairs, &c.—

W. S. Sharpin, Wellington Works, Bow	£4,105 0 0
Economic House Repairing Co., Clapham-road, S.W.	3,487 0 0
A. H. Inns, Ltd., Devonshire-square, E.C.	2,795 0 0
Worman & Hussey, Holland Park, W.	2,765 0 0
J. Hocking & Co., Charlton.....	2,550 0 0
*R. Mansell, Croydon	2,549 0 0

North-Western Hospital and Ambulance Station—Sundry alterations—

Bedford & Co., Sherriff-road, N.W.	£1,484 5 0
Stevens & Sons, Highgate	1,133 0 0
C. H. Boyd & Son, Ltd., Craven-terrace, W.	1,122 0 0
W. S. Barton & Co., Chancery-lane, W.C.	1,077 0 0
H. Parkinson & Co., Camberwell-road, S.E.	907 0 0
*W. S. Sharpin, Bow	802 0 0

Tooting Bec Mental Hospital Extension—Tar-paving paths, &c.—

T. Adams, Wood Green, N.	£1,087 10 0
Beaufort Quarries, Ltd., Chepstow	1,012 10 0
G. Neal, Blackshaw-road, Tooting	993 15 0
H. Woodham & Sons, Ltd., Catford..	975 0 0
A. C. W. Hobman & Co., Ltd., South Bermondsey	975 0 0
Chittenden & Simmons, Ltd., Maidstone	975 0 0
P. Shepherd & Co., Ltd., Acton.....	956 5 0
Constable, Hart & Co., Ltd., Cannon-street, E.C.	956 5 0
*J. Wainwright & Co., Ltd., Marylebone-road, N.W.	862 10 0

Joyce Green Hospital—Continuous drying machine—

J. Keith & Blackman, Ltd., Farringdon-avenue, E.C.	£294 17 6
W. W. Wardle & Sons, Finsbury Park, N	250 0 0
*T. Bradford & Co., High Holborn, W.C.	172 0 0

Queen Mary's Hospital for Children—Universal wood-working machine—

A. Ransome & Co., Newark-on-Trent..	£235 13 9
T. Robinson & Son, Victoria-street, S.W.1	177 1 6
Buck & Hickman, Whitechapel-road, E.1	146 0 0
W. H. Wilcox, Ltd., Southwark-street, S.E.1	141 0 0
G. Hatch, Ltd., Upper Thames-street, E.C.4	140 0 0
*Haigh's (Oldham), Ltd., Oldham	110 0 0

NEWPORT (MON.).—For erection of six houses at Corporation-road, for the T.C. Electricity Committee :
*J. King, Newport..... £2,488

NEWCASTLE.—For the Corporation :—
Erection of single-story shed on quayside—
*Wright Anderson & Co., Ltd..... £11,400
Supply and delivery of three electric cranes at quayside—
*Babcock & Wilcox, Ltd. 7,717

OSSETT.—For painting and decorating interior and exterior of the Grammar School :—
*H. Sanderson, Ossett £165 5 10

PENYBONT (GLAM.).—For works as follows, for the R.D.C. :—
Making up of Aberbaiden roads :
*J. J. Thomas, Larleston £160
Building of twenty houses at Sarn, Types A and B respectively :
Bowen & Thomas, Salisbury-street, Maesteg, each ..... £385 . £325
Drainage of Litchard-terrace :
*R. Jones, Coychurch £224 11

PONTYPRIDD.—For extensions at the Isolation Hospital :—

R. J. Rhys, Treforest	£1,755
S. & E. Griffiths, Pontypridd	1,200
William Blackburn & Co., Treharris	1,192
Thomas Rossiter, Caerphilly	927

The tenders are to be supervised by the Caerphilly U.D.C. before selection by Pontypridd U.D.C.

PORTSMOUTH.—For structural alterations, &c., at 189–91, Albert-road, for Mr. L. W. Scarr. Mr. S. E. White, architect, 22, Bristol-road, Southsea :—

John Lay & Co.	£1,174 0
F. J. Privett.....	1,159 0
C. C. Coles	1,122 0
A. W. Maxwell	1,064 10
Tanner Bros.	1,050 0
Howe & Bishop.....	1,044 0
M. Coghlan.....	1,000 0

ROMFORD.—For erection of new "Fortune of War" P.H., Laindon, Essex, for Messrs. Ind, Coope & Co., Ltd., Burton-on-Trent and Romford. Messrs. Banks-Martin, Hammond & Co., Architects, 40, High-street, Romford :—

Turnbull & Son.....	£13,427 0 0
A. G. & H. Sibthorp	13,257 0 0
Sheffield Bros., Ltd.....	13,239 0 0
Flaxman & Sons, Ltd.	13,195 0 0
Chessums, Ltd.	12,912 0 0
Baker, Hammond & Laver, Ltd.	12,822 0 0
H. Somerford & Son	12,716 0 0
G. Barker	12,695 0 0
Wm. F. Blay, Ltd.	12,164 0 0
R. Woollaston & Co.	12,104 0 0
Patman & Fotheringham ..	11,987 0 0
F. W. Jarvis	11,950 0 0
W. J. Maddison, Ltd.	11,799 0 0
F. A. Fordham	11,156 2 4
*H. E. Jerram	11,045 0 0

ROMFORD.—For erection of lavatory and mortuary at Sutton's branch institution, for the Board of Guardians :—

*E. Carter, Romford £387 14

SALFORD.—For making up various streets, for the T.C. :—

*Bethell & Sons—

Halstead-avenue, from Fairfield-street to gable No. 35, Halstead-avenue, Pendleton	£556 19 4
Peacock-avenue, from Fairfield-street to gable No. 31, Peacock-avenue, Pendleton	582 13 8
Doveleys-road from Bolton-road to centre passage No. 27, Doveleys-road, Pendleton.....	948 3 0
Romiley-street, Pendleton, from Fairfield-street to the end ..	371 4 8
Fairfield-street, from Dronfield-road to gable No. 11, Fairfield-street, Pendleton	1,318 2 0
Norbury Avenue, Pendleton, from Romily-street to the end	215 [illegible] 0

SALFORD.—Erection of tramway shelter at Cross-lane, for the T.C. :—

*J. Bland & Son £150

SALFORD.—Construction of footbridge over railway at Hodge-lane, for the T.C. :—

*A. Monk & Co. £1,448 7

SALFORD.—Erection of lavatories and extension of messroom at Main's Dept., Frederick-road, for the T.C. :—

*S. Megarity & Co. £298

SALFORD.—For painting interior of Gas Offices, for the T.C. :—

*E. Tate & Co..... £141

SALFORD.—For provision of heating system at Ladywell Sanatorium additions :—

*Brightside Foundry & Engineering Co. £689 17 6

SALFORD.—For making-up at Grays-court, Sidmouth-street, for the T.C. :—

*S. Willshaw £190 5 1

SALFORD.—For making-up street behind Leicester-road, for the T.C. :—

*S. Willshaw £227 3 11

SALFORD.—For reconstruction of portion of buildings at Tramways Depot, for the T.C. :—

*W. Anderton & Co. £1,020

SANDWICH.—For erection of 16 houses, for the T.C. :—

*F. G. Harvey, Dover..... £6,862 8 6

SHARLSTON.—For alterations to boiler pit at Sharlston Council School, for the West Riding C.C. Education Committee :—

*Rogers Bros., Purston.

SOUTH SHIELDS.—The Housing Committee of the T.C. have accepted the following tender for erection of 240 houses at Cleadon Park :—

*C.W.S. Building Dept., Manchester £93,237 2 8

Note.—Lowest of 18 Tenders.

STAFFORD.—For supply of two sets of switchgear for substations at Lammascotes and at Bagnall's Works :—

*Bagnalls ..... per set £397

STALYBRIDGE.—For the erection of seven dwelling-houses in Taylor-street :—

*Hayes & Sons.

STOCKPORT.—For new offices in Wellington-road for the Halifax Permanent Building Society :—

*J. B. Milner, Manchester.

STRETFORD.—For 50 houses to be erected on the Seymour-grove site, for the Stretford U.D.C. :—

*J. Lane & Sons, Stretford
12 "A" type for £350 per house
38 "B" ,, ,, £400 ,,

STRETFORD.—For erection of pavilion in Victoria Park, for the U.D.C. :—

*Grimshaw & Thomas £465

THORNE.—For sewage extensions at Sta for the R.C. :—

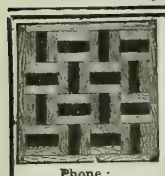
*Briggs, Bradford £7,766 5

WALLASEY.—For the erection of 30 ho Belvedere-road, for the Corporation :—

*J. A. Milestone & Sons, Ltd. £16,

WORTLEY.—For the erection of 40 ho Mortomley, for the R.D.C. :—

*Marlows, Ltd., Sheffield £16,



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JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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THE BRITISH INSTITUTE OF INDUSTRIAL ART.

SOMEONE, probably an architect, is reputed to have exclaimed at the conditions which required him to walk a mile or more on purpose to see a cottage which had been properly designed. The critic is justified in some such feeling in being called upon to give special notice to joinery, pottery, textiles, printing, &c., h under happier circumstances industry—but for the em which has grown up—would ordinarily supply. So we collected together within the North Court of the Victoria Albert Museum a very various collection of craft work ing a leaven to the present state of things. And there eally a great amount of very creditable work, so much it is hardly possible to summarise it or to pick out parti- r examples without neglecting others just as good. We he influence of the "Morris" group on the younger workers, this is a good sign. Another very important one is the ber of local guilds, federations and art schools, who con- ute to the exhibition. These local craft centres spreading ughout the country—these small workshops on sound smanship lines—justify in us the hope of that extension he small industry, so ameliorating present industrial con- ns and perhaps ultimately largely superseding them.

Case No. 1, with examples of textiles and decorated boxes, ld not be missed, or the flag over the entrance, "Arms of s College," by Kruger Gray. No. 2, panelled chest in lish oak, designed by H. Wilson, is quite a fine example hed with a little virtuosity; the craftsman appears to registered Mr. Wilson's design on the material rather through it, and it includes the want of breadth which a limitation imposes. The same applies to No. 7, though are in many ways excellent. The cases should be carefully ined as they contain many attractive features, but too y to enumerate here. Case No. 66, containing well designed and some good textiles, is one of the best. The various oits of this firm of craftsmen, carrying on work on traditional icraft lines at Broadway, Worcestershire, are one of the res of the exhibition. The charmingly worked samplers, No. 95, Nos. 108–9, by Anne Simpson and Dora A. nsley, should be noticed. Good examples of pottery are n in Case 125 and Case 126, but the pottery on the whole very varying merit. In a general survey such as this n only note a few examples here and there. Mr. Anning fine design, which faces us as we enter, for the mosaic Andrew," for the Lobby of the Houses of Parliament, ggestive, but in such cases the results are determined ere, but in the proper working of the material when ted in mosaic. The same artist's sketch for a memorial w to Edward Stott, A.R.A., is interesting, otherwise the y of glass cartoons and sketches calls for no special notice. of the best work in the sense of the improvement it shows the printing section: there is no direction of industry ich more progress has been made.

e must not end these scattered criticisms without referring "Church and Monumental Art Section." This is a very l addition, and calls attention to more suitable and ing ways of treating monumental masonry, though we whether No. 456 shows the best direction for the abilities s. Phœbe Stabler who, in addition to this exhibit, shows a more characteristic and buoyant example in the little garden figure of a boy. There are excellent textiles shown, and the usual display of posters. A very attractive exhibit is that of a room designed for a cafe by Russell & Sons, the furniture and surroundings of which are all made in their workshops, suggesting how far more agreeable such tasteful and genuine surroundings would be over the marble veneers and false glitter of others we can think of.

Exhibitions such as this—and there is much sound and beautiful craftsmanship included in it—none the less set us thinking, for the character of such exhibitions to-day serves rather towards confusing than enlightening the public mind. Where we shall look for art, and where find it, depends more on ourselves than on exhibitions. If we were to regard the British Institute as the source and exemplar of the best craftsmanship to-day, which its official character countenances, we should be much mistaken. Some of the finest craftsmen are not to be found in it at all. And perhaps the Institute realises its objects all the better in thus accepting its own limitations; based on industrial production, it endeavours to promote better standards through the exhibition of work alongside it of more taste and character. It must not, however, be forgotten that the work of most creative and distinguished quality, which is an end in itself, has nothing to do with commercial industry, and it should not be looked for in such an exhibition. Organisation tends to promote the good average of the time, not the best work, which is more often its own security. No doubt it is difficult to draw any precise line, and the Institute, like most bureaucratic organisations, fosters what it understands. It may be doubted, however, to take an instance, whether the wholly personal quality of Mrs. Stabler's work is not in some danger to its own point of view in the bias set up through such an exhibition; for the draw towards an applied usefulness for such work may detach it from its own more authentic impulse, from which it should not be withdrawn. The arts suffer much to-day from the artist seeking his work too much, from watering his own garden. And though there are many instances in this exhibition in which the talent of the craftsman is helped by this applied usefulness for his work, it is impossible not to see the work of other craftsmen occupying a perilous borderland, balanced between art and commerce, uncertain of their hold on either. In such a view there enter considerations of the highest import. If, for the purpose of improving industry, art were to suffer—if it in any way compromised the demands of its own nature—such compromise were to choose the worse for the better and injure both. This difficulty arises through the absence of tradition, owing to which good craftsmanship has been removed from its natural setting, so that we now look for it in a special situation, instead of emerging unconsciously out of the national industry, which it did until the machine took the craftsman's skill away.

A more democratic basis is growing for art, and therefore a truer relation to life, but accompanied by all the dangers lying in a half-educated democracy, and we have therefore to be most careful lest, in raising the average, promoting the good we do see, that we do not obscure the best, or think that art can be circumscribed by its applied usefulness only, so shutting out the larger horizons from our eyes.

NOTES.

St. Martin's-le-Grand Site.

It is recorded that Pericles after the Persian wars found employment for the disbanded soldiers in building the Parthenon. We might recall this and the inferences to be derived from it when seeking directions of activity for our unemployed, and consider the possibility of constructing romances as well as roads. This thought occurs to us when reading of the recent action of the Goldsmiths' Company in buying part of the site of the old General Post Office in St. Martin's-le-Grand, so that the fine architectural features of their hall should not be hidden by new buildings. But does not this praiseworthy and public-spirited action suggest that with such a lead we ought to go yet further? Would it not be an immense improvement in a crowded district to secure the whole site, and to give employment by laying it all out as a public place, with lawns and walks and sheltering trees? In such a situation the improvement would be so great, so spacious and enlarging to its amenities, that we have only to glance at the site to see its appropriateness for such development. An improvement like this cannot be estimated on economic values as we understand them. The value of the site for rents is a less contribution to the wealth and dignity of the city than its value for beauty. Nor is the idea to be rejected on such grounds—or ground rents? We need the spirit of a Pericles to enlarge our conceptions of profit and the scope of possible employment, and to appeal to the artist in all of us. Does not the imagination reach out to greet this possible transformation of a great site, from its mournfully barricaded and hideous defacements through advertisements into a gracious open place adorned by nature and art, and may not the example of a Pericles help us to find courage for such an aim?

The Factory Beautiful.

At the meeting of the Industrial Welfare Conference at Oxford Mr. Eldred Hallas (General Workers' Union, Birmingham) condemned the architecture of modern industrial buildings. He said it was a pity that when works and factories were designed utility was considered almost to the exclusion of any idea of beauty. Why should not factory areas be as beautiful and desirable, he said, as residential areas, and interspersed with dwelling-houses, one vying with the other in beauty? It was surely as desirable that a factory should be approac by a boulevard as the mansion of owner. We may all feel sympathy w the views expressed by Mr. Hallas, we think it can be claimed that wh architects are concerned in the erectio factories and industrial buildings uti is not always considered "almost to exclusion" of any idea of beauty." ideas of clients not infrequently clash ideas of beauty, but we know of a siderable number of instances in wh this conflict does not exist.

New Confederations.

New movements are em ing of international imp ance aiming at a national organisation for and its greater influence in the State, we ought not to look askance where g ideas are concerned if they move firs rather nebulous shape or fail to generous consideration for the propo contained in them. Nor should we examining the proposals contained in Report of the British Confederation of assume that they are hostile to exis organisations. To invest associati with wider aims than that of preser themselves only, to detach them from exclusiveness of group and party onl a wider activity, is rather to penet them with fuller life. We can all a with the claim for the recognition of professional worker equally with tha capital and labour, and that his inte are equally important to the welfar the State, and should be set on a foo whereby his economic interests are left to everybody but himself, whic practice means, as has been said, "crea prosperity for everyone but hims Such an improvement would bring a strength and development to the S itself, art exercising its proper influ not as only concerned with itself, but conceptions of government and its c tion to more enlightened ends.

The New "Tiers État."

Whereas at present divide the interests of community as those r sented by capital and la these new movements make the cla quite rightly—to include as one equal interest in the State the capit the Mind. There are endless consi tions for the public welfare in whic arts could exercise beneficial help, have no organised representatio security for their proper influence such matters. Better conditions fo artist are, we know, difficult to pr nor is he himself as yet endowed wit larger civic aim which would mak help wholly disinterested and effe though a more civic sense is grow our younger men. It is felt by then isolated art societies are not the means of realising the present need that some larger confederation w



Church of St. Trophisme, Arles. (See p. 438.)



Dovecote at Chateau d'Argilliers. (*See p.* 438.)

through them, co-ordinating and rging their aims, would effect results ore public utility. At the same time, must also regard the difficulties. It his own brother artists who failed to gnise the claims of Millet, of Linnell, William Blake, and others. What ederation can unite the good—that can most of us see—with the best, ch, alas ! is so seldom seen ? Mr. V. Lanchester, President of the Town ning Institute, tells us that "Com- tion would help to reduce that evil to inimum and give him (*i.e.*, the artist) hance of realising his deepest and st conceptions." Deepest and truest eptions are oftenest realised, not re ease and competence assist them, by the inviolable fortitude of soul in noblest nature, and though we can pathise with many of the aims of this Confederation, we must not expect bias, or that the best things are to be ved without personal conviction and fice.

British tute of strial rt.

THE exhibition of this organisation (referred to in our leading article) raises the thought that we must not depend too much on what is ht before us through such organisa- as representing more than it does, at it diminishes our own responsi- to see other and wider aspects of it, hus at the end we reach the true sion that all fostering and improving for art are in one sense a constant r to the very object and the only ty for its lasting welfare, and the gs with which it can endow life n educated and enlightened people. he effective usefulness of any such sation is shown in discovering and ting the finest work, not in obscuring it, and if the effect of the multitude of exhibitions, so much organisation, the development of sounder craft practice —all good in themselves—appeared to us as covering the whole field, the public would be farther away from the reality than before. Under bureaucracy there is no worse danger than that of the good becoming the enemy of the best, and it is one it behoves us to regard. For the best creative achievement contains always a sort of challenge in it, it disputes our accepted "good," and bureaucracy fears it as a challenge to its own supremacy, as truth is always a challenge to anything but truth. When "encouraging" art let us not forget the artist.

Lectures on the History of Architecture.

THE University Extension Board of the University of London, South Kensington, have arranged for the coming Session a number of very interesting courses of lectures on History, Literature, Art, Architecture, Geography, Economics, &c., to be delivered in various parts of London and the suburbs. Amongst these is a fully illustrated course on "The History of Architecture (Part I, Ancient)," to be given by Sir Banister Fletcher, F.R.I.B.A., at the Central School of Arts and Crafts, Southampton-row, on Wednesday evenings, at 6 p.m. The subject will be treated in a popular and non-technical way, and the course will be equally suitable for the professional as well as the non-professional student. We wish more lectures of this character could be arranged, not only in London and other large towns, but in suburban areas where people live.

Church Congress Exhibition.

THE Church Congress Exhibition, which is held during Church Congress week, will be opened on Saturday in the Drill Hall, Mill Bay, Plymouth, and will close on September 28. The Exhibition consists of two sections—a Loan Collection and a General Section—which will include the stalls of church furnishers, artists in glass and metalwork, &c., and we understand that a most comprehensive and interesting exhibition has been arranged. *The Builder* model of Old St. Paul's will be shown, as well as several drawings by the late H. W. BREWER.

A Long Record.

A LONG record of service to the profession is that of Mr. Maurice B. Adams, who is now retiring from the *Building News* after some fifty years of editorial work with our contemporary, a record only, we believe, once exceeded. Mr. Adams has closely followed the development of modern English architecture, of which he has written and illustrated a very large amount and has contributed interesting papers to the R.I.B.A. He will carry with him into his retirement the good wishes of a large number of friends.



Church of St. Trophisme, Arles: The Cloisters. (*See p.* 438.)

GENERAL NEWS.

Professional Announcements.

Mr. L. G. Williams, architect and surveyor, has removed from 108, Vaughan-road, Harrow, to new offices at Greenhill-chambers, 8, Greenhill-parade, Harrow (telephone, Harrow 1034), and will be pleased to receive catalogues, &c.

The London offices of Messrs. Chas. Heathcote & Sons, whose head office is in Manchester, have been changed from 110, Cannon-street, to 38, Parliament-street, S.W. 1.

Messrs. Robinson & Phipps, architects and surveyors, have opened an office at Midland Chambers, 39, London-road, Leicester, and will be pleased to receive manufacturers' catalogues.

Appointment.

Mr. H. W. Butler, County Surveyor for Cumberland, has been appointed County Surveyor for Shropshire.

Devonshire Park, Eastbourne.

At a meeting of the Eastbourne Town Council the question of the purchase of Devonshire Park was discussed. The premises comprise about twelve acres of ground, a concert hall accommodating 2,500 persons, vaudeville and lecture halls, and a number of pavilions, swimming and other baths, restaurant, tea rooms, bars, &c. It was stated that since the town on a poll rejected an offer to take £110,665 there had been a further capital expenditure to the amount of nearly £10,000. After discussion the Council instructed the committee to ascertain the precise terms on which the company are prepared to sell. It was stated that the purchase would necessitate the promoting of a Parliamentary Bill, which would give the ratepayers an opportunity of either approving or rejecting the proposal.

Payment by Results.

A correspondent of *The Times*, dealing with the question of payment by results in industry, refers to a system in force in America. This method he outlines as follows:—"At the end of the year, or at any other time, a firm will calculate its gross profits, and deduct everything but interest on capital. The balance represents the net profits of the busines for the purposes of the plan. The firm then deducts an amount which would represent a fair return upon its capital, having regard to the character of the business. For an average undertaking, with no unusual risks, this might be fixed at about 6 per cent. The balance then remaining would be divided, as a rule, equally between the firm and its employees. The employees' share would form a certain fraction of the total yearly wage and salary list. Supposing it were one-tenth, then each employee would receive a 10 per cent. bonus."

Road Planning.

In the course of a letter to the Press, Mr. Thomas Adams, Consultant to the West Middlesex and Thames Valley Joint Town-Planning Committee, states that there is urgent need for a constructive policy in planning highways in advance of expending money on new construction. "Owners of land abutting on highways and local authorities have," he said, "both got responsibilities, and should share in the cost of securing the desired improvements. How is the matter to be dealt with in a manner that will meet the just claims of the owners and not impose too big a burden on the public purse? There are too many difficulties confronting both owners and authorities at the present time, and some compulsory power is needed to be vested in the Ministry of Transport to enable it to bring about the joint action that is necessary and an equitable apportionment of cost between the public and the owners of land. There is also need for more regard to be paid in connection between different phases of road traffic and building problems; for instance, to the interrelation between use, heights, and densities of building and road widths."

The late Mr. J. B. Everard.

The death is announced of Mr. John Breedon Everard, J.P., M.Inst.C.E., F.R.I.B.A., which occurred at his residence, Woodville, Knighton Park-road, Leicester, on September 12. Mr. Everard, who was aged 78, had been ill for some time of an affection of the heart.

Mr. Everard, who was born at Groby, Leicester, carried out many important works as an engineer and architect. As resident engineer he superintended the construction of the Kentish Town to St. Pancras section of the Midland Railway, including the foundations and roof of the station itself and the tunnel underneath to link up with the Metropolitan line. After returning to Leicester and commencing practice on his own account he designed and built the Leicester Cattle Market in 1871, a work considered to be one of the best of its kind in the country. He was one of the originators of the great Derwent Valley water scheme which supplies Sheffield, Nottingham, Leicester, and Derby with water, and he constructed the Leicester section from Sawley to Hallgates (Leicester), including the aqueduct over the River Trent. He was also responsible for the construction of the Swithland Reservoir at Leicester and the works connected with it. In conjunction with his firm, Messrs. Everard, Son, & Pick, he carried out some large architectural works, including the Leicestershire and Rutland Counties Asylum at Narborough, the Leicester Technical and Art Schools, and the remodelling of the Leicester Royal Infirmary.

Mr. Everard was a Justice of the Peace for Leicester and the county, and High Sheriff of Leicestershire in 1913–14, and during his year of office presented a mace to the city as a memento of his association with Leicester in so many municipal enterprises. He was a keen antiquary and he did good service as a member of the Church Extension Board.

Mr. Everard married, in 1868, a daughter of the late Mr. Samuel Mumford, of Dartford, Kent, and he has had two sons and two daughters.

COMPETITION NEW

Burgess Hill.

The design of Messrs. George Baines & F.R.I.B.A., of 121, Victoria-street, Westmi S.W.1, has been placed first in the compe for new premises at Burgess Hill, for the ward's Heath Co-operative Society, Ltd. estimated cost of the structural work is £

Taunton.

Designs for a war memorial, for the Coun Taunton School. (See advertisement this w

Dudley.

The Public Works Committee of Dudley T Council announce that they have approve conditions of competition for the designs o proposed "Brooke Robinson Memorial" war memorial, to be erected on the site a junction of St. James's-road and Priory-street had, on the nomination of the Royal Inst of British Architects, appointed Mr. W. C Green, A.R.A., to act as assessor. The ditions provide that the competition sha an open one; that premiums of £300, £200, £100 shall be given, the first-named sum t absorbed in the fees for the erection of buildings; and that the proposed new build harmonise with the existing Town Hall Police Station. Sending-in day, January 1924. (See advertisement Sept. 14.)

Eastleigh and Bishopstoke.

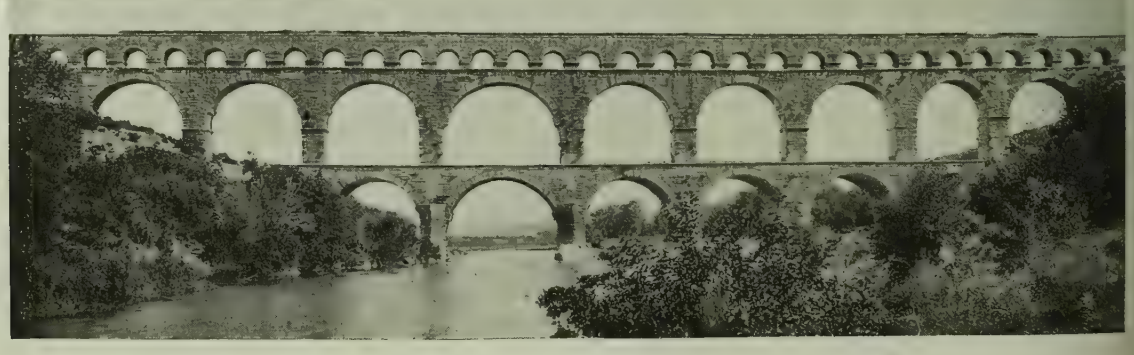
FOR THE U.D.C.—Designs for a new asse hall and extension of council buildings. miums 50, 30 and 20 guineas. Sending-in December 3. *Banned until conditions approved by R.I.B.A.* (See our issue Aug. 24).

Southsea Common Lay-out Competitio

FOR THE B.C.—Conditions and particula premiums will be forwarded on applicati the Town Clerk. Sending-in date, October *Banned by R.I.B.A.*

Other Competitions.

Other competitions still open includ following (the dates given are, first the sen in date, and second the issue of *The Build* which full particulars were given):—Sing College (Jan. 1, 1924; March 30). Hul Gallery (Nov. 5; May 4). Mint compe for plaques (Sept. 30; May 25). C scheme (Sept. 30; June 29). Memorials Missing (Jan. 1, 1924; Aug. 3). Halifax out—*Banned by R.I.B.A.* (Oct. 1). Sw Masonic Hall (Oct. 3). D.I.C. House, chester (Oct. 15; Sept. 7). Chiswick Em ment—*Banned by R.I.B.A.* (Oct. 15; Se Coatbridge War Memorial Aug. 31).



Le Pont du Gard, Nimes. (*See p.* 438.)

HE EARTHQUAKE IN JAPAN.

By CHARLES DAVISON, Sc.D.

ıE destruction of buildings during the ıt disaster in Japan was due to three es—to the earthquake itself, to the fires broke out at once through the breaking of pipes, and easily spread as the water-mains injured, and to the sea waves that followed tly afterwards. To apportion the damage ng these three causes is at present impossible. gh it would seem that in Yokohama the k was mainly responsible; in the naval on of Yokosuka partly the shock and partly ea waves; while the city of Tokyo probably red as much from fires as from the shock started them.

uildings in Japan are constructed with a to the danger from earthquakes, and the paratively small loss of life in recent shocks s how effective the precautions have been. instance, in the Mino-Owari earthquake of only 190 lives were lost out of a total of 000 at Nagoya; in the Messina earthquake 08 about half the population of that city buried in its ruins, and, if anything, the k was stronger at Nagoya than at Messina. withstanding the heavy loss of life in the ıt earthquake, the death rates are com-tively low, only 5 per cent. in Tokyo and er cent. in Yokohama. Comparing these the figures for less violent earthquakes in —for example, 71 per cent. at Montemurro ng the Neapolitan earthquake of 1857, 81 cent. at Avendita during the Norcian quake of 1703, and 91 per cent. at Avez-during the earthquake of 1914—it is ent that, but for the careful construction apanese houses, the tale of disaster would been very much higher.

a recent number of *The Builder*, I gave short summary of Professor Omori's r on the behaviour of the steel-brick lings at Tokyo during moderately strong semi-destructive earthquakes. Professor ri concluded that properly-built steel-brick lings will never be totally destroyed by an quake, however strong, and that the worst could happen to them would be the produc-of cracks in curtain-walls. A detailed ination of the effects on these buildings e of considerable value. At present it is what uncertain whether the damage was rd by earthquake or by fire. The Kaijo ing at Marunouchi, the oldest of the and finished in 1919, collapsed, causing ands of casualties; but according to more t accounts most of the high concrete ings show fissures only in the third-floor es; above and below that floor there is harm done, a result which is somewhat ed to Professor Omori's belief that the f damage is less in the higher stories than lower.

st of the buildings in Tokyo were made of and it was to this that their rapid destruc-y fire was due. Such houses collapsed e under the shock, the walls bulged rds and the heavy roofs fell in and so ned thousands of people, many of whom terwards burned. It is estimated that 440,548 houses in Tokyo no fewer than 5 collapsed or were burnt. The percentage s was even higher in other places. At ka only 150 out of 11,800 houses were stroyed; at Yokohama 100 houses are have escaped damage, while 71,000 ined. Much of the destruction was due the first great shock but to the less violent that followed. For instance, all the s across the river in Tokyo, which were crowded with refugees from the fire, ed during a later shock and many thou-were drowned or killed by the fall.



Chateau d'Argilliers. (*See p.* 438).

CORRESPONDENCE.

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Sanitary Arrangements, House at Hampstead.

SIR,—I was interested in the plans and elevations of a house in the Hampstead Garden Suburb which you illustrate on p. 416 of last weeks' *Builder*, but was surprised to see that the w.c. on the ground floor is shown leading directly off the kitchen. This does not seem to be a very desirable arrangement according to modern ideas, and, of course, is not allowed under the by-laws of London and most of the surrounding districts. If the building by-laws of Hendon permit of this it is time they were revised and brought up to date.

W. HASLIP.

Leyton.

Payment by results in the Building Industry.

SIR,—It may not be out of place for one who has had a number of years' experience in connection with the "payment by results" system to furnish a few remarks by one who has "suffered" as an employee.

It is anticipated that the "bait" of a share of a firm's profits would require a lower salary in consequence. When the time comes, however, to participate in results, the reply invariably is that the auditors make out there is nothing due. Only recently an admission was made by a director that there were profits made, but it had been decided to add them to the "reserve" fund. The only course open to an employee is to secure a smart accountant at an enormous cost to investigate the books; that is, if the employee can bear the cost, which is doubtful.

In another case, notwithstanding the large percentage put down for overhead charges, other charges such as printing and advertising were introduced to procure a balance on the wrong side. Numerous other cases could be furnished from personal experiences extending over a number of years, during which "heart and soul" have been put in to increase the "turnover," and even written agreements "turned under," leaving one no other option but to seek fresh fields and pastures new. Trade Unions compel additional payment for overtime, but in my capacity there is plenty of overtime without extra payment or share of profits.

Esteeming your kind insertion of this letter,

"ESTIMATOR."

["Estimator's" experience has been unfortunate. We do not share his belief, if it is his belief, that employers would not act honourably in the event of a "payment by results" system being inaugurated.—ED.]

The Scarcity of Skilled Labour.

SIR,—Having read the article on the above in *The Builder* of the 14th inst., the following may indicate the seriousness of the shortage of skilled labour in the higher branches of joinery. A short time since I advertised for fifty joiners for airtight showcase work, and out of numerous applications I received there were only two I could entertain, and in consequence orders are delayed for weeks.

EDWARD VALE.

Weston-super-Mare.

Houses and House Agents.

SIR,—Referring to your article in last week's issue, I am unfortunately one of the large number of would-be home dwellers if houses could be rented. I have travelled miles and spent much money in fares travelling to see the few houses offered for rent.

The outlook is certainly not promising, and I do not think much help can be looked for from agents, for they naturally prefer to sell a house, as their commission is so much more.

I will not lengthen this letter by giving examples of agents' descriptions as compared with the reality, but one case recurs to memory where, going to see a much-belauded house, I found it overlooked a sewage farm, or another recommended as quiet which overlooked Brooklands.

As I hope some day to get a house I must remain anonymous.

"HOMELESS."

The Prevention of Dry Rot.

A correspondent writes asking for information as to the suitability of an acid dressing to stop rot.

Railway Improvements in Wales.

Schemes representing approximately an expenditure of £250,000 on the Central Wales section of the Great Western Railway have been put in hand. At Aberystwyth the station is being enlarged and the line doubled to Llanbadarn. The Forden-Welshpool extension is nearing completion. New works at Harlech Station, costing £10,000, are well in hand. Pwllheli Station has been remodelled, and Dovey Junction platform has been raised in preparation for a double line to Machynlleth. Oswestry Station is being enlarged at a cost of £61,000. About 500 Oswestry railway workers will meet shortly to discuss a proposal to build a garden city suburb at Oswestry in connection with the Great Western Railway Company's scheme to assist employees to build houses for themselves.

WITH THE A. A. AT AVIGNON.

(NOTES FROM OUR CORRESPONDENT.)

Avignon.

On Sunday, September 8, the members of the Architectural Association Excursion again took the opportunity of seeing the town of Avignon, and they were not disappointed. As it was Sunday and glorious weather, the population was mostly in the open air, and the animated, expressive features of the people, combined with the views of churches to be seen in narrow side streets and the unexpected vistas of sunlight and shadow silhouetted against the cloudless blue sky made a scene not readily to be forgotten. The women, one noticed, were generally dressed in excellent taste. After the Austrian bentwood atrocities to be seen in most English tea-shops, the café chairs favoured at Avignon are particularly pleasing; they are made of a cane framework, the backs and seats of which are interlaced with brightly enamelled split cane arranged to form different designs. As each café adopts a different colour for its chairs, these add considerably to the general air of brightness about the town, and one wonders whether the "Brighter London" enthusiasts could not find a better outlet for their energies in such small but everyday things as this rather than in glaring illuminated sky-signs, which seem to be accepted in many quarters as the best means by which London can be "brightened."

In the afternoon the party visited the local museum, into which one is almost unwittingly enticed by the wonderful display of pink and white oleanders in the courtyard.

Monday.

On Monday morning the party left Avignon for Arles, a journey of some twenty-five miles through long avenues of fine plane trees, olive groves, and vineyards. The peasants, in their blue smocks and trousers, gathering the grapes, the quaint mule-carts, the mules with their (to us) odd harness and jingling bells, were all objects of interest. The sight of these peasants working in the fields brought to the memory Millet's picture, "The Angelus Bell," and the works of the brothers Maris, and made one realise the sincerity and truthfulness of their work. On arrival at Arles, which is within 20 miles of the Mediterranean, many fine relics were to be seen. Amongst those visited was the Amphitheatre, one of the longest of the kind in France; it is about 500 yards in circumference; the longer axis is 150 yards, and the shorter 117 yards. This arena probably dates from the first or second century of our era. It possesses five corridors and 43 tiers of seats, holding 26,000 spectators. Of the two stories of 60 arches, the lower are Doric and the upper Corinthian. The Roman Theatre was also visited, and this also proved to be of great interest. This theatre is said to have been begun under Augustus, though it was not finished until the third century. Its destruction began in the fifth century, and much of the material was used in the construction of several churches. In front of the stage wall was a colonnade of which two columns remain standing, one of Affricano and the other of Carrara marble. The theatre was richly decorated, and numerout works of art found there are preserved in the Museum. The Venus of Arles, in the Louvre at Paris, was discovered here in 1651. Beyond the Theatre is a public garden.

The ancient Cathedral of St. Trophisme, which was also visited, is considered to have been erected on the ruins of the Roman prætorium and consecrated in 606. It has been several times rebuilt, and the choir was added in 1430, while the whole church was restored in the nineteenth century; it is in the Romanesque style, with a tower over the crossing. The portal is of the twelfth century and is supported by six columns (see illustration). A flight of steps to the right of the choir leads to the cloisters, of which our illustration will give an impression.

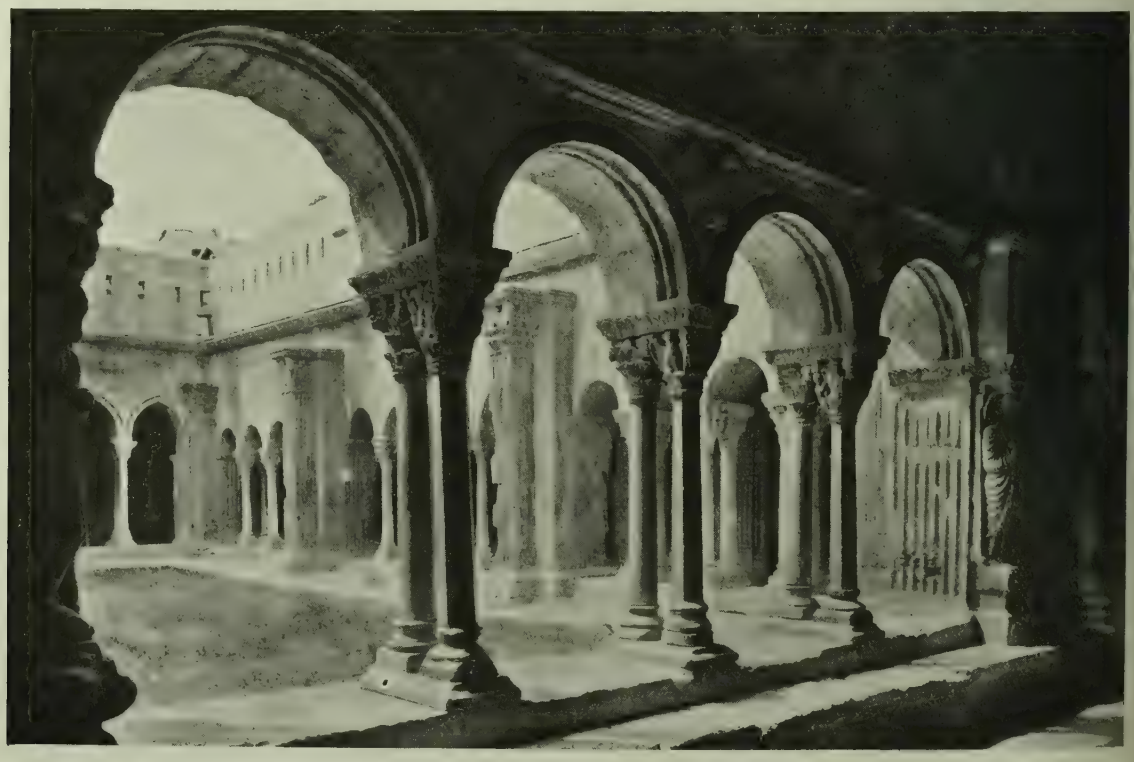
Two museums were also visited, and the Monastery of Mont Majeure on the hor ward journey. Lunch was partaken of at Hotel du Nord, in the Place du Forum, wh a fragment of the Forum may be seen.

Tuesday.

In brilliant weather a start was made Tuesday from the hotel, through magnific scenery, the golden-foliaged avenues of pl trees and hedges of bamboo making an pression not easily to be forgotten, to Pont Gard, where a stop was made to enable party to examine, sketch, or photograph vast Roman aqueduct. Many of the par including some of the ladies, ascended walked at a great height across the This great aqueduct, spanning the Gard Gardon at a bend of the valley, is one of most imposing monuments of the Roma which remain with us to-day. It forms part of the aqueduct built to convey to Nim the waters of two springs in the neighbo hood of Uzês, and is ascribed to Agrippa, s in-law of Augustus (19 B.C.). The bridge 880 ft. long and 160 ft. high, and is compos of three tiers, each less wide than the below (see illustration). The whole is wond fully constructed of large stones and no cem has been used except for the canal at the to

After lunch the party started for Uzês, a a halt was made to view the Châte d'Argilliers. It is sad to see the neglec state of the house (which is uninhabited) a grounds. At the entrance is a circular do cote (see illustration), which stands ami magnificent plane trees and presents a cha ing picture in golden hues. The châte pleasing in character, is of a late peri The property is in the market; the price as was between two and three thousand poun including wine presses and electric fittings.

On continuing the journey the party arri at the ancient town of Uzês. cathedral (17th-18th century) retains campanile (twelfth century), an impos Romanesque relic of an earlier church stroyed in 1611. The Hotel de Ville, a bu ing of the eighteenth century, was visited; it has a fine courtyard, bey



The Cathedral of St. Trophisme, Arles: The Cloisters.

hich stands the ducal palace, dating from the eventh, thirteenth, fourteenth, and sixteenth nturies, but it was largely restored in the neteenth century. After a ramble through e old town the party left for Avignon, a halt ing made to view another ancient monas-ry.

The roads were dusty, and little traffic was et beyond a few motor-cars and the quaint ule-carts.

Wednesday.

This was another brilliant day. The party ited Nimes, which was reached after a short lt at the village of Rochfort, through a ading ascent amongst the houses and their rdens, with figs and pomegranates growing ely. A curious method of drying the figs as noticed; they are impaled on a branch a thorny tree and placed in the sun to dry. ntinuing the journey, Nîmes was reached, hen lunch was partaken of at one of the merous café restaurants at a cost of 9 frcs. bout 2s. 6d.). During the afternoon the mphitheatre was visited; it forms an ellipse 5 yds. long by 111 yds. wide, and 69 ft. height. It is smaller than the Amphi-eatre at Arles, but the exterior is in better eservation. It is constructed of stones 0 ft. cube, all perfectly adjusted without ortar, like all Roman buildings of a large e. The exterior presents two stories, each 60 arches, the lower having huge square ttresses, the upper Doric columns, while ove this are 120 projecting stones pierced th holes in which the masts of the awning, hich covered the amphitheatre, were inserted. here were four external gateways at the tremities of the axes; 24,000 spectators uld be accommodated; 124 entrances afforded rapid means of ingress for this multitude. mbats with wild beasts, it is thought, could t have taken place here as the wall bound-the arena was too low. The construction tes from the first and second centuries of r era. It was transformed into a fortress the Middle Ages, and afterwards occupied hovels, of which it was not freed until 0. A restoration was begun in 1809 and other in 1899. The work is undertaken by French Government and is well done. ll fights still take place there.

The Maison Carrée was one of the principal ildings viewed. It is one of the finest and st preserved Roman temples known, and ms a parallelogram 76 ft. long by 40 ft. de and 40 ft. high, with 13 Corinthian umns, 20 of which are attached to the walls the cella. It is thus a pseudo-peripteral uple, prostyle and hexastyle, *i.e.*, it has a tico on the front only, consisting of six umns. It is approached by 15 steps. The umns are fluted and surmounted by a ital of superb workmanship. The entabla-e is very rich and, like the design, in nisite taste. It is believed to date back to time of the Antonines, *i.e.*, to the second tury. Successively used as a church, muni-al building, a warehouse, and a stable, this gnificent building has been well restored e 1824. It is now used as a museum and tains some fine objects of art.

The Jardin de la Fontaine, decorated eighteenth-century style, but in part laid on ancient foundations, was next visited. Temple of Diana is to the left of the foun-. Other buildings were inspected, and r a pleasant and highly interesting day the rn journey was made.

Thursday.

Thursday the quiet old town of Tarascon visited, the journey taking the party ugh interesting old villages, with many nt objects *en route*. Tarascon is on the bank of the Rhone opposite Beaucaire. is said to derive its name from a monster Tarasque, who ravaged the country in rst century and from whom it was de-d by St. Martha; a fête is occasionally in commemoration of this event. The buildings inspected included the Church of St. Martha, which was founded in the twelfth century and rebuilt in the fourteenth-fifteenth century. This church has a fine Romanesque south portal, and contains many paintings attributed to Vien, Parrocel, and Vanloo, etc. In the crypt is the tomb of St. Martha, which has been restored. The Gothic Castle is of the fourteenth and fifteenth centuries, and is a remarkable pile with an interesting interior; King René of Anjou, Count of Provence, completed the building, which is now used as a prison, and resided there. From the Castle the journey was continued to Beaucaire, and the various objects of interest inspected, after which the party returned to Avignon.



Avignon Cathedral: Interior.

Friday.

The last of the official trips took place on Friday, and was arranged by Mr. Yerbury (Secretary). The route was again through numberless vineyards, with the black grapes hanging in clusters behind the bamboo hedges which are used to protect the vines from the cold winds. The first stop was St. Remy, where one of the objects of interest is the Triumphal Arch, which, though not large and with but one arch, is excellently proportioned, and still shows remains of fine ornamentation and sculptures representing captives; it dates from the first or second century. A mausoleum, called the tomb of Julii, from the inscription on the architrave, is close by. Pyramidal in form, it is nearly 60 ft. high, and consists of three stories with a square base, with bas-reliefs on one side representing hunting scenes, and battles on the other three sides. Above this is an arrangement of porticos and fluted columns, finishing with a small round temple, with ten fluted columns, on which are two draped statues. The details in general are good, but the proportion of the structure is unfortunate.

Within a short distance is the Cloister of St. Paul, which well repaid a visit. The courtyard within contains finely-foliated trees and flowers, presenting a peaceful sight.

Continuing the journey up mountainous and twisting roads, the mountain vegetation presented glorious harmonies in grey greens, browns, and golden hues. Huge stones are placed on the roadside to prevent vehicles falling into the ravines.

Lesbaux, an ancient but decayed fortress, contains many picturesque and remarkable objects. It surmounts the top of a rocky height not far from where the Alpines begin to rise from the plain of the Rhone. Formerly a considerable fortified fortress, it is now a deserted but romantic spot. A few inhabitants till the soil in the valleys, where olive trees abound and wild pigs thrive amongst the ruins. Although little more than a gigantic heap of ruins, some façades of good Renaissance design are still to be seen in the silent streets. The interest here is inexhaustible, and one ponders over the ruins in sheer amazement.

Sunday.

Sunday brought the excursion to an end, and a last look round was indulged in. Endless quaint courtyards, squares, and interesting old doorways were discovered; and last photographs taken of the picturesque subjects full of colour, sometimes brought about by a line of washing hanging from the window or a seated figure in some bright garment in the sunlight or shadow. So ends a pleasant and an instructive holiday, new to many and none the less pleasant to the old travellers.

The thanks of the excursionists are due to Mr. Yerbury for the choice of Avignon as a centre, and the able arrangements made for the comfort of all, everything passing off satisfactorily.



THE SCULPTURE AND TERRACE.



[View of the garden looking towards the causeway side of the arch cut in the old wall, showing the monument set in the wall close to the spot where the scaling ladder was placed. The balustraded terrace forms the view point about 40 ft. distant across the moat. Both the garden and moat are planted with New Zealand flora. In the foreground is the entrance to a communicating tunnel converted into a rockery and on the left is the edge of the dam on which the ladder rested.]

Le Quesnoy Memorial. MR. S. HURST SEAGER, F.R.I.B.A., Architect. (*See p.* 441.)

LE QUESNOY MEMORIAL.

The choice of Le Quesnoy as the site for of the New Zealand battle memorials ided the architect, Mr. S. Hurst Seager, an opportunity of demonstrating the tiveness of the right combination of l beauty and monumental sculpture. It pened that on November 4, 1918, the 4th the 2nd Battalions of the New Zealand e Brigade were assigned the task of taking walled town of Northern France. The Zealanders were held off by machine- s for the greater part of the day, but tually, under cover of a barrage of Stokes tars, rifle grenades, and Lewis gun fire, 4th Battalion were able to place a scaling ler against the high ramparts and mount essfully to the parapet. The incident was only one of its kind during the whole four rs of war, and it was decided to incor- ate a representation of it in the monument. as the taking of Le Quesnoy, with its German defenders, marked the closing on of a long series of triumphs which ex- ded over eight months, and also the end of war for the New Zealand Division, it was ded that the memorial should not only be honour of those who had fallen in the acent battlefields, but a fitting emblem of orious peace.

There are other walled towns in France, none so picturesque as Le Quesnoy. The er and outer ramparts, with their project- salients, and the detached island bastions n a veritable labyrinth, and the moats, overgrown with weeds and rushes and ter-lilies and great timber trees, seem to e their way between the towering battle- nts. The ancient brick walls themselves beautiful. Here they are silver-grey, rging into red and brown, and again kening into purple, and ever varying with position of the sun. The parapets of the ls and the island bastions are thickly ded, and still beyond the fortifications re is a wooded area which has been largely to Nature.

The possibilities of an effective memorial re immediately evident to Hurst Seager. He de- d that it should take the m of a marble plaque set the face of the battlement r to where the scaling er was originally set up. in front of this point is one he island bastions, and he eived the idea of making a garden from which the ue could be viewed. So far was satisfactory, but having ded that the memorial should utside the walls of the city, e was the question of accessi- y. In the Place d'Armes in centre of the town there ds an archway which gives ss to a ruined château, once home of Queen Marguerite Bourgoyne. Passing by the eau one comes to an avenue rees which runs along the side of one of the battle- s, and so on to a projecting nt. The salient itself over- the island bastion, which now been transformed into New Zealand garden. Here he solution of the problem. the approval of the town orities a pathway was laid ith this avenue of trees, an way was made in the wall of alient, and a causeway built s the moat to the island. pathway along the battle- s has been named by the French " Avenue d'Honneur Neo-Zelandais," and over the chateau arch is a plate with that name engraved thereon.

Every 10 ft. throughout the whole length of the fortifications there is a projecting buttress on the inner side—not visible because the grass slopes mount upward to the top of the walls. But a cutting was made, and two of these buttresses disclosed. Between these is the new archway. Such new brickwork as was necessary was made to conform as much as possible to the picturesqueness of the ancient masonry, and by treating all the bricks with certain chemicals an appearance of uniformity of age has been acquired. Over the top of the archway is a tablet bearing the inscription " Le Jardin des Souvenirs."





Entrance to the Avenue d'Honneur.

All the earth taken from the cutting has been utilised to form the causeway across the moat to the island site, and the sides of both the causeway and the cutting have been turfed. The island was already a beautiful spot, but for a year or more the staff of the Imperial War Graves Commission have been converting it into an ordered garden, though much of the original vegetation was left. This and the flowering shrubs and rock plants merge pleasantly into one another. To the New Zealander no sight could be more welcome than the veronicas, the olearias, the red manukas, and other plants from his far-off home. Down in the moat beside the clear rippling stream the New Zealand flax and toi-tois are flourishing as well as if they were growing on their native hills. Over all are the stately poplars, the elms, and pines.

A simple marble balustrade overlooks the memorial plaque 40 ft. across the moat. Just a few yards to the left of the plaque is the place where the scaling ladder was set on that eventful day in November of 1918. On the inner side of the balustrade wall are the words, " From the uttermost ends of the earth," and in French, " De l'autre extremite du monde." From this vantage point one may look directly upon the monument.

One's only regret is that so few people whose interest in it is greatest will ever see it. Mr. Seager's idea was to include in the sculpture the wall-scaling incident, but this was overshadowed by the greater idea of triumphant Peace. The war scene was modelled by Mr. A. R. Fraser, a New Zealand sculptor, whose work has appeared in the Royal Academy on several occasions. Mons. Felix Desruelles, a French artist of note, undertook the work in marble. He has reproduced exactly Mr. Fraser's scene, but the figure of Peace carved on the more prominent plane of the marble block is his own conception. At no time is the light in the eye of the spectator. At midday the sun casts deep shadows on the statue, and in the evening the rose of the sunset gives still greater life to the marble figure of Peace.

It is necessary to spend some time alone in this Garden of Memories to appreciate to the full its beauty and its peacefulness. On a summer evening no place could be pleasanter. With its convenient and beautiful approach it will always be the natural goal of those who seek a few moments of peace and quietness. Here, indeed, have Nature and Art combined to make a thing of surpassing beauty.

T. J. Pemberton.

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ILLUSTRATIONS.

Bishop Tucker Memorial College.

The illustration of the Bishop Tucker Memorial College, Mukono, Uganda, is from the design of Professor Beresford Pite, F.R.I.B.A. Our illustrations are from this year's Royal Academy Exhibition.

Pavilion at Prestatyn, North Wales.

This pavilion has been designed as part of a scheme now complete, which includes a bathing pool, arcades and bathing cabins, and it faces the pool across a paved courtyard. Large French windows give access to this from the hall, 70 ft. by 40 ft., which is used for entertainments and dancing, and as a café. The accommodation includes a platform with dressing-room accommodation, kitchen and services, and male and female lavatories.

The walls are limewashed externally and the roof covered with grey-green slates, while internally the finish is distemper on brick covered by treillage. The open roof exposes the built-up roof trusses, which, with the treillage, are decorated in a colour scheme of blue, green, orange, and black; the whole effect aimed at was one of simplicity with the gaiety suitable to such a building.

The general contractors were Messrs. Roberts & Sloss, of Liverpool and Prestatyn. The roof trusses were supplied by Messrs. Freeman & Co.; treillage by Messrs. J. P. White & Co.; artificial stone by the Croft Concrete Co.; slates by Roberts, Adlard & Co.; ironmongery by Robert Adams & Co.

The architects are Messrs. Easton & Robertson, of 7, Gray's Inn-place, Gray's Inn, W.C.1.

White's, Christ's Hospital, Horsham.

This new master's house is named after Mr. F. A. White, J.P., the late treasurer and a generous benefactor, and is situated on the south side of the Western avenue. It represents an attempt to obtain by simple planning and construction a house of enduring material at a reasonable first cost, and which involves practically no outlay for maintenance. The walls are formed with two 4½ in. thicknesses of brickwork, with a 1 in. cavity filled with White's hygeian rock composition. By carrying this composition under the surface concrete the house becomes a completely watertight and insulated tank. The roof is covered with Collier's hand-made tiles, and the walls have Daneshill facings with Weldon stone dressings.

Mr. George Alexander carved the heraldic panel on the door. The metal casements and lead lights are by Messrs. Welstead, of Croydon. The oak doors have wrought-iron strap hinges and furniture by Messrs. F. G. & S. H. Frost, metal craftsmen. The sanitary and domestic plumbing and drainage work is by Messrs. Durbin & Katesmark. The general contractors are Messrs. Walter Lawrence & Son, and the architect is Mr. Sydney Tatchell, F.R.I.B.A., the Surveyor to Christ's Hospital.

Proposed House at North Foreland, Kent.

The ground plan is "L" shaped. The hall is entered from the north end from an inside porch and outside portico. The hall extends practically the full width of the house. On the right of the entrance are cloakrooms, with lavatory accommodation, etc. The principal stairs occupy the opposite end of the hall. On the left of the hall from the entrance and facing the sea is a spacious central logg with dining and sitting rooms on either si each having large square angle bays, w windows on three sides. The loggia dining-room may, by means of a folding pa tion, be converted into one room, 40 ft. 18 ft., irrespective of the angle bays. loggia gives on to a verandah extending acr the entire sea frontage (60 ft.) on the grou floor, and has a flat roof, forming a balco upon which the principal first-floor bedroo give.

The elevations are to be in brickwo ashlar stuccoed, and to be painted whi The roof is to be covered with red Marsei tiles. The design is of the simplest, but colonnade of six Doric columns, with coup Doric pilasters at either end, and the entab ture and open balustrade to first-floor balc have all the characteristics of the Riviera vi This is accentuated by the doors and windo looking on to the verandah having circu arches.

The architect is Mr. C. F. Skipp F.S.A., Lic.R.I.B.A., F.R.S.I., F.I.A., 64, St. Andrews-street, Cambridge.

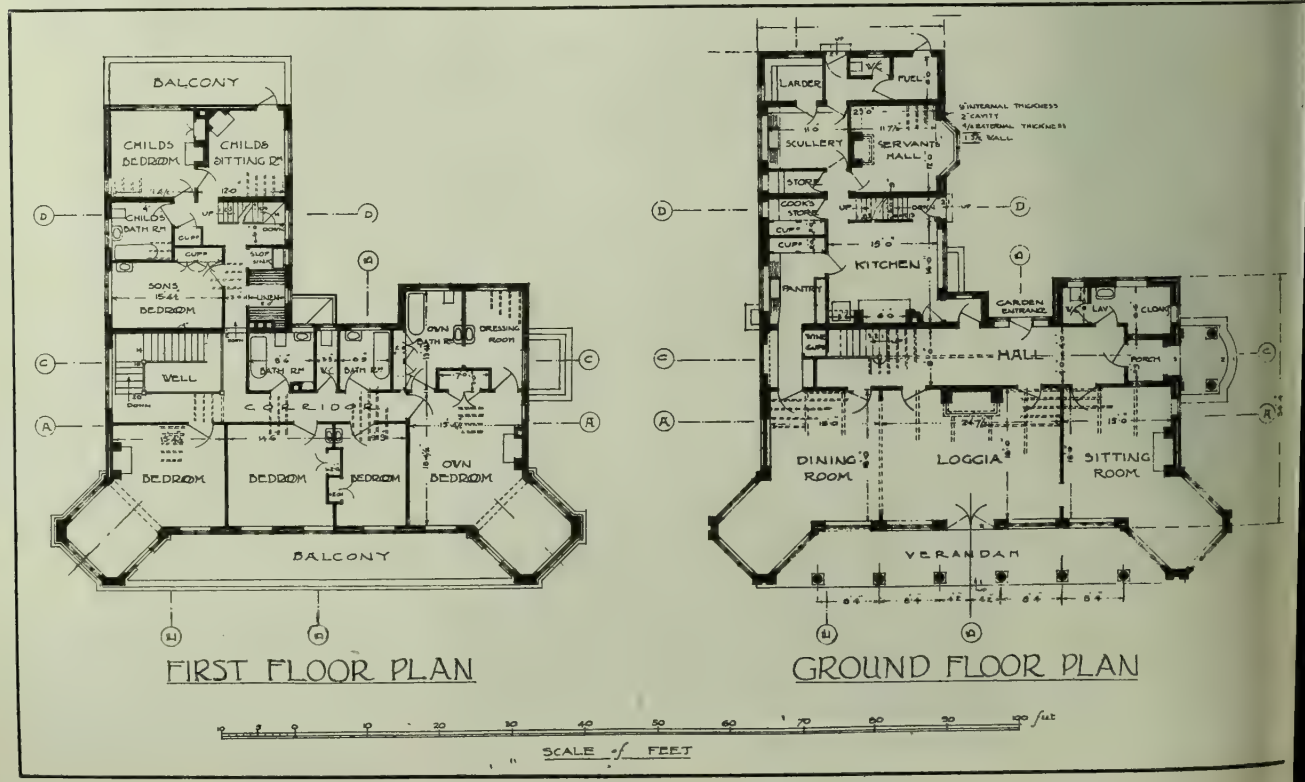
St. Augustine's Parsonage, Tooting Bec, Surr

This illustration—from a pencil drawing the architect—is of a small parsonage house be built upon a corner site, another portion which is reserved for the permanent church St. Augustine, Tooting, from the designs of H. P. Burke Downing, F.S.A., of Westminst The estimate of the builders, Messrs. G. P. & Barnes, of Streatham, is £2,800.

Church of St. Martin, Llay, Gresford.

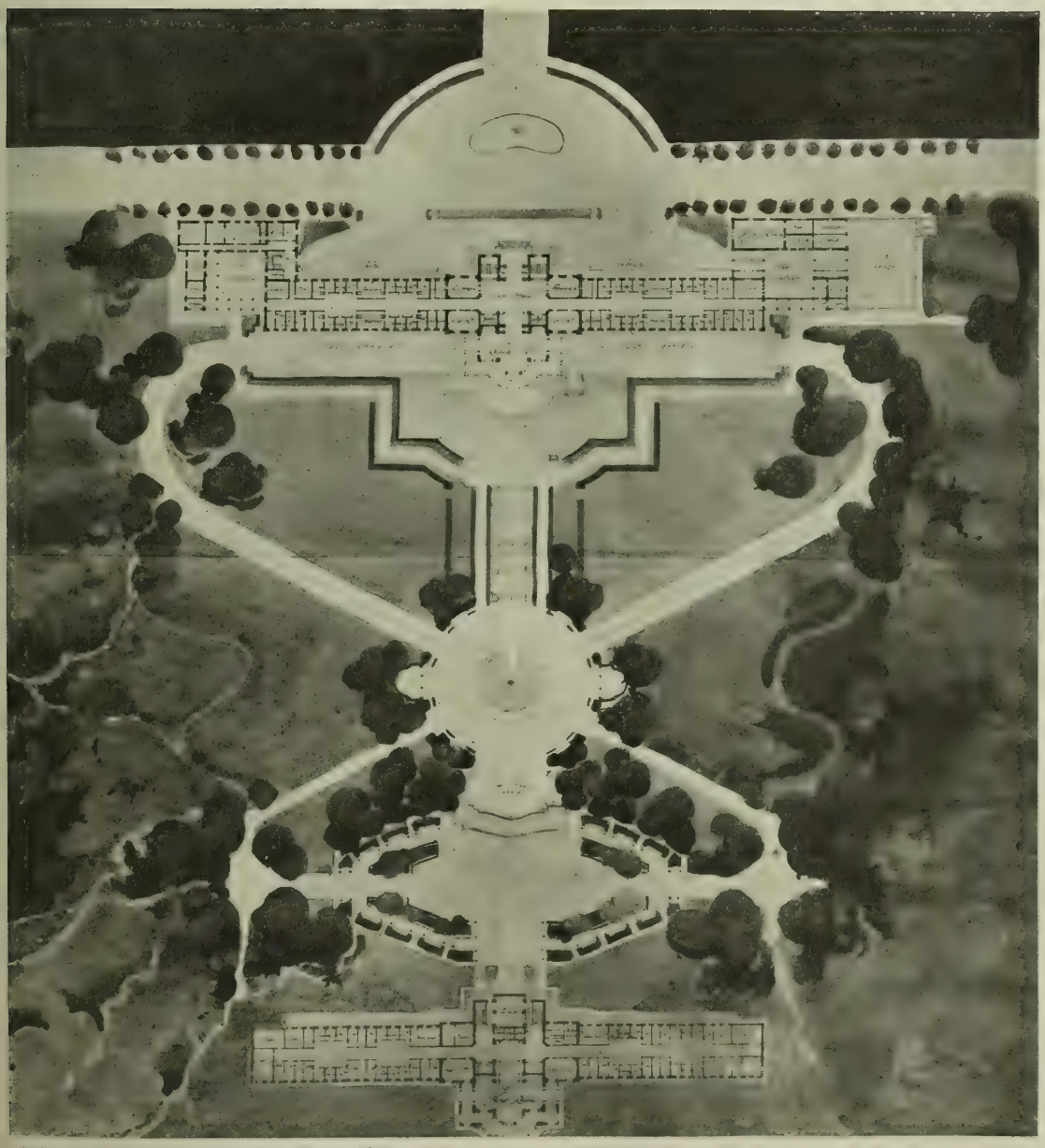
This church is to be built in a new garc village formed to house the employees of a la colliery. When completed it will accommod 500 persons at a cost of about £9,000. walls are to be faced inside and out with ro Llay Hall bricks 2½ in. thick, the window dr ings being of Runcorn stone. The inter arcade is to be of timber. No contract has yet been let, but it is hoped that a start shortly be made with at least a portion of church, and that it will be the first new chu to be built in Wales since disestablishment.

Mr. R. T. Beckett, of Y Bryn, Trydd near Mold, is the architect.



Proposed House at North Foreland, Kent. MR. CHARLES F. SKIPPER, F.S.A., Architect.

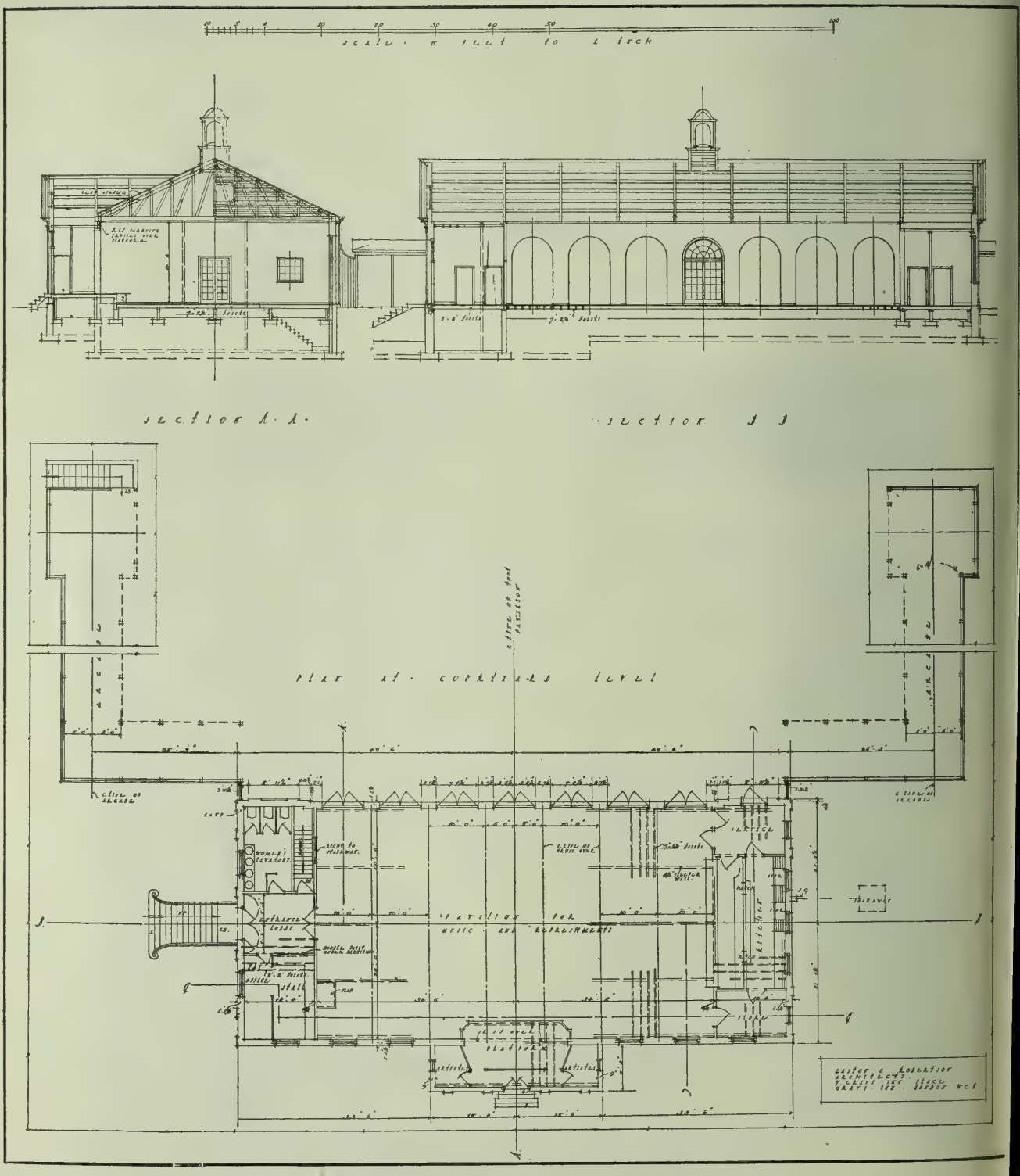




Society of Architects' Victory Scholarship Competition

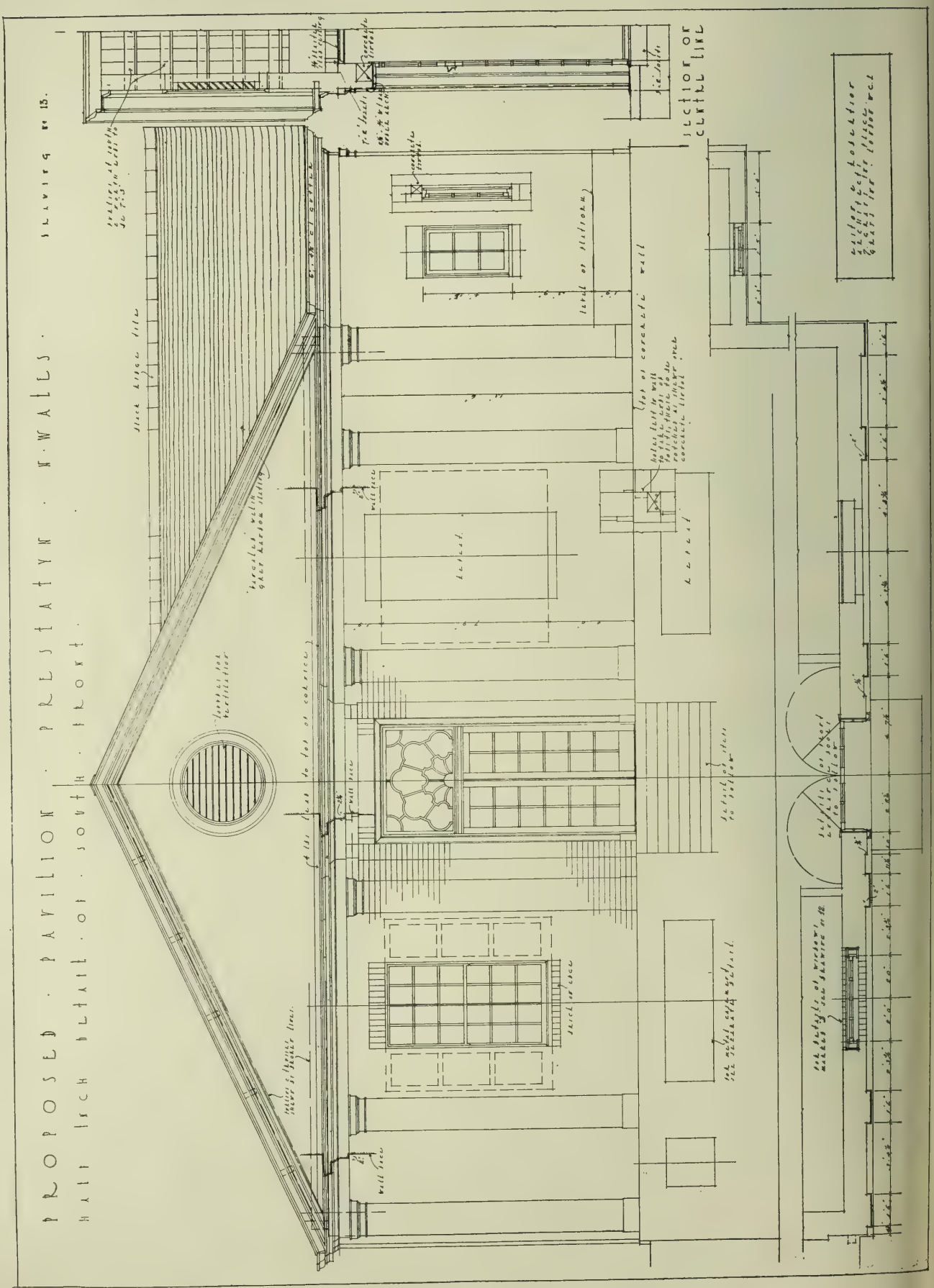
Design for a Hydropathic Establishment.

By Mr. Bruce Martin Flegg. (Awarded £100 and Gold Medal.) (*See p.* 451).



Bathing Pool and Pavilion, Prestatyn.

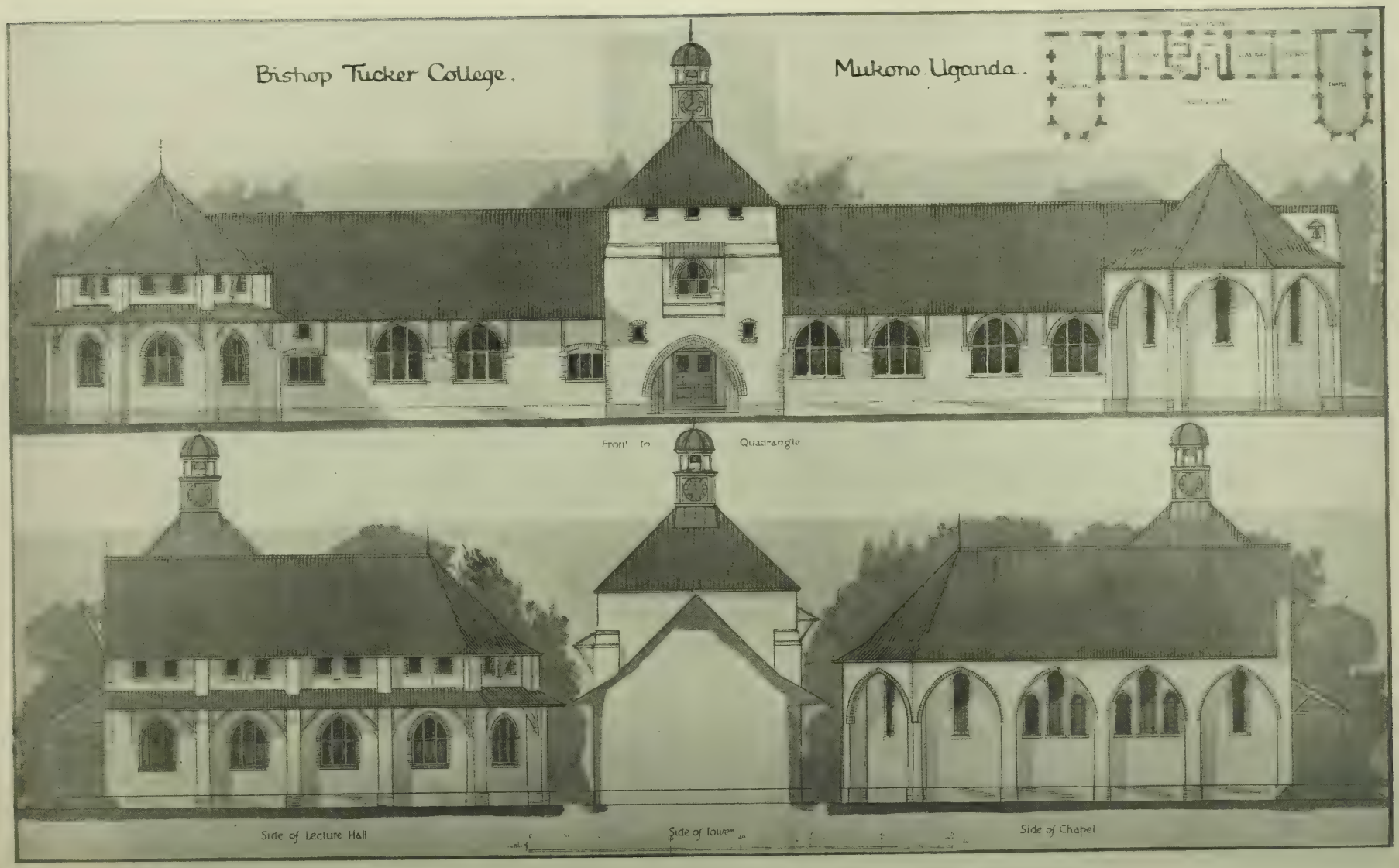
MESSRS. EASTON & ROBERTSON, Architects. (*See p.* 442).


PROPOSED · PAVILION · PRESTATYN · N·WALES ·
HALF INCH DETAIL · OF · SOUTH · FRONT ·
SECTION OF CENTRE LINE



R.A. EXHIBITION, 1923.

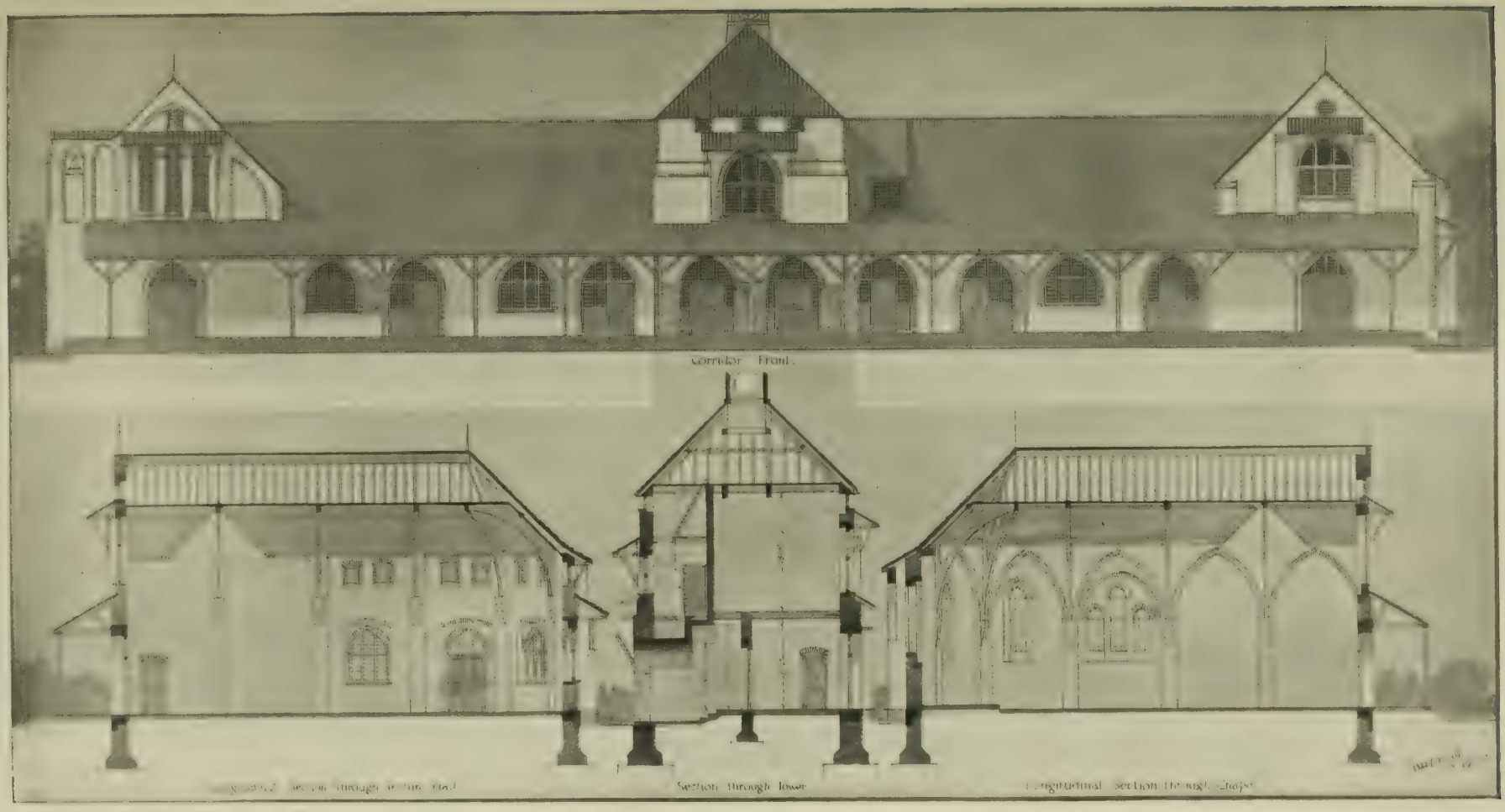
PAVILION AND BATHING POOL.



R.A. EXHIBITION, 1923.

BISHOP TUCKER MEMORIAL COLLEGE, MUKONO, UGANDA.

PROFESSOR BERESFORD PITE, F.R.I.B.A., Architect.



R.A. EXHIBITION, 1923.

BISHOP TUCKER MEMORIAL COLLEGE, MUKONO, UGANDA.

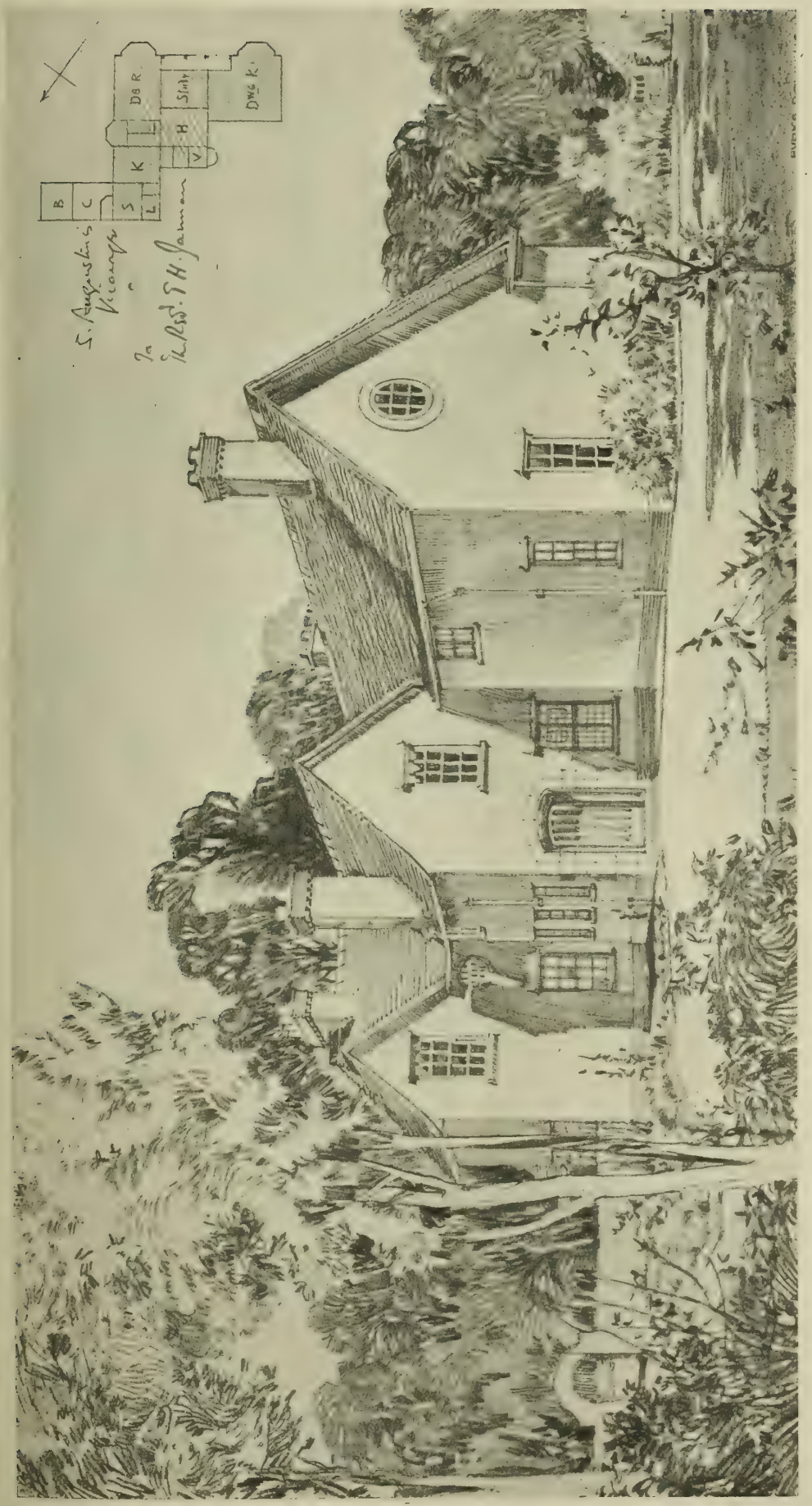
PROFESSOR BERESFORD PITE, F.R.I.B.A., Architect.



R.A. EXHIBITION, 1923.

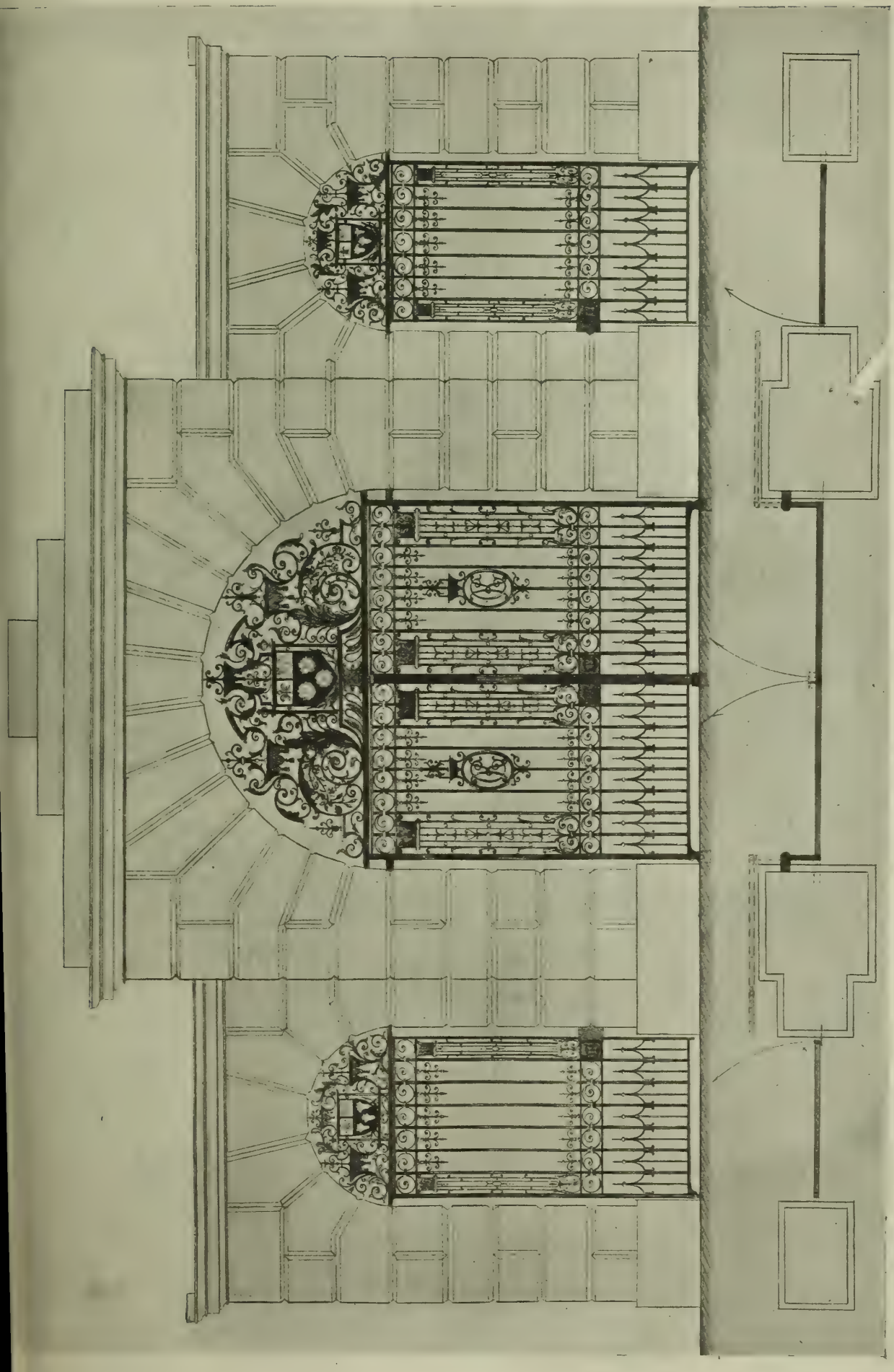
HOUSE, NORTH FORELAND, KENT.

Mr. Charles F. Skipper, Architect. (The plans of this house are given on page 442.)

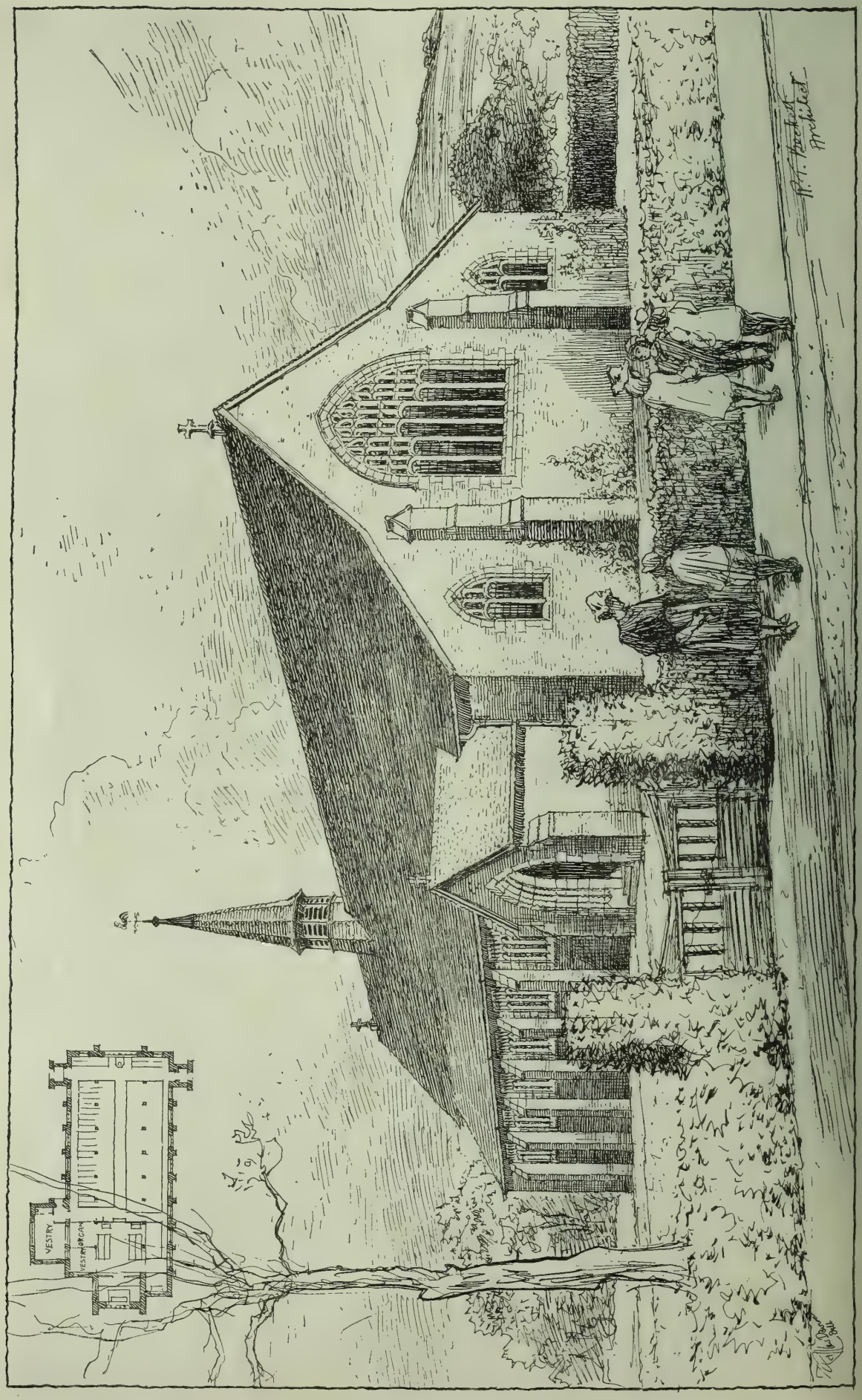


ST. AUGUSTINE'S VICARAGE, TOOTING BEC, SURREY.

Mr. H. P. Burke Downing, F.R.I.B.A., Architect.



Gates for King's College, Cambridge. First Prize Design. By Mr. A. W. Elwood. (*See p.* 451).



Church of St. Martin, Llay, Gresford. (*See p.* 442).
MR. R. T. BECKETT, Architect.

"WHITE'S"

Mr. Sydney Tatchell, F.R.I.B.A., Architect. (See p. 442).

THE DOME: ITS HISTORY AND CONSTRUCTION.—IV.

By SIDNEY TOY, F.S.A.

With the revival of Classic forms in Western Europe during the fifteenth century the building of domes received a fresh impulse. The dome over the crossing of the Cathedral of Florence, built 1420-61, is a masterpiece of scientific construction (Fig. 33). This dome springs from an octagonal drum, retains the octagonal form throughout, and rises rapidly on the curve of a pointed arch to an eye 19 ft. wide. The eye is not allowed to remain open, as at the Pantheon at Rome, but is covered by a lantern, an arrangement which was extensively followed in later Renaissance buildings. The base of the dome, to a height of about 10 ft. above the springing line, is composed of solid masonry, about 14 ft. thick. Above this the structure is divided into two shells by a space of 4 ft. for the first 15 ft., and of 6 ft. for the whole of the distance beyond; throughout this greater portion the inner shell is 6 ft. thick, and the outer 3 ft. at the base, diminishing to 2 ft. at the crown. The lower parts of the shells, to a height of about 40 ft. from the base, are built of masonry, while the remainder is of brick. These shells are connected by solid stone ribs, one at each angle of the octagon, 9 ft. thick at the bottom, diminishing to 2 ft. at the top, and two between the angles, about 5 ft. thick at the bottom and 1 ft. 7 in. at the top. The ribs extend through the full thickness of the dome, and are connected at intervals by cross arches, as in Fig. 34, which shows one face of the dome with the upper shell removed. Two stone galleries running round between the shells assist considerably in consolidating the structure, which is further secured by iron girdle chains, embedded in the masonry 14 ft. above the springing line, and a heavy chestnut girdle, strongly fished at the junctions, placed about 28 ft. above the springing line. In this dome an attempt is made to overcome the effect of lateral thrust within the perimeter of the dome itself, and that object is largely accomplished by giving the structure a beehive form and by the insertion of girdle ties at the levels where the thrusts are most severe.

The dome of St. Peter's, Rome, built during the latter half of the sixteenth century, is also surmounted by a lantern, and is composed of two brick shells connected by solid stone ribs (Figs. 35 and 36). The base of this dome is circular, and the shells are nearly hemi-spherical in form. The space between the shells is not of uniform width, as at Florence, but increases during the ascent from 2 ft. 6 in. to about 8 ft. Equally spaced round the dome are sixteen stone ribs, which extend across the space and through the full thickness of both shells, and have a thickness of about 9 ft. at the bottom, diminishing by offsets to 3 ft. at the top. There are no cross arches between the ribs,

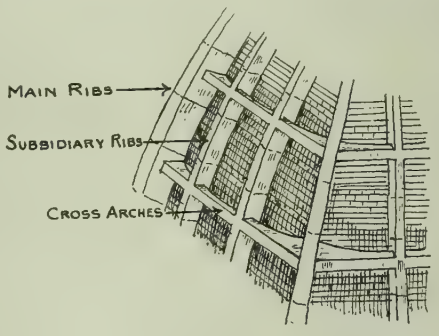


Fig. 34.

as at Florence. At the haunches, where the lateral thrust would be most severe, three iron chain girdles were embedded during the progress of the work. The lateral thrusts are here deflected vertically in the dome itself by the arrangement of the two shells, the upper shell having its axis raised con ably above that of the lower. The t are also met by sixteen heavy buttr placed round the drum in positions sponding to the great ribs of the (Fig. 36), and are restrained by the girdles mentioned above. That the des defective and the precautions taken i cient to secure the safety of the struct evidenced by the fact that in 1742, 150 years after its erection, very s cracks were discovered to have develop the dome, and six other chains, one a base of the drum and five at various h in the dome itself, were subsequently to strengthen the work.

The architects of this later period those of the Middle Ages, endeavour solve the problem of securing both in and external effect, and a development i direction occurs in the largest of th domes over the church of S. Maria Salute, Venice, built 1631-56. Here the consists of two distinct parts, the lowe



Fig. 36.—St. Peter's, Rome.

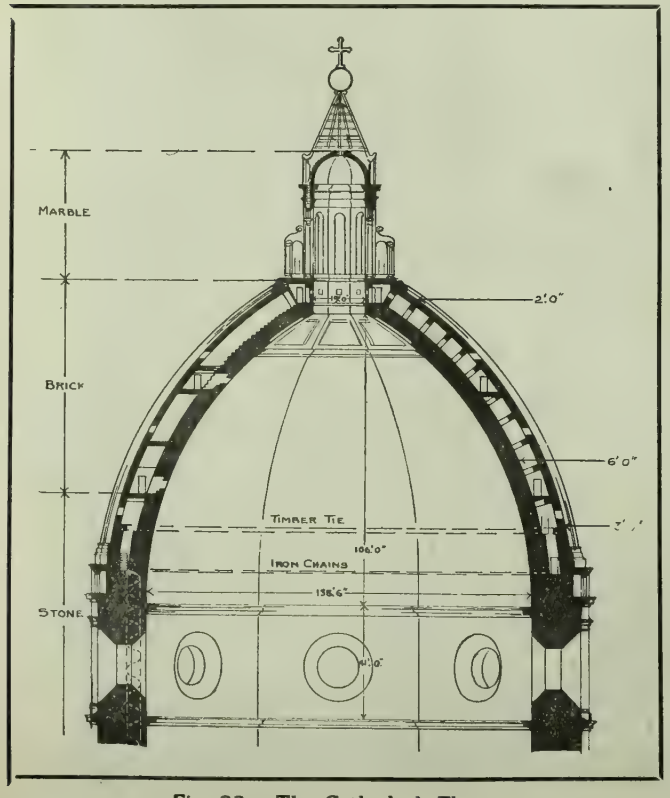


Fig. 33.—The Cathedral, Florence.

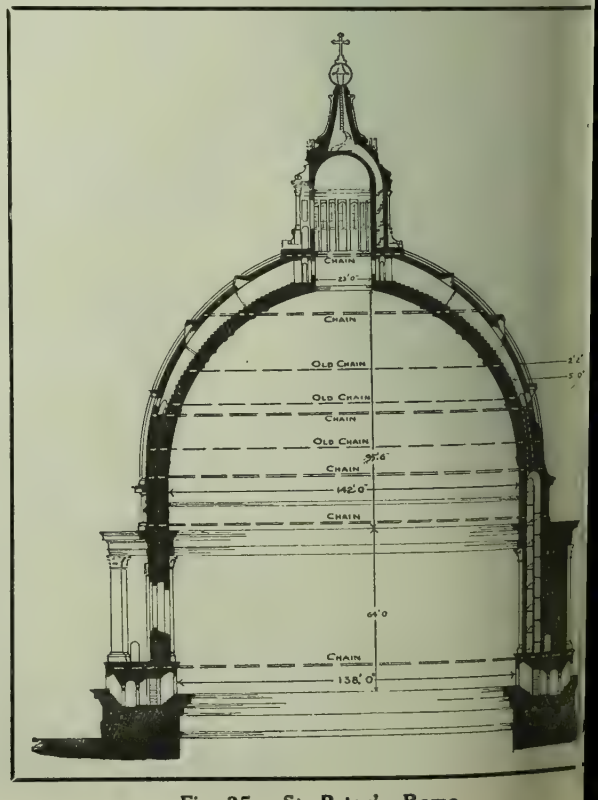


Fig. 35.—St. Peter's, Rome.

hich is exposed to the church, being ctural member, while the upper part, y from the exterior, is built of timber- The outer cupola is raised considerably ie other, and thus, while the external ice is greatly enhanced, effective pro- s afforded to the dome proper.

ome of St. Paul's Cathedral, London 7), erected about 1700, is built on a ndrical drum which inclines inwards es, and is supported over an octagonal eight piers with round arches and ves. A peristyle, raised on a lofty encircles the drum, and is connected by thirty-two buttresses. This not vides the vertical pressure requisite t the lateral thrust of the drum itself, adds considerable dignity to the effect of the whole structure. From of the drum spring two shells, one, a slightly elliptical form and an eye rown, being the cupola exposed to the while the other is a conical structure om the haunches of the cupola and ng a stone lantern at its apex. The f the cone, with its decorations, is en from the interior of the church the eye of the cupola. Both these e of brickwork, 1 ft. 6 in. thick, but ring from a base of Portland stone, is embedded a strong double iron nd six bands of stone, each contain- ron chain, engirdle the cone at various in its height. The base of the cone cted with an attic wall, surmounting m, by thirty-two stone buttresses, ft. thick, and upon these buttresses stone corbels in the cone itself rests er framework of an external cupola, covered with oak boarding and lead. e is lighted by windows which pierce its crown and the summit of the cupola, and are so constructed as to

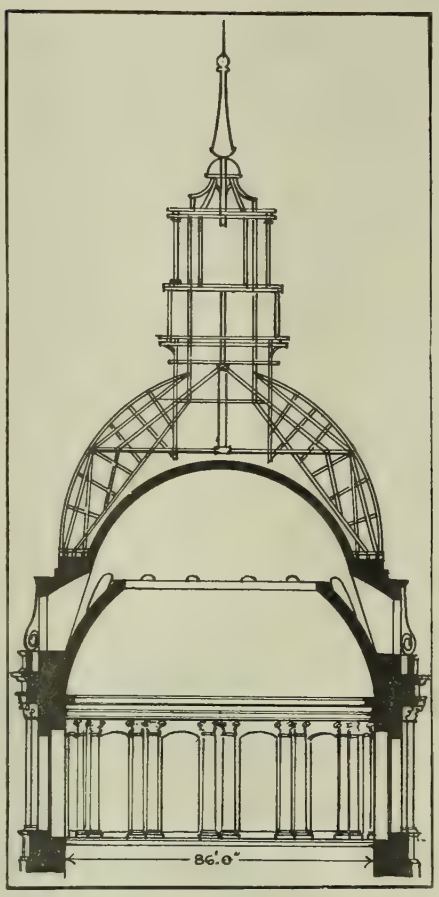


Fig 38 —Dôme des Invalides, Paris.

leave the contour of the cupola unbroken and to be obscured from observation from the street level. The space between the cone and the external cupola is lighted by elliptical holes in the cone.

The scientific manner in which the lateral thrusts are here received and deflected in a vertical direction by the use of the smallest amount of material places this dome among the most skilfully built structures in existence. The thrusts of the lower cupola are received at its haunches—where they are most severe—by the combined weight of the cone with the lantern it supports and of the external cupola, the latter resting on the cone and the cross buttresses at its base. The cone itself is rendered rigid by the chain ties engirdling it and by the weight of the external cupola on its outer surface. Tendency to spread at the haunches is further resisted by a strong double iron chain and by the buttresses surrounding the drum; while the drum itself, in order to receive the deflected but not quite vertical pressure, inclines inwards as it rises. The surrounding peristyle finally neutralises the lateral thrust.

The dome over the Dôme des Invalides, Paris, built in 1706, is composed of three distinct parts (Figs. 38 and 39). The lowest shell is entirely open at the crown, and simply forms a screen for the windows surrounding the drum of a secondary dome. The whole crown of the latter is thus exposed to the interior, and the paintings by which it is embellished are flooded with light by windows, themselves obscured. The third shell is of timberwork covered with lead. At the Pantheon, Paris, built 1775, the dome consists of three distinct shells, all built of stone. The lowest shell is exposed to the interior and has a large eye, through which the paintings on the intermediate shell can be seen, the paintings themselves being lighted

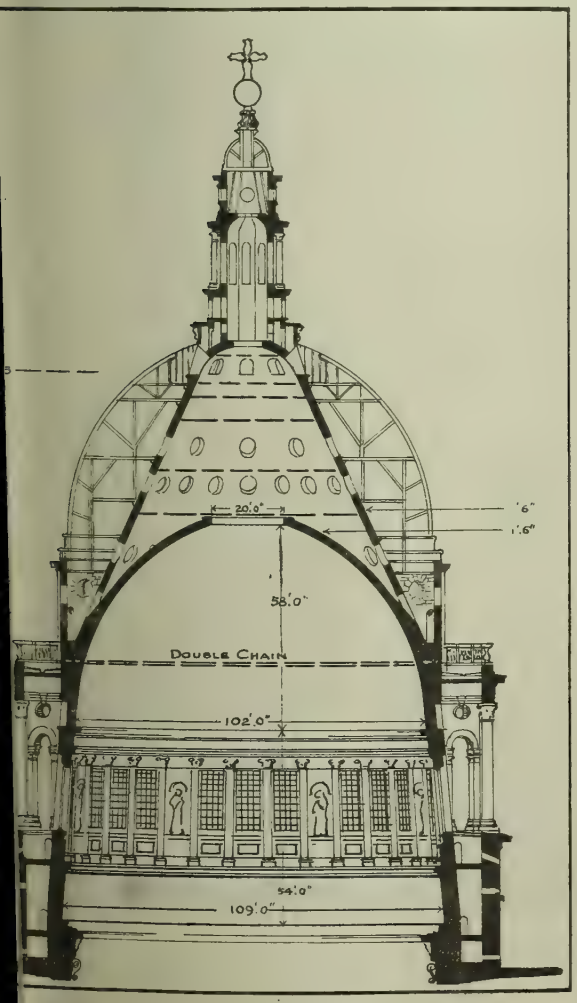


Fig. 37.—St. Paul's, London.



Fig. 39.—Dôme des Invalides, Paris.

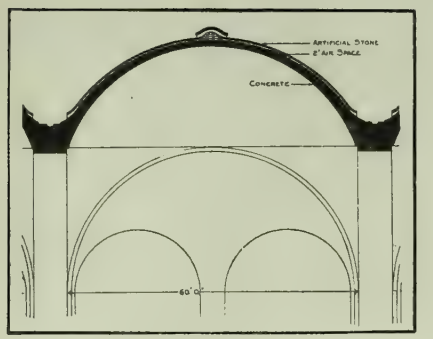


Fig. 40.

by a secondary drum. The outer shell is carried on this secondary drum, and is held firm by a stone lantern, the lantern itself being supported mainly on the intermediate shell.

It is obvious from the above analysis that the construction of domes in brick or stone was a work requiring considerable skill and involving great expense. Timber used alone was unsuitable for large domes on account of the heavy scantlings necessary and its great liability to destruction by fire, but the experiment was made in 1783 at the Halle au Blé, Paris, where the central space, 135 ft. diameter, was covered by a timber dome. This structure was burnt down in 1802, and replaced nine years later by a dome of cast and wrought iron framework. From this period iron, steel, concrete, and reinforced concrete have been used extensively for this work. The dome of St. Isaac's Cathedral, Petrograd, built about 1850, is constructed entirely of iron on a design similar to that of St. Paul's, London. Here the cone and lower dome are composed of heavy cast iron stanchions, and the whole structure is ponderous and crude. The dome over the Capitol at Washington, finished 1873, is also based on that of St. Paul's, and is of cast and wrought iron, but in this case lattice girders are employed, and the work is executed with considerable scientific skill. In 1855 the reading-room of the British Museum, 140 ft. diameter, was covered by a dome of brickwork with iron ribs. Two air spaces are provided, one between the dome and the external copper covering, to modify the effect of the difference between the external and internal temperatures; and the other between the dome and an internal ceiling, to provide a chamber for the extraction of the vitiated air.

At present concrete, either in a pure state or reinforced by steel, is much used in dome construction. The low cupolas over the nave of the Roman Catholic Cathedral, Westminster (Fig. 40), are composed of concrete, 3 ft. thick at the base, diminishing to 1 ft. 1 in. at the crown. They are protected from extremes of temperature by a thin external covering of artificial stone, with an air space of 2 in. between the covering and the concrete, the covering being supported on ribs. These cupolas, which have an internal diameter of 60 ft. and a rise of 22 ft., were constructed on timber centering built up from the ground. One of the most prominent examples of recent years from a constructive standpoint is the dome over the Central Hall at Westminster. This is composed of two shells. The lower shell, a saucer-shaped cupola 80 ft. diameter closed at the crown, is of reinforced concrete. The outer dome, rising at a much greater height from a plan almost square in shape but with chamfered corners, is built of light steel framework, with boarded surfaces and lead covering.

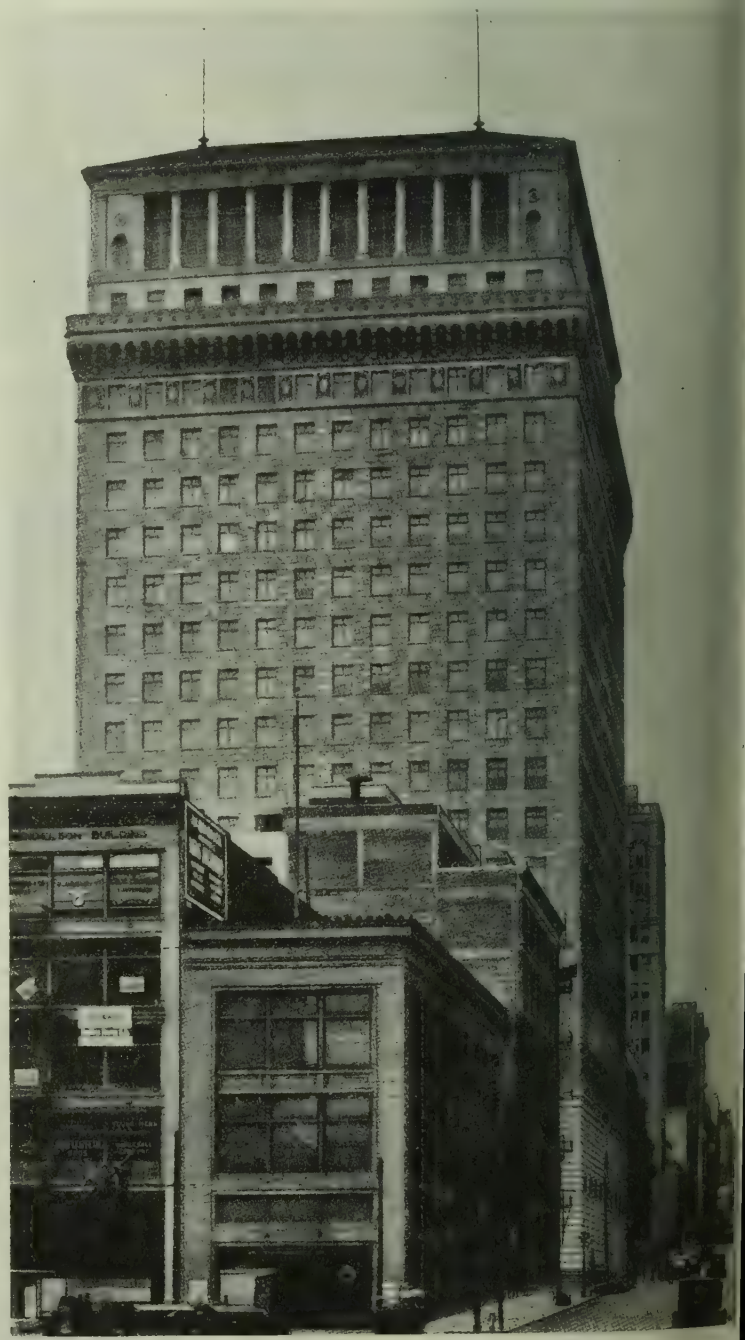
Many of the problems of dome construction with which the builders in all ages were faced still await satisfactory solution. The use of concrete, or even of ferro-concrete, is not modern, though the development of the latter on more scientific principles is a great step in advance; but the all-important problem of acoustics remains yet unsolved, while the attainment at once of good external and internal effect has been only partial. Though such domes as those of St. Peter's, Rome, and St. Paul's, London, have greater dignity when seen from without, no product of the Renaissance or of modern times has reached, or even approached, the exquisite beauty of the dome of St. Sophia at Constantinople as seen from within.

THE MALVERN HILLS.

THE Hon. Secretary of the Malvern Field Club, in a letter to *The Times* on September 15, called attention to the quarrying operations being carried out on the Malvern Hills and the damage resulting, particularly on the Worcestershire side, and stated that the attention club and the Malvern Geographical Soci been directed to a paragraph on the which appeared in *The Times* of the 11th

In *The Builder* for May 22, 1909, w attention to this subject in connection action brought by the Conservators Malvern Hills against the Lady of the and her lessee to restrain defendants fr figuring the hills by quarrying operatio the action failed, as it was held that th been no breach of the conditions impo Act of Parliament and a sufficiency of had been left to the commoners and the ants were acting within their rights.

The disfigurement of the hills, wh Malvern's chief asset, is now certain marked, and we can understand the named societies being concerned abo future. Our present object is merely t the attention of those concerned to the li which took place in 1909.



From the *American Architect.*

Building for the Standard Oil Co. of California, San Francisco.

MR. GEORGE W. KELHAM, Architect.

XHIBITION NOTES.

CHE VICTORY SCHOLARSHIP.

problem set in the final competition for tory Scholarship of the Society of Archi- sent in August 27) was a hydropathic hment set on high ground overlooking y in which are medical springs. There be a main building, an administration g for manager and senior staff, a pump nd a garage. The lower portion of the s was to be used for grottoes, tea rooms, d paths were to be arranged with easy ts for invalids and bath chairs. The nodation was to be provided for sixty male ty female patients, with dressing and treat- ooms in convenient proximity; recreation, on and reading rooms common to all, the first floor residential accommodation nursing staff. The competition drawings view on the first floor of the Society's g in Bedford-square. The Victory rship is of the value of £100 and carries a gold medal. The money must be used ancing the professional education of the in a manner to be approved by the jury. ompetitor who deposits a complete and ed design will be paid five pounds and a voucher of exemption in the subject nitectural composition and design for ciety's examination in architecture and ion to the First Atelier of Architecture. response to the competition has been one. Some of the drawings are excellent ity. The problem is obviously best solved designs of the winner, (No. 124), and 5, 135 and 130. We are glad to note the and sensible treatment of the designs to we have referred. Whether such a scheme would be wholly acceptable to the manage- f a hydropathic establishment we cannot t the plans show good appreciation of the n. In the design No. 135 the provision of is a good feature. The winning design interesting and effective central feature, e whole scheme is dealt with in a broad nsible fashion. The author of No. 130 is to mended for his careful working out of features. This competition should have in showing what can be done in a subject kind for a pleasing result without any overloading of features or ornament. as we may wish to see tradition and style overboard, it is satisfactory to see ts whose aim is to produce simple, sensible ent of masses and details without an on of "style" in orders or details. In spect such a competition as the above is aging and hopeful.

Students' Designs.

Exhibitions of Exemption Designs are this week. Those at the A.A. are designs ted by students exempted from the Inter- e Examination of the R.I.B.A. Until Wednesday the designs which exempt s from the Final Examination (with the on of Professional Practice) are exhibited University of London Bartlett School of cture in Gower-street. The A.A., the ol University, the Glasgow School of cture, and the Robert Gordon Technical at Aberdeen are represented.

e London University three galleries are to the exhibition of the students' —on the ground and two upper floors. gst the first and second classes of the ctural Association is a good scheme for a establishment by Mr. G. Jellicoe. In h year work Mr. G. Crickmay has a ious design for a Repertory Theatre and lesigned bathing establishment. In the ear first class Mr. C. Hyslop has some oloured designs of a seaside bathing ment with a very telling and effectively l elevational treatment.

e Liverpool University section Mr. E. a collection containing some excellent ncluding a bridge, lakeside restaurant, &c. Mr. H. Hirst is best in his Kursaal design. In his Document Warehouse Mr. D. Brooke shows some commendable quality. Mr. Raafat's Mosque design shows considerable ability. A large amount of careful labour is seen in Mr. C. Hutton's Repertory Theatre drawings. None of the designs can be said to be distinguished in any special sense, but are most noticeable for their care and effort.

The Glasgow School of Architecture contributes some designs of which the best are the façade of a Royal Palace and a clever set of drawings for Municipal Buildings by Mr. J. C. Coia, and a Parliament House by Mr. J. Fergusson (better in its design than its presentation). Mr. T. Scott Sutherland (Aberdeen School of Architecture) is at his best in a Cinema design for a triangular site.

At the A.A. Galleries are some excellent drawings (from the Liverpool University) of a Lakeside Swimming Club by Messrs. N. A. Norbury, F.G. Fairhurst, Richard W. Briggs, and Elsie Rogers. A cinema and café by W. H. Owen; a theological college by J. Willis. Amongst a number of designs for market halls and designs for buildings round a circus one of the best is for the former subject by Sheelah A. Wilkinson.

The design for a Town Church by Geo. L. Walls (Edinburgh School of Art) shows decided promise in its large and simple handling.

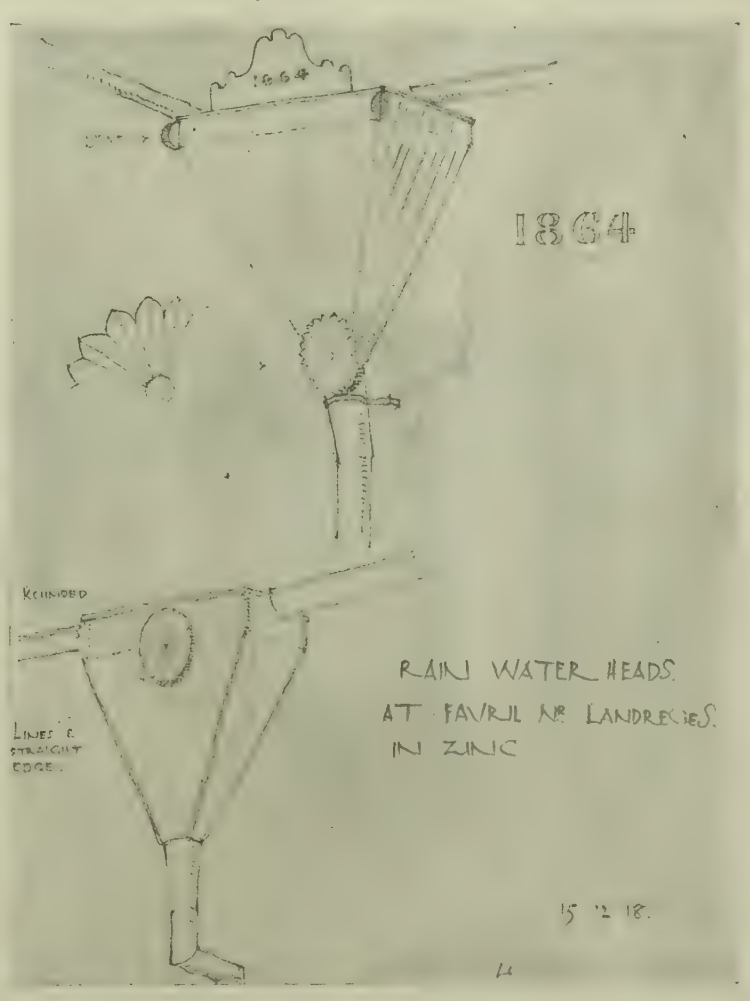
From the Cardiff Technical College come some quite good drawings by L. Monroe and W. Thomas. A good sense of scale is seen in a Royal Naval College by Jas. Dowson (Aberdeen School). There are two or three subjects from the Cambridge University, Justin Vulliamy, and N. Pourlinson.

Very good drawings appear from F. P. Green, Leonard J. Young and another (A.A. School). The Modern Church designs are promising by A. G. Brodie, A Maxwell Allen, &c. An excellent set of line drawings are those for a workshop by S. D. W. Timmins (A.A. School). Some good pencil drawings by R. Courtney Theobold, C. W. Eve and M. A. Susson are sent from the London University.

Looking back over the exhibition referred to above we note a lack of freshness or spontaneity which we might look for if the students took a more real interest in their work. The standard which is allowed to pass design through for exemption is certainly not a high one.

Design for Gates at King's College, Cambridge.

This design (see p. 445) was awarded first prize in a recent competition, in which there were 28 competitors. The gates are to be presented to the College by Sir Charles Walston, who has been a Fellow of the College for more than 40 years, who, feeling that "paper-designing" was ineffective, and that each design should be organically connected with the purpose and structure of what it was meant to decorate, and especially with the material in which it was to be executed, and that the designer should be the craftsman, offered prizes for designs for the gates. The first prize was awarded to Mr. A. W. Elwood, M.I.S.I., art metal worker, of 119, Denmark-road, Camberwell, S.E.5, who is now making these gates; the second to Mr. S. Bowman, and the third to Mr. F. Adam. The designs submitted in the competition were judged by Sir C. Harcourt Smith, Mr. Watts (of the Department of Metal Work at the Victoria and Albert Museum), Mr. F. V. Burridge (of the L.C.C. Central School of Arts and Crafts), and the College Gates Committee, consisting of the Provost, Mr. Corbett, Sir Charles Walston, Mr. Shepherd, and Mr. Milner White.



FROM SKETCHES BY MR. STANLEY J. WEARING, A.R.I.B.A.

A HAPPY FAMILY.

WE have received the following communication from Mr. T. Sumner Smith, F.S.I.:—

The contents of *The Builder* for August 3 make excellent reading about those engaged in controlling and governing the building industry. But this reading gives one a disturbed and uncomfortable feeling. This particular issue seems to create this atmosphere, beginning with the leading article on "Noblesse Oblige," and ending with the paragraph "Architects and Builders," on page 194. Practically everything in this issue would seem to be in contradiction to the spirit of its leading article.

Is there something sadly amiss with those engaged in the building industry or are they merely trying to seek higher principles? Has our conduct been such, or is it such, that we require "codes" and the like to bring us to a frame of mind for truth and honourable dealing? "We should all like to feel," so you say in your leading article, "that the practice of architecture is altogether in the hands of those who reverence truth and fair dealing." Does this not imply that it has not been so in the past, nor is so to-day, and that the tendency but for this code would seem to be against it being so in the future. And is it not borne out by your statement: "The evolution of fine art should surely be of less importance to us than the true and honourable way in which we carry out our obligations. . . ."

The scramble for an existence, in which fees and profits are the goal, may tend to make us neglectful or careless of the consideration for others. Yet at heart all may be in agreement and admire: "The architect whose great aim is to leave behind him some impress of beauty in his buildings, whilst adding to the convenience and comfort of life. . . ."

In a general way the latter is not a sentiment in which the architect stands alone, but the opportunity to many for expressing it is unfortunately rare. How blest, then, the architect is that he may be able to do these things, fortunate in his calling or chosen profession, because, without doubt, they must add to his pleasures and interests in life. But should the work be its *only* reward, like the rest of humanity, the architect must live, and to live he must be remunerated for his work in the form of fees. These fees should be such as to enable him not only to live but also to enable him to achieve his aim and object. No reasonable being could take exception to this; rather he must approve and appreciate, for may he not as well as the rest of humanity benefit thereby? It might properly be argued and maintained that no one, whatever his abilities may be, ought to practise architecture who is not imbued with this desirable sentiment. Perhaps there may be some who might claim that this is not so much a sentiment as a vital necessity, for by its absence the architect may do incalculable harm. Proportionate to his power is his opportunity of doing good or evil. Which shall it be? But with that we need not dwell.

A point, however, of import is this: Is there an unwritten law that an architect should not practise architecture for a living, but rather practise art for its own sake? In my humble view, if this is so, then it is entirely wrong. To be a capable architect, or have the capacity or inclination to engage in architecture, it does not follow that one needs be blessed with any great amount of worldly possessions, but to undertake work for less than the usual and recognised fee, even when by the plausible excuse of practising art for art's sake, is an injustice to one's fellow-practitioners, and may be the means of keeping back a more capable but less fortunately placed person; probably may result in a great loss to the community. Ability should receive every assistance and help possible, and not be held in check and kept back. There is not a superabundance of this that we need waste it. Therefore, it is to be regretted that a code of professional conduct became necessary to curb and control those at the top as well as those at the bottom, and that no other means were devised—and perhaps more effectual—to achieve that object. However, it may be, as you say, "if we are to have a stable and secure civilisation we must set up laws and enforce obedience to them." Anyhow, we must have architecture, and if we are to have that we must keep an open door, admit all and sundry, no matter from what station of life they spring, so long as they conform to the rules and regulations laid down and approved of by the majority.

From a perusal of the article on "Building Examinations," by Mr. W. J. Stone, M.R.S.I., we may learn that the Institute of Builders are seeking to make a close profession in building by restrictive examinations, the spirit of which is totally at variance with their own principles: Competition, Enterprise, Industry. We must have builders, not necessarily contractors, but builders of the right kind to execute architectural works, and it does not follow that the sons and relatives of the present master builders will, of necessity, make the best builders of the future. Mr. Stone says, and rightly, that "Bookkeeping and accountancy are no doubt important, but not more so than the efficient training of craftsmen." Then he goes on to say, "In all too many cases the small profit is due to lack of scientific organisation and method." No bookkeeping and accountancy, however good, would remedy that.

The financial side of building to-day is probably too much overstressed by builders, and too little is made of the efficient training of craftsmen. As regards the latter, I am not here referring to the kind of "workmanship art" so forcibly put forward by Professor Lethaby as a means of restoring our sanity in building. The problems in building are more than proper bookkeeping and accountancy. "The object of true education," making use of Professor Lethaby's phrase in the same issue, "should be directed towards the manner by which these problems may be solved, which are, according to him, "so fully conditioned by data, facts, materials, and economics."

This question of commercialism—profit arising from building—is well exemplified by your paragraph on the "Standardisation of Buildings," on page 162 of the same issue, and the subsequent paragraph: "Levelling Down," which, taken together, may be taken to mean that, inasmuch as true craftsmanship has suffered by commercialism, the architect will be the next to suffer by absorption in the commercial house, taking his instructions "to design" to pattern. Quoting again Professor Lethaby: "Building is high activity, experiment, adventure, invention." It is possible to conceive that in the near future the architect may take little or no part in this — when "Henry Fords" take seriously to the business.

I would draw attention to page 182, a paper read by Mr. F. H. A. Hardcastle on the "Work of the Quantity Surveyor," which I deduce as being a comparison, say, between the "Crinoline and Bobbed Hair" periods in quantity surveying. However, there are, in addition to this, other points of interest, for, according to him: "The whole process of setting on foot a building enterprise . . . furnished an example of what they knew in physics as 'accelerated velocity.'" He tells us that architects are harassed in having to prepare the drawings quickly, the surveyor—well, having to work late hours at the office, and the estimator working overtime in the "Tube." Why is this—and for what? All for fees and profit? General Housing Memorandum (No. 64), with regard to fees payable to quantity surveyors in private practice for work—for reference, see page 183, Code of Professional Conduct. V, Noblesse Oblige, in which the chief prize awarded is fees. Bookkeeping and accountancy stands for profit. quixotic position created by the Ponty (Mon.) Master Builders' Association decli to tender for work as a consequence of a tectural work having been done at a red rate by someone not a member of the (a tectural) profession.

As a comparison with this "acceler velocity," let us examine the point mad Mr. Hardcastle in another sphere of the fessions. "When the solicitors on both had furnished their leisurely operations the land was conveyed . . ." Singul that on page 170, you give reviews of books on "The Law of Property Act, 19 which comes in operation on the first da January, 1925. Three years to mast their own class of work. Time eno surely, to write treatises on the subject, ever complicated, which may even then b us with its complications. Leisurely! is a word well worth noting. It took abo similar time to prepare the Standard Meas ment of Building Works, and are we n nearer? Mr. Hardcastle tells us that it received the approval of the Royal Insti of British Architects. That must be new the majority of the brethren of the pr sions. Why, then, the delay? Is the "snag" somewhere? Let us read on: remains to be proved whether there woul found in the trade sufficient solidarity public spirit to enforce its general app tion." The next flood may lift us clea the obstacle.

Building is high activity, experiment, ad ture, invention: There are two schools one, architects, surveyors and builders; in other, speculative builders, specialists, the like in building. The latter have, wi recent years, made vast inroads, and very much like swamping the former in near future; anyhow, they are the only who are really busy to-day and making gress. Is not the answer to all this t found in what Professor Lethaby says on 178: "I think an early step would joining up with builders, engineers, and c men in the common objective of refoundi human manner of building. What I sl really like would be a School of Building mon to the lot." Verily we are "A H Family."

The late Mr. Augustus W. Tanner.

MR. R. STEPHEN AYLING, F.R.I.B.A., ha the following notes on the late Mr. A Tanner:—The death of Mr. Augustus W. Ta occurred on August 4. Mr. Tanner, at the of his decease, had reached the age of 80 only retired from active professional work years ago. He was the oldest Associate o R.I.B.A. register, having been elected in

After serving his articles with Mr. Gil Craven-street, Strand, he entered the offi the late George Edmund Street, R.A., and as one of his principal assistants durin erection of the Law Courts. He after entered into partnership with Mr. Rom Walker, and, under the name of Rom Walker & Tanner, carried on private pr until 1896.

In 1883 he was appointed District Sur for Hatcham, under the Metropolitan Boa Works, and in 1896 for Rotherhithe, pa Camberwell, Hatcham, and St. George's-i East, under the L.C.C., when the acceptan this office rendered it necessary for hi dissolve partnership with Mr. Romaine-W He was again reappointed by the L.C. the district of St. George's-in-the-East in and retained that position until 1921.

Having acted as District Surveyor for thirty-eight years, he naturally had a knowledge of the old Building Act and its amendments. He had a keen sense of ju and in his official capacity held an equal ba between the letter and spirit of the law picturesque personality, quick to ange equally quick to forgive, an indefatigable w and a really good fellow has gone to his earned rest.

DEESIDE REGIONAL PLANNING.*

The area included in this scheme comprises, ghly, the shelving coastal strip forming the thern shore of the Dee estuary, and extends n Chester on the south-east to the Point of on the north-west. The district is at ent somewhat of an industrial derelict, and Dee estuary is so much silted up that, with ain reservations, it is a negligible factor the future industrial development of the ghbourhood. The main artery of com- nication through the district is, of course, London Midland and Scottish Railway line ch, running to Holyhead, follows the coast whole way from Chester to Bangor, while same strip of level coast land takes the main d which is by no means of uniform efficiency. Halkyn quarries, situated about three miles nd from the town of Flint, form at present principal industrial centre, and it appears there exist in the Halkyn mountain deposits ead and zinc unique in this country. In r to provide access to and from these rries and mines a Mid-Flintshire Railway roposed, possibly to connect Wrexham and d with the coast line near Holywell, and it ointed out that such a line would help to elop the uplands west of Connah's Quay, ch are at present isolated. In connection Holywell it is interesting to recall the essful fight that was waged some twenty s ago in Parliament, whereby the output St. Winifred's Well was preserved from erground tapping, which would have ruined industries that had established themselves g the resulting stream—industries that still t.

he only town of real importance embraced this scheme is Chester, and we note with faction that it is not regarded as desirable ttempt its conversion into a commercial re, not only because it is in the widest ests of the city that its amenities should preserved, but also because its situation is ited to its commercial development. Chester is, of course, one of England's Roman towns, and the old Roman cross road centre still enjoys its original importance; in fact, it has now to carry the traffic poured in by no less than ten radial roads. As a remedy for the resulting congestion, it is proposed to form a ring road almost entirely outside the city boundary to take the heavy traffic that has no reason to stop in Chester, and whose presence in the streets is not desired by the city authorities. Further relief to the town is recommended in the form of a new road connecting Ellesmere Port and Queensferry Road which would probably pass Ledsham Station.

In order to facilitate coastal traffic along the Dee, it is suggested that a by-pass road should be constructed to branch off below Saltney, near the Chester ring road, and connect direct with the coastal road beyond Connah's Quay, leaving the latter, Queensferry, and Sandycroft on the north, and Hawarden on the south.

An interesting account is given of the mediæval and static town of Flint, which was laid out on town-planning lines by Edward I; its peculiarity is that the streets all run in one direction, there being only one cross road—that is still used as the main road along the coast. The region is singularly rich in pre-historic remains, earthworks and castles, and this volume includes a map showing their situations.

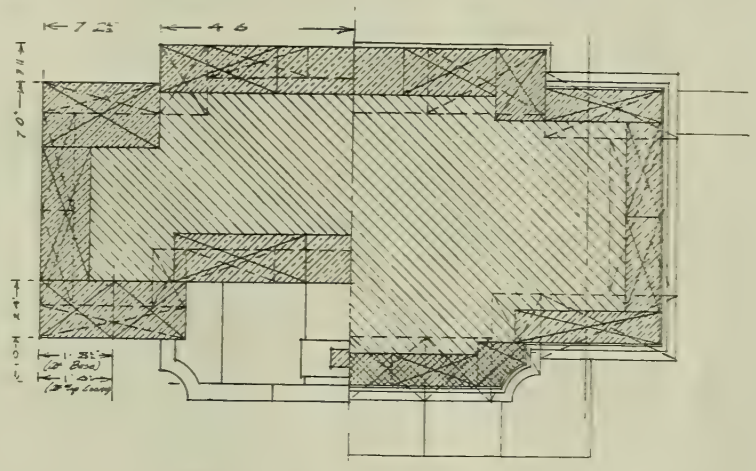
It is suggested that housing areas should be limited to the land lying above the 50 ft. contour line, heavy trades being restricted to a strip along the River Dee, with the single exception of a small area running up from the coast towards Holywell.

No less than nine local authorities are concerned with this scheme, and although the region may not be one that lends itself to dramatic proposals, it should certainly be capable of enjoying increasing prosperity as it gets more fully organised and developed. The Report itself is attractively produced.

* The Deeside Regional Planning Scheme (Chester Flintshire)." The Report prepared for the Joint mittee of Local Authorities by Patrick Aber- ibie, Sydney Kelly, and Theodore Fyfe. don: Hodder & Stoughton, Ltd.)

A WAYSIDE SHRINE.

This shrine, which will commemorate the victims of an Irish ambush, is to be erected in Connacht on the roadside close to the spot of the ambush. The architect is Mr. Gabriel Porte, of Belfast. A local limestone will be used for the monument, the base and altar being Irish granite. The cross will also be in limestone with a lead inlay.



A Wayside Shrine, Connacht: Half Plans.



A Wayside Shrine, Connacht, Ireland. Mr. Gabriel Porte, Architect.

BOOK REVIEWS.

Canterbury Cathedral. By S. A. WARNER, M.A. (Oxon). (London: Society for Promoting Christian Knowledge.) Price 7s. 6d.

Mr. Warner's handbook on Canterbury Cathedral belongs to that class of works upon architecture in which the artistic and constructional value of the buildings under discussion are examined side by side with the purpose for which they were erected. Some notes on life within the monastery originally attached to the cathedral add very considerably to the interest of the building and give the reader an opportunity of realising the functions of a religious establishment as a centre of civilisation and culture in days when other fashions prevailed and education, as we understand it, was by no means general. A brief account of the more important among the long line of archbishops also helps to illuminate the political significance of the archbishopric both at home and abroad, since the history of Canterbury is concerned with the dealings of the English Church with that of Rome, a connection that passed through many stages wavering between complete subservience and open revolt and final separation. Independence was a leading characteristic, however, and the authority of the Pope was generally acknowledged most devoutly when the Archbishop for the time being felt the need of a powerful ally in some struggle against the king and the representatives of civil as opposed to ecclesiastical law. The character of Thomas à Becket—or, as Mr. Warner amends the name, "Thomas Becket"—and the nature of his conflict with King Henry II is recapitulated in a manner calculated to explain the hold upon popular imagination exercised by this loyal and high-spirited son of the Church.

In important particulars Canterbury Cathedral is Becket's Cathedral. The eastern termination of the building is a rounded structure generally known as Becket's Crown, and of the remaining fragments of ancient glass in the windows some of the best both in colour and in historic interest are those which illustrate the miracles performed near the shrine of the great English saint. Most eloquent of all, the worn kneeling places in the old paving stones before the miracle windows testify to the extraordinary charm exercised by a steadfast man in an age of anarchy, and the appeal of his tragic death.

Both the life of the community and the architecture of the buildings centre about the monastic waterworks introduced by Prior Wilbert in 1160, and Mr. Warner's account of the scheme serves to connect the two parts of his book. The author agrees with many other writers in attributing a lack of personal cleanliness to the people of England in Norman and mediæval times, and his remarks on the Canterbury water supply might be taken as pointing to an exceptionally favoured state of things at that monastery. The remains of extensive waterworks lately discovered in excavations at Rievaulx and Melrose Abbeys point to the fact that cleanliness and sanitation were probably in quite as forward a state as in Southern Europe to-day. The rule that now holds good also applied then, and people who happened to like to be clean generally found the means to be so.

The description of the architecture and fittings of the church is clear and is illustrated with plans and photographs and by reproductions of the author's sketches in line. Professor Willis's monumental work on the "Architectural History of Canterbury Cathedral" is freely referred to and several of Willis's illustrations are republished in the book.

The Hoarding. By JOHN OWEN. (London: Hodder & Stoughton.) Price 7s. 6d. net.

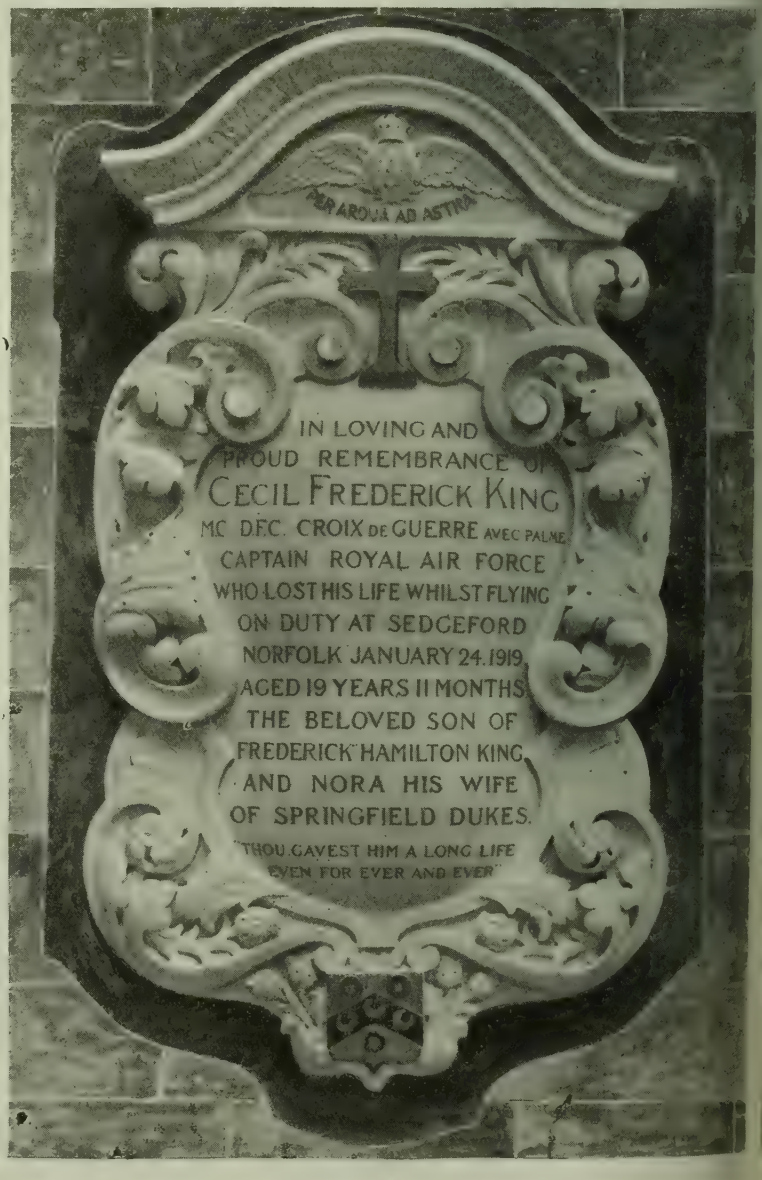
It is always entertaining to read a novel dealing with a commercial problem, and particularly so to those who feel that they have ideas on the subject. In this novel the author finds his setting in a world dedicated to commercial advertising, and his characters supply the arguments for and against the ethics of advertising. We have the whole case for advertising put forward by Boxrider, the publicity man, who knows what he wants and means to get it. The "Transatlantic argot" of the business man is subtly contrasted with the argot of the art world. Boxrider's creed was at least honest; nothing was too good for his work, and the picture on the hoarding must be a fair statement of the advertiser's claim. A picture might be good enough to hang in the Academy, but was it good enough to reproduce for the hoarding—the poor man's picture gallery?

The philosophy of advertising art, so far as we can gather it, seems to be that pictures of some sort are assumed to be necessary on the hoardings, and that being so it is better for the minds and morals of the public that it should have the best pictures. We can never make out in this theory whether the art is incidental to the pills or soap which it advertises, or *vice-versa*, but it is at least something in this imperfect world that a part of the advertiser's motive is that if pictures must be seen on the hoardings it is a method (though a strange one) of bringing great art into the lives of many people. "The Hoarding" is a competent piece of work, written with care and insight. It deals with a modern business problem in a clever manner, with the lightness and interest which a novel should have. It is not too much to say that a novel of this na often achieves a result which is denied to philosophical refinements of the essay.

The Petrology of the Sedimentary Rocks. F. H. HATCH and R. H. RASTALL. (Lon George Allen & Unwin, Ltd.) 2nd edi 1923.

Those of our readers who are intereste petrology will probably be conversant with Hatch's book, published a great many years dealing with igneous rocks. Petrologists apt to give too much attention to this br of the subject, and the temptation is ob because such rocks lend themselves much b to microscopic work and distinctive mi investigation. From a practical standp however—and this mostly concerns us—the no doubt whatever that the sedimentary r are of far greater importance. Though the under review does not deal with the subje these rocks from the utilitarian standpoi Mr. Howe's recently published work on Geology of Building Stones, it must be rem bered that every practical outcome of sc must be the result of initial researches in the lay reader would regard as pure science

The book, of over 350 pages, and conta more than 50 illustrations, is divided into parts, the first giving a petrological accou the sedimentary deposits—which, of co

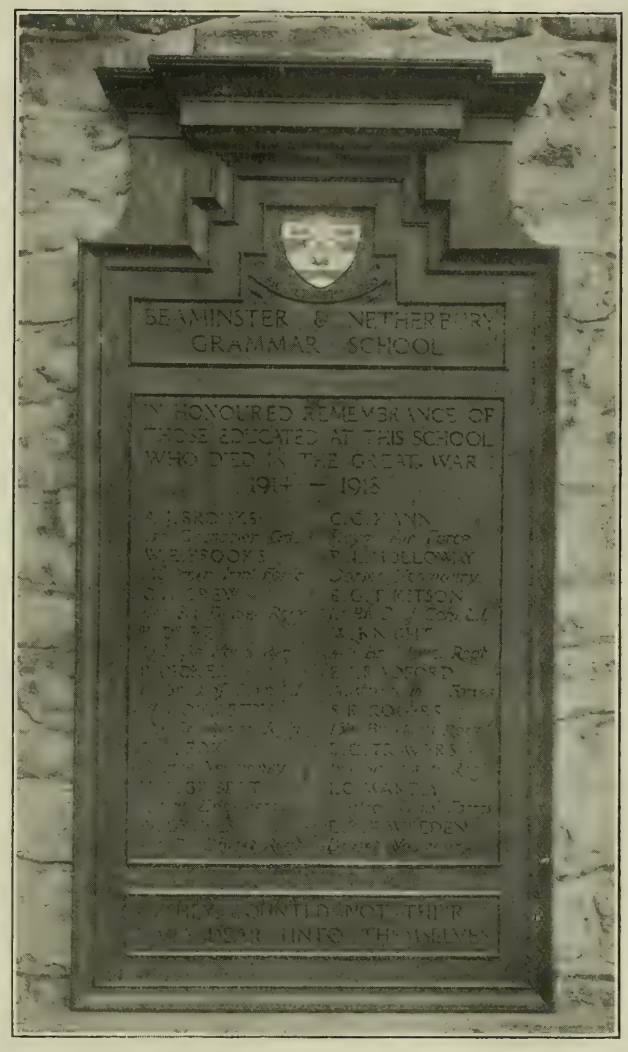


Statuary Marble Cartouche, at Springfield, Essex.
Designed by MR. MAURICE B. ADAMS, F.R.I.B.A. [Executed by Messrs. Farmer & Brind

de by far the most of our building stone—
me 150 pages; the second dealing with
morphic stones, using the term in its
t sense, and here the discussion on cement-
naterials has some bearing upon the dura-
of many stones in general use.
e work concludes with a useful chapter on
veathering of stones. The joint author,
Rastall, has had a long experience in the
mic aspects of geology at Cambridge,
the collections give every opportunity
etailed study. We commend this book to
terested in a subject which is very much
e forefront at the present time.

and Geodetic Surveying. By DAVID
CLARK. (London: Constable & Co.)
Volume 1, 26s.; Volume 2, 25s. net.

rveying is a general term for a large subject;
are many branches. What may be termed
ary land surveying, to prepare plans of
erty, is a comparatively simple matter
ared with geographical surveying, to pro-
a good map of a country for general pur-
. In the former the surface of the earth is
ed as a horizontal plane; the latter treats
urface as of spheroid form and calls for
tional care and accuracy. The two
nes prepared by Mr. Clark deal respectively
plane and geodetic surveying. The first
ne, containing ten chapters, gives a clear
ment of the more common surveying
ments and surveying operations. The
cts of chain surveying, theodolite and
ass traversing, ordinary levelling, plane
surveying and contouring are described as
ed to cadastral and engineering surveys.
e rapid work is desired, the plane table can
sed to advantage to fill in survey details.
ffice work of computing areas and volumes
es attention. Earthwork tables are obtain-
and facilitate calculation.
e chapter on setting-out work is well worth
, covering as it does methods of setting out
us curves, including cases where point of
section of tangent is inaccessible. A very
enient set of tangential angles and of angle
pliers for setting out curves is published,
ed on cards 3 in. by 1½ in. for placing on
heodolite when in use. The values given
e from 5 to 200 units as a radius. The
ers dealing with the principles and practice
acheometry for obtaining distances by
uring angle subtended by a certain known
on a rod, hydrographical surveying, includ-
arine surveying and stream measurement,
the ground thoroughly.
e second volume, of seven chapters, is con-
d with branches of higher surveying. In
tic surveying the primary object is to fix
ute positions on the earth's surface and
lish a system of widely-separated points.
surveyor then has to deal with problems
ng to the determination of time, true
ian, latitude and longitude. For an inde-
nt survey recourse must be had to astro-
al determinations; but if one side of an
ate triangulation can be taken as a base,
sufficient data of one side, astronomical
vations are not necessary. The principal
ods of taking astronomical observations
escribed, based on particulars given in
Nautical Almanac," which supplies the
necessary for the solution of problems in
astronomy. The precise measurements
ed include corrections for: curvature,
tion, parallax, local attraction, tempera-
ariations and the like, hence considerable
is given to survey adjustment and data
al corrections. Suitable types of theodo-
nd levels are illustrated and adjustment
ned. The chapters dealing with topo-
ical reconnaissance, photographic survey-
he use of which is limited, and map con-
ion give a clear presentation of essential
. The author lays no claim to originality
s endeavoured—not without success—to
he subject in a concise manner.
h volume is provided with a copious index
ts of illustrative numerical examples and
rs are given. References are given to
only accessible text books and papers on



Memorial at Beaminster Grammar School. MR. C. W. PIKE, A.R.I.B.A., Architect.

[This memorial is in teak, with the lettering incised and the arms of the founder (Francis Tucker, *circa* 1550) carved in flat relief on a raised shield, and painted in heraldic colours. The joinery and the carving were executed by Messrs. Shapland & Petter, Barnstaple.]

subjects treated in the text which should prove useful to readers requiring further information. As text books the volumes are suitable for students preparing for examinations necessitating knowledge of surveying, supplemented by field work and instrument manipulation.

Warming Buildings by Hot Water. By F. W. DYE. (London: E. & F. N. Spon.) Price 12s. net. Third edition. 1923.

Those who are familiar with the earlier editions of Mr. Dye's book will find a good many changes in the present volume. As in former editions, the subject is treated in a very simple and readable manner, making the book suitable for those who do not aspire to any special engineering or mathematical knowledge. Introductory chapters are followed by a description of various low-pressure piping systems, concluding with a short but useful account of calculating pipe sizes (chapter 9). Only 17 pages are devoted to the discussion of accelerated systems which, in a volume of nearly 300 pages, seems little for such an important development in the use of hot-water heating, and only a page in this chapter is assigned to mechanical propulsion. Various difficulties and questions of heat emission then bring us to the middle of the volume A chapter follows on ascertaining the heating surface necessary under various conditions, followed by an account of the difficult subject of testing with the author's interesting series of temperature ranges. Some 40 pages are given to descriptions of boilers, pipes and fittings, and the book concludes with an account of high pressure system and air-heating plants, followed by appendices of tabular data. We think that this new edition should maintain the popularity of the author's work.

Industrial Organisation: Developments and Prospects. By JOHN LEE, M.A., M.Com.Sc. (London: Sir Isaac Pitman & Sons, Ltd.) Price 5s. net.

This book is based upon a series of lectures delivered at Cambridge University at the instance of the Board of Economics. It is practically a summary of various recent developments of industrial organisations throughout the world, and it may come as a surprise to many to realise the amount of attention which the problem has received, and how far we have progressed. The author states that it was not his object to build up any theory of industrial organisation; nevertheless, we like his conjectures, which appear to us to be reasonable and sound even if they are tentative. It would be a good thing for the country if everyone realised with the author that ". . . the one clear truth which was emphasised was that, just as political constitutions have evolved slowly and from simple to complex structures, so industrial constitutions must evolve."

Altogether this is an excellent book for everyone engaged in industry, and for those who take an academic interest in industrial organisation.

THE ROAD PROBLEM.*

Of the many questions of national importance with which we are confronted, one of the most urgent is that of the use of our roads and their construction and upkeep. The attention which has been given to the subject in recent years, and especially since the war, is some indication that public authorities and their engineers and surveyors, recognising the needs of the time and the increasing use of our highways and byways by mechanically propelled vehicles, are fully aware of their obligations to the public. The extraordinary development in the use—the improper use sometimes—of our roads by motor traffic, not only of the main roads but of roads of lesser importance, must have struck anyone whose mind goes back only a few years before the war, when beyond the push bicycle there was very little but horse-drawn traffic, and when the pedestrian was able to use the roads with far more safety than he does to-day, though, perhaps, because of the surface condition of most roads, with no greater pleasure. The attention given by road engineers to the construction of roads has, in a large measure, solved the dust and mud problem, but the war arrested the progress being made, and it is only within the last few years that it has been resumed and that such an advance has been made in the provision of roads constructed to satisfy all reasonable needs. To what use and to what extent not only the main but the subsidiary roads of the country are now used is known to most people, and the time has surely arrived when legislation is necessary to deal with their misuse by the heavier forms of locomotion. It is obvious that many roads are not suitable for the traffic which passes over them, and if this use is to be continued roads must be greatly improved to meet modern requirements. Until the advent of mechanical transport the roads that were constructed gave a reasonable measure of satisfaction under ordinary circumstances, especially as they were all the time being slowly improved, but any extraordinary use of them gave rise to serious complaint and often led to litigation; the gradual improvement which was all the time taking place would no doubt have satisfied most people but for the enormous increase in motor traffic, which converted what was a local to a national problem and completely revolutionised the methods of construction. To what extent the problem has altered is shown in the preface to the useful and instructive book before us, the second edition of which has just appeared:—

"Our acquaintance with modern traffic conditions has been comparatively brief, but it has been sufficient to show that the solution of the road problem is not to be found in improving or reconstructing roads on the old lines, but in the construction of a type of road more suited to the weight and speed of the traffic, and in the endeavour to find the ideal road the attention of engineers is now centred on the all-concrete road. So far back as 1906 it was realised in the United States that the new conditions called for something entirely different from the roads which were adequate before the advent of motor traffic, and the fact that 30,000 miles of all-concrete roads have been laid in the United States since that date is sufficient evidence that this type of road is not now a subject of experiment, but is accepted as the best, if not the only, road which will stand up to the heavy and fast vehicles of the present day. . . . Previous to 1912 there were, in the United Kingdom, no concrete roads as we understand them to-day.

* "Concrete Roads and Their Construction." Second edition. (London: Concrete Publications, Ltd., 4, Catherine Street, Aldwych, W.C. 2. Price 5s. net.)

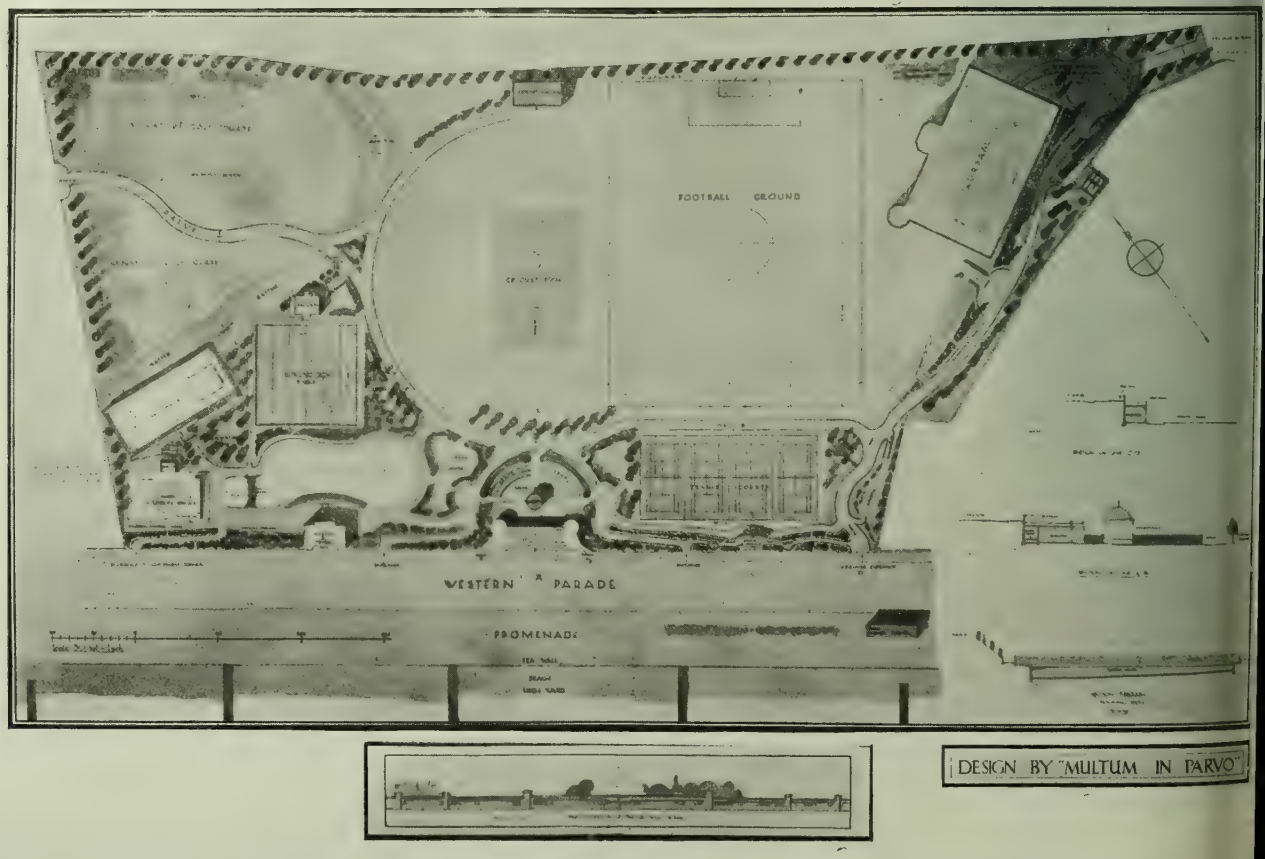
The number of roads laid year by ye summarised in the following table:—

Year.	No. of roads laid in each year.	Total up to end of ye
1912 ...	1 ...	1
1913 ...	0 ...	1
1914 ...	2 ...	3
1915 ...	3 ...	6
1916 ...	3 ...	9
1917 ...	3 ...	12
1918 ...	1 ...	13
1919 ...	12 ...	25
1920 ...	35 ...	60
1921 ...	48 ...	108
1922 ...	119 ...	227
June, 1923	54 ...	281

The book before us gives a descripti the concrete roads in the United Kingdo gether with a summary of the experien this form of construction gained in Aust Canada, New Zealand, and the United S of America. It is well arranged, and inc illustrations of many recently constructed crete roads, and a great deal of usefu formation with regard to their constru and the materials and mechanical device ployed. The work has been carefully e and compiled, and within its scope appea exhaust the subject.

Self-Supporting Houses at Northampto

The Northampton Housing Committee states *The Times*, succeeded in building h for workers since the Addison scheme discontinued which will cost the ratep nothing. There are three types of h costing from £309 to £415 each, and the h number 302. They are let at rents app mating to the pre-war rental of similar perty, and show an average direct loss per house per annum. But each pro £12 10s. in rates, so that the direct loss appears. Furthermore, the Government su of about £6 per annum will be received o of the houses.



Scheme for Lay-out of Recreation Ground, Western Parade, for Seaford Urban District Council. By MR. PHILIP SHUTER, Arch

[This design was awarded the first premium in a competition last year.]

SANITARY SURVEYS.

By ARTHUR H. DAVIS, F.S.I., F.I.San.E., M.R.San.I

FINITION.—By a sanitary survey is meant ie etymology of the words) an examination, ction, viewing, or "looking over," for the ses of health; or, to put it more tersely, amination of premises and their appur- ces for the purpose of ascertaining whether e so constructed and arranged that no ient to healthy and clean living is possible.

EDIMENTA.—Before starting on the survey ecessary to have the impedimenta, both al and technical, in order. In addition tebook, pencils, &c., a five-foot rule and e measure will be useful. As regards ical apparatus, if it is intended to test the (a very important part of a survey), gements must be made that the smoke- g machine, plugs, stopper-bags, rubber , &c., are on the spot.

THODS OF TESTING DRAINS.—There are l methods of testing drains, including the , olfactory, smoke, and compressed air but the writer is of opinion that for under- d drains the water test is the most efficient, hat the smoke test is best for vertical , the water test for the latter being quite essarily severe.*

THOD AND NOTE-TAKING.—In making a of this kind the surveyor should adopt nite method on which all similar surveys l be conducted so far as each case allows; er words, systemise the work and combine ıcy with speed. Further, if for any reason uld be necessary to produce the original in court or elsewhere a neat book shows l work. In addition, the drafting of the or preparation of any necessary specifi- s are vastly simplified.

N OF DRAINS.—An authentic plan of is an advantage, though not necessary. epare a rough plan on the spot is not, of , a difficult matter; the depths of inspec- nd disconnecting chambers to the invert annels should be measured.

E SURVEY.—It is usual to start from the e from roof downwards, and then to t the interior from top floor downwards.

SCRIPTION OF PREMISES.—First make a description of the premises, and state er detached, basement house, or otherwise, ss premises, &c., the materials used in the uction, and, if a house, the aspect.

TE OF REPAIR.—Next note state of repair, l, bad, or indifferent; and if there is any f settlement note if any and where.

FS (EAVES).—A roof with eaves gutters can pected from ground level. There should slipped or broken slates or tiles or ridge and the pointing and cement work to gy stacks and roof should be sound. It readily seen if the gutters and down- re faulty by the condition of the walls.

FS (PARAPET-GUTTERED).—With a para- ttered roof access is usually gained by ght or trap door. Walk all round roof. notes as to any defects to roof as in is paragraph. In addition, gutters should n and sound, and also the flats. Copper s should be placed at mouths of rain- downpipes and the soil vent pipe, and t walls should be in good repair. Make if any G.P.O. telegraph or telephone and wires. These are an unmitigated e in every way

IGHTS, &c.—The skylight or trap-door mework should next be inspected, as well ad, zinc, and glazed work and putties.

APPARENT DEFECTS TO ROOFS.—Any to roofs, &c., not apparent to the eye xternal inspection can at once be located the internal inspection of premises.

LS.—The walls should be next examined. ; to brickwork must be sound and joints note this particularly to reveals of doors dows. Should the surface of walls be rendered in cement this must be in order. If part of the walls is tiled or slated none of either must be broken, cracked, or missing. If walls are roughcast, carefully inspect. It more often than not hides inferior brickwork, and further it is no protection from the weather.

WOODWORK AND PAINTWORK.—Condition of all woodwork and paint should be noted, notice being taken if woodwork is defective through lack of it.

NON-BASEMENT HOUSES.—A non-basement house is all the better for a step up to enter; it is distinctly a disadvantage to be below the level of the road, especially on an incline.

PLINTHS, &c.—There should be a cement plinth about 9 in. up the wall from ground level, and also a concrete path floated in cement to falls to throw water away from the house. It is sometimes found that the cement at the junction of path and plinth is badly cracked, so that wet works its way in and defeats the object of their presence. There should be proper ventilation under floors, so look out for gratings or airbricks. It frequently is found that there is no through ventilation, owing to the fact that no air spaces have been left in the internal partition and sleeper walls. These air spaces are essential if a good through draught of fresh air is to be maintained.

FLOWER BEDS AGAINST WALLS.—A well-built house may be rendered damp in places by having flower beds right up against walls of house with no protection in the shape of cement work, tarring, or vertical slate courses. It is better still if the beds are not near walls.

BASEMENT HOUSES, DRY AREAS.—If there is a basement or semi-basement there should be a dry area all around the house; if there is one see that it is paved with impervious material, slopes away from the house, and is drained, and notice too if there is a cement plinth or three or four courses of damp-proof bricks. Should the area be narrow and closed in, note if properly ventilated by iron grating or perforated pavement light, with means of access to clean out. The earth on the far side must, of course, be supported by a retaining wall, which is best if faced with white glazed bricks. Weeps in these walls will usually be necessary.

SITE.—Do not omit, should the lowest floors be boarded ones, to have a board or two up in each room so as to ascertain whether the space thereunder is concreted, to prevent not only damp and air rising but also vermin breeding and getting into house.

MODEL AND LOCAL BY-LAWS.—Nowadays it is, of course, compulsory to concrete the whole site prior to the erection of a building under the local by-laws, but it must not be forgotten that there are an enormous number of buildings in existence which were erected before the Local Government Board (now the Ministry of Health) formulated in 1877 the "Model By-Laws," as they were empowered to do by the Public Health Act of 1875, and on which all the local councils' by-laws are based Previous to this, local authorities had certain lesser powers for making by-laws conferred on them by various Acts, but the Public Health Act, 1875, which applies to the country generally, was the sanitarians "Waterloo." London is, of course, governed by its own Acts, and the Metropolis Management Act of 1855 is the basis of its sanitary legislation. There are other subsequent Acts, the most important of which is the Public Health (London) Act, 1891. Local authorities are empowered under both Acts to make by-laws. It is interesting to note that under powers conferred by the Metropolis Management and Building Acts Amendment Act, 1878, a by-law was formulated which provides for the sites of all buildings being covered with 6 in. of concrete.

DRAIN TESTING.—During the time we have been inspecting the outside of the premises our assistants have been getting all ready for the testing of the drains. It is well to bear in mind that this testing is very important.

"INTERIOR VACUUM."—It may, however, not be out of place to remark that it is not advisable to set out on an expedition of this kind with (to put it nicely) a vacuum in one's interior, as to do so renders the surveyor far more susceptible to any ill effects likely to arise from smells.

UNDERGROUND DRAINS.—If the premises are occupied the occupants must be warned not to use apparatus until the test is completed. Then begin by testing the underground drains, the short lengths or branch drains to main drain first, and then all fittings, as the water from these will help to fill the main drain, which should be plugged at the outset and thus save time. If there are a large number of gullies and branches put a chalk mark against each as tested, so as to ensure none is missed.

AIR IN PIPES.—A piece of rubber piping must be inserted in each trap through the bend to the outlet side so that all air can escape, otherwise an air-lock will occur and the test will not be complete as the air remaining in the pipe will be under pressure, thus preventing the pipe becoming entirely filled. There are on the market specially-made patented traps (the "Ventest" yard gulley) having a removable screw vent hole at the top of the outlet side of the trap to prevent this air-lock when testing, but their use is not general.

F.A.I. AND FITTINGS.—Whilst the drains are being filled, carefully look round and see if F.A.I. is the same size as the drains, if the flap valve and grating are in order, and if all lavatory basins and sinks are disconnected from the drain and discharge into a gulley and have a puff pipe. The writer has found these discharging direct into manholes without puff pipes. By-laws under the Metropolis Management Act, 1855, say "Vent pipe not less than 4 in., but under By-law 6, under certain circumstances may be 3½ in. for a 4 in. drain; these are when soil pipes and waste pipes of slop sinks are used as outlet shafts.

GULLEYS.—Note carefully the position of down-pipes and gulleys. Especially look to see if any of the latter are in any cellar, larder, passage, or other floors. These can generally be sealed up as unnecessary, as their existence is usually forgotten, resulting in unsealing of trap and a danger and nuisance.

INSPECTING DRAINS WHEN FULL.—By this time the drains will be filled and ready for inspection. Note carefully the level of the water in each trap or manhole, and wait a few minutes to see if any subsidence and, if any, how much. If there is a subsidence make sure it is not because of a badly-fitting stopper or plug at outlet end.

HIDDEN I.C.'S.—Sometimes the I.C. at the inner end of the drains in a building cannot be found. It may be possible to locate this, if buried, by sounding with a stout stick the concrete floor near where it should be situated; it may obviate the necessity for digging. In old drainage systems I.C.'s are sometimes entirely absent.

TESTING SHORT LENGTHS.—When testing long lengths of drains, test only from manhole to manhole, and *not* in one length, also note construction of manhole, so as to allow for any absorption by bricks.

A "GOOD" DRAIN.—It may be well to note that because a drain stands the water test it is not necessarily a "good drain," because it may have too great or too little fall, or may be too large for its purpose.

VERTICAL DRAINS.—When all underground drains have been tested and the surveyor is satisfied with the results, take the smoke-testing machine and place it by the inspection chamber nearest the vertical pipes, and a ladder put up by the vent pipe, which must be blocked up, cotton waste being the usual material.

THE TEST.—A piece of cotton waste is put in the pump well of the machine and lighted; also, the short length of rubber tube from the pump is fastened to the nozzle of a drain plug and inserted in drain in I.C. The mouth of the V.P. must not, however, be blocked up until smoke issues therefrom, to ensure that the pipe is not blocked. The pump is then worked and the smoke forced into the pipe, but not so

* Public Health Acts Amendment Act, 1907 eals with the country at large), specially tor testing drains by smoke, and specifically testing by water.

vigorously as to force the trap seals by undue pressure, or the test will be useless. It will soon be seen by the action of the pump if the pipes are sound, but nevertheless an inspection of pipe joints and apparatus should be made. Make sure the jointing material of all iron pipes is lead.

One Building Originally Two.—It will sometimes be found that two premises originally quite separate have been altered so as to form one building. In this case it will be advisable to treat them as separate, and entirely finish one building before starting the other, or the notes may get muddled.

Completion of Tests.—On all tests being completed make sure that no plugs, stoppers, &c., have been left in the drains, and that all apparatus, &c., is at hand. Then seal down all I.C. covers, putty, white lead, and Russian tallow mixed being the best sealing material.

Inspection Chambers.—Notice the number of I.C.'s and their position, and if there is one at every end and at all changes of direction of drains, as this is an absolute necessity. The D.C. should be as near the sewer as reasonably possible.

Interior of I.C.—Whilst testing the drains, note construction of I.C.'s and D.C., and see that the sides above the channel pipes are well flaunched up in cement; these channel pipes must be semi-circular in section (white glazed are best) and laid on concrete.

Bends and Junctions.—See, too, that all bends (white glazed are best) come into the I.C. in the direction of flow, and that all changes of direction and junctions are made in an I.C.

Pipe Materials.—At the same time notice the drain pipes, as if not of iron they should be of glazed stoneware.

Intercepting Trap.—The I C. nearest the sewer or cesspool should have an intercepting trap. This "I.C." is always called a D.C. There are many kinds of intercepting traps; one kind has a patent back-pressure safety stopper, but the "Winsor" is usually considered the best. It may not be out of place to mention here the great discussions there have recently been on the usefulness or otherwise of this trap, and the Report of December 22, 1911, of the Departmental Committee to the Local Government Board on "Intercepting Traps in House Drains" is interesting. At all events the best-known experts have disagreed and taken entirely opposite views. Sufficient is it for us that nearly every local authority requires it. An intercepting trap was required originally by By-laws 5 and 6 formulated under the Metropolitan Management Act, 1855, but it was first used about 1876.

Combined Drains.—Another point before we leave drains is carefully to notice whether the drainage systems of any adjoining property or properties are connected with that under survey. Under such circumstances, whether it is or is not a sewer and repairable by the local authority is a question both of law and fact, each case being judged on its own merits. Of course, this is entirely apart from any question as to the advisability of having a sewer vested in a local authority on private property, to which the said authority would have access at all times for all purposes.

Definition of Drain under Public Health Act, 1875.—By Section 4, which repeals words of the earlier Act of 1848 (now repealed) "drain" is defined as meaning "any drain of, and used for the drainage of one building only or premises within the same curtilage, and made merely for the purpose of communicating therefrom with a cesspool or other like receptacle for drainage, or with a sewer into which the drainage of two or more buildings or premises occupied by different persons is conveyed. All other drains, except drains vested in, or under the control of a road authority, which is not also a local sanitary authority, are included in the term sewer."

Definition of Drain Under Section 250, Metropolis Management Act, 1855.—"The word drain shall mean and include any drain of and used for drainage of one building only, or premises within the same curtilage, and merely made for the purpose of communicating with a cesspool or other receptacle for drainage, or with a sewer into which the drainage of two or more buildings or premises occupied by different persons is conveyed, *and shall also include any drain for draining any group or block of houses by a combined operation under the order of any vestry or board.*"

The words in italics show the chief difference between the law in London and in the country.

An epitome of the above is as follows: When two or more premises drain into the same drain with the consent of the local authority it is a drain, but when without its knowledge and consent it is a sewer, and therefore repairable by the local authority. Also, even when a combined drain is joined into by any person and such connection is without the knowledge or consent of the local authority, it becomes a sewer from the point of junction.

Cause of Damage.—Finally, if the drains are found to be damaged, endeavour to ascertain the cause, so that the same error may not be made again. They may never have been properly laid at the outset, or may be damaged by the use of too new cement (burst sockets), faulty filling of trenches, or not properly bedding pipes on length (broken pipes) too near surface of road, or carried under a non-supported wall which has settled (crushed pipes), or other defects of workmanship.

Internal Inspection.—As regards the internal inspection of the premises, as before stated, it will at once be obvious on viewing the top floor rooms whether or not the roof is sound.

Trap-Door as Fire Escape.—If the roof has a trap-door note its utility for fire escape purposes, and the method of reaching it. There are several methods, the best being the trap-door which opens automatically by levers on the steps and lowered to floor level. Remember, too, that steps are better than ladders.

R.W. Troughs.—In some good-class parapet-guttered houses about fifty or sixty years old it will be found that rainwater from the front of the house is run right under the rafters in a box-like trough, zinc or lead-lined (usually zinc), which trough discharges into a rain-water down-pipe at the back of the house. Condemn this trough, as it is liable to blockage either at inlet or outlet, will overflow, and do considerable damage. Arrange that the rainwater from the front side of the roof is carried away down the front of house in 4 in. L.C.C. pattern cast-iron down-pipes with caulked lead joints and discharges over a gulley at foot.

Settlements.—Do not omit to look for any signs of settlement in going through a house. Notice particularly ceilings and junctions of walls, as well as window and door frames. Some of the defects are often very skilfully hidden to deceive a would-be purchaser.

Smoky Chimneys.—Notice if there are any smoky chimneys, as they probably can be remedied by one or other of the patent pots and cowls.

Cold-Water Storage Cistern.—Ascertain the position of the cold-water storage cistern, and note if it is readily accessible. Make sure the cover is airtight and that there is an overflow pipe carried to the outside wall and well clear of it. The expansion pipe of the hot-water system usually discharges over this cistern. Make sure, also, that there is a separate cistern for supplying sanitary fittings apart from the main domestic supply cistern.

Internal Repairs.—A note in general terms must, of course, be made as to the state of internal repair and decoration of the premises.

Attics.—The top rooms of large houses often have sloping ceilings, but do not describe them as a bedroom unless each has a proper window which opens; also if, as is very often the case, there is no chimney there should be other means of ventilation, such as a grating. In London, under the 1894 Building Act, a habitable room not in the roof must be 8 ft. 6 in. high. If the room is wholly or partially in the roof, the height must be 8 ft. throughout for not less than half the area of the room. There is no legislation as regards air space, but the minimum may be put as the minimum requirements per person for common lodging houses, viz., 400 cubic ft. per person. The Ministry of Health has now certain definite requirements which have to fulfilled if houses are being built in order obtain the subsidy.

Bedrooms.—All other bedrooms should ha fireplaces and good windows to ensure t proper amount of light and ventilation. Ta care that the vent pipe is nowhere near a windo but see that this is carried well up above the ro It is a growing fashion to have fitted lavato basins in bedrooms, but if properly trapped a ventilated and with an accessible overflow the should be no nuisance, although it would better if a bedroom were kept clear of su fittings, which in the writer's opinion are o of place there in a private house, althou perhaps permissible in an hotel.

Bathrooms.—In some houses the ba room adjoins and opens into the principal be room. If this be so, there should be also separate entrance from a landing. As regar the apartment itself, often a large sum is spe in tiling the floor and walls, or mosaic wo rubber tiling, &c., but all these, though ni tend to make the room cold in winter. The roo should be light and airy. In an ordinary ho it will suffice to advise for "Emdeca" rou walls, and, say, cork lino to floor, to preve stained walls and ceilings, and to see that t bath is unenclosed and stands in a lead trapp safe.

Baths.—As to the bath itself, condemn o which requires enamel painting, as it we away so quickly, especially as most people tu on the hot water first. An enamelled iron r edge bath on claw feet is quite sufficient for ordinary house.

Showers.—If there is a shower bath, have copper rose; also, if hot and cold, note if th is a mixing box, and also a waterproof sh to prevent splashing.

Lavatory Basins.—The lavatory bas which should be quite unenclosed, is best enamelled earthenware. Both this and bath should have removable combined stand waste and overflow (as these can be read removed, cleaned, and replaced) and scre down taps, and both lavatory basin and b should be trapped and ventilated even if o single fittings. Of course, if other fittings found which are good they cannot be condemn wholesale because they are not the most up- date, and to replace is more or less expens

W.C.—A w.c. is often fitted in a bathroo there is no objection to this if supplied wit riser, if the bathroom does not open into other room, and if there is at least one ot w.c. inside the house. No local authority allow any room fitted with w.c. to open i another room; it is strictly prohibited by by-laws.

H.-W. Tank.—In a great many houses hot-water tank is found in the bathroom, is often used as a linen-airing cupboard. is an old-fashioned method of heating wa and hot-water pipes can easily be taken thro a cupboard for the purpose of linen air This system will be referred to again later.

W.C.'s Situation.—The situation of w.c.'s is important, and it is extraordinar what insanitary places they are found, and what antiquated fittings. The writer has c across many in City and West End pren without any window or any means of ventila at all. One wall must be an outside wall a proper window, at least 2 ft. square (ha which opens), also an airbrick or ventil independent of window, as it is usually fo that the window is shut at the time it sh be open. If it is an outside w.c. and the is not of concrete, cement floated, condem The floor should have a slight fall to (the model by-laws lay down ½ in. to or 1 in 24), and in addition to any other ver tion the door should be cut short 3 in. and bottom.

Apparatus.—As regards apparatus, br condemn all short and long hoppers. "container," D trap, and pan are rarely with now, and are, of course, disallowed b model by-laws. Condemn also those kn as the "wash out" variety, *i.e.*, those in w the trap is in front of the pan. The appa should be of the wash-down type with pol

seat, and should stand in a lead safe floor is not tiled or otherwise impervious d. There should be a vent pipe on the side of the trap. A good w.c. pan should a water seal of about 2½ in. Of course, at the w.w.p. cistern is in order, and that ush pipe is not less than 1¼ in. in diameter . is better), and is properly connected to an. Valve closets are quite good, especially uses only used for part of the year, as is a double water seal to break before the atus becomes unsealed. A w.c. apparatus t un-enclosed—note this when inspecting. cularly note that the floor of a w.c. over der is impervious, also under the traps. riter knows of a case where a leaky trap, ected for some time, dripped down the of a larder below and a case of scarlet was attributed to this defect, it being ed that the milk became infected thereby.

USEMAID'S SINK.—Should there be a maid's sink it should be arranged as far as able on the same principles as a lavatory , and the outlet should discharge over a .

P SINK.—A slop sink, however, should ed as a w.c. and should discharge direct in. A w.w.p. cistern must be fitted over.

MP WALLS.—It may be found that the al walls are damp, particularly by win- If this be so, notice if the pointing to w reveals is sound, and that the stone ent sill is properly weathered and throated row off wet and prevent it running down It may be that repointing the whole of rickwork in cement may be all that is ed, but if the surveyor finds that the ness is caused by bad bricks or con- ion he should make a note, in case his decides to take the premises, of what is est remedy to get over defects; these f course depend on the class and locality se.

OORS.—Note if the floors are level and if unduly vibrate. The former can be cured firring up" the joists, the latter can be lessened by herring-bone strutting, stiffens and strengthens the floor.

OUND BASEMENT FLOORS.—The ground or basement (if there be one) of the ises should have careful attention. It lready been mentioned (under "Site") loors must be examined underneath to see perly concreted; a rotten floor at once ses absence of this, and of dampcourse. y work should be necessary under this t would be wise to advise a solid floor for ssages, cupboards, scullery, larder, pantry, its' w.c., etc., even if the kitchen floor ot so treated, as some persons object to a te floor there on account of coldness, gh a wood block floor would get over this.

CHEN.—If the kitchen is insufficiently l and ventilated, it will usually be possible to improve it. Carefully inspect all walls, rds and skirtings to see they are all and that there are no holes for vermin. e the range and the condition and make e. Next note the hot-water system.

-WATER SYSTEM.—If the H.-W.S. is not linder system, certainly advise that this talled if a practical test shows existing inadequate, as the cylinder system water quicker, and water is hotter than other method, there being so short a e from the boiler to cylinder to circulate. he capacity of the cylinder; it should too large, as the larger it is the longer takes to heat and the more fuel is used, a, of course, its capacity depends on mber of fittings in the premises. If y the system should be tested practi- nd the time the water takes to heat Coating the cylinder with asbestic helps to retain the heat.

ATE H.-W. HEATING.—In some houses be found that the hot-water system is separated from, or auxiliary to, the range; in fact, it is becoming quite n in good-class houses. In some cases, ted by gas, in some by a separate coal uch as the "O-Sho." The writer in- ne of these latter in a boys' club with great success. Frequently also water for baths is heated by a gas geyser, either solely or in conjunction with the kitchen range.

SAFETY VALVES.—Do not omit to notice the escape or steam pipe from the hot-water system, and at its highest point, which pipe is a safety valve, though sometimes in addition a weight safety valve is put over the kitchen mantel-shelf as an additional precaution, which is really quite a necessary one.

H. & C. WATER PIPES.—As regards H. & C. water pipes carried to upper floors, look round for the chase in the wall enclosed by a wood panel; this is really a necessity, otherwise if anything goes wrong a large amount of damage may be done to decorations in getting at the pipes.

SCULLERY.—The scullery is always near the kitchen. Condemn at once a stone sink as difficult to keep clean. Sinks may be, and often are, without a trap and screw eye, which is quite wrong. Both H. & C. supplies are necessary, and a draining board is useful. In a very large house a flush tank over the scullery sink is a great advantage to prevent blocking of the gulley by grease. One wall of the scullery must be an outside one on account of drainage and ventilation.

DRINKING WATER.—There should be at least one tap direct from the main for drinking and cooking purposes, and see that it is so labelled.

STOP-COCK.—Also see that the main stop-cock is labelled, so that it can easily be found in case of a burst pipe.

PANTRY.—The same remarks apply to the pantry as to the scullery, but the sink should be deeper.

LARDER.—The larder is often neglected. If the house is of any size, advise white tiled walls and slate slabs. See the ventilation is thorough, windows and door panels being covered with small-mesh stout metal screens, the door only being ventilated if the passage is airy.

SERVANTS' W.C.—The servants' W.C. should conform to the same principles as previously stated; they are, however, often found without windows and only a grating.

WALLS.—Walls of the basement should be noted as to repair and method of treatment, either tiled, painted, distempered, &c.

CELLARS.—Cellar doors should be short at the top or have holes bored in them so as to ventilate them and keep them dry.

COAL CELLARS.—Coal cellars behind kitchen ranges should be condemned, unless the walls are very thick. The writer knows of a case where lack of this precaution nearly caused a fire.

VENTILATION.—Carefully note ventilation, in basement houses especially. It is possible by enlarging existing windows or by judicious cutting into walls and making a new window or windows, &c., to make a vast improvement in ventilation and consequent dryness and freshness. In addition, the natural lighting will be improved, and this can be also assisted by glass panels in doors, &c.

DAMP AND DAMPCOURSE.—The lack of a dampcourse will at once be obvious on inspection of the ground or basement floor. The walls will be damp, the plaster broken away, the distemper blistered, or the paper bulgy and peeling

MATCH-LINED DADOES.—Be careful of a wall which has a match-lined dado, or is match-lined to ceiling. The match-lining is nailed to narrow battens, which, in turn, are fastened to wood plugs knocked into the wall. The object of this is to keep the wood away from dampness and thus to give an appearance of dryness to the room. If such a dado be found it is invariably a sign of dampness.

MATCH-LINED WALLS.—Be more careful still of a room wall which has been entirely match-boarded on the outside, and perhaps inside wall, too, and has then been papered. This is even more of a danger signal, and it is sometimes impossible to detect by the eye, especially when the skirting has been brought outside the boarding and there is a picture rail. A few sharp raps with the knuckles will, however, disclose the deception. A damp-proof course is an expensive item to put into an existing building, but that one is lacking must be reported on, both as to external and internal walls. The side of a wall which abuts directly to the earth should be carefully examined by digging away the earth to ascertain if there is a proper vertical dampcourse of, say, slates, or a 4½ in. wall with a cavity between it and main wall so that earth is kept away. See also that this hollow wall is taken above ground and the cavity properly protected by some impervious material.

DUSTBIN.—See that the dustbin is what is known as a "sanitary," circular in shape with tight-fitting lid, and that it stands in a shady position on a concrete base which slopes away from the house. Condemn a fixed dustbin, as it is impossible to empty properly, and part of the contents is dropped whilst it is being carried to the cart, whereas the circular bin can be carried intact to the cart. The model by-laws lay down that it must not exceed 2 cubic ft. in capacity. Where an ash-pit is used in common, not larger than one week's supply should be the limit of its capacity.

VENTILATION.—In an ordinary house no special provision for ventilation is necessary, except in exceptional cases, but if the surveyor sees in his tour of inspection that it can be improved anywhere he should note it in his report.

LIGHTING: NATURAL.—Natural light, *i.e.*, daylight, may be increased by additional windows, glass panels, or prism reflectors and pavement lights, especially the two last-mentioned in case of factory or business premises, and the surveyor should look out for this.

LIGHTING: ARTIFICIAL.—The artificial system of lighting in use should be noted, but beyond this it need not be considered here except to remark that from the sanitary point of view the incandescent system or electric light is the best as it does not in any way vitiate the air, which all other systems do to a more or less extent.

HEATING.—The heating arrangements should be commented on, whether coal stoves, gas, or radiators. Hot-water and steam pipes will not usually be found in ordinary houses, and need not be considered here, except to remark that under no circumstances must hot-water radiators be connected to ordinary domestic hot-water supply. Separate heating apparatus *must* be provided.

COAL.—In the writer's opinion, coal fires, in spite of the fact that they are somewhat wasteful of heat and create dust, are for ordinary houses the best, as they aid natural ventilation.

HEATING: GAS.—As regards gas, unless it is laid on the same principle as the coal fire it has the effect of drying up the moisture of the air and gives a stuffy heat which often creates drowsiness.

SMALL-CLASS PROPERTIES.

Small-class properties may perhaps be briefly dealt with. The general principles are the same as for large properties.

LIST OF DEFECTS.—In making an inspection it becomes necessary to make a list of defects, such as filthy ceilings, dirty and damaged walls, &c., and it will generally be found that the backs of the houses are in a far worse condition than the fronts.

LIST OF SANITARY DEFECTS AND SCHEDULE OF DILAPIDATIONS.—In any list of sanitary defects often a small portion only concerns the sanitary apparatus, therefore the list or schedule may become in fact an abbreviated schedule of dilapidations, so that a list of sanitary defects is a near relation to a schedule of dilapidations, only in a very much more general and abbreviated form.

HOUSING AND TOWN-PLANNING ACTS, 1909-1919.—It is perhaps proper just to mention that fine piece of legislature, the Housing and Town-Planning Act, 1909, as this has given local authorities amongst other things very greatly increased powers to inspect the artisan class of property, and to order a large amount of sanitary work to be done under penalty of a closing order if not complied with. The point that it is desired to emphasise is that these duties sometimes fall largely on the Medical Officer of Health, whose demands are often unreasonable,

as the writer can testify. There is also the later 1919 Act, which gives still greater powers to local authorities, some of whom, it is feared, are apt to abuse them by being one-sided in their attitude and in the application of the same.

SHOPS, &c.

It is surprising how badly some shops are ventilated and how inadequate is the w.c. accommodation.

W.C. ACCOMMODATION.—One example as to these will suffice. In a large shop and premises with three upper floors and ground floor shop with large workroom at rear there was only one w.c., and that in the shop and entirely closed in and unventilated.

IMPROVEMENT.—The writer, however, got over the difficulty by building two w.c.'s, both entered from the half-landings and carried on stanchions and girders. In this case, too, the skylight over the workshop was made to open in a suitable manner, and the fixed fanlights over the shop doors altered so as to drop inwards on to iron quadrant stays.

INSPECTING PRIOR TO TENANCY.—It is just as important to test drains of shops as it is of all other kinds of premises, otherwise the surveyor may be letting his clients in for trouble.

FACTORIES AND WORKSHOPS.—A building which is to be used as either a factory or workshop should be inspected on the principles as for other premises. It is not possible to say what the Factory Inspector's requirements are likely to be, each building having to be judged on its own merits, and the class of business to be carried on will, of course, affect this. The air space under the Factory Act, 1901, is: Ordinary working hours, per person 250 cu. ft.; Overtime, per person 400 cu. ft. It would be wise for the surveyor to approach the authorities with the information as to nature of the business proposed to be carried on, and the probable number and sex of employees, so that he may ascertain what their requirements are likely to be in the event of the premises being used by his client, if the building is, under the Factory and Workshops Act of 1907, what is termed an "old building," which in the case of a factory is one built before January 1, 1892, and in case of a workshop one built before January 1, 1896. Section 38 of the Public Health Act, 1891, deals with proper sanitary accommodation—nothing is stated in the Act as to the extent of the accommodation—apparently it is left to the sanitary authority to decide. Often the requirements of the "Sanitary Accommodation Order" of February 4, 1903 (of the Home Office), are taken as a basis. These are:—One sanitary convenience to every 25 females in all cases; one ditto for every 25 males of first 100 employed. For all above first 100 males, one w.c. for each 40. Where over 500 males, one w.c. for each 60. In the last two cases provided proper urinal accommodation is provided. It may be mentioned, however, that in this class of building the w.c. accommodation is often inadequate, and the bulk of what there is, is underground, and badly or entirely unventilated.

Also, there is frequently no proper provision for escape in case of fire, to roof or otherwise, and frequently there is no internal fireproof staircase or enclosure, with proper ingress and egress thereto as required by the Act. Briefly, then, the man who advises his client to take this class of premises without first conferring with the authorities as to their probable requirements, is possibly letting his client in for a great deal of trouble and expense.

POWERS OF LOCAL AUTHORITY TO ORDER WORK.—The local authority seem to be the sole judge as to what works are necessary in all cases of all kinds where they are called in. Of course, if the surveyor feels that their requirements are arbitrary he can always challenge them, and Court decisions show that the local authority is sometimes too overbearing.

COUNTRY PROPERTIES.

In surveying country properties certain points arise which do not usually occur in urban premises. These points are aspect, water supply, drainage of subsoil, sewage and refuse disposal, and lighting.

ASPECT.—The outlook of the principal living rooms should be noted.

WATER SUPPLY.—Note source of supply, whether from mains, well, or perhaps raised from a lower source by hydraulic ram. Observe the protection to source of supply, and it may in cases be necessary to have a sample of the supply analysed. The method of storage should be examined, also a provision made for storage in case of fire. This may be necessary even if the water is supplied by main, as there may not be sufficient pressure for the water to be sprayed from the fire hose to the top of the building.

SEWAGE DISPOSAL.—If there is no local sewerage system, sewage must, if the house be anything more than a cottage, be run into a cesspool or treated bacterially, and the latter system is undoubtedly preferable

CESSPOOL.—If a cesspool is used, carefully note its construction, as it must be sound. Briefly, the cesspool should conform to the following requirements: at least, 50 ft. from house; 60 ft. from well; constructed in 9 in. brickwork; cement rendered on inside and puddled with clay 9 ins. thick at back. It must be roofed over and have an F.A.I. and a manhole cover for inspection, and the cesspool must be in such a position that its contents may be removed without passing through any building. Condemn an overflow as an unmitigated nuisance. In London: 100 ft. from any well, domestic building or public building, or any building in which a person is employed in manufacture, trade or business.—(By-laws under P.H.A., 1891.)

RAINWATER.—Note how rainwater from the roof and paved surfaces is dealt with. In the case of a cesspool, drainage could be either run into a soakaway or into tanks. If the latter, it could be utilised for domestic purposes, such as laundry work, carriage or motor cleaning, &c., an important factor if water is obtained by other sources than a company's main, and even then it would make a large difference in cost.

BACTERIA BEDS.—The best thing to do here is to take samples of the effluent and send them to be analysed. If not satisfactory, the bacterial filter beds will probably be at fault, but the system should be examined by an expert on the bacterial treatment of sewage, who will be better able to advise how to remedy any defects. *Note.*—The usual custom is only to run over land, and therefore there is no need to analyse the effluent if discharged into a running stream.

DISPOSAL OF HOUSE REFUSE.—If the premises are large, advise for a small refuse destructor. This is the best, quickest and cleanest way of getting rid of rubbish. Residuary clinker could be used for gardens as foundation for paths, as could be unburnable materials like tins and broken bottles, or they could be buried.

DRAINAGE OF SUBSOIL.—The position of the house and its general dryness and nature of subsoil will determine whether the drainage of the subsoil will be necessary. Ascertain if clay subsoil, as this, if not drained, may cause settlements owing to the clay sliding. This is specially liable to happen on the side of a hill. A system of agricultural drains would have to be arranged for, so as to throw the water away from the house. If the house should be on the slope of a of clay subsoil, a more than ordinarily wid area must be arranged for.

EARTH CLOSETS.—The writer has not ha good fortune to make a report on a bui where earth closets are in vogue. They mus be passed, however, without a word. The struction of the closet should be as for a closet. There are several kinds of earth cl in use, but Moule's earth closet is considere best.

REPORT.—A word as to the report. surveyor has probably his own pet meth compiling a report, but whatever this ma it should be concise and uninvolved, and a jumble of words and sentences unspaced unparagraphed. A properly drawn up r will greatly help in the preparation of necessary specifications of alterations, re and decoration, and makes very much pleasant and easy reading.

Repairing Drains from Inside.

The following is a method of repairing u ground drains which obviates the necessit digging down, removing, and entirely rel existing drains, with the consequent lo time and inconvenience and expense. It is, of course, not applicable to every ca

Any pipe drain of whatever size can be watertight with a machine without takin ground flooring, tiling or mosaic paving. machine consists of two rubber rings on or metal discs working on a rod, which is solid or flexible, the latter to allow the ma to be used where there are bends in the From the inspection and/or disconnecting c bers at either end of drain a cord is p through the drain to which the machi attached, and it is worked backwards forwards until all interstices are filled up cement and the pipes are made sound. internal surface of the pipes is after cleaned with the machine, so that a sm surface is left inside, no cement protrudi cause stoppage, which stoppage may occ bad workmanship when drains are relaid i usual manner. If a looking glass were p at one end of the drain when finished a joints could be seen perfectly smooth as t they had been trowelled.

Should a branch drain be connected t main it is necessary to open at that poi the machine when passing the opening entirely seal it up. To avoid this a plun forced into the main every time the ma passes.

The *modus operandi* is as follows: The in surface of the drain is thoroughly cleanse disinfected with acid, and the machine ins semi-solid cement is then placed betwee discs, and the pressure exerted by the pulling it through the drain is sufficie force the cement into interstices as stated and make it watertight. The process of p the disc and cement through the drain is c out from both ends, and is continued unt obvious by the amount of cement left a certain number of operations, that all inte and spaces have been entirely filled.



New Residency for the Chief Commissioner of Ashanti, Coomassie.

This building is constructed of 9 in. concrete blocks. The contractors are the General Engineering and Construction Co., Ltd., of Tarquah.

THE BUILDING TRADE.

HE RENT ACTS: REASE OF RENT.

tried in the County Court at Folke- briefly reported in *The Times* for r 11; we could wish that the report extended as the case was stated to be ture of a test case on which other cases , and costs were awarded on the higher he defendant on the ground that diffi- novel points of law were involved.

ouse in question was one of several the Strood Rural Council in 1916, when een let to the defendant on a weekly at a rent of 6s. 9d., the Council paying . On December 10, 1920, the Council n a notice to increase the rent, and June, 1921, a similar notice had been t no notice to quit had been given in n with either of these notices to increase On January 31, 1923, the Council had e defendant notice to quit expiring on 12, and apparently subsequently a ice to increase the rent had been given 20.

port does not state how the notices of were made up or how far they had ever ed upon, but from the report of the t it appears some question as to rates ve been raised, as this passage occurs: lmitted transfer of the burden of the the tenant not being accompanied by ion in rent was therefore invalid, and e to increase was, in the judge's opinion,

laintiffs appear to have been claiming re were 29 weeks' rent due at 7s. 5d. The defendants counterclaimed for 10½d. rent paid in excess. The Court to have held that the first two notices sleading and inaccurate, and refused d them; that all three notices to the rent were invalid; and to have gment for the defendants for £9 7s. 10d. counterclaim, the deduction from the laim being made up of the standard s. 9d. a week in arrear from December 11. ase is difficult to follow on this brief The first two notices to increase the ld, of course, be bad in the absence of o quit, as at that time this was essential e decision Kerr *v.* Bryde. (See *The* November 17, 1922, and January 26, The notice to quit given on January 31, uld not operate to make these former f increase regular (see Peizer *v.* Feder- *Builder*, December 16, 1921), for the f increase would bear a wrong date. l notice of increase given five months date of the notice to quit might in ircumstances be good; the report is fic enough to enable us to say what efect in it, but the figures indicate that all period, if any, could be in question notice became operative.

be useful in the abstract, and quite n this case, to consider how the Notices e Act, which came into force on June 7, ar on such points in future. Section 1 n (1) provides: "Where notice of o increase rent has, whether before or passing of this Act, been served on a onformity with section 3 subsection (2) ncipal Act, and a notice to terminate cy was necessary in order to make ase effective, the notice of intention to he rent shall have effect, and shall be ways to have had effect, as if it were or also a notice to terminate the existing n the day immediately preceding the m which the increase is or was first to or on the earliest day thereafter on had been a notice to terminate the would have been effective for that nd in the latter case a notice of erved before the passing of this Act eemed to have had effect as if such earliest date had been specified in the notice as the date from which the increase was to take effect."

This subsection at first sight seems unlimited in its retrospective effect, but that is not the case, for by proviso (*a*) it is provided that "nothing in this Act shall entitle a landlord after the passing of this Act to recover from a tenant in respect of any period before December 1, 1922, the increase of rent made valid by this Act, or any sums which have been recovered from the landlord before that date by means of deductions from rent or otherwise, or any rent due before that date which has not been paid by reason of such deductions having been made therefrom, but section 14 subsection (1) of the principal Act shall not apply to an increase of rent made valid by this Act which was paid by or recovered from a tenant prior to December 1, 1922." This subsection made any sum paid on account of rent which was in law irrecoverable by the landlord recoverable by the tenant by deduction from rent or otherwise.

It will be seen, therefore, that under the above subsection, a notice to increase rent now operates as a notice to determine the tenancy as from the earliest legal date, but that where this procedure is adopted in place of a regular notice to quit December 1, 1922, is made the date from which all adjustments between the parties as to rent must be made, and validated increases under this Act are also subject to all the other provisions of the Act, such as payments by instalments and questions as to the condition of the premises, &c.

BOOK-KEEPING AND ACCOUNTS.*

THIS book appears to deal with the subject of book-keeping and accounts, as set forth in its "Contents," in a very thorough and concise style, not over-elaborate, but condensed in a clear and lucid manner. Its illustrations of different types of accounts are clearly set out and one can quite understand it would be found most useful to the student about to take up studies for secretarial or auditorial professional work.

Its various chapters on Income Tax, Company Accounts, &c., should also prove of assistance to the company director for reference on doubtful points which constantly arise in the course of business, but possibly more especially to the company secretary, who is often called upon at a moment's notice for advice on some technical point regarding company accounts, although if he be a wise man he usually refers it to his accountants to deal with. One notices a special chapter given to builders' and contractors' accounts on page 172, presumably because these are traders whose accounts are more complicated than other merchants, and more often worse kept. In a book of this kind the writer can, of course, only deal in a summarised manner from a purely book-keeping point of view with such a highly technical business, in which costing accounts are so important and must be worked in conjunction with the financial books, and the criticisms of this chapter must be read bearing in mind this preliminary note.

In passing one cannot help noticing the happy state of affairs of one "John Brown," as illustrated, a builder, at 31st December, 1901, with work in progress value £1,000, £3,500 bank balance and no liabilities. And pre-war, too! With regard to time sheet, a different form is as below, and is found more useful, as it obviates the necessity of repeating the name of contract each day:—

Contract.	Nature of work	Materials used.	S	M	T	W	T	F	Hours Total.
Jones ..	Daywork	—	5		4		3		12
Bell ..	—	—		2	5		6		13

The wages book should show a column for transfers, *i.e.*, time worked on other or outside contracts, also for expenses or extras, as well as deductions, also columns for State Insurance, Employers' and Employees' Contributions for Health and Unemployment. The Prime Cost ledger rulings as shown would possibly give the contractor a total P.C. of his contract; it all depends upon the inclusive nature of the "Sundries" item, but such headings as "Sundries" for a complete P.C. would have to be eliminated, and each contract would have to take its share in detail of "on cost" charges, such as machinery, garage or transport charges, plant hire, and percentage for trade expenses, and so forth.

The Purchase Analysis book, worked in conjunction with the Stock Book, Contract P.C., and Day Book is a necessary book, but in a large firm it would be impossible to classify every invoice in the manner shown and the amounts of accounts only would answer the same purpose, but amplified to include purchases for plant, machinery, garage, trade expenses, &c.

* *Johnson's Book-keeping and Accounts, with Notes on Auditing, &c.* By George Johnson, F.L.A.A., F.C.I.S. (London: Effingham Wilson, 16, Copthall-avenue. E.C.2.) Price 10s. 6d. net.

THRIFT SCHEMES IN INDUSTRY.

SIR WILLIAM SCHOOLING, vice-chairman of the National Savings Committee, speaking on "Thrift Schemes in Industry," at the Industrial Welfare Conference at Oxford on Monday, said that if industry would co-operate to the fullest possible extent in encouraging thrift it would do much more for the welfare of the community and the well-being of the individual than legislation. The best opinion on the whole was that there was no moral obligation on the employer to provide for the old age of his workers, but there was some moral obligation to pay employees at such a rate as would enable them to make provision for themselves and to facilitate the making of that provision by encouraging concerted action among the employees. Superannuation funds should not be started without the best actuarial advice. Endowment schemes under which a year's salary was paid on the death of the employee had "caught on" to a surprising extent in America. A disadvantage of such schemes was that they made no provision for superannuation.

New School at Durham.

The Durham County Council Education Department are inviting tenders for the erection of a new school to accommodate 242 scholars at Kirk Merrington.

Staff Convention.

In the course of his address of welcome to the recent Convention of Messrs. Robt. Ingham Clark & Co., Ltd., varnish and enamel manufacturers, of West Ham Abbey, E.15, Mr. R. F. Clark referred to the "Paint more, save more" campaign in the newspapers early this year, and appealed for further co-operation in this movement.

During the Convention papers were read by Mr. F. S. Evans on "Comparison of Selling at Home and Abroad"; by Mr. E. P. Frake Walters on "The Merchant: the Medium between Manufacturer and Consumer"; by Mr. F. W. Jefferson on "Architects in Relation to the Consumer"; and Mr. F. M. Jordan on "The Effect of Advertising on the Merchants' Sales."

DESIGN AND LAY-OUT OF MOTOR GARAGES.

In dealing with the design and lay-out of garages, the writer has endeavoured to present the subject in such a manner as to interest architectural and constructional experts, who, in the drawing up of plans for this particular class of building, are unable to discover any specialised information on the subject in current technical literature.

Garages, both for private and public use, must possess special features which, unless incorporated in the design and construction, will limit the efficiency and convenience of the finished buildings. Therefore, the main object of this article will be to consider the design and lay-out of several classes of garage from the view-point of their prospective users, and to offer such suggestions as may prove of value to architects and builders who are called upon to undertake the actual design and construction.

Notwithstanding the ever-increasing use of motor vehicles and the consequent development of the public garaging and repairing industry, those most closely associated with the trade appear to have devoted but little attention to the design of the buildings in which their activities are carried out. Many promising undertakings in the motor business have produced disappointing results, not because the patronage of clients was withheld, or by reasons of inefficient technical staffs, but simply on account of endeavouring to conduct the business in inadequate or unsuitable premises. The latter fact is so well-known that persons accustomed to efficiency organisation in various forms have often commented upon the ability of some motor garage firms to keep their heads above water at all.

One of the principal difficulties in preparing garage designs is found in the fact that the individuals in need of the buildings are not fully conversant with their requirements; and, as a garage suitable for one client may be altogether useless for another, it becomes desirable for the architect to be in the position of acting as a consultant in this particular direction.

With this guiding principle in view, let us proceed to consider the special requirements of various classes of garage users and evolve plans whereby such requirements can be met.

Owners of private houses to which stabling is attached usually make use of the outbuildings as garages, until such times as they are unable to endure the inconvenience any longer, and the old building is demolished for the purpose of erecting one of a more suitable description. Coach-houses which were quite satisfactory for their intended purposes when they came under the control of a paid servant, fail in many respects when used by modern motorists, of whom the larger proportion consists of owner-drivers. Not only does this class of motor owner drive his own car, but, in the interests of economy, attends to its upkeep and maintenance in addition, the latter factor having a very important influence upon the design of the building, as we shall proceed to demonstrate.

Whilst some motorists are content to look upon the private garage as a kind of glorified bicycle shed, of sufficient dimensions to house their cars, others insist that the building shall conform with the architectural features of the residence to which it is attached, which immediately raises the matter of garage construction from mediocrity to a subject of artistic interest. The architect's skill will enable him to produce designs calculated to dignify a class of structure which too often consists of three bare and window-less walls, an uglier roof, and an ungainly entrance.

The site selected for the garage is of greater importance than is often realised, especially where owner-drivers are concerned. Its relation to the front door of the residence, its accessibility from the road without involving alterations to the front garden, the convenience of its connection with supplies of water, gas and electric light from the house, and ease of access for the owner for the purpose of effecting car adjustments, are all matters which have to be considered in determining the position selected for the site, and bear a close connection with the cost of preparing the building for service.

For example, to the cost of erecting the garage, that of making up a roadway from the street to its entrance has to be considered, for, even in cases where a carriage drive already exists, the surface of the latter almost invariably fails to withstand the continual starting and stopping of a motor car, the studded tyres of which are inclined to tear up any but the most closely consolidated of road surfaces.

As a general rule private garages are far too small to be utilised to the greatest advantage, especially when required for the use of owner-drivers. The idea of limiting the first cost of the building is usually responsible for this kind of mistake on the part of the owner, for whilst the proposed structure need not possess the characteristics of a miniature repair establishment, it is certainly a mistaken policy to limit the dimensions so that the acquisition of a more powerful car at a later date will necessitate radical structural alterations to the building. The man who commences motoring with a small two-seater car may never aspire to the possession of a six-cylinder limousine and, in consequence, will never build a very pretentious garage; but in the course of a couple of seasons he will probably acquire a medium powered four-seater, and as the difference in the overall dimensions of the latter do not differ very greatly from those of the two-seater, he will be well advised to allow for the possible expansion of his ideas on motoring in determining the area to be occupied by the garage.

Taking the average wheel base of a typical car of medium power at 9 ft., and allowing an additional length of 3 ft. 6 in. to clear the wheels and wings, with an overall width of 5 ft. 6 in., we arrive at the floor space actually covered by the car. A space of at least 3 ft. should be allowed at either side of the car, whilst the length of the garage should exceed that of the car by 5 ft. Between the garage door and the rear of the car there should be a space of 12 in., leaving sufficient room for a work bench at the opposite end. In passing, it may be mentioned that the full specifications for the proposed building should include all internal fittings, such as benches, cupboards, tool racks, and other objects required by the motorists.

Whether the owner-driver intends to perform the operation of washing the car himself or to employ someone else for the purpose, adequate provision for the process must be made when designing the garage. Cars cannot be washed properly in the private garage, whilst the inconvenience of having this work done regularly at the local garage justifies the allocation of a space for a car wash. The area required will be approximately the same as covered by the garage and may occupy a convenient space in front of the building. A glazed roof the wash adds to its usefulness, for b serving as a shelter from inclement w during washing operations, it will act convenient place for standing the car for periods without making use of the garag

The surface of the washing area should slight fall from each direction with su gulleys communicating with a central drai provisions for a mud and grease trap concrete base covered with cement and g chips forms a very good flooring for the and surface for the wash. Most for surface with an asphalte base shoul avoided owing to their susceptibility t action of grease.

A water supply should be led to the was a convenient stand pipe arranged for a connection.

As it is impossible to give the nec attention to a car when housed in a dark g particular care should be paid to pro plenty of natural light when designin building. Roof lights undoubtedly for best means of attaining this end, but i case the lightest side of the garage shoul sist largely of windows, especially when intended to build an inspection pit, for obv the car standing over the pit shuts out m the light from beneath.

The interior should also be wired for e light, where a supply of electricity is ava and in addition to arranging the points i venient positions to shed light on the benc over the car, one should be provided i inspection pit, so that straggling leads portable hand-lamps may be avoided. power circuit is available the current m used for electric radiators for heatin interior of the garage, but otherwise th form of heating consists of employing hot radiators, which are supplied from a sma boiler situated just outside the garage.

Although an inspection pit is not an al necessity in the private motorist's garag convenience it provides is well wort expense entailed by its construction. lubrication of cars, even of modern design, always too easily done from above, whils motorists who take a keen interest mechanism of their cars like to make per inspections and effect small adjustment the object of ensuring safety and keeping repair bills.

The inspection pit should be excavated depth of 4 ft., and have a width of 3 ft. both sides and bottom being finished concrete with a smooth surface of cemen finishing off the corners with a radiu possible to keep the pit clean, a drain and trap being required for the same purpos

A ledge formed all round the top of t will be required to support flush fitting used as a covering when it is not in use, further convenience consists of a shelf ext from one end to the other and about inches wide, which serves to carry too cleaning material whilst work is in p beneath the chassis. Access to the pit gained by means of concrete steps for



Sketch Showing Main Features of a Private Garage.

e end farthest from the garage door, which is eferable to the use of a removable wooden lder.

As a rule the private motorist does not require stock large quantities of petrol and oil, but. en though the supply consist of but a few llons, the inflammable materials must be ored with due regard to regulations and fire ks. The best plan for such storage is to nstruct a small pit occupying a corner of the vered wash, in which from ten to twenty two-llon tins of petrol, together with a small erve of lubricating oil, can be kept.

This pit should have a watertight covering ted over a ledge rising about six inches above e surface of the wash, so that there is no risk water dripping into the petrol store. The ggested method of petrol storage is absolutely fe and its position is very convenient for ing the tank of the car preparatory to a rney.

Owing to the restricted space usually available private garage buildings, the advantages of e rolling shutter type of door above those of e hinged variety become very obvious, and, erefore, this feature is one that should be corporated in the design wherever possible, pecially as very little extra expense is entailed.

Proposed New Severn Railway Bridge.

At a conference of public authorities of South ales at Chepstow to consider improved means transport between South Wales and London, e Midlands and West of England, it was ted that the Great Western Railway Co. ended to erect a bridge across the River ern at Beachley in order to relieve congestion the Severn Tunnel. It was suggested that oad bridge should be constructed near the ne points simultaneously and that an effort uld be made to get Government assistance. e bridge would shorten the distance between points mentioned by 70 miles, as all road ffic from South Wales has to proceed via ucester to London.

Building Trades' Courses.

The courses in building trades' subjects at e Acton and Chiswick Polytechnic, Bath-road, iswick, commence on September 24. A full gramme will be forwarded on application to principal, Mr. V. C. Egerton.

Assessment of Flats.

Mr. E. C. Christmas, builder, of Forest Hill, .. writing in *The Times* last week, says :— bought three houses and converted them sixteen flats. The net assessment as ses was £147, and as flats £588. The ic contents were not increased, and 75 per t. of the gardens was taken away, so it ms to me that all that private enterprise is ng, by converting these houses, is to create rge income for the public authorities."

An Old Painter's Death.

fter working for the same firm for over y years, Thomas Lord Eldridge, aged 74. S. Templar-road, Homerton, collapsed while ting a scullery door at 7, Fenn-street, and in Hackney Infirmary. Deceased's em- er, Mr. George Huckett, house decorator, omerton-row, said Eldridge ceased work in ber, but as he was a very active man he l not rest, and worried because he had ing to do. Witness therefore gave him a job to occupy his mind.

e coroner remarked that it was a very good and showed more feeling for an old servant one sometimes saw. He recorded a ct of "Death from natural causes."

Anglo-Swedish Society.

e Anglo-Swedish Society, which has for ject the promotion of intercourse between eoples of Great Britain and Sweden, held eption at the Princes' Gallery, Piccadilly, uesday last, when the members and the s were presented to H.R.H. the Crown e of Sweden and Lady Louise Mount- n. Amongst those present were a er of people who have visited the Exhi- and Town-Planning Conference in nburg.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur :—

	Masons.	Brick-layers.	Car-penters, Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Brick-Masons' Labourers.	Plas-layers' terers Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Bedford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½		1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3		0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Cambridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Chelmsford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Colchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½		1 0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3		1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½		1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Great Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3		1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Ipswich	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6		1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½		1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½		1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Luton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Norwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5		1/1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
St. Albans	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Scarborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3		0/11½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3		1/0
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7		1/2½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½
York	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½		1/1½

(For rates of wages in the Building Trade in Scotland, see page 464.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

SEPTEMBER 24.—**Aldershot.**—W.D. WORKS CONTRACT.—For the works contract for repairs and materials, from October 6, 1923, at North Aldershot Station, including Marlborough Lines, Pinehurst and Mytchett. Commanding Royal Engineer, R.E. Office, Marlborough Lines, North Aldershot, Hants.

SEPTEMBER 24.—**Ansdell.**—SCHOOL.—For a new Sunday School, for the Baptist Church, Ansdell. Mr. Fred. Harrison, architect, 30, Willow-street, Accrington. Deposit £2.

SEPTEMBER 24.—**Barnsley.**—HOUSES.—Erection of 44 houses, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley.

SEPTEMBER 24.—**Dalton.**—STORAGE PITS.—Construction of benzole storage pits, for the Dalton Chemical Works. Messrs. Abbey & Hanson, civil engineers, 11, Cloth Hall-street, Huddersfield.

SEPTEMBER 24.—**Downderry.**—HOUSE.—Erection of a residence at Seaton, near Downderry, Cornwall, for Mr. G. S. Sneyd. Mr. C. W. Parkes Lees, architect, Fowey, Cornwall. Deposit £2 2s.

SEPTEMBER 24.—**Eccles.**—CONVENIENCES, &C.—(1) Erection of waiting-rooms and conveniences, Liverpool-road, Peel Green, and (2) erection of a ladies' convenience in Regent-street, for the T.C. Borough Engineer, Town Hall, Eccles.

SEPTEMBER 24.—**Hebden Bridge.**—HOUSES, &C.—Erection of 12 scullery type houses in blocks of two; supply of about 383 yards of 3 in. cast-iron water pipes, &c.; laying and jointing (including excavation) pipes; and street-making and laying of sewers. Mr. H. L. Bottomley, Engineer and Surveyor, Council Offices, Hebden Bridge. Deposit £1 1s.

SEPTEMBER 24.—**Inverkeithing.**—HOUSES.—Erection of ten houses of the second development at Spencerfield site, for the T.C. Mr. Peter Reid, architect, Park House, Inverkeithing. Deposit £1 1s.

SEPTEMBER 24.—**Leeds.**—FENCE, &C.—For erecting a boarded fence and extensions to the stables, &c., at the Institution of the Board of Guardians. Mr. James H. Ford, Clerk, Poor Law Offices, South Parade, Leeds.

SEPTEMBER 24.—**North Berwick.**—ALTERATIONS.—For alterations to buildings at Market-place, North Berwick, for the Haddington Co-operative Society. Mr. Thos. Deans, General Manager, Lodge-street, Haddington.

SEPTEMBER 24.—**Tyseley.**—HOUSES.—For the erection of 44 parlour type houses, Mayfield-road, for City of Birmingham. Mr. Herbert H. Humphries, M.Inst. C.E., City Engineer and Surveyor, The Council House, Birmingham. Deposit £1.

SEPTEMBER 24.—**Warrington.**—PAINTING.—For external and internal painting of various properties, Sankey-street, for the T.C. Mr. Andrew M. Ker, Borough Engineer, Warrington.

SEPTEMBER 24.—**Watchet.**—QUAY BUILDING, &C.—For construction of certain works, including building of a concrete quay, sheeting and bulkhead walls, for the improvement of Watchet Harbour. Mr. Frank Risdon, Clerk, U.D.C. Offices, Watchet.

SEPTEMBER 24.—**Workington.**—HOUSES.—Erection of 24 houses, drainage, &c., for the T.C. Mr. H. B. Williams, Borough Engineer, Town Hall, Workington. Deposit £2 2s.

SEPTEMBER 25.—**Auckland.**—HOUSES.—Erection of 46 houses at Leeholme Coundon, for the R.D.C. Mr. Charles Heslop, Architect, Fleet-street, Bishop Auckland.

SEPTEMBER 25.—**Bedwellty.**—REPAIRS, &C.—For repairs and painting at the Children's Homes at Tredegar, Blackwood and Ebbw Vale, for the Board of Guardians. Mr. W. Hall, Clerk, Union Offices, Tredegar, Mon.

SEPTEMBER 25.—**Brighton.**—SORTING OFFICE, &C.—For the completion of Brighton Sorting Office and Telephone Exchange, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s.

SEPTEMBER 25. — **Bristol.** — NURSES' HOME. — Extension of the Nurses' Home, for the Committee of the Bristol Royal Infirmary. Messrs. Bernard & Son, quantity surveyors, 26, Orchard-street, Bristol. Deposit £2 2s.

SEPTEMBER 25.—**Chepstow.**—CONVERSION.—For conversion of "Larkfield," Chepstow, into a public elementary central school, for the Monmouthshire Education Committee. Mr. John Bain, F.R.I.B.A., County Hall, Newport, Mon.

SEPTEMBER 25.—**Conway.**—SCHOOLS.—Erection of new Council Schools at Conway and Llanrug, near Carnarvon, for the C.C. Mr. Rowland Lloyd Jones, County Architect, 14, Market-street, Carnarvon.

SEPTEMBER 25. — **East Molesey.** — HOUSES. — Erection of six houses at Hurst-lane, East Molesey, in pairs (cost not exceeding £900 per pair), for the East and West Molesey U.D.C. Chairman of the Housing Committee, Council Offices, East Molesey.

SEPTEMBER 25.—**Fence Houses.**—PAINTING.—For painting Lambton Miners' Hall. Mr. G. Garland, North House, Fence Houses.

SEPTEMBER 25.—**Glasgow.**—EXTENSION OF TIME.—For the several works in connection with the Glasgow Knightswood Housing scheme. (Time extended to September 25). Mr. J. Lindsay, Town Clerk, City Chambers, Glasgow.

SEPTEMBER 25.—**Liverpool.**—CONVENIENCES.—Erection of conveniences in Sefton Park, for the T.C. Land Steward, Municipal Offices, Liverpool.

SEPTEMBER 25.—**Maldens and Coombe.**—CONVENIENCE, &C.—Erection of public convenience, boundary walls, &c., for the U.D.C. Mr. R. H. Jeffes, Surveyor, Council Offices, New Malden. Deposit £2 2s.

SEPTEMBER 25.—**Oxted.**—COTTAGES.—Erection of 16 cottages, for Mr. F. Down. Mr. J. Shelley Cowdrey, Oak Bank, Oxted.

SEPTEMBER 25.—**Sheffield.**—VARIOUS WORKS.—(1) Passenger shelter, Manchester-road Bus Terminus; (2) Public conveniences, Abbey-lane, Woodseats; (3) Internal and external painting, Fitzalan Market, for the T.C. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield.

SEPTEMBER 25.—**Teddington.**—EXTENSION.—Extension of the Admiralty Research Laboratory, National Physical Laboratory, Teddington, for H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

SEPTEMBER 25.—**Wallsend.**—HOUSES OR FLATS.—Erection of 72 self-contained houses, with alternative tenders for the erection in lieu thereof of 144 flats, for the T.C. Borough Surveyor, Town Hall, Wallsend. Deposit £2 2s.

SEPTEMBER 25.—**Warrington.**—PAINTING.—Painting interior of the school buildings at the Cottage Homes, Padgate, for the Board of Guardians. Mr. F. J. Barnish, architect, Golden-square, Warrington. Deposit £1 1s.

SEPTEMBER 26.—**Cudworth.**—PAINTING.—For painting at the Albert Working Men's Club and Institute, Ltd., Pontefract-road, Cudworth, near Barnsley. Mr. J. R. Collins, Secretary, The Club, Cudworth.

SEPTEMBER 26.—**Herne Bay.**—SHELTER, &C.—For the erection of the superstructure of the proposed shelter and conveniences, West Cliff, on a prepared substructure, for the U.D.C. Mr. B. J. Wormleighton, F.S.I., Engineer and Surveyor to the Council, Town Hall, Herne Bay. Deposit £2 2s.

SEPTEMBER 26.—**Wavertree.**—RELIEF OFFICE.—For new relief office, &c., High-street, Wavertree, for the West Derby B.G. Mr. Ernest B. Bailey, F.S.I., architect, 9, Cook-street, Liverpool. Deposit £2 2s.

SEPTEMBER 26.—**York.**—ALTERATIONS.—For alterations to the old Subscription Library, for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £1 1s.

SEPTEMBER 27.—**Aberaman.**—EXTENSION.—Conversion of the Lucania Building, Aberaman, into a lecture hall, for the Aberaman Hall and Institute Committee. Mr. R. H. Willson, architect, Aberaman, Aberdare. Deposit £3 3s.

SEPTEMBER 27.—**Mallow.**—REBUILDING.—For re building portion of Mallow Station, for the Great Southern & Western Railway Co. Chief Engineer Inchicore. Deposit £1 1s.

SEPTEMBER 27.—**Oadby.**—HOUSES.—Erection of two houses, for the U.D.C. Mr. G. E. Fryer, Council Offices, Oadby. Deposit £5 5s.

SEPTEMBER 27.—**Preston.**—PAINTING.—For the painting and decoration of the inside of Ribchester Institution, for the B.G. Mr. Thomas H. Bentham Clerk, Union Offices, Preston.

SEPTEMBER 27.—**Tuam (Ireland).**—CONVENT.—Erection of a new wing to the Presentation Convent Tuam, co. Galway. Mr. R. M. Butler, architect 23, Kildare-street, Dublin.

★SEPTEMBER 27.—**Tunbridge Wells.**—BUNGALOW HOUSES.—Erection of seven bungalow houses at High street, Rusthall, Tunbridge Wells, for the Trustees of the Molyneux Almshouses, Tunbridge Wells. Mr. Alex. R. Cheale, 3, The Priory, Church-road, Tunbridge Wells. Deposit £1 1s.

SEPTEMBER 28.—**Bristol.**—HOUSES.—Erection of houses: Fishponds Housing site (30 houses), Knowle Housing site (20 houses), for the T.C. City Engineer Housing Department, 51, Prince-street, Bristol Deposit £1.

SEPTEMBER 28. — **Burton-upon-Trent.** — BRIDGE.—Erection of a small footbridge in ferro-concrete on the Hennebique system over the Silver Way branch of the River Trent, for the T.C. Mr. George T. Lynam Borough Engineer, Town Hall, Burton-upon-Trent.

SEPTEMBER 28.—**Durham.**—PAINTING.—For painting of the interior of the Girls' Home, 8, Church-street, for the Board of Guardians. Mr. H. E. Ferens, Clerk 25, Market-place, Durham.

SEPTEMBER 28.—**Hemsworth.**—COTTAGE.—Erection of a caretaker's cottage at Kinsley Sewage Disposal Works, for the U.D.C. Mr. W. T. Lynan, A.M.I.C.E. Engineer and Surveyor, Hemsworth. Deposit £2 2

SEPTEMBER 28.—**South Eston.**—ALTERATIONS.—For alterations at the South Eston Council School, for the North Riding of Yorkshire T.C. Mr. J. C. Wright Secretary, Education Committee, Northallerton.

SEPTEMBER 28.—**Tralee.**—HALL.—Erection of new County Hall in the Green Park, Tralee, for the Kerry C.C. Mr. W. F. Quinlan, County Secretar County Council Offices, Courthouse, Tralee. Depos £2 2s.

SEPTEMBER 29.—**Bangor Teifi.**—CHURCH ROOM.—For the erection of a church room, with out offices. Bangor Teifi. Mr. D. Emrys Rees, Bangor Tei Pentre Court.

SEPTEMBER 29.—**Holsworthy.**—LYCH GATE.—F building a new lych gate at Stanbur cro Holsworthy, for the U.D.C. Mr. Claude Kinsma Clerk, Council Offices, Holsworthy.

SEPTEMBER 29.—**South Molton.**—HOUSES.—Erecti of two blocks of five houses, for the T.C. Mr. P. Cocks, Borough Surveyor, South Molton, Devo Deposit £2 2s.

SEPTEMBER 29.—**Tiverton.**—BATH.—Construction an open-air bath in reinforced concrete, for the T Mr. J. Siddalls, Borough Engineer, Town Hall, Tiverto Deposit £2 2s.

OCTOBER 1.—**Haddington.**—HOUSES.—Erection six houses, for the T.C.: Messrs. Reid & Macle architects, Haddington.

BUILDING TRADE WAGES IN SCOTLAND.

THE following are the present rates of wages in the building trade in the principal towns o Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for erro that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick- Masons' layers' Labourers.	Pla tere
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/-	
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½		
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2	
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England a Wales are given on page 463.

OCTOBER 1.—**Hertfordshire.**—COTTAGES.—Erection and completion of 32 detached cottages at various places in Hertfordshire, for the C.C. Mr. A. Ernest Prescott, M.Inst.C.E., Lieut.-Col., County Surveyor and Architect, Hatfield. Deposit £1 1s.

OCTOBER 1.—**Newbridge.**—ADDITIONS.—For additions to St. Thomas's College, Newbridge, Co. Kildare, for the Dominican Fathers. Messrs. Morris & Kavanagh, quantity surveyors, 68, Harcourt-street, Dublin. Deposit £3 3s.

OCTOBER 2.—**Cardiff.**—SUB-STATION.—Erection of sub-station, St. Michael's-road, Llandaff, for the T.C. Electrical Engineer, The Hayes, Cardiff. Deposit £1 1s.

OCTOBER 2.—**Greenwich.**—HOUSES.—Erection of 50 houses in two sections, for the B.C. Town Clerk, Town Hall, Greenwich. Deposit £2 2s.

OCTOBER 2.—**Thornhill.**—PAINTING.—For cleaning and decorating inside and outside Thornhill Wesleyan Chapel and Sunday School. Mr. J. R. Walshaw, Church-lane, Thornhill.

✱OCTOBER 3.—**Ramsgate.**—SEA WALL.—For the construction complete of a new reinforced concrete sea wall, on the indented bar principle, on the foreshore of the St. Lawrence Cliffs Estate, for the Borough. Mr. T. G. Taylor, Borough Engineer, Borough Engineer's Office, Albion House, Ramsgate.

✱OCTOBER 4.—**Blackpool.**—SCHOOL.—Erection of proposed Tyldesley Council School in Condor Grove, off Whitegate Drive, for the Blackpool Education Committee. Mr. Francis Wood, M.Inst.C.E., Borough Engineer and Surveyor, Municipal Buildings, Blackpool. Deposit £2.

OCTOBER 4. — **Tilbury (Essex).** — TELEPHONE EXCHANGE.—Erection of a new telephone exchange at Tilbury, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit 1s., payable to the Secretary.

OCTOBER 5.—**Nottingham.**—POWER STATION.—Erection of buildings in connection with North Wilford Power Station, for the T.C. Mr. T. Wallis Gordon, City Engineer, Guildhall, Nottingham. Fee £2.

OCTOBER 7.—**Edinburgh.**—HOUSES.—Erection of two blocks of buildings (composing nine houses in all), two stories in height, at Bangholm, for the T.C. Mr. George Simpson, architect, 14, Hill-street, Edinburgh.

OCTOBER 7.—**Greenwich.**—REPAIRS.—Execution of repairs, on a schedule of prices, to property on the Roan Estates during the period ending March 31, 1924. Mr. P. B. Dannatt, Surveyor to the Foundation, 18, Nelson-street, Greenwich, S.E. 10.

✱OCTOBER 9.—**Basingstoke.**—POST OFFICE.—Erection of a new Post Office at Basingstoke for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London. S.W.1. Deposit £1 1s. (payable to the Secretary).

OCTOBER 9.—**London, W.**—VIADUCT.—Reconstruction of Perran Viaduct, near Perranwell Station, Falmouth Branch, for the Great Western Railway Co. Chief Engineer, Paddington Station, W.

OCTOBER 9.—**London, W.**—WALLS.—For the construction of retaining walls, bridges, and other works, at High-street Station, Swansea, for the Great Western Railway Co. Chief Engineer, Paddington Station, W.

OCTOBER 9.—**Yorkshire.**—REPAIRS.—Adaptation and repairs to four farmsteads on the Gargrave Estate, for the West Riding C.C. County Land Agent, County Hall, Wakefield. Deposit £1.

✱OCTOBER 10.—**Leeds.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange, &c., at Headingley, Leeds, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

✱OCTOBER 10.—**London, E.9.**—ALTERATIONS.—Alterations for the provision of washing and changing rooms for outdoor female staff at the Eastern Fever Hospital, Homerton-grove, Homerton, E.9, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

OCTOBER 15.—**Salford.**—GARAGE.—For building a motor garage adjoining the Central Fire Station, for the T.C. Borough Engineer, Town Hall, Salford. Deposit £2 2s.

OCTOBER 16.—**Margate.**—PAVILION.—Erection of a steel and timber bathing pavilion, for the T.C. Mr. A. Borg, Borough Engineer, 13, Grosvenor-place, Margate. Deposit £5.

OCTOBER 20.—**Near Abergavenny (Mon).**—..., &c.—For erecting a parish hall at Llanvihangel Gobion, Gorney (near Abergavenny), with submission of alternative estimate for same, if erected. of timber ...ing and galvanised corrugated sheeting. Mr. B. J. ...cis, architect, Abergavenny. Names of intending ...ers must be sent to Mr. W. H. Wood, Clerk to Parish ...ncil, 1, Pant Glas, Pandy, near Abergavenny, by ...ember 15th.

OCTOBER 29.—**Durham.**—SCHOOL.—Erection of Kirk ...ington New School, for the C.C. Mr. F. Willey, ...I.B.A., 34, Old Elvet, Durham.

...VEMBER 30.—**Singapore.**—POST OFFICE.—Erection of new general post office, Singapore. Crown ...ts for the Colonies, 4, Millbank, S.W.1. Deposi...

... DATE.—**Dumbarton.**—HOUSES.—Erection of ...s of 24 houses at Renton, for the Dumbarton C.C. ... Joseph Weekes, architect, 88, College-street, ...barton. Deposit £1 1s.

...O DATE.—**Herts.**—FLATS.—Erection of forty ... with administrative block, for New Town Trust, ... at the Welwyn Garden City. Mr. Harrison, ...tity Surveyor, Garrick Chambers, 11, Garrick-..., London, W.C. 2. Deposit £1 1s.

... DATE.—**Horsforth.**—PICTURE HOUSE.—Erection ...ew picture house at Horsforth, near Leeds. Mr. ... P. Harrison, M.S.A., High Close, Keighley.

... DATE.—**Kingsbridge.**—HOUSE.—Erection of a ...ng-house at Bolberry, Hope Cove, near Kings-... Mr. J. G. Howard, surveyor, Salcombe.

NO DATE.—**Portlemouth.**—HOUSE.—Erection of a dwelling-house at Portlemouth, Salcombe. Mr. J. G. Howard, surveyor, Salcombe.

NO DATE.—**Pudsey.**—PAINTING.—For colouring and painting interior of Parish Church. Mr. W. V. Scarth, Hon. Sec., P.C.C., Pudsey.

NO DATE.—**Rotherham.**—ALTERATIONS.—For structural alterations at the Tram Depot Buildings, Rawmarsh-road, Rotherham, for the T.C. Borough Engineer, Frederick-street, Rotherham.

NO DATE.—**Sherburn Hill.**—ALTERATIONS.—For alterations to flour store at the Sherburn Branch of the Sherburn Hill Co-operative Society. Messrs. J. Walton. Taylor & Son, Architects, St. John-street, Newcastle-upon-Tyne.

NO DATE.—**Stroud.**—HOUSES.—Erection of four houses on Folly-lane Estate, for the U.D.C. Mr. A. Murray-Smith, Surveyor, Town Hall, Stroud, Glos. Deposit £2 2s.

FURNITURE, MATERIALS, etc.

SEPTEMBER 22. **Bucklow.**—MATERIALS.—Supply of granite setts, broken granite, tarred macadam, &c., to the R.D.C. Mr. R. C. Cordon, Highway Surveyor, Knutsford.

SEPTEMBER 22.—**Eccleshall Bierlow.**—SUPPLIES.—Supply of oils, paints, brooms, &c., for the B.G. Clerk, Union Offices, The Edge, Sheffield.

SEPTEMBER 24.—**Dover.**—SUPPLIES.—Supply (six months) of bricklayer and plumber materials, ironmongery, &c., for the B.G. Mr. C. Dacre Carder, Clerk, Market-square, Dover.

SEPTEMBER 24.—**Gosport.**—MATERIALS.—Supply of road and other materials to the T.C. for six months. Mr. E. J. Goodacre, Borough Engineer, Town Hall, Gosport.

SEPTEMBER 24.—**Ilford.**—MATERIALS.—Supply of road and other materials to the U.D.C. Mr. H. Shaw, Surveyor, Town Hall, Ilford. Fee 1s.

SEPTEMBER 24.—**Ilkeston.**—MATERIALS.—Supply of granite slag, kerbs and concrete slabs, to the T.C. Borough Surveyor, Ilkeston.

SEPTEMBER 24.—**North Bierley.**—SUPPLIES.—Supply of paints, &c., for the B.G. Mr. W. G. Cooper, Clerk, Union Offices, 4, Town Hall-street, Bradford.

SEPTEMBER 24.—**Penarth.**—GRAVEL, &C.—For supply to U.D.C. of mountain limestone, gravel and basalt or granite gravel up to March 31, 1924. Mr. Edgar I. Evans, A.M.I.C.E., Council Offices, Penarth.

SEPTEMBER 24.—**Yarmouth.**—MATERIALS.—Supply of various materials to the T.C. Mr. S. P. Thompson, Borough Engineer, Town Hall, Great Yarmouth.

SEPTEMBER 25.—**Bedwellty.**—SUPPLIES.—For supplying the Bedwellty Guardians' institutions at Tredegar, Blackwood, and Ebbw Vale, with leather and grindery, ironmongery and cutlery, hardware and crockery, oils and brushes, drugs and surgical dressings, boots and shoes, coal, &c. Mr. William Hall, Clerk to the Guardians, Union Offices, Tredegar, Mon.

SEPTEMBER 25.—**Hertford.**—MATERIALS.—Supply of sewer ironwork, water fittings, &c., to the T.C. Borough Surveyor, Hertford.

SEPTEMBER 25.—**Manchester.**—MATERIALS.—Supply of (*a*) granite setts, (*b*) genuine English white lead, to the T.C. Mr. Henry Mattinson, General Manager, Corporation Tramways, 55, Piccadilly, Manchester.

SEPTEMBER 26.—**Cuckfield.**—MATERIALS.—Supply of road materials and for road rolling, for the R.D.C. Mr. H. L. Richardson, Surveyor, Offices, Haywards Heath.

SEPTEMBER 26.—**Exeter.**—MATERIALS.—Supply of materials for six months to the T.C. Mr. Thomas Moulding, City Engineer, Municipal Offices, Exeter.

SEPTEMBER 26.—**Gravesend.**—GRANITE SETTS.—Supply of 100 tons of 4 in. by 4 in. by 4 in. granite setts to the T.C. Mr. H. H. Brown, Town Clerk, Gravesend.

SEPTEMBER 26.—**Manchester.**—ELECTRIC LAMPS.—Supply of electric lamps for one year to the Board of Guardians. Mr. James Macdonald, Clerk, Union Offices, All Saints', Manchester.

SEPTEMBER 28. — **Stoke-on-Trent.** — MATERIALS.—Supply of cement, bricks, cast-iron work, &c. Borough Surveyor, Stoke-on-Trent.

SEPTEMBER 28.—**Swadlincote.**—GRANITE.—Supply of 1,500 tons of granite to the U.D.C. Mr. G. A. Taylor, Surveyor, Council Offices, Swadlincote.

SEPTEMBER 28.—**York.**—MATERIALS.—Supply of various materials to the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York.

OCTOBER 1.—**Burnham-on-Sea.**—MATERIALS.—150 tons granite macadam, 1,000 tons limestone macadam, 200 tons limestone binding gravel, for the U.D.C. Mr. Wm. H. Chowins, Surveyor, Public Offices, Burnham-on-Sea.

OCTOBER 1.—**Ealing.**—MATERIALS.—Supply of limes, pipes, &c., cement, ironmongery, iron castings, paints, &c., to the B.C. Mr. W. R. Hicks, Borough Surveyor, Town Hall, Ealing.

OCTOBER 1.—**Gellygaer.**—MATERIALS.—Supply of materials to the U.D.C. Mr. F. Read, Surveyor, Council Offices, Hengoed.

OCTOBER 2. — **Margate.** — MATERIALS. — Cement, bricks, ironwork, sanitary pipes, &c. Mr. E. A. Borg, Borough Engineer, Margate.

OCTOBER 2.—**Margate.**—ROLLER.—For 8- to 10-ton road roller, for the T.C. Town Clerk, Margate.

OCTOBER 5.—**London.**—MATERIALS.—Supply to the Director-General, India Store Department, of (1) steam hammer, (2) paint. Store Dept., 14, Belvedere-road, S.E.

ENGINEERING, IRON AND STEEL.

SEPTEMBER 24.—**East Kilbride.**—BRIDGE WIDENING.—For the widening of the bridge and access road, and the construction of a new access road, at East Kilbride Railway Station, for the Lanark C.C. Mr. James Watson, Road Surveyor, Strathaven.

SEPTEMBER 24.—**Salford.**—COOLING AND PUMPING PLANT.—For cooling towers, pumping plant, and pipework, at Agecroft Power Station, for the T.C. Mr. J. A. Robertson, Consulting Engineer, 20, Brazenose-street, Manchester. Deposit £1 1s. per specification.

SEPTEMBER 25.—**Adwick-le-Street.**—STEEL ROOF.—Supplying and erecting of a steel-framed roof in two spans, about 100 ft. × 40 ft. each, in connection with the Council's storage reservoir, also the necessary steel stanchions, gutters, &c., for the U.D.C. Mr. George Gledhill, Surveyor, Council Offices, Adwick-le-Street, near Doncaster. Deposit £2.

SEPTEMBER 25.—**Dublin.**—PUMP.—For one pumping unit (oil engine and centrifugal pump), for the T.C. City Engineer, 28, Castle-street, Dublin, and Mr. J. S. Aflord, M.Inst.C.E., 11, Victoria-street, Westminster, London, S.W.1. Deposit £2 2s.

SEPTEMBER 26.—**London.**—GIRDER BRIDGES.—Supply to the Burma Railways Co. of girder bridges:—42 spans of 10 ft.; 10 spans of 20 ft.; 4 spans of 40 ft.; 3 spans of 100 ft. Mr. F. C. Franks, Secretary, 199, Gresham House, E.C. 2. Charge £1.

SEPTEMBER 26.—**Manchester.**—LAUNDRY MACHINERY.—Supply at the Mayfield Public Wash-house of wash-stalls, hydro extractors, drying horses, with heater, fan, &c., for the T.C. City Architect, Town Hall, Manchester. Deposit 10s. 6d.

SEPTEMBER 26.—**Ormskirk.**—ELECTRIC PLANT.—Supply and setting to work of one 40-k.w. steam-driven electricity generating set, for the B.G. Mr. G. J. Gibbs, M.I.Mech.E., 7, Lune-street, Preston. Deposit £2 2s.

SEPTEMBER 27.—**Bridgend.**—BRIDGE.—Erection of a steel footbridge over the River Ogmore, for the U.D.C. Council Offices, 11, Adare-street, Bridgend. Deposit £1 1s.

SEPTEMBER 27.—**Chelsfield.**—RESERVOIR.—Construction of covered service reservoir at Chelsfield, Kent, for the Metropolitan Water Board. Mr. H. E. Stilgoe, Chief Engineer, 173, Rosebery-avenue, E.C. Deposit £10.

SEPTEMBER 27.—**Chile.**—PORT IMPROVEMENT.—Improvement of the Harbour of Constitucion, for the Chilean Government. Chilean Legation, 22, Grosvenor-square, W.1.

SEPTEMBER 27.—**Salford.**—BRIDGES.—Construction of bridges over railway at Stott-lane widening (South end), for the T.C. Borough Engineer, Salford. Deposit £2 2s.

SEPTEMBER 29.—**Keel (Ireland).**—BRIDGE.—For reinstating the superstructure of the iron bridge at Keel (near Ballinrobe), for Mayo C.C. County Surveyor, Courthouse, Castlebar, Co. Mayo.

SEPTEMBER 29. — **Thetford.** — CAST-IRON PIPES. — Supply of 1,800 yds. of 7 in. and 4 in. cast-iron pipes, &c., for the T.C. Messrs. Sands & Walker, Engineers, Milton Chambers, Nottingham. Deposit £3 3s.

OCTOBER 1.—**Bristol.**—HEATING, &C.—For the heating and ventilating of the Council School at Shirehampton, for the Bristol Education Committee. Mr. A. E. Oaten, P.A.S.I., architect, Phœnix Chambers, 22, Clare-street, Bristol. Deposit £1 1s.

OCTOBER 1.—**Egypt.**—STEAM LAUNCHES.—For three 40 ft. steam launches, for Ministry of Public Works, Egypt. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Westminster, S.W.1.

OCTOBER 1.—**Llanmorlais (Glam).**—DRIVAGE.—For sinking a new slant at the Brynlais Collieries, Llanmorlais. Distance 200 yds., about; inclination 2 ft. per yd.; size of collar, 5½ ft.; height, 5½ ft. from rail; width, 9 ft. Drilling machines by compressed air and explosives supplied by company. The Secretary, Colliery Offices, Llanmorlais.

OCTOBER 2.—**London.**—AIR WASHING MACHINES.—Supply and installation of two air washing machines, with pumps, motors, &c., at the Imperial College of Science, South Kensington. Contracts Branch, H.M. Office of Works. King Charles-street S.W.1. Deposit £1 1s.

OCTOBER 3.—**London.**—ELECTRIC LIGHTING.—For electric wiring of New Science Museum, South Kensington, for H.M. Commissioners of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. Deposit £1 1s.

OCTOBER 3.—**Rochdale.**—CONCRETE WORKS.—For cementing in concrete the bed of river Roch, &c., for T.C. Mr. S. H. Morgan, Borough Engineer, Town Hall, Rochdale. Deposit £5.

OCTOBER 5.—**Hanwell.**—ELECTRIC LIGHTING.—Extension of the electric lighting installation at the Central London District School, Greenford-avenue, Hanwell, W. 7. Mr. George P. Morrell, Clerk to School, Hanwell. Deposit 10s.

OCTOBER 8.—**Harrogate.**—DEPOT.—For roadworks, sewering, construction of siding, retaining walls, bridge, &c., in connection with the Central Depot, Dragon Junction, for the T.C. Mr. C. E. Rivers, Borough Engineer, Municipal Offices, Harrogate.

OCTOBER 9.—**Neath.**—BRIDGE.—Construction of a bridge over the River Neath and other works near Glyn Neath Station, for the Great Western Railway Co. Chief Engineer, Paddington Station, W.

OCTOBER 9.—**Toronto.**—Alternating current generator, for T.C. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

OCTOBER 10.—**Ely.**—WATER WORKS.—(1) Supplying and installing three-throw ram pumps, capacity 9,000 galls. each per hour, and semi-Diesel crude oil engines; (1a) Sinking two 20 in. boreholes, 60 ft. deep; (2) Laying about 35 miles of 7 in., 3 in., and 2 in. mains; (3) Construction of two reinforced concrete water towers, capacity 100,000 galls. each; (4) Supplying approximately 2,000 tons of cast-iron pipes and specials; (5) Supplying cast-iron valves and fittings, for the R.D.C. Mr. F. W. Green, Clerk, Council Offices, 11, Lynn-road, Ely, Cambs. Deposit of £5 for 2 and 3.

OCTOBER 15.—**Falmouth.**—ELECTRIC INSTALLATION.—For the installation of electric light at the Poor Law Institution of the B.G. Mr. E. P. Skinner, Clerk, Town Hall, Falmouth.

OCTOBER 15.—**Newcastle-on-Tyne.**—HEATING, &C.—For the remodelling of the heating and lighting installation at the City Hospital, Walker, for the T.C. Mr. Ernest Hatton, General Manager, Transport and Electricity Undertaking, Newcastle-on-Tyne.

OCTOBER 15.—**St. Pancras.**—BOILER.—For a Cornish boiler, for the B.C. Mr. C. H. F. Barrett, Town Clerk, Town Hall, Pancras-road, N.W. 1.

OCTOBER 15.—**Sunderland.**—ELECTRICAL INSTALLATION.—For installation of electric power and light at the Institution and Cottage Homes of the B.G. Mr. W. P. Brantingham, Clerk, Offices, 17, John-street, Sunderland. Deposit £1.

OCTOBER 24.—**Australia.**—BRIDGE.—Construction of bridge for Country Roads Board, Victoria. Agent-General for Victoria (Australia), Melbourne-place, Strand, W.C.2. Preliminary deposit £500.

OCTOBER 31.—**Australia.**—ELECTRIC CRANES.—Supply and erection at Port Adelaide of four 7-ton electric coal-handling cranes, for the South Australian Harbours Board. Agent-General for South Australia, Australia House, Strand, W.C.2.

NOVEMBER 1.—**Siam.**—BRIDGES.—Supply of superstructures of steel railway bridges to Siam State Railways. Messrs. C. P. Sandberg, 40, Grosvenor-gardens, S.W. 1. Charge 28s.

NOVEMBER 9.—**India.**—STEELWORK.—Supply of structural steelwork for wagon repair shop, Trichinopoly workshops scheme, for the South Indian Railway Co. Company's Offices, 91, Petty France, Westminster, S.W. 1. Charge £1.

NOVEMBER 30.—**Sydney.**—BRIDGE.—Construction of the superstructure and substructure of a cantilever bridge across Sydney Harbour; also an alternative tender for the construction of the superstructure and substructure of an arch bridge across Sydney Harbour. Agent-General for New South Wales, Australia House, Strand, W.C.

DECEMBER 3.—**Sydney.**—High tension switchgear, for Municipal Council. Department of Overseas Trade (Room 52), 35, Old Queen-street, S.W.1.

NO DATE.—**King's Lynn.**—HEATING.—For the heating of Watlington Church, King's Lynn. Mr. Edwin J. Tench, F.R.I.B.A., 15, Thorpe-road, Norwich.

ROAD, SANITARY, AND WATER WORKS.

SEPTEMBER 24.—**Beaufort.**—CRICKET GROUND.—Construction of a new cricket ground at Beaufort, Mon, for the Trustees, Beaufort Recreation Grounds. Mr. Lewis Jones, Architect, Ebbw Vale. Deposit £1 1s.

SEPTEMBER 24.—**Blaenavon (Mon).**—FERRO-CONCRETE WORKS.—For construction for the Blaenavon U.D.C. of a ferro-concrete lining to the existing No. 4 Reservoir, comprising about 6,000 square yards of reinforced concrete. Messrs. Thomas & Morgan & Partners, architects, Gelliwasted-road, Pontypridd. Deposit £5 5s.

SEPTEMBER 24.—**Bothwell.**—ROADS.—For the widening and improvement of the Carnbroe highway in the parish of Bothwell, for the Lanark C.C. Road Surveyor's Office, District Offices, Hamilton.

SEPTEMBER 24.—**Glyncorrwg.**—CEMETERY.—Extension of the Cymmer Cemetery, for the U.D.C. Mr. W. P. Jones, Surveyor, Council Offices, Cymmer, Port Talbot. Deposit £1 1s.

SEPTEMBER 24.—**Kensington.**—MANHOLES.—Construction of a number of manholes, together with incidental means of ventilation on certain dead ends of sewers in the Borough, for the B.C. Borough Engineer, Town Hall, Kensington, W.8. Deposit £1 1s.

SEPTEMBER 24.—**Manchester.**—ROADS.—Draining, paving (with concrete), flagging (natural flags), curbing, &c., Atherley-grove and Northfield-avenue, Moston; Oak-avenue and Chestnut-avenue, Chorlton-cum-Hardy; Poplar-avenue, Whalley Range, and various back passages, for the T.C. Paving, &c., Department (District Surveyors' Office), Town Hall, Manchester. Deposit £1 1s.

SEPTEMBER 24.—**Northampton.**—TRAMWAYS RELAYING.—For taking up and re-laying of a portion of the permanent way in Kettering-road and Gold-street, comprising 1,624 yds. of single track, for the T.C. Mr. Alfred Fidler, Borough Engineer, Guildhall, Northampton. Deposit £2 2s.

SEPTEMBER 24.—**Richmond (Yorks).**—ROADS, &C.—Construction of roads and sewers on Terrace House Estate, for the Richmond Garden Suburb, Ltd. Mr. J. R. Wetherell, Architect, Queen's-road, Richmond, Yorks. Deposit £2 2s.

SEPTEMBER 24.—**Skipton.**—SEWAGE WORKS.—Construction of sedimentation tank, percolating filter, humus tank, &c., for the R.D.C. Mr. A. Rodwell, Surveyor, Council Offices, 16, Gargrave-road, Skipton. Deposit £2 2s.

SEPTEMBER 24.—**Stoke-on-Trent.**—SANITARY.—For conversion into water-closets of 40 privy cesspools and 400 pail closets at Hanley, for the T.C. Chief Sanitary Inspector, St. Peter's Chambers, Stoke.

SEPTEMBER 25.—**Caerphilly.**—ROADS.—Making up road approaches from St. Cenydd-terrace to First-avenue, Second-avenue, and The Crescent, Caerphilly, and road approach from Llwyncelyn-terrace to Bryncelyn, Nelson. Mr. T. H. Richards, Surveyor, Council Offices, Caerphilly. Deposit £1 1s.

SEPTEMBER 25.—**Enfield.**—ROAD WIDENING.—Widening at the junction of High-street and South street, Ponders End, for the U.D.C. Mr. H. R. Crabb, M.Inst.C.E., Engineer and Surveyor, Public Offices, Enfield, Middlesex. Deposit £2 2s.

SEPTEMBER 25.—**Failsworth.**—ROADS.—Asphalting of footpaths at the Lower Failsworth Memorial Park, for the U.D.C. Mr. J. W. E. Brown, Town Hall, Failsworth, near Manchester.

SEPTEMBER 25.—**Glasgow.**—DAM.—For the raising and extending the masonry dam at the outlet of Loch Katrine, and the raising and strengthening the inlet basins to the tunnels at the upper end of the aqueducts, for the Glasgow T.C. Mr. J. R. Sutherland, Engineer, Water Department, 45, John-street, Glasgow. Deposit £2 2s.

SEPTEMBER 25.—**Glasgow.**—ROADS.—Construction of roads and sewers at Knightswood, for the T.C. Directors of Housing, Town Hall, Govan.

SEPTEMBER 25.—**Isleworth.**—PAVING.—For relaying new concrete or alternatively wood-block paving to the stores yard at Warkworth House, for Brentford Union. Mr. F. E. Harmsworth, Clerk to the Guardians, Loolands House, 34, Twickenham-road, Isleworth, Middlesex.

SEPTEMBER 26.—**East Molesey.**—SEWER.—Construction of 682 ft. run of 9 in. main sewer, for the U.D.C. Surveyor, Council Offices, East Molesey.

SEPTEMBER 26.—**Glasgow.**—SLUICE.—Construction of a sluice and pipe drains at Hogganfield Loch, for the T.C. Office of Public Works, City Chambers, 64, Cochrane-street, Glasgow.

SEPTEMBER 26.—**London, S.W.**—STONE PAVING.—For stone paving a portion of the East Terrace, Windsor Castle, for H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

SEPTEMBER 26.—**Rochford.**—ROADS.—For road strengthening works, &c., on Tarpots-road, South Benfleet, for the R.D.C. Mr. A. C. Madge, "Eastdene," Rochford. Deposit £1 1s.

SEPTEMBER 26.—**Windsor.**—STONE PAVING.—For stone paving a portion of the East-terrace, Windsor Castle, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s., payable to the Secretary.

SEPTEMBER 27.—**Arnold.**—ROAD.—For making-up of Egerton-road and for widening the carriageway in Woodthorpe Drive, Woodthorpe, for the U.D.C. Surveyor, Arnot Hill House, Arnold.

SEPTEMBER 27.—**Oadby.**—SEWAGE.—For providing and laying sewerage works, for the U.D.C. Mr. G. Edgar Fryer, Council Offices, Oadby. Deposit £5 5s.

SEPTEMBER 27.—**Salford.**—ROAD WIDENING.—For Stott-lane widening (South end), including new plate girder bridge, widening of brick arch bridge, retaining walls and street works, for the T.C. Borough Engineer, Deposit £2 2s.

SEPTEMBER 28.—**Hemsworth.**—SEWAGE DISPOSAL.—For extensions to sewage disposal works, for the U.D.C. Mr. W. T. Lynam, Surveyor, Hemsworth. Deposit £2 2s.

SEPTEMBER 28.—**Lymington.**—SEWERAGE.—For sewage disposal works at Milton, for the R.D.C. Mr. H. C. H. Shenton, 28, Victoria-street, S.W. Deposit £3 3s.

SEPTEMBER 29.—**Sankey.**—BRIDGE.—Reconstruction of Barnes Bridge, Sankey, for the Lancashire C.C. Offices of the County Surveyor and Bridge Master, County Offices, Preston.

OCTOBER 1.—**Beckenham.**—ROAD WIDENING.—For the widening of a portion of Bromley-road, for the U.D.C. Mr. John A. Angell, Surveyor, Council Offices, Beckenham. Deposit £2.

OCTOBER 1.—**Friern Barnet.**—ROADS.—For resurfacing Oakleigh-road, for the U.D.C. Mr. E. P. Kindell, Surveyor, Council Offices, New Southgate, N.

OCTOBER 2.—**Portslade-by-Sea.**—PAVING, &C.—For supply of road materials and for paving works, for the U.D.C. Mr. A. Taylor Allen, Surveyor, Council Offices, Portslade-by-Sea, Sussex.

OCTOBER 3.—**Cardiff.**—ROADS.—(a) Widening Rectory-road, Leckwith; (b) Widening Caermain-road, Llandarfan, for the R.D.C. Mr. W. Farrow, Surveyor, Park House, 20, Park-place, Cardiff.

OCTOBER 3.—**Wembley.**—ROADS.—For surfacing of carriageway of Ealing-road with natural rock asphalte, for the U.D.C. Mr. C. R. W. Chapman, surveyor, Wembley. Deposit £1 1s.

OCTOBER 4.—**Hove.**—ROADS.—Making-up Avondale-road, for the T.C. Mr. H. H. Scott, Borough Surveyor, Town Hall, Hove.

OCTOBER 4.—**Wandsworth.**—ROADS.—For paving Faygate-road, Fontaine-road, Ockley-road, Strathbrook-road, Woodbourne-avenue, Cricklade-avenue (part), and Downton-avenue (part), Streatham; Ellerton-road (part), Headington-road, Lidyard-road, and Leckford-road, Wandsworth; and Victoria-road, Southfield, for the B.C. Mr. E. J. Elford, Borough Engineer, 215, Balham High-road, S.W. 17. Deposit £1 1s.

OCTOBER 10.—**Ely.**—WATERWORKS.—Supplying and installing three-throw ram pumps, semi-Diesel crude oil engines, sinking boreholes, laying and jointing about 35 miles of mains, construction of two reinforced concrete water towers, supplying 2,000 tons of cast-iron pipes and specials, and supplying cast-iron valves and fittings, for the U.D.C. Clerk, R.D.C. Offices, 11, Lynn-road, Ely, Cambs. Deposit £5.

★NO DATE.—**London, S.W.1.**—SLABS AND ROAD BLOCKS.—Making paving tiles, slabs and road blocks with "Sawdacrete" mixture, for Novocretes, Ltd., British Columbia House, 1–3, Regent-street, S.W.1.

NO DATE.—**Torquay.**—PAVING.—Providing and laying approximately 12,000 sq. yds. of creosoted red or yellow deal block paving on concrete foundation in various streets in Torquay. Mr. Henry A. Garrett, Borough Engineer, Town Hall, Torquay. Deposit £2 2s.

Competitions.

(*See Competition News, page* 436.)

Auction Sales. Tenders, etc.

★SEPTEMBER 24.—**King's Lynn.**—Messrs. Miles & Easter will sell at Wood Working Factory, Tower-street, King's Lynn, machinery, plant, and stock-in-trade of the S.P. Manufacturing Co., Ltd., for the Receiver for the Debenture Holder. Auctioneers, Broad-street Chambers, King's Lynn.

SEPTEMBER 25.—**London, E.C.**—Messrs. Rutley, Vine & Gurney will sell, *re* J. R. Chalmers, deceased, at 155, Queen Victoria-street, building land plots at Oakleigh Park (frontages 117 ft.), Friern Barnet (60 ft.), Herne Bay (120 ft.), Harrietsham (70 ft.), Hoo, Kent (80 ft.), Denton, Newhaven (50 ft.), Lee-on-Solent (60 ft.). Auctioneers, 6, George-street, Euston-road, N.W.1.

SEPTEMBER 26.—**Ripon.**—MATERIALS.—For the purchase of materials at Ripon Camp. Roads and Communications Officer, Ripon Camp.

SEPTEMBER 29.—**Carnarvon.**—Messrs. Wm. Dew & Son and R. Arthur Jones will sell in voluntary liquidation by order of the liquidators, at the Royal Hotel, Carnarvon, valuable slate and granite quarries at Waunfawr, near Carnarvon, all those valuable slate and granite quarries and three farms, together with grazing rights on Douen Las sheep walk. Auctioneers, Bangor, Conway, and Colwyn Bay.

OCTOBER 2.—**Dalston, London, N.**—Messrs. Joseph Hibbard & Sons will sell by order of the High Court of Justice, Chancery Division (Mr. Justice Russell), *re* W. Warden, Ltd., Temple *v.* Warden, at the Dalston Saw Mills, No. 26, Regent's-row, Queen's-road, Dalston, saw mill machinery and plant. Auctioneers, 15, Newington-green, Islington, N.16.

OCTOBER 2.—**Dalston, London, N.**—Messrs. Joseph Hibbard & Sons will sell, previously to the sale of plant, by order of the High Court of Justice, Chancery Division (Mr. Justice Russell), *re* W. Warden, Ltd., Temple *v.* Warden, at the most moderate reserve upon the premises, No. 26, Regent's-row, Dalston, brick-built conveniently arranged leasehold sawmill, timber yard and residence, known as Dalston Saw Mills, No. 26, Regent's-row, and 60, Pownall-road (situated by the side of the Regent's Canal), together with nine-roomed residence; vacant possession (except of the house) will be given upon completion. Auctioneers, 15, Newington-green, Islington, London, N.16.

★OCTOBER 4 & 5.—**London, E.C. 3.**—Messrs. C. C. & T. Moore will sell by order of executors of the late J. J. Hickmott (the elder), deceased, forty acres of land with frontage at Longford, Kent; 16¼ acres of land with frortages to London-road and Swanley-road. Auctioneers, 7, Leadenhall-street, E.C. 3.

OCTOBER 9.—**Middlesex.**—Messrs. Allsop & Co. will sell by direction of the George Cohen & Armstrong Disposal Corporation at R.A.F. Depot, West Drayton, Middlesex (G.W.R.), timber, glass and other building materials. Auctioneers, 141, Park-road, N.W. 8, and 15, Soho-square, W. 1.

★OCTOBER 23.—**London, S.W.**—Messrs. Bradshaw, Brown & Co. have received instructions from Messrs. W. G. Tarrant, Ltd., to sell, owing to the completion of contracts, Wandle Valley Relief Sewer, L.C.C., contractors' plant and material, laying at the following depots, viz., 536, Garrett-lane, Tooting, S.W., close to Earlsfield Station, and Church-lane, Tooting, S.W. (near by). Auctioneers, Billiter-square Buildings, London, E.C. 3.

OCTOBER 25.—**Essex.**—Messrs. Knight, Frank & Rutley will offer for sale as a going concern the valuable freehold Portland cement, lime and whiting Works, Saffron Walden, Essex. Auctioneers, 20, Hanover-square, W.1.

OCTOBER 30.—**London, W.1.**—Messrs. Henry Holmes & Co. will sell at Mortimer Hall, 93, Mortimer-street, Oxford Circus, W. 1, important building site, 14, 16 and 18, Great Titchfield-street, and 9a, Margaret-street, Oxford Circus, W. Auctioneers, 82, Mortimer-street, W. 1.

Public Appointments.

SEPTEMBER 27.—**Ealing, London, W. 5.**—Assistant Building Inspector required, to act under the directions of the Borough Surveyor and the Chief Building Inspector in the supervision of building operations in accordance with the Council's By-laws by the T.C. Mr. W. R. Hicks, A.M.Inst.C.E., F.S.I., Borough Engineer and Surveyor, Town Hall, Ealing, W. 5 endorsed "Assistant Building Inspector."

★SEPTEMBER 28.—**Chester.**—Town-planning Assistant required in the City Engineer's Department (the appointment is a temporary one) by the City Council. Mr. J. H. Dickson, Town Clerk, Town Hall, Chester endorsed "Town-Planning Assistant."

★SEPTEMBER 29.—**Carmarthen.**—Competent Assistant (London trained preferred) for a period of six to twelve months, for school designs and details, by the Carmarthenshire C.C. Mr. W. Vincent Morgan, A.R.I.B.A., County Architect, Carmarthen.

★SEPTEMBER 29.—**Newcastle-upon-Tyne.**—Senior Architectural Assistant required in the office of the Housing Architect by the City and County Council of Newcastle-upon-Tyne. Mr. A. M. Oliver, Town Clerk, Newcastle-upon-Tyne.

★OCTOBER 6.—**London, S.W. 1.**—Assistant Civil Engineers required in Civil Engineer-in-Chief's Department, Admiralty, at H.M. Naval Establishments at Home and Abroad; also Temporary Engineering Assistants required in London Office of Civil Engineer-in-Chief's Department, Admiralty, and at Outport Civil Engineer-in-Chief's Department, Admiralty, London, S.W. 1, on recognised form.

★NO DATE.—**London, N. 7.**—Lecturer on Estimating required for Wednesday evenings by the Governors of The Northern Polytechnic Institute, Holloway, London, N. 7.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations :—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERDEEN.—The T.C.'s Water Committee has agreed to proceed with the construction of a further section of the aqueduct from Crathes to Culter, at an estimated cost of £170,000. It was also agreed to construct a new intake at Cairnton at an estimated cost of £19,000.

ABERYSTWYTH.—The R.D.C. has received notification that the Ministry of Transport will make a grant of £1,500 toward the cost of reconstructing Rhiwarthen Bridge (estimate £3,000) and £250 toward similar work on Glanaber Bridge (estimate £500). The R.D.C. has submitted road schemes for grant totalling £8,188.——Plans passed by B.C. : Three houses in Prospect-place, for Mr. John Evans; three houses in Sea View-place, for Mr. W. Thomas; alterations to old Vicarage, Llanborden-road.

ALNWICK.—The U.D.C. has agreed to apply for permission to borrow £3,000 for the construction of filter beds for the Alnwick water supply.

ANSDELL.—Plans have been prepared for a new Baptist Church School; Mr. T. Harrison, of Accrington, the architect, and tenders are being invited.

AYLESBURY.—Plans passed by T.C. : Workshop, Havelock-street, Mr. P. R. E. Eaton, for Mr. C. E. Page; two houses, Fleet-street, for Mr. H. Witney; extension of storage, Education Sub-Office, Church-row, Mr. C. H. Riley, for the Bucks C.C.; eight houses, Tring-road, Mr. C. H. Wright, for Messrs. Hazell, Watson & Viney, Ltd.; boiler house, Aylesbury Steam Laundry, Mr. T. R. E. Eaton, for Mr. J. Robinson; house, Wendover-road, Mr. C. H. Wright, for Mrs. E. Wood; alterations and additions, laundry, Union House, Mr. F. Taylor, for Aylesbury Union; alterations, 23, Castle-street, Mr. C. H. Wright, for Mr. R. East; two houses, Havelock-street, Mr. Fleet, for Mr. A. W. Hadaway.

AYRSHIRE.—The Northern District Committee of Ayrshire C.C. has passed plans for the following new buildings in North Ayrshire: Cottage, Steenston-road, Kilwinning, for Mr. John Owens; bungalow, Stoneyholm-road, Kilbirnie, for Mr. John Grant; bungalow, Caldwell-road, West Kilbride, for Misses Fyfe; bungalow, Cochrane-street, Kilbirnie, for Mr. and Mrs. John Alexander; cottage, Redheugh, Kilbirnie, for Mr. Bryce M. Knox; cottage, Bowfield-road, West Kilbride, for Mrs. Mary Crawford Harper; house, Caldwell-road, West Kilbride, for Mr. W. A. Sloan; two slatted houses, Southannan, Fairlie, for Mr. W. N. O'Neil; cottages, South Cottage, Portencross, West Kilbride, for Mr. A. B. Allan; house, Fairlie-road, Largs, for Miss Helen M. W. Wotherspoon; conversion of three huts into six houses of four apartments each at Hut Colony, Kilbirnie.—Plans were also passed for several additions and alterations to dwelling-houses.

BARNET.—The U.D.C. has decided, subject to the consent of the Ministry of Health on the raising of a loan, to provide an open-air swimming bath for the town. A site on the Old Court House Estate has been suggested.

BARNSLEY.—Plans passed by T.C.: Wilson & Pongbottom, latrines, &c., to works, Nelson-street; T. Storrs, Barnsley Traction Co., extension to garage, Sheffield-road; T. Gaimster motor garage and store, York-street; Dr. Chapple, garage, Hunningley-lane, Stairfoot; T. Pearson, two houses, Westbourne-grove; Edmund Hoyland, bungalow, Dodworth-road; Mrs. J. M. Wright, bungalow, Ardsley-road, Stairfoot; G. W. Ambler, bungalow, Pontefract-road, near Cudworth Station; John Shillito, bungalow, Lund-lane; T. Ousling, bungalow, Fish Dam-lane, Monk Bretton; John Lawrence, bungalow, Gilroyd.——Tenders are invited for the erection of 44 houses on the Carlton-lane site. The Ministry of Health has sanctioned the borrowing of £12,590 for the erection of 36 houses on the Wilthorpe Estate.

BARTON.—It is stated that Messrs. Brooke, Bond & Co. will erect a large tea warehouse.

BATLEY.—The T.C. has passed a recommendation that certain property belonging to the Corporation, Nos. 33 to 45, Commercial-street (Batley's principal shopping thoroughfare), be demolished and the sites cleared.

BEDWELLTY.—The Consulting Electrical Engineer to the U.D.C. has submitted estimates of £4,090 for the proposed supply of electricity to Cefn Forest.

BELFAST.—The Unemployed Relief Grants Advisory Committee has approved conditionally of the erection of 2 parlour houses, Ravenhill Park-gardens, 8 parlour houses at Ormiston-crescent site, and 26 parlour houses at Old Park-road site, by the T.C.——The Northern Ireland Government has acquired the old Butter Market in Corporation-street as a site for a new Central Labour Exchange.

BELMONT (SURREY).—Part of the Belmont Workhouse is to be converted into a convalescent home for former inmates of London workhouse infirmaries.

BERWICK.—Plans passed by R.D.C.: House at Tremerston, for Mr. J. A. Kilpatrick.

BLACKBURN.—Plans passed by T.C.: House, Meinsfield, by Mr. F. L. Shorrock; addition to house, East Park-road, by Messrs. T. P. Willson & Sons, Ltd.; two houses, Gorse-road, by Messrs. McLeod & Butterworth; house, Green-lane, by Mr. J. Walmsley; house, Hardman-street, by Mr. Joshua Grimshaw; two houses, Featherbed-road, by Mr. H. Ibbotson; alterations, 25, Lord-street, by Mr. P. Nicoll; church, Briar Brow, by the Committee of Four-lanes End Congregational Church; cinema hall, Mincing-lane, for Mr. A. Bradley.

BLACKPOOL.—Plans passed by T.C.: J. D. Armstrong, four houses, Highgate, Squire's Gate; Harrison & Pilkington, two houses, Silverwood-avenue; Mr. and Mrs. Tolmaer, two houses, Leamington-road; Horne & Collins, two houses, Bispham-road; Mrs. S. J. Marsden, bungalow, Abbey-road; H. G. Ridehalgh, two houses, Harley-road; A. Fletcher & Co., bungalow, Roseacre-avenue; F. Bunghill, two houses, Cavendish-road; J. Gregson, one house and five shops, Bloomfield- and Prospect-roads; W. Yates, nine houses, Cornwall-avenue; — Hague, nine houses, Poulton-road; J. Parkinson & Sons, 14 houses and 22 garages, Leamington and Leicester-roads; J. Taylor, five houses, Queen Victoria-road; G. H. Graham, two houses, Waterloo-road; J. Greenwood, five houses and shops, Whitegate-drive; J. Harrison, three houses, Waterloo-road; J. Parkinson & Sons, six houses and shops, Whitegate-drive; A. Englesent, three houses, St. Annes-road; W. Rimmer, two houses, Bispham-road; H. Thompson, three houses, Leamington road; J. Clewes, two houses, Grasmere-road; H. D. Whiteside, two houses, Windermere-road; W. Rimmer, two houses, Hemingway; F Matthews, two houses, Bispham-road; W. A. L. Hayes, house, Queen's-drive; Thos. Halliday, house, Lytham-road; E. E. Vickers, two houses, Gloucester-avenue; Kay & Fisher, bungalow, Buwgate, off Squire's Gate-lane; G. H. Walker, two houses, Hornchiffe-road; J. England & Son, two bungalows, Bank-avenue, Bispham; Mrs. H. Hodgson, house, Preston Old-road; Miss M. Legge, house, Watson's-lane; A. M. Goldsmith, house, Arnold-avenue; J. E. Walmsley & Co., two houses, Gladfield-road; J. Gregg, two houses, Westmorland-avenue; A. Bernstein, two bungalows, Cumberland-avenue; Lord & Mellodew, two houses, Queen's-drive and St. Stephen's-avenue; W. Legge, house, Arnold-avenue.

BOSTON.—Plans passed by T.C.: House, by Mr. C. T. Pickering, in Fydell-crescent; shed, proposed by Mr. G. W. Periam, in Robin Hood's-walk; conversion of workshop into a house, by Mr. W. Schrimshaw, in Mainridge.

BRADFORD.—The City Architect has submitted plans for the extension of the Westwood and Ashfield Institutions at a cost of £3,541.

BRECON.—The County War Memorial Committee is about to proceed with converting the Brecon and County Infirmary into up-to-date County Hospital.

BROMLEY.—Plans passed by T.C.: House, Minster-road, Mr. F. Faircloth; bungalow, Mayfield-road, Mr. H. C. Bridle; house, Widmore-road, Mr. E. Pawley; bungalow, Mayfield-road, Messrs. J. Elliman & Son; house, Park-avenue, Mr. F. A. Wastell; house, Avondale-road, Messrs. R. Large & Son; house, King's-avenue, Mr. A. W. Williams; house, Garden-road, Messrs. Hayward & Maynard; bungalow, Burford-road, Mr. A. Webb; house, Park-avenue, Mr. A. Frampton; two houses, Alexandra-crescent, Mr. A. Frampton; two houses, London-lane, Messrs. J. Quilter & Son; bungalow, Minster-road, Messrs. T. Crossley & Son; two houses, Sandford-road, Messrs. Soole & Son; house, King's-avenue, Messrs. Gledhill Bros.; house, Langdon-road, Mr. C. Tyler; bungalow, King's-avenue, Mr. M. J. Palin; bungalow, Blenheim-road, Messrs. Collis & Clark; house, Plaistow-lane, Mr. J. Seaton Dahl; two houses, Avondale-road, Mr. A. Frampton; bungalow, Sunningdale-road, Mr. J. B. Hopgood; house, Cromwell-avenue, Mr. P. Coad; bungalow, Mayfield-road, Mr. D. Lake; and garage, Bromley Common, London General Omnibus Company.

BURTON-ON-TRENT.—A proposal to extend the Burton Municipal Museum at an estimated cost of from £5,000 to £6,000 is to be considered at the next meeting of the T.C.

CALVERLEY.—Plans passed: New cable through Farsley, for the Yorkshire Electric Power Co., Ltd.; new coal shed, for W. T. Hartley & Son.

CARLISLE.—Plans passed by T.C.: Weaving rooms at Messrs. Morton's Sundour Fabrics, Ltd.'s. three-story warehouse at the Holme Head works of Messrs. Ferguson Bros.

CHELTENHAM.—Plans passed by T.C.: J. W. D. Booth, house, Tanner's-lane, Arle; Cheltenham Original Brewery Co., Ltd., additions to "The Berkeley Arms," Albion-street; Chatters, Smithson & Rainger (architects for applicant), site plans for lock-up shops at No. 1, Lypiatt-terrace, fronting on Lansdown Place-road; Miss Gardner, house, London-road; P. Witts, two houses, Old Bath-road: Smith's Systems, Ltd., factory front, offices and show rooms, Tennyson-road.

CHEPSTOW.—The Ministry of Health has sanctioned the Caldicot sewerage scheme estimated to cost £3,000.

CHIPPENHAM.—Plans passed by R.D.C.: Kington St. Michael, two cottages, Sir Audley Neeld; Box, bungalow, Hazelbury Hill, Mr. R. Watson; Christian Malford, cottage, Mr. S. Hawkins; Yatton Keynell, stables, Park Farm, Sir Audley Neeld; Box, shop, High-street, Mr. Parke.

CLAYPOLE.—The R.D.C. has decided to proceed with a water scheme, at an estimated cost of £3,670.

CONSETT.—The U.D.C. is to negotiate with the Consett Iron Co. for the purchase of land behind the local Wesleyan Chapel as a site for a public market.

CUCKFIELD.—Plans for improvements to the Church Schools, at a cost of £450 to £500 have been prepared by Mr. Stanley Towse, F.R.I.B.A.

DARLINGTON.—The Housing Committee is recommending the T.C. to apply to the Ministry of Health for approval of the erection of 604 houses, and the payment of a lump sum grant of £75 per house erected before September 30, 1925.

DEPWADE.—The B.G. has decided on a scheme for central heating and lighting the Workhouse, at a cost of from £3,635 to £3,945.

DISS.—Plan passed: Premises for Shell-Mex Co.

DOVER.—The Harbour Board has approached the Trades Facilities Committee for a guarantee of a loan of £1,250,000 for the construction of a new wet dock of 25 acres, and berthing and quay facilities for large vessels. The Board's scheme, for which they hold Parliamentary powers, has been formulated to meet the developing coal and iron industries in East Kent. Sir Joseph Broadbank, the Commissioner appointed, has completed his local enquiry.

EASINGTON.—The R.D.C. Building Committee has passed plans for 125 houses for the Weardale Coal Co. at Thornley.

EASTBOURNE.—The R.D.C. has decided to spend £4,000 on improving the highway between the Borough boundary and the River Cuckmere, providing the Ministry of Transport contributes to the cost.

EASTLEIGH.—The Hampshire Farmers' Co-operative Abattoirs and Bacon Factory, Ltd., have decided to erect a bacon factory in the town.

EDINBURGH.—The Tramway Committee has decided to recommend reconstruction of the Portobello Tramway Depot at a cost of £4,000, and the erection of new offices in Leith at a cost of £3,000.

ELGIN.—At the quarterly meeting of the managers of Dr. Gray's Hospital, Elgin, it was decided to have new X-ray apparatus installed and also to carry out structural improvements.

FARSLEY.—Plans passed: Garage at Leeds-road, for the A.B.C. Publishing Co., Ltd.; extension to garages, for the Armitage Motor Co., petrol store, for E. Woodhouse & Co., Ltd.

FAVERSHAM.—Plan passed for additions to head master's house at Ospringe School.

GALASHIELS.—At a meeting of T.C. plans were passed and warrant granted to the Royal Bank of Scotland, Ltd., to demolish the existing bank buildings at the corner of High-street and Bridge-place, and to erect in their place a range of buildings three stories high, consisting of bank offices, offices and dwelling-house. The architects are Messrs. J. & J. Hall, of Galashiels.

GLAMORGANSHIRE.—The County Standing Joint Committee has decided upon the following works: To call on Messrs. Brunner, Mond & Co. to provide at own cost a new police station at Clydach to replace one rendered uninhabitable; to expend £3,000 upon improving the Cowbridge Police Station and Court; to spend £3,000 on rebuilding the Tonypandy Police Station.—The Committee has called for report with a view to rebuilding Ferndale Police Station.

GLASGOW.—Work on the projected Shieldhall and Renfrew Dock scheme of the Clyde Trust has been commenced: when completed, seven miles will be added to the quays at Glasgow at a cost of £95,000.

GOODWICK.—The U.D.C. has passed plans for a new bungalow for Miss Angela Matthias at Plasygammil.——Mr. J. H. Brinn, Goodwick, has notified the U.D.C. on behalf of local railwaymen that they intend to build houses under G.W.R. Co's. assistance scheme, and Council has decided to assist.

GOOLE.—Arrangements are almost completed for the new Boothferry Bridge over the River Ouse. The estimated cost is about £100,000.

GUISELEY.—It is hoped to commence building a new Wesleyan Sunday School before next spring.

HAZEL GROVE.—Plans passed by U.D.C.: Bungalow, Highfield-road, Bramhall, for Messrs. F. Hallows & Co.; house, Highfield-road, Bramhall, for Mr. B. Croft; house, Bramhall Moor-lane, Hazel-grove, for Mr. J. Driscoll; houses, off Ladythorn-crescent, for Mr. Ogden and Mr. A. Whittaker; house, Cooke-street, for Mr. T. Thatcher.

HOLME CULTRAM.—Plans passed by U.D.C.: Mr. Oldfield, house at Skinburness; Mr. Bradley, house at Skinburness.

HORSHAM.—The West Sussex Education Committee has considered detailed costs in connection with the proposed purchase of Tanbridge House, Horsham, for conversion into a secondary school. These include, in addition to purchase price £7,000, alterations £3,250; furniture £600, and other items, bringing the total to £11,225. Plans have been prepared by the County Architect, Mr. H. P. Roberts.

HOVE.—Plans passed by T.C.: Mr. W. H. Overton, for Mr. W. J. Keene, house and garages, Langdale-road; Mr. W. H. Overton, for Mr. H. Fairburne, conversion into flats, 29, Brunswick-square; Mr. T. B. Hunter, for Mr. J. Rowe, office and room, Seafield-mews; Mr. T. H. Buckwell, for Mrs. Gahagan, conversion into flats, 91, Lansdowne-place; Messrs. Oetzmann & Co., Ltd., for Mrs. M. C. Soul, house, New Church-road (north side); Messrs. Clayton & Black, for Mr. J. Marcus, alterations, 3, Brunswick-terrace; Mr. W. H. Overton, for Mr. Marchant, houses, 13 and 15, Ferndale-road; Mr. E. Harrison, for Messrs. Harrison & Whettingstall, motor garage, 6, Glendor-road; Messrs. Clayton & Black, for Mrs. Block, alterations, 7, Medina-terrace; Mr. B. James, for Mr. Stoke, addition, 43, Sackville-road; Mr. E. E. Brown, for Captain Hollingsworth, house and garage, Kingsway; Mr. W. Kettle, for Mr. W. Colwell, garage, Arthur-street.

KIBWORTH.—Mr. W. J. Smith, of Market Harborough, has been requested to prepare plans for a new Wesleyan church.

LLANELLY.—The Borough Education Committee is to invite tenders for electric light fittings and installation at Central Boys' Schools.

LLANTRISANT.—It was reported to a meeting of the Llantrisant and Llantwit Fardre R.D.C. that the Great Western Colliery Co. intends to build 365 houses in Tynant. The company's intention was to put 65 houses in hand immediately and build 100 per annum in the ensuing three years.

LONDON (CAMBERWELL).—New street out of north-western side of Overhill-road, for White, Dent & Co.; buildings, Grove-lane, for Martin & Co.; extension of premises, 53–57, High-street, for A. A. Keen.

(Continued on page 469.)

* See also our List of Contracts, Competitions, etc.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	2 15 3	Do. Bullnose	10 1 6
Do. Bullnose	3 8 3	Blue Wire Cuts	7 11 6

Best Stourbridge Fire brick :—

2½ in.	11 3 0	3 in.	13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
Quoins. Bullnose and 4½in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. „	2 5	4 in. „	3 7

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand	15 6	„ „
¾ in. Shingle for Ferro-Concrete	14 0	„ „
½ in. „	15 0	„ „
¾ in. Broken Brick	10 6	„ „
Pan Breeze	5 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6
51/- alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 13 0
Keene's Cement, White	5 8 0
„ „ Pink	5 3 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 6
„ Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.
Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides „	27/-
Sawn three or four sides „	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 5½
1½ in. to 2 in. ditto, ditto „	1 3

HARD YORK—

Delivered at any Goods Station London.	
Scappled random blocks. Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto. ditto „	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s. d.
Plain per ft. cube	6 6
Moulded „ „	7 9
Cills „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	21/-	1¼	33/6
⅞	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.		MATCHINGS (BEST).	
Inches.	per sq.	Inches	per sq.
1	26/6	⅝	17/6
1¼	33/6	¾	22/-
1½	38/6	1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¾ in. do. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt.	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Hip and valley tiles (per dozen) Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &C., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
„ „ Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2¾ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¾	3½d.
4 in.	1/4	1/1¾	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7¾	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9¾	1/6½	4d.
5 in.	2/1¾	1/9	5d.

RAIN-WATER PIPES, &C.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. „	1/9¾	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11¾	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5½	3 3½
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3½	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	10 6	18 2
6 in. „ „	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	14 0 0	to	15 0 0
Staffordshire Crown Bars—good merchant quality	14 10 0	..	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	18 10 0	..	14 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 10 0	..	14 10
Hoop iron, basis price	16 10 0	..	17 10
„ Galvanised	31 0 0	..	32 0
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	15 10 0	..	16 10
„ „ „ 24 g.	16 10 0	..	17 10
„ „ „ 26 g.	18 10 0	..	19 10
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24 10
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	21 10 0	..	23 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.		
LEAD—Sheet, English, 4 lb. and up	35 0 0	..	—
Pipe in coils	35 10 0	..	—
Soil Pipe	38 0 0	..	—
Compo pipe	39 0 0	..	—

NOTE—Country delivery, 30s. per ton extra : lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	22 10 0	..	—
Do., ex country, carriage forward per ton	23 10 0	..	—

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES. S.F.

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps	33/-	41/-	56/-	101/-	per doz
8 lbs. S. traps	35/-	45/-	66/-	126/-	„

COPPER—	£ s. d.		
Strong Sheet per lb.	0 2 3	..	—
Thin „ „	0 2 4	..	—
Copper nails „	0 2 3	..	—
Copper wire „	0 2 4	..	—
TIN—English Ingots „	0 2 0	..	—
SOLDER—Plumbers' „	0 0 11	..	—
Tinmen's „	0 1 1	..	—
Blowpipe „	0 1 3	..	—

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 3
„ „ „ in barrels „	0 3
„ „ „ in drums „	0 3 11
Boiled „ „ in barrels „	0 4
„ „ „ in drums „	0 4 2
Turpentine in barrels „	0 6
„ in drums (10 gall.) „	0 6
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	56 5
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots. per ton delivered	77 0
Red Lead, Dry (packages extra) per ton	42 0
Best Linseed Oil Putty per cwt.	0 16
Filocol per cwt.	0 15
Size. XD Quality fkn.	0 3

[Concluded on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

S CURRENT OF MATERIALS (*contd.*

GLASS.

SH SHEET GLASS IN CRATES OF STOCK AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft
ourths	3½d.	32 oz. fourths.....	8½d
hirds	4½d.	32 „ thirds.....	10½d.
ourths	5d.	Obscured Sheet, 15oz.	4d.
hirds	6½d.	21 „	5½d.
urths	6d.	Fluted 15oz. 6½d. 21oz.	9½d.
urds.....	7½d.	En'lled 15 „ 5½d., 21 „	7½d.

Price according to size and substance for cut from stock.

SH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
d plate	4½d.
h rolled	5½d.
gh rolled	5½d
red Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
tto, tinted	9d.
d Sheet	6d.
e Rolled Cathedral	5½d.
ed do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
nish	Outside	0 14 0
to	ditto	0 16 0
al	ditto	0 18 0
al	ditto	1 0 0
al Carriage	ditto	1 4 0
tto	ditto	1 12 0
rnish	Inside	0 18 0
e Paper	ditto	0 18 0
al Cabinet	ditto	1 2 6
al flatting	ditto	1 0 6
ing Oak	ditto	0 18 0
rd drying Oak	ditto	0 19 0
al Varnish	ditto	1 0 0
litto	ditto	1 2 0
litto	ditto	1 12 0
an Gold Size		0 12 0
ck Japan		0 12 0
Mahogany Stain (water)		0 12 0
ck Black		0 9 0
lack		0 14 0
(patent)		1 5 0
nd Brush Polish		0 17 6
Dryers in Terebine		0 9 0
Black Enamel		0 7 0

EW BUILDINGS IN SCOTLAND.

allan. — PUBLIC HALL. — Sir James , of Strathallan Castle, has offered to a public hall for the village of Strath- ear Auchterarder, Perthshire.

een.—CLUB.—Plans have been prepared . Watt, architect, 214, Union-street, for club in the east end of the town. The ee has applied to the T.C. for a site at h-west corner of the Gallowgate open

ss.—HOUSES.—The Linlithgow District tee of the Linlithgowshire C.C. has agreed a loan to the Kinneil Coal Co., Bo'ness, e them to carry out a housing scheme for ployees. They propose to build 100 nd the total cost is estimated at £30,000.

nch.—BATHS.—A site has been obtained e-street for the erection of the baths and ses for the Glasgow Corporation for the h and neighbouring districts. The for the buildings amount to about

k.— HOSPITAL.— Building operations commenced next week in connection erection of a cottage hospital at Midton

.—CHURCH.—Plans have been pre- the Lambert Memorial Church pro- be erected by the Sauchie and Fish- ted Free Church.

mline.—ALTERATIONS.—The Dean of rt has passed plans submitted by Mr. ess, Manbeath Colliery, for alterations ions to nine houses in Dundas-street,

en.—MEMORIAL.—The plans of the Hall and war memorial have been to the Streets and Roads Committee er the question of the line of the

her.—HOUSES.—The Eastern District e of Dumbarton C.C. has decided to houses, the cost of which is estimated 0. In addition to this scheme a 0 houses will be erected at Duntocher.

PROPOSED NEW BUILDINGS, &c.

(*Continued from p.* 467)

LONDON (HACKNEY).—Plans passed by B.C.: Drainage at factory, 24A, Sutton-place, for J. Hamilton & Son; additions, Clapton Laundry Co.'s premises, Evering-road, for S. Hayworth & Son; alterations, 7, Clapton Common, for J. Warden; factory, Somerford-grove, for H. Bradford & Son; additions, Snowflake Laundry premises, Tilia-road, for W. Silk & Son; warehouse, 14, Lower Clapton-road, for F. Bellenie; four shops, 271, Marc-street, for H. Dicksee.

LONDON (STOKE NEWINGTON). — Mission hall, Howard-road, for Mr. S. A. S. Yeo.

LONGBENTON.—Messrs. Bedson, Hall & Thompson, with Mr. Stephenson (architect), have interviewed the Council relative to the provision of sewerage facilities on the Benton Lodge Estate, where a large number of houses are to be erected.

MOUNTAIN ASH.—The U.D.C. has urged the Glamorgan County Council to expedite the putting in hand of the work of widening Cardiff-road.

NEATH.—The R.D.C. has made application to compulsorily acquire 2½ acres of land at Glynneath for erection of 16 houses.

NELSON.—The T.C. has decided to apply to the Electricity Commissioners for permission to install a turbo-generating set of 6,000 kilowatt capacity, at an estimated cost of £24,000, and for sanction to borrow the sum from the Unemployment Grants Committee of the Ministry of Health. Mr. A. Edmondson, owner of Dobson House Farm, and Mr. H. M. Walton, owner of the Chapel House estate, have submitted proposals to the T.C. to erect dwelling-houses on their estates subject to satisfactory financial assistance being granted in pursuance of the Housing Act, 1923. The Council deferred the matter. Mr. A. Edmondson is proposing to erect nine houses in Pont-street. The Nelson Co-operative and Industrial Society are proposing alterations to premises, 1-3, Railway-street.

NEWCASTLE.—Plans have been passed by the Town Improvement and Streets' Committee for the erection of a motor garage to hold 50 cars, on the Milvain Estate, Westgate Road. The architect is Mr. T. K. White, of 55, Pilgrim-street, Newcastle.—With the object of stimulating the erection of better class houses by private enterprise, the Newcastle T.C. has adopted a recommendation from its Housing Committee allocating 25 acres of the High Heaton Housing Estate for erection of privately-owned houses. The land was originally purchased by the Corporation for housing purposes, and the step has been taken in view of the Ministry's refusal to sanction further municipal schemes for the present. The estate is to be developed on modern lines, and about 300 houses will be built.

NEWPORT (MON).—The Corporation is formulating a scheme for the conversion of the premises, "Clytha," Park-road, and Bryngwyn Nursing Home, which adjoins, and are to be purchased, leasehold, at £3,425.

PENARTH.—The Penarth U.D.C. has been offered, and accepted, the gift of Beecroft, Stanwell-road, from Capt. Jenkins for conversion to a child welfare and maternity centre. The Council has decided to press for sanction to erection of further municipal houses on the ground that cottagers' needs are not adequately met by private enterprise. Messrs. David Davies & Sons have applied to U.D.C. for land for erection of houses. The Dinas Powis Parish Council has received notification that land for Eastbrook recreation scheme will be placed at its disposal subject to building of wall, 6 ft. high, at northern and eastern boundaries. This is estimated to cost £800 to £1,000.

PURLEY.—A movement is on foot to provide a permanent building for Purley Men's Club, the cost being estimated at £5,000.

REIGATE.—The R.D.C. has decided that 211 new houses are required in the area, and it has been decided to offer inducements to private builders to erect them.

RHONDDA.—The Education Committee has instructed preparation of plans for additions to Pentre Secondary School.

RICHMOND (SURREY).—The Red Lion-street area has, it is reported, been disposed of to a syndicate, and plans are being prepared in connection with the scheme and will be shortly presented to the Highways Committee of the T.C. It is proposed to erect 20 first-class shops. Messrs. Yates, Cook & Darbyshire are the architects.

SALE.—The U.D.C. have instructed their surveyor to prepare plans and obtain estimates for the erection of a new and permanent bandstand in the park.

SCULCOATES.—Plans have been passed by the R.D.C. for 118 houses on Hedon-road. They were submitted by Mr. J. Emmerson, who asked the Council to increase the subsidy to £25 per house, in accordance with their powers, on account of the extra cost of labour and the carriage of materials. The matter was referred to the Housing Committee.

SEATON CAREW.—A scheme for developing this little seaside resort near West Hartlepool, at an estimated cost of £42,000, is making headway.

SHARDLOW.—The B.G. has decided to erect a new infirmary.

SHEFFIELD.—Plans passed: 12 houses, Handsworth Estate, for Estates Committee, Corporation; 10 houses, Woodhouse Estate, for Estates Committee, Corporation; two houses, saleshops, workshops, and garage, Middlewood-road, for Mr. Fred Arundel; two houses, School Green-lane, for Mr. W. F. Hides; two houses, Rundle-road, for Messrs. Dyson & Co.; bungalow, road off Abbey-lane, for Mr. F. Wolstenholme; bungalow, Muskoka-drive, for Mr. G. M. Taylor; house, Ringinglowe-road, for Mr. L. L. Allen; house, Kennedy and Chatfield-roads, for Messrs. S. Higton & Sons bungalow, Abbey-lane and Bocking-lane, for Mr. James; four houses, School Green-lane, for Mr. R. Blenkhorne; house, Sandford-grove-road, for Mr W. A. Knight; house, School Green-lane, for Mr. E. V. Wolstenholme; house, off Abbey-lane, for Mr. J. V. Auckland; two houses, Archer-lane, for Mr. J. J. Hawksworth; four houses, Norton Lees-lane, for Messrs. Hammett & Co.; two houses and garage, Whirlowdale-road, for Mr. T. H. Bailey; bungalow, School Green-lane, for Mr. H. Belk.

SOWERBY BRIDGE.—The U.D.C. is making application to the Ministry of Health for sanction to borrow £4,510 in order to build 14 houses on the Albert-road, site. The Council hope to sell these houses, which will be built to suit customers' requirements.

STAINFORTH.—The Thorne Education Committee has decided to erect a new school at Stainforth, with accommodation for 1,000 children.

STALYBRIDGE.—The T.C. is seeking sanction for borrowing £9,040 for street improvements, and £4,650 for a new road from Harrison-street to Cambridge-street and Church-walk, as relief work.

STOKESLEY.—Plans approved for two houses at Hutton Rudby, for Mr. J. Bartram; new bungalow, Great Broughton, Mrs. Fawcett, has been approved by the R.D.C.

EXTERNAL TEXTURAL FINISH OF CONCRETE BUILDINGS.

On the morning of Thursday of this week Mr. Frederic Coleman gave an illustrated lecture at the West End Cinema in Coventry-street. The lecturer's general subject was the external textural finish of concrete buildings and structures of various sorts. He showed a film on stucco textures, showing the possibilities that are inherent in a stucco made from white Portland cement. His theme was beauty and the application of a plastic surface to our buildings—a plastic exterior hardening into stone, in unlimited variations of colour and textures. The film showed not only the finishes that can be obtained, but how simply they can be secured. The tones of the buildings shown in the film were made possible, he claimed, by the use of white Portland cement, which provided the white neutral colour on and with which the colour effects were built up. The textures shown and described were obtained by the use of ordinary tools. He pointed out that the texture should always be the result of the application of the stucco rather than the manipulation of the stucco to obtain the effect; the first was natural, true, and honest, and the latter was a straining after an effect, and the straining would show more than the effect.

After illustrating sheathed-frame construction, back-plaster construction, and the application of stucco to masonry, a workman was shown applying both simple and textural finishes one after another. A dozen residences of various sorts were shown on the screen, each finished in a different manner. After the pictures of the houses and a close view of the textural finish had been given, the workman was shown carrying out the actual manipulation which provided that particular finish. As an object lesson of how stucco work should be done this was admirable.

The lecturer then dealt at some length with a magnificent piece of concrete statuary recently completed in Chicago, called the "Fountain of Time." He read a portion of an address by the sculptor, Mr. Lorado Taft, and several explanatory notes by Mr. J. J. Earley, who carried out the work. The series of photographs of the finished piece showing the methods of construction, and close views giving an idea of the architectural lines and the textural finish of the group, were much appreciated by the audience. Next came a series of coloured photographs, taken in two beautiful gardens in the vicinity of Boston. Swimming-pools, fountains, balustrades, stairways, pergolas, and summer houses in white Portland cement were shown to excellent advantage.

The lecturer then showed a number of pictures of work in London and other parts of England in which white Portland cement had been used in the form of stucco or cast stone. Finally, he produced a couple of score of illustrations of the best class of cast-stone work in America. Intermingled with these were pictures of some American architectural works of the last few years.

The lecture will be given for a second and last time at the West End Cinema in Coventry-street on the morning of Thursday next, September 27.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	„ „	1	0
Add for every additional depth of 6 ft.	„ „	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	„ „	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	„ „	7	6
Add if in floors 6 in. thick	„ „	3	6
Add if in beams	„ „	4	0
Add if aggregate 1 : 2: 4	„ „	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	„ „	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	„	7	10	0
Add if in Staffordshire blues	„	22	0	0
Add if in Portland cement and sand	„	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	„ „	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	„ „	0	0	10
Axed in stocks	„ „	0	1	9
Rubbed and gauged jointed in putty camber or segmental	„ „	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	„ „	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	„	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	„ „	9	0
¾ inch on flats in two thicknesses	„ „	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	„ „	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	„ „	21	6
Bath stone and all labour fixed	„ „	10	6
Portland stone fixed	„ „	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	„	80	9
Do. 24 in. × 12 in. Do. Do.	„	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3	
Do. joists	„ „	5	9	
Do. roofs, floors and partitions	„ „	6	3	
Do. trusses	„ „	8	3	

		¾″	1″	1¼″	2″
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	„	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	„	1	6
Gutter boards and bearers	„	1	0

FLOORING.		¾″	1″	1¼″	1½″
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	„		54/-	65/-	72/-
Do. matchings	„	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	„ „	2	1
Add for fitting and fixing	„ „	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	„ „	3	9

DOORS.		1½″	1¾″	2″
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	„	2/5	2/8	2/11
Two-panel moulded both sides	„	2/8	2/11	3/2
Four-panel Do. Do.	„	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

Deal wrot moulded and rebated	per foot cube		14

		1″	1¼″
Plain deal jamb linings framed	per ft. sup.	1/8	1/9
Deal shelves and bearers	„	1/5	1/7
Add if cross tongued	„	2d.	2d.

STAIRCASES.

	1″	1¼″	1½″	2″
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8

Housings for steps and risers		each
Deal balusters, 1 in. × 1¼ in.		per ft. run.
Mahogany handrail; average 3 in. × 3 in.		„ „
Add if ramped		„ „
Add if wreathed		„ „

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	
Sash fasteners	11½d.	Mortice locks	
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

Rolled steel joists	per cwt.	
Plain compound girders	„	
Do. stanchions	„	
In roof work	„	

RAIN-WATER GOODS.

		3″	4″	5″
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7
Ogee Do. Do.	„	2/4½	3/1	3/10
Rain-water pipes with ears	„	2/9	3/7	
Extra for shoes and bends	each	4/4	5/11	
Do. stopped ends	„	1/11	2/4½	3/7
Do. nozzles for inlets	„	2/2	2/7	3/10

PLUMBER.

Milled lead and laying in flashings and gutters	per cwt.	
Do. Do. in flats	„	
Extra labour and solder in coated cesspools	each	
Welt joint	per ft. run.	
Soldered seam	„ „	
Copper nailing	„ „	

		½″	¾″	1″	1½″	2″
Drawn lead waste	per ft. run	10d.	1/6	1/9	3/1	3/10
Do. service	„	1/5	1/11	2/3	3/6	
Do. soil	„					3/3
Bends in lead pipe	each	1/2	1/8	2/1	2/10	3/6
Soldered stop ends	„	11d.	1/-	1/3	1/11	2/4
Red lead joints	„	2/10	3/6	4/-	4/11	6/6
Wiped soldered joints	„				14/7	19/6
Lead traps and cleaning screws	„	6/4	9/7	15/4	41/-	
Bib cocks and joints	„	15/4	17/2	25/8	64/-	
Stop cocks and joints	„					

PLASTERER.

Render, float and set in lime and hair	per yard sup.	
Do. Do. Sirapite	„ „	
Do. Do. Keen's	„ „	
Add sawn lathing	„ „	
Add metal lathing	„ „	
Portland cement screed	„ „	
Do. plain face	„ „	
Mouldings in plaster	per 1 girth	
One-and-a-half granolithic pavings	per yard sup.	

GLAZIER.

21 oz. sheet plain	per foot sup.	
26 oz. Do.	„ „	
Obscured sheet	„ „	
⅛ in. rolled plate	„ „	
¼ in. rough rolled or cast plate	„ „	
¼ in. wired cast plate	„ „	

PAINTER.

Preparing and distempering, 2 coats	per yard sup.	
Knotting and priming	„ „	
Plain painting 1 coat	„ „	
Do. 2 coats	„ „	
Do. 3 coats	„ „	
Do. 4 coats	„ „	
Graining	„ „	
Varnishing twice	„ „	
Sizing	„ „	
Flatting	„ „	
Enamel	„ „	
Wax polishing	per foot sup.	
French polishing	„ „	
Preparing for and hanging paper	per piece 2/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole information given on this page is copyright.

PATENTS.*

APPLICATIONS PUBLISHED.

73.—R. W. Newcombe: Coverings for walls.
91.—H. Hamaguchi: Compositions for off paint.
27.—S. S. Lowry: Slab buildings.
12.—J. H. Cox: Extending dining
5.—L. Santarella: Construction of reinncrete trusses.
2.—J. H. Walker and R. E. Knight: tion of the steel reinforcement in reinncrete structures.
1.—W. G. Hyde: Window sashes.
5.—O. Nickel and R. Markwitz: Pro- the manufacture of cement.
8.—S. A. Baker: Fencing and gates.
8.—J. S. Hall: Fastening or securing r sash windows.
8.—M. Haramiishi: Ferro-concrete s.
3 & 200,030.—Waring & Gillow, Ltd., ohnston: Extensible tables.
5.—W. Feldenheimer and W. W. : Purification of clay.
2.—G. L. Huysmans: Process for the decoration and engraving in metallic glass, pottery, ceramic products.
2.—A. J. Goodridge: Apparatus for broken pipes.
).—H. Wade (Norton Co.): Safety s.
3.—C. E. P. Gabriel: Holding devices le members, such as doors and windows.
).—J. Birch & Sons, Ltd., C. Birch, and de: Fastener for casements, doors, and
2.—S. S. Rogers and Broad & Co., Ltd.: nhole frames and covers.
5.—Aluminium Plant and Vessel Co., . French and S. W. T. Paine: Internal or handway doors, lids or covers.
.—R. Junod: Combination locks.
.—W. G. Mueller: Apparatus for and securing wires around bales, d the like.
.—T. Shields (F. N. Burt Co., Ltd.): ng machines.
.—E. C. R. Marks (Soc. Italiana P. Co.): Blinds for shop fronts, doors,
—W. C. Chapman: Upholstered ehicle seats, mattresses, and the like.
—W. L. Garrett and Bristol Aeroplane Door-retaining devices.
—J. Douglas: Domestic ranges.
—G. Rutter: Chimneys in dwelling-
—W. S. C. Glover: Device for fasten- windows.
—Midland Pressing & Piercing Co., . Fisher: Window-sash fasteners.
—J. Devonald: Plug tap or stop
—J. Frei (G. Richt and C. Hiemer):
—F. C. C. Rings and Anglo-Danish onstruction Co., Ltd.: Blockwork and the like.
—R. M. Wigley: Tiles for decorative other purposes.
—G. H. Smith & H. Smith: Fasteners s sashes.
—P. C. Barton: Casement stays or
—J. Sperni: Method for the manu- agnesian cement.
—O. G. Henderson: Combination air.
—J. Marshall: Poultry houses.
(C. E. Bunker and W. W. Dawson:
K. Esperstedt: Means for mount- ring sheets of glass, marble slabs, the like, to walls and ceilings.
F. Wilson: Cabinets.
R. Kennedy: Cattle stalls, stables

applications are now in the stage in on to the grant of Patents upon them

200,407.—C. P. Chamberlin: Sash-operating mechanisms for windows.
200,419.—J. McWhirter: Concrete or other cast slabs or blocks.
200,425.—A. Elmendorff and R. J. Marx: Manufacture of veneered pulp and other boards, and a process for making the same.
200,444.—F. W. Rurade: Building brick.
201,195.—B. Morton: Roads.
201,196.—A. G. Hanvey: Means of trimming around fire-place and forming hearth.
201,205.—T. Marshall: Means for heating buildings by means of hot air.
201,210.—E. P. Appleyard: Fire alarms.
201, 241.—A. M. Callow: Grabs.
201,242.—J. E. Hamilton and E. P. Stevenson: Hydraulic lifting and lowering apparatus.
201,255.—E. M. Lawrence: Door latches.
201,259.—H. B. Toone and H. S. Toone: Veneered panels, slabs, and other objects.
201,262.—G. M. Trimingham: Sliding windows.
201,284.—E. W. Robert and L. F. W. Leese: Building unit and method of erecting floors or roofs and ceilings therewith.
201,316.—H. Beierbach: Building unit.
201,330.—A. Lythe: Ladder bracket.
201,495.—O. Y. Imray (Soc. Fabrica Tavelloni Achille Orzali & Co.): Building beams and slabs.
192,377.—H. H. Robertson Co.: Building material.
201,509.—M. Haramiishi: Ferro-concrete floors and walls.
200,856.—S. E. Conrad: Window-cleaner.
200,863.—P. Ross and S. Coxon: Indirect lighting.
181,684.—W. O. Vivarttas: Wrenches.
200,894.—K. M. A. Goddard: Construction of appliance for cleaning windows.
200,898.—F. M. Hilgerink: Apparatus for cleaning surfaces.
200,959.—W. Gibson and E. J. Pocock: Fire bridge for furnaces.
200,970.—A. G. Gray: Derricks or cranes.
201,006.—J. E. Claxton: Process of making road-paving material.

TRADE NEWS.

Messrs. Joseph H. Bradshaw, Ltd., asphalte importers and contractors, have removed from 34, John Dalton-street, Manchester, to 4, St. Mary's Parsonage, Deansgate, Manchester (Telephone: Central 4359).

Messrs. Luckwood & Kesterton, wholesale builders' merchants, of Sentinel House, Southampton-row, W.C.1, have taken showrooms, offices and warehouse at 44-46, Eagle-street, Holborn, W.C.

Preston Corporation (Surveyor, Mr. J. S. Bullough, A.M.I.C.E., M.I.M. and Cy.E.) have placed the surfacing work in connection with their new arterial road in the hands of Messrs. William Shepherd & Sons, Ltd., Milkstone, Rochdale.

An informative booklet is issued by the Spedol Manufacturing Co., Ltd., of Brentford, Middlesex. It gives full information about the firm's manufactures, which include, in addition to high-grade paints, varnishes, liquid dryers, "Spemac" enamels, and the well-known rust-resisting coating marketed under the title of "Ferroarmor." A copy will be posted free upon application to the Spedol Manufacturing Co., Ltd., Brentford.

The increased use of road transport with heavily-laden lorries often causes plaster work to crack and fall. A thoroughly seasoned wood pulp board, however, if properly fixed, should be a permanently satisfactory substitute for lath and plaster. The weight alone is an important factor, as a quarter-inch thick lining weighs about one-fifth of the ordinary coating of plaster. White "Sundeala" boards are light in weight, as the method of manufacturing in a homogeneous mass makes the sheets very rigid and firm. The material, being waterproofed, is easily decorated without the liability of absorbing moisture and causing buckling.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.
* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

BARNSLEY.—For the erection of 82 houses on the Cundy Cross site, for the T.C. :—
*Fairhurst Bros., Wigan £28,912

BARNSLEY.—For making-up roads, for the T.C. :—
*G. Mellor, Back-road, Keir-street .. £598 0
*H. Medley & Son, Back-road, Hawthorne-street 397 5
*S. Taylor, Henshall-street 378 10
*S. Taylor, Milnes-street 198 0

BRADFORD.—Rebuilding warehouse premises at Leeds-road, for Messrs. M. Adam & Co. :—
*J. T. Wright & Sons, Leeds.

BRADFORD.—For erection of warehouse and garages in Grattan-road, for Messrs. A. T. Patchett & Co. :—
*E. Fearnley & Son (*mason*), Bradford.
*Wm. Newell & Son (*joiner*), Bradford.
*Thos. Nelson & Son (*slater*), Bradford.
*A. Holmes (*plumber*), Bradford.
*A. C. Marsden (*plasterer*), Bradford.

BRADFORD.—For erection of two private residences in Haworth-road, for Messrs. Bannister & Son :—
*M. Booth & Sons (*mason*), Bradford.
*E. Fearnley & Son (*joiner*), Bradford.

BROMLEY.—For internal decoration of 68 houses, for the T.C. :—
*Woodhams & Tyler £806 15

CHADDERTON.—For decorating the Town Hall, for the U.D.C. :—
*F. Drury, Ltd., Manchester.

CORWEN.—For erection of war memorial, and supplying and fixing four entrance gates and tablets :—
*Wm. Sterratt, Wrexham..... £294 18

DEWSBURY.—For erection of houses at Beckett-lane, for the Corporation :—
*A. C. Smith (*substituted tender*)..... £9,000

DUDLEY.—Erection of 20 houses on Woodside Site, for the T.C. :—
*C. Coulson £7,195

FARSLEY.—For painting and decorating fire station and waiting-room, for the R.D.C. :—
*J. Marshall, Farsley.

HAMPTON.—For erection of 24 houses on Priory-road Site, for the U.D.C. Mr. S. H. Chambers, Surveyor to the Council, Public Offices, Hampton, Middlesex :—
Bedford & Co., Hampstead (24 houses) £23,760
W. Griffiths & Sons, Chelsea.. do. 15,372
Dilliway & Elvey, London.... do. 15,324
Battiscombe & Harris, London do. 14,450
Merri ts & Sons, Hampton .. do 14,400
Barnards, Westminster ..... do. 14,320
Hidden & Co., Ltd., Brentford do. 13,600
S. E. Moss, Southend-on-Sea.. do. 11,760
Pettengell & Clark, Hitchin (12 houses) 6,900
*Rutherford & Woolford, Surbiton (12 houses) 5,532
H. March, Hampton (per pair)..... 1,060

HECKMONDWIKE.—For the erection of 30 houses for the U.D.C. :—
*R. Horsfall & Son, Liversedge.

LEEDS.—For structural alterations at the "Cock and Bottle" Hotel, Upperhead-row, for Messrs. G. W. Atkinson :—
*Pearson Bros., Sheepscar, Leeds.

LEEDS.—For extensions to nurses' home at the Leeds General Infirmary :—
*Hy. Atkinson & Sons, Leeds.

LEEDS.—For structural alterations to Messrs. Finglands premises, Guildford-street, for Messrs. A. & F. Moseleys :—
*T. Pearson, Leeds.

LEEDS.—For structural alterations to "Northcote," Roundhay, for Mr. G. Whittington :—
*J. T. Wright & Sons, Leeds.

LONDON.—For rebuilding the "Camden Stores" public-house, Park-street, N.W., for Messrs. Truman, Hanbury, Buxton & Co., Ltd. Mr. A. E. Sewell, architect, 91, Brick-lane, E. 1. Quantities by Mr. Wm. Gilbert, 74, Broad-street-avenue, E.C. 2 :—
Knight & Son £12,990
Johnson Bros. 12,975
Moffatt Bros. 12,974
Wm. Harper, Ltd. 12,938
Dearing & Co. 12,899
Courtney & Fairbairn, Ltd. 12,899
Snewin Bros. 12,747
Lawrence & Son 12,644
Sheffield Bros. 12,575
Everitt & Son 12,399
H. V. Clogg 12,277
Schooley & Son 11,834

LONDON.—For painting at Prospect-terrace, for the St. Pancras B.C. :—
Whitby's, Ltd. £414
Works Department 350
Albert Monk 320
Holland & Hannen & Cubitts, Ltd. 281
Marels & Co., Ltd. 268
*Marchant, Hirst & Co. 268

LONDON.—"Natsopa House," for the National Society of Printers' Assistants. Messrs. Harding & Williams, architects, 13, New-street, Leicester. Quantities by Mr. John T. Burt, F.S.I., 6A, St. Martin's, Leicester :—

John Greenwood, Ltd., London, E.C.4	£11,822 0
Higgs & Hills, Ltd., South Lambeth, S.E.	11,544 0
Wm. Moss & Sons, Ltd., London, W.C.1	11,137 0
Jas. Carmichael, Ltd., Wandsworth	11,000 0
A. Roberts & Co., Ltd., Kensington, W.3	10,995 0
F. G. Minter, Putney, S.W.15	10,900 0
J. & J. Dean, Leyton, E.10	10,834 15
Bovis, Ltd., London, W.1	10,555 0
Foster & Dicksee, Ltd., Rugby	10,456 0
Guild of Builders, Ltd., London, W.C.1	10,398 0
Architects' estimate	10,264 0
*Arthur Vigor, Ltd., London, S.W.1	9,818 0

NEWCASTLE-ON-TYNE.—For construction of road between Newcastle and Tynemouth, for the T.C.:—

*G. Mackay & Son	£119,919 2 7

PORTSMOUTH.—For re-decorations, &c., at "The Fratton Cellars," for the Kemp Town Brewery. Mr. F. T. Cawthorn, architect, Brighton :—

*John Lay & Co., Portsmouth.

SHEFFIELD.—Construction of 6 in. water-pipe line, for the T.C. :—

*H. & E. Andrews, Sheffield	£710 13 6

SHEFFIELD.—Supply of 300 4 in. cast-iron pipes, to the Water Committee :—

*Staveley Coal & Iron Co.	£323 0 4

SHERINGHAM.—For erection of stables at store yard, for the U.D.C. :—

Chapman Bros.	£567 0 0
R. W. Anderson	500 17 10
W. Cooper	491 6 2
Sadler & Son	488 16 0
*Blyth & Son	469 0 0

STOCKTON.—For erection of a new gas-holder with a capacity of 8,000,000 cu. ft., for the Montreal Light Heat & Power Co. :—

*Ashmore, Benson, Pease & Co.	£100,000

WHITWORTH.—For the rebuilding of Lloyd-street School, Whitworth :—

*_Building_—Sutcliffe Bros., Whitworth.
*_Iron ork, floor and roof_—Webb Bros., Bury.
*_Tiling and flooring_—Wild Bros., Rochdale.

WIGAN.—For the supply and installation at the Wigan Corporation Gas Works of modern horizontal retorts with coal and coke handling plants :—

*Drakes, Ltd., Halifax.

A Builder's Estate.

Mr. John Joseph Inward, of 29, Endymion-road, Finsbury Park, N., of Messrs. Inward & Lovell, builders, left £19,100.

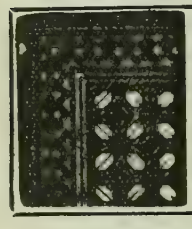
The Housing Subsidy.

Grants of £100 per house are to be offered to builders and owner occupiers by the Carlisle Corporation in connection with the Government's new housing policy.

Under the Government's new scheme the West Hartlepool T.C. proposes to erect an additional 36 houses by direct labour, and to invite local builders to tender for a further 18. A subsidy varying from £80 to £100 is to be offered for houses built by private enterprise.

The Mid and North Northumberland Master Builders' and Allied Trades' Association has decided to appoint a committee to consider the application of the Housing Act, 1923, in the area covered by the organisation, which extends from Ashington, through Bedlington, Choppington and Morpeth, up to Berwick, with a desire to prepare, or assist in preparing, schemes and to confer with local authorities in order to carry the Act to an effective issue.

The Greasborough Urban Council has decided, with a view to stimulating building by private enterprise, to offer a subsidy of £100 a house.



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THE BUILDER

JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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HEATING AND VENTILATION.

ABOUT half our British year is cold enough to make artificial warmth in dwellings and workplaces distinctly desirable if not absolutely essential to health and efficiency, and with the return of shorter days and lower temperatures the subject of heating and heating appliances again claims attention. absolute decision as to the best method of heating and ilating buildings is ever arrived at, however, for our climate, gh extremely variable, is not severe enough to provide the ulus needed to drive all parties among a people of such ngly individualist character as the British to any general ement on the subject.

The most conclusive demonstration of the fitness and ing economy of any special apparatus is liable to count ittle where it is possible to drift along in the old way and omforted with the reflection that after all "the open fire s the most cheerful." And so it is that the open fire ains the most usual form of heating and ventilating appliance se in these islands.

Considerations of economy and the desirability of minimis- the nuisance caused by soot and smoke may eventually to the amendment or the suppression of open fires, but they have managed to outlast the coal shortage caused he war, when so much governmental interference with ate affairs was tolerated by the restive but patriotic house- er, there seems small chance of their speedy abolition.

Fashions are capricious, however, and England may fasten affections upon central heating now that America is showing of getting weary of it, for, after having given it a long enthusiastic trial, medical men in America are condemning ned air methods of ventilation as being productive of tude and loss of energy. That this is the case most ellers seem to agree, but it is too early yet to pronounce al verdict, and many Americans are still fond of their steam hot-water systems as well as of their hot-air furnaces and id them by pointing out that they modify the rigours of winter as the open fire could not.

Whatever disadvantages central heating may have, and if eyes and sallow cheeks are to be charged to its discredit are not to be disregarded, it has the merit of reducing elching out of foul smoke which disfigures architecture furniture with constantly renewed coatings of grime. is an important consideration, for though London suffers what less than the great manufacturing cities of the nds and the North where conditions are appalling, and h she is saved some discomfort through the fact that evailing winds blow from the residential districts towards tories on the north and east of the city, even in London as to be reckoned with as taking a prominent part, even oes not set the key of every architectural colour scheme. high time that this disgusting and ridiculous state of should be done away with in the interests both of e and of artistic propriety.

e discharge of smoke in large quantities is a double of the open fire, since the particles of unconsumed fuel pollute the atmosphere are lost to heat production. forms of slow-combustion grate have proved their r power of transforming fuel into useful heat, but their nt qualities are not sufficiently recognised to obtain m exclusive use in the face of competition of slightly pensive grates or of grates which may be somewhat of installation. Failing personal experience, there to guide the architect in the matter, and choice is too irected towards the selection of a pleasant-looking nd" than determined by keen scientific inquiry into itive working efficiency of the grate considered as a apparatus. So little do some architects who select r some manufacturers who produce them consider the onditions of their service that among the many types iors on the market few indeed are fitted with ash-pans ollect all the ashes and allow of their removal without to the use of dustpan and hearth-brush. Since some manufacturers have realised this simple and obvious requirement of a heating apparatus depending upon the combustion of coal there seems to be no reason why others should not follow suit, though as the present ill-fitting types of ash-pan find a ready sale the alteration may have to wait for woman to make her voice heard in connection with architectural fittings.

Some conscientious architects, horrified at the magnitude of the nuisance created by coal smoke, advocate a return to the use of wood fires in cities, and have had special hearths for burning wood installed in their own offices by way of making example square with precept. The results are delightful in appearance, and good heat can be maintained, but the reasons which led to the substitution of coal for wood as fuel some centuries back probably apply with even greater force to-day, now that so much of our small remaining forest has been felled, and the substitution of wood for coal is not likely to become general.

As a ventilating appliance the open fire has a distinct value, as is recognised in the by-law which requires ventilating gratings to be provided in rooms built without chimneys and, fortunately, the chimney that is placed in a suitable position for the avoidance of draughts from door and window is also the one that draws best without emitting smoke in whirls and gusts into the room. The demand for special installations of radiators or other types of heating is greatly increased by the careless planning and detailing so often met with in ordinary dwelling houses, for a good slow-combustion grate, well placed in relation to windows, provided with means of ventilation six feet above floor level, can maintain a comfortable state of warmth on a cold day in a way that would be quite impossible with an inferior fireplace indifferently placed in regard to doors and windows, especially if the only means of ventilation are provided low down by side-hung casements or French doors.

Gas fires provided with flues of much smaller sectional area than those used for coal fires and of restricted height have been installed in many houses built recently, with the object of reducing both the first cost in construction and of future labour in running the house. These two points are undoubtedly worthy of consideration, but care should be exercised to see that the flue has efficient updraught, or the poisonous fumes may be discharged into the room with tragic results, such as are so frequently reported in the daily newspapers.

In conjunction with gas stoves for cooking and heating, an independent boiler is often employed to perform a certain amount of heating work and to supply hot water for domestic purposes. The boiler is generally fired with coke or coke-and-coal mixture, and the heating functions are performed by means of a circuit of pipes and radiators supplied from a hot-water cylinder. It is claimed for this method that it is more economical both in fuel and in labour than a boiler affixed to the kitchen range, but the rival merits are pretty nearly balanced since, with the use of both boiler and gas stove, two objects have to be attended to and cleaned instead of one; and special fuel has to be stored for heating the boiler. The old-fashioned kitchen range is supposed to be under a cloud at the moment, but cooking by gas on a Sunday, when all the neighbours are attempting to do the same, and the pressure is not adequately maintained, can also be vexatious. Every housewife has her own opinion as to which alternative is the worse.

Electricity as a heating agent is not yet a practical proposition, not because excellent and efficient stoves have not been made, but because electricity when made in our muddle-headed and wasteful English way is far too precious for the purpose. "Backward" countries like Spain can light the peasant's hut and even the gipsy's cave with electricity by harnessing the natural water power of quite small brooks, whereas we make electricity by first burning some other fuel, such as coal, and incidentally provide the landscape with handsome factory chimneys to discharge the smoke!

NOTES.

Influence of the Church Congress.

If dual Presidents are any criterion, this year's Church Congress at Plymouth is an important one. The subject matter generally seems to avoid controversy, even though it fails to include certain important points in the application of Christianity to modern thought and education, industry, business and civic life. To comprehend the scope of religion without a deeper understanding of the nature of art, or to appreciate the particular dangers in the conduct of industry divorced from it, is to expect the impossible, and yet we hardly suppose the subject of art, and the need of beauty, exercises much influence over the discussions. But the subject is one deeply exercising the minds of people at the present time, and there are, no doubt, among the clergy those who feel the importance of it, so that in considering the influence of the Church Congress we are bound to look at this side of the matter; and if the importance of beauty as the expression almost of the religious life of a people is disregarded, we must hope future Congresses will realise that it should no longer be neglected.



Celtic Cross at Termonfechin Church.

The New and the Old.

We have each year a Church Congress Exhibition, including a loan collection of ancient and historical examples and an exhibition of modern work. It is always easy to criticise one at the expense of the other, to point to the beauty of the old work and to make unfavourable comparisons with the new. There is a quality in mere age which influences us, and this must be discounted. But there is a difference no less between the new and the old, perhaps as much due as anything else to the industrial era, to the new directions and purposes in our labour, and the new kinds of reward sought for it. A much more humble attitude towards the reward for labour existed in old days because there lay so much reward in the work itself. Nor is it only the machine that has made the difference. We ourselves have become so mechanically minded as to be but part of a greater machine.

"World Price."

There are one or two passages in Mr. P. J. Pybus's article in *The Times* of the 21st instant, in which he replies to critics of his former articles on "Payment by Results," which have a wider application than to any particular system, but which bear on the conditions of the trade of this country generally, whatever may be the system adopted, and they deserve special attention as they are admirably expressed. We venture to quote one or two passages. Thus Mr. Pybus states: "What is the one fundamental fact which British industry has to face? It is that for the greater part of our products there is a maximum attainable world price, subject to slight variations for quality, but otherwise determined by factors beyond our control. If we have prospered in the past it is because we have produced goods not inferior in quality at a price not higher than the world price. If we are to prosper in the future, if we are even to survive as an industrial nation, it can only be on the same condition. We may discuss the need for benevolence or the virtues of profit sharing till the heavens fall, but we cannot thereby create any immunity from the constant pressure of that limiting fact, or ensure that those who can see it in a false perspective will have any profits to share." This has been the text we have been preaching for many years, but Mr. Pybus has stated the text and the sermon in nutshell. We are parochial in industri affairs, and act as though we were fr to handicap our industries in every w by local considerations, and yet thi that trade will be secured. It is necessa that legislators, local authorities, e ployers, employed, and trade unio should recognise the truth thus express by Mr. Pybus, that the first necessity to consider the world price and th to regulate our industrial conditio accordingly. There are other passa worth considering in this article. F instance, Mr. Pybus states: "I belie that in normal times it would be true say that a decrease in the cost of a produ represented by quite a small percenta would very greatly increase this country share of the world's work."

Piece-Work and Tools.

One other passage in t article on another point see worthy of attention as bei suggestive to employers. Pybus says: "I remember the introdu tion of piece-work in a large engineeri factory, and on the morning on which was started there was an overwhelmi demand for new cutting tools, for overhaul of lathes, and a general grumbl about the condition of the plant on wh the workmen had operated for ye without complaint. Up to that time was the employer's business to see t every modern device was employed, when the workman started for him he wanted everything which could duce accurately and quickly." country stands in a critical condition a its trade, but all thinking people n recognise three of the essentials to se the world's trade: Excellent quality creased production and freedom vexatious restrictions and impractic burdens. How are these three essen to be secured? Three things, at rate, are clear: (1) A system of emp ment which will make the work give of his best and not strive to output, (2) suitable reward for his la energies and capacity, and (3) the possible plant to work with.

Daylight Saving.

A good deal of discont being shown at the discontinuance of "Su Time" this year unde new Act, but people will ruin thei cause if they are so extreme as to adv both an extension of the time adv to two hours and the commencem Summer Time at an earlier date, as its continuance to a later date. It be remembered that "daylight savin to a large extent an economic m and its economic effect in saving l most marked in the Autumn. Si introduction Summer Time has on



War Memorial, Vienne. M. Grange, Sculptor. M. Forett, Architect.
[This memorial was recently unveiled by General Petain.]

nated once so early as this year, as in 17 it terminated on September 17, and think as the Act is one which has to renewed each year a good case could be de out for the extension of Summer ne, at any rate until the end of Sep-ber. Probably the date adopted in Act for its commencement is quite isfactory, "the day following the third urday in April," which this year was ril 22, but after the experience of this r few people will be found to advocate unnecessary change so early as Sep-ber 16. It is true under the Act it is sible the date may work out six days r than it did this year, but any date re September 30 is too early.

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t. Bar-olomew Great.

The completion of the excavations in the cloisters of this church, the oldest church in London, is a step further ards its complete restoration, nothing remaining but to restore the vaulting he East Cloister, for which the sum bout £4,000 is needed. We hope this may be soon forthcoming to crown effort which has been continued for last thirty-eight years, and has led he recovery of a church of the twelfth ury, dating, as it does, from 1123. It nus older than Westminster Abbey. interesting fact in connection with e excavations is the raising of the ace of the earth through the deposits of time. Mr. E. A. Webb, in an interesting account of his work at the church in co-operation with Sir Aston Webb, P.R.A., tells us that "In the City of London many of the old buildings have sunk from 16 to 18 ft. below the surface since the Reformation. Bow Church is 16 to 18 ft. below the surface of the road." In excavating the Cloisters of St. Bartholomew's Church they had to remove about 7 ft. of earth from the floor.

An Architect's Indictment of Coal Smoke.

This is the title of a spirited article by Professor C. H. Reilly in the Gas Industries Number (2) of *The Manchester Guardian*, published on the 24th inst. He draws an idyllic, almost a fanciful, picture of such a city as Manchester as it might be "if the tons of tarry acids and soot from their domestic chimneys" went down the sewers instead of falling on our persons and our buildings. "They would, one may be sure, be towns of peculiar beauty, a beauty, too, very different from that of the sunny towns of the Mediterranean. Instead of the bright colours belonging to a lower latitude, we should have the far more beautiful half-tones and pearly-greys belonging to our northern climate. Our buildings to correspond would have to be more delicately modelled, with less strongly marked shadows. Deep porticoes would rarely be used save to mark points of special importance. The architect, instead of being a man accustomed to think in black lines, would become sensitive, not only to every shade of colour, but to every modulation of surface and texture. No longer could we tolerate the hard, bright reds of our machine-made pressed bricks. The black joints, too, in which we set our brickwork, grinding cinders into our mortar where the south uses sand, would seem to be what they are, so many dirty lines drawn across the fair faces of our buildings, and thereby adding most unnecessarily to the gloom. A vulgar moulding, too, an over-emphasised piece of ornament, would become so conspicuous in proper daylight, when all the surroundings would be clean, that the author of it would begin to be cut by his fellow architects and even his lay friends as a man of bad and flamboyant taste." We are glad to think that the effects of smoke are being recognised, and that greater interest is being taken in the matter.



Figure of Marie Madeleine in the Cluny Museum, Paris.

GENERAL NEWS.

Professional Announcements.

The partnership between Messrs. T. Brammall Daniel, F.R.I.B.A., and H. W. Parnacott, A.R.I.B.A., of Members' Mansions, 36, Victoria-street, Westminster, S.W.1, will come to a close, by mutual consent of the partners, on September 29. On and after September 30, Mr. T. Brammall Daniel will continue to practise at Members' Mansions, 36, Victoria-street, Westminster, S.W.1.

Mr. Charles M. C. Armstrong, F.R.I.B.A., architect, has changed his address from 5, High-street to 39, High-street, Warwick. Tele phone 194.

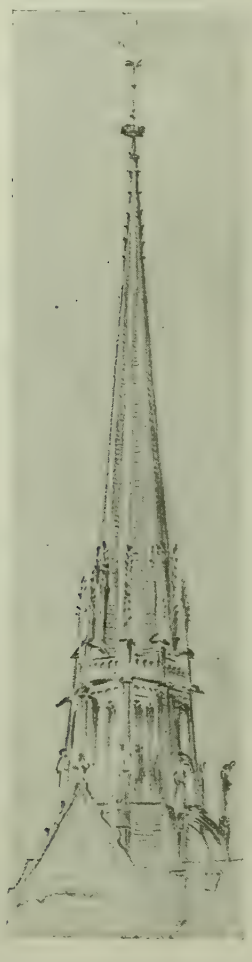
Mr. W. A. Goss has commenced practice as an architect and surveyor at Teignmouth and Dawlish. Manufacturers, &c., are invited to forward catalogues of building and engineering specialities to 18A, Orchard-gardens, Teignmouth, S. Devon.

Appointment.

In view of the new works to be undertaken by the Carmarthenshire County Education Authority, at an estimated cost of £150,000, a new assistant to the County Architect, at a salary of £500 per annum, has been decided upon. The post will be for six or twelve months.

Swansea University College.

Swansea Town Council has decided to apply for a provisional order to enable them to advance £50,000 to the University College of Swansea. The Town Council have already given Singleton Abbey and a certain amount of land to the College. The Corporation bought the Singleton estate a few years ago from the late Lord Swansea for £100,000.



Fleche at St. Benigne, Dijon.
From a Sketch by Mr. G. Norburn.

Recent Excavations.

Lectures on recent excavations in Mesopotamia, Egypt, and the Mediterranean, showing the evolution of architecture from the fourth millennium to Roman and early Christian times, will be given by Miss Claire Gaudet at the British Museum on Thursdays at 4.30 p.m., beginning on Thursday next. Application for tickets should be made to the Hon. Secretary, "Recent Excavations," 120, Cheyne Walk, Chelsea, S.W. 10.

Rebuilding the Bank of England.

Referring to the rebuilding of the Bank of England, at the half-yearly court of proprietors, Mr. S. P. Derbyshire raised the question of the advisability of retaining the outer walls of the building. The Chairman, Mr. M. C. Norman, said that, as he understood the position, they were committed to no definite and final decision. He was also of opinion that the outside walls of the bank were the only part of the building which had become really historical, and added that in the plans under observation the question of retaining these walls was being considered.

Kinghorn Memorial.

At Kinghorn last Saturday the recently completed war memorial was unveiled and dedicated. The Lord-Lieutenant of Fife performed the ceremony, and General Sir Robert Hutchinson, M.P. for the Kirkcaldy Burghs, on behalf of the subscribers, formally handed over the memorial to the Town Council. Mr. William Williamson (Kirkcaldy) was architect of the work, which is entirely of Cullaloe stone; and the sculptor was Mr. Alexander Carrick, A.R.S.A. (Edinburgh). No fewer than 60 names are inscribed on the memorial, which has been erected at the Port, opposite Rossland U.F. Church.

The Royal Archæological Institute.

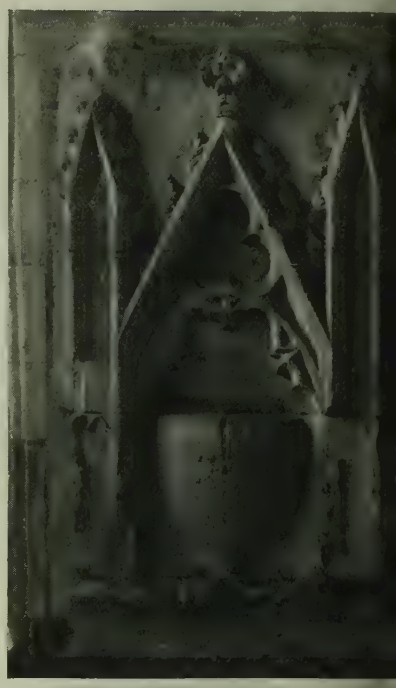
Members of the Royal Archæological Institute will visit the Inns of Court on Thursday, under the guidance of Mr. W. H. Godfrey, F.S.A. The meeting has been organised by Mr. V. B. Crowther-Beynon, F.S.A., and Mr. A. T. Bolton. The members will assemble at 10.30 a.m. at Gray's Inn (East Gate), and later cross Holborn and proceed to Barnard's Inn (now Mercer's School). Then, in turn, will be visited Staple Inn, the Record Office, the remains of the Rolls Chapel, Lincoln's Inn, Clifford's Inn, Inner Temple, Temple Church, Fountain-court, Essex-court, and New-court. Those wishing to attend the meeting should write at once to Mr. Bolton, 19, Bloomsbury-square, W.C.1.

York Archæological Society.

Members of the York Archæological Society had an interesting outing, organised by the Joint Hon. Secretaries, Mr. W. A. Evelyn and Miss M. Leaf, the venue being Byland Abbey, where valuable discoveries have been made as the result of excavations carried out under the supervision of Mr. C. R. Peers, Chief Inspector of Ancient Monuments. Mr. Peers conducted the party and pointed out some tile work in the presbytery and south transept, which, he said, was the most complete work of its kind yet discovered. Greetings were exchanged with the Durham and Northumberland Archæological Society, who were also paying a visit to the Abbey.

Town-Planning Institute.

The Fifth Annual Conference of the Town-Planning Institute will be held at York, from October 5 to 7. The programme is as follows:—Friday, October 5—Paper by Mr. George Benson, A.R.I.B.A., on "The Evolution of the City of York"; Paper by the City Engineer, Mr. F. W. Spurr, on "The Town-Planning Proposals of the City of York"; Paper by Mr. F. C. Mears, on "The Planning of Mediæval Cities"; Visits to places of interest in the city; Reception at the Guildhall. Saturday, October 6—Visit to New Earswick Model Village; Dinner at the Station Hotel. Sunday, October 7—Char-a-banc excursion to a place of archæological interest near York.



"Heart" Tomb at Braborne Church, Ke
[This is described as a "heart" tomb, but appears to be a shield. It is stated that the is only one other "heart" tomb in existe in this country.]

COMPETITION NEW

New Offices for Holt Line.

Messrs. Briggs, Thornely & Rowse, F. A.R.I.B.A., of Liverpool, have been award first place in the competition for the new offi for the Holt Line. Other competitors were Edwin Cooper, F.R.I.B.A., Messrs. A. J. Da F.R.I.B.A., W. Curtis Green, F.R.I.B.A., a Willink & Dod, F. & A.R.I.B.A. The asses was Mr. G. Gilbert Scott, R.A. The success architects are well known, Mr. Arnold Thorn being the architect for the new Parliam buildings, Belfast; Mr. H. J. Rowse is old student of the Liverpool School of Ar tecture. About ten years ago he was top of year and appropriately enough, as it turns he won the Holt Travelling Studentship. went to Winnipeg to make the working drawi of the Parliament Buildings, Winnipeg, M toba, of which Mr. F. W. Simon, F.R.I.B was the architect.

Masonic Temple, Birmingham.

Sir Banister F. Fletcher, F.R.I.B.A., assessor in the competition for designs for new Masonic building in Broad-street, Birmi ham, for the Provincial Grand Lodge of W wickshire, has made the following award Winning design (premium £500), Mr. Ru Savage, F.R.I.B.A., P.M., Howe Lodge; sec premium (£300), Mr. S. N. Cooke, F.R.I.B P.M., Grosvenor Lodge; third premium (£2 Bro. Hurley Robinson, Bedford Lodge. design placed first is illustrated on pp. 48 and the assessor's report is given on p. 48

Bridge over the River Medlock, Limehur

For the R.D.C.—Designs for a bridge the River Medlock. Sending-in date, Octobe Mr. Reg. Thompson, Council, Ashton-under-L

Taunton.

Designs for a war memorial, for the Counc Taunton School. Sending-in day, Novembe Conditions may be seen at *The Builder* O (See our issue for September 21.)

Other Competitions.

For competitions open see our last is

PLYMOUTH.

BY A. E. RICHARDSON, F.R.I.B.A.

HE famed but untitular capital of the West ntry lies screened from the sea between two hty headlands, its topography clearly seen the height of Dartmoor, yet mysterious on er approach. It is a curious situation, none better could have been chosen for ing the most of an intricate water front. nouth is not ancient as towns go, although visage is grey. She has parts that to ern eyes may pass for antiquity and carries ok of establishment that defies scrutiny and s interest to her years. It is impossible to where the boundaries of the town begin and re they end, for the secret is guarded well. e was when Drake's captains had to feel r way cautiously into the Cattewater; and the great Medina-Sidonia lumbering up to is did not deign to throw in a few round s, such was the remoteness of the Tudor port. s changed. The heart of the town has dilated new centre, tentacles have been thrown out nclude erstwhile villages, the foreshore is ged with terraced walks, wharves and ature harbours for eight miles; and at t both strand and towering heights show s that twinkle out to the deeps like candles ballroom. From the Hoe, Plymouth views broad sea and marks at sunset the paths to New England which she has helped to create. west may be seen the far-flung beams of Eddystone, and beyond the soft contours of wall thrust outwards and upwards in nce of Neptune. From the Hoe, too, you look backwards to the blue of Dartmoor, hed in clouds and damp with the mists. nouth is a cradling place for all who prepare he sea; she has no right to quarter-deck s, whatever claims are put forth by Stone- e and Devonport. She is rather in the tion of leader of a flotilla—all of which characteristics in common. In fact, ered from the storms that rage, she is to withstand drenching rains and damp s, hence the prevalent tint of grey—the red granite, the close shingling of slate, the skin of stucco, immuning local thought ie theory of a perpetual weather coat. No r seaport in England is like Plymouth, has the same cleanliness; not one can boast ich marble pavements or such perpetual g cleaning free from charges on the rates. oaching Plymouth from the sea, one slips the Sound as into a bed of down after a f hard work. There is not much to indicate presence of a town of the first size; the el is toylike. The stump of Smeaton's house seems like an oak shorn of its branches; houses on the summit of the Hoe have ng of Continental magnificence. There is, ver, something of mystery in the direction tton Pool, and to the west, where the aze opens out, beyond Drake's Island, than a suspicion of activity.

proached by rail from the direction of r, Plymouth presents a skyscape of infinite ; there are the clouds that race from a above the murk, the aspect of railway s, the shrill cries of locomotives that call ne to the other, a glimpse of houses that p and down hill, a vision of skiff masts, e with pulley blocks that carry gay strings shing to decorate back yards. Small r is it that passengers who have been l for four hours within the confines of a rtment should experience quickening ons between Plympton and North-road. y are those who journey onwards by rail, m Plymouth to Saltash they gain ideas ography from bridges and viaducts that ce selections of chimney pots, fighting funnels, depots and other paraphernalia. ilway, if the term is allowed, bisects the towns, and far from revealing the secret garrison, makes the passage endless. much for two methods of studying local aphy. The best remains, and that is k through the streets and read the build- or Plymouth inspires with a message that is far from provincial, for her attraction has to do with the sea. In this sense, she is feminine to a degree—the true lover of a sailor or a marine, the "Sweet Poll of the West Country," a lover of many pleasant memories. In the past many among the great ones in our Island story have trod the stones of old Plymouth, or paced the newer pavements. Here have foregathered merchant venturers and daring captains, hereabouts men have plotted to keep their lawful King outside the walls, here some have made a stand against religious persecution, and from these quays the founders of modern America took their last leave of the country that had no use for their zeal. Admirals and generals, statesmen and artists, kings, conquerors and captives have each in turn come within the spell. What must have been Napoleon's thoughts when, anchored out in the Sound, he looked down on the Lilliputians who swarmed round the ship?

Most people imagine that Plymouth is a modern place with buildings of little interest. This is a fallacy. On the contrary, the buildings of Plymouth, like the indigenous materials, have a character entirely their own. A type of Dorian simplicity, a breadth of handling that give the streets the assay mark of quality. There are the Elizabethan houses near Sutton Pool, the matured Georgian houses of Durnford-street haunted by the shades of admirals whose names are forgotten save in the muniment rooms at the Admiralty, the stucco crescents and terraces fashioned by Foulston and Wightwell, the quasi-mediæval shaping of the municipal buildings and the scale of the hospital and barracks. And while you are looking around taking in all these things, admiring perhaps the portico of the Theatre Royal and musing on the fact that Sir Joshua Reynolds was born at Plympton two centuries ago, there comes to mind the fact that Plymouth has to do with national defence, and that not the least of her townspeople are the sailors and soldiers who claim the town as their own.



Dundry Tower, near Bristol.

CORRESPONDENCE.

Preservation of Somerset Church Towers.

SIR,—The photo here reproduced will be recognised by your Bristol readers as the famous Dundry Church Tower. It was built during the sixteenth century by the Merchant Venturers of Bristol. It stands about 700 feet above sea-level, and the old cross to the left is thirteenth-century work. Having occasion to mount to the top of the tower, my attention was drawn to four flying buttresses built diagonally behind the four principal pinnacles.

The base of these buttresses is 8 ins. square, and apparently they spring from squinch arches below the leads. During a restoration a few years since the base of these buttresses was pierced and a 1-in. iron tie rod inserted, connecting the north and south buttresses.

It only requires a little time for the iron to oxidise and burst the stone. It seemed hardly credible that any architect would permit tie-rods piercing small stones in this way.

The late Mr Edmund Street (the gifted architect of the present nave of Bristol Cathedral) took considerable interest in Dundry Tower during the early 'seventies.

Weston-super-Mare. EDWARD VALE.

The Cowley Family.

SIR,—I am desirous of expressing to you and to one of your readers, Mr. Dudley Harbron, F.R.I.B.A., of Hull, my thanks; to you for the insertion of my letter in your journal of the 7th inst. on the above pedigree, and to this gentleman for information sent to me direct.

I have thus been able to ascertain the descent of Walter Cowley, of London, from his ancestor John. I do not know if the matter of a date is of interest to some; but in the *Gentleman's Magazine*, Thomas Cowley, of Donington (founder of the schools named after him) is stated to have died in 1718. This is incorrect, for the date taken from the burial certificate in the church register is 1721. This, too, is the date on the memorial slab in the aisle floor of Donington Parish Church. Having thus, by the aid of *The Builder*, found willing helpers in establishing the descent of Walter Cowley, of London, from the Staffordshire ancestors, I am hoping other kind friends may be able to give us some links to connect Thomas Cowley, of Donington, with the above Walter, of London. One of Thomas Cowley's trustees was a Luke Cowley, of Crowland, possibly a younger brother. Thomas died in 1721, and Luke in 1730. By reference to church tablets or registers this may help to connect them, especially if the arms are displayed; and any help will be much welcomed

EDWARD A. JOLLYE, A.R.I.B.A.

Saturday Half-Holiday.

SIR,—Where, when, and why was the Saturday half-holiday established in the building trade? I have never heard the matter discussed. All concerned seemed to take it legally or religiously. I can understand observance of the Day of Rest for an indefinite period, but that Saturday half-holiday baffles me.

I know plenty of operatives in the building trade who think nothing of having a month's holiday in the summer-time, and even more in the winter-time; yet, if it were suggested to them that they should abandon observance of Saturday half-holiday, almost without exception they would regard that suggestion as equivalent to a proposed reduction in the rate of wages. But, even so, it does not follow as night the day that nothing else would eventuate to compensate and make the means of livelihood a little more interesting and a little more in accord with the laws of Nature. In fact, more than once I have silently gazed on some building estate at a standstill at mid-day Saturday, and destined to remain at a standstill till the following Monday, 7 a.m. In short, Saturday half-holiday, apart from the Day of Rest, seems to me perfectly meaningless. ARTHUR GEE.

THE CLERGY AND ART.

BY "A CRAFTSMAN."

WE are hearing just now a good deal of discussion on "spiritual healing" and how far these more mystical aids may come to the help of therapeutics in overcoming sickness and disease; but of the kind of spiritual healing with which beauty revealing itself through a nation can endow us we find but little, if any, recognition. And yet we might, from the amount of discussion and organisation directed to the promotion of art, expect that this was not the case, if we believed that such promoted it, which some of us do not. We are not conscious of our body when well, and art, when it functions properly and takes its place as industry well directed, needs but little fostering, happening, as the best things do, out of the virtues and life of the people. The fact, therefore, of so much organisation to-day should not too much reassure us, because it is all evidence that we need the physician, and we do not when well.

It would be unjust, however, not to perceive that this is becoming more recognised, and that the importance of beauty to religion, to health and to morality, and to a more ameliorating interpretation of life, is entering into our thoughts; and the view that art was a luxury which only the fortunate could afford, or that even money could alone secure it for us, in the light of the fact that the nations at the time of its highest development were relatively poor, is much discredited. The clergy, inheriting so long a tradition, are perhaps too readily inclined to think that an ecclesiastical appearance, some likeness to past work, satisfies the needs of beauty, and that to be imitative in this sense established its claim to be traditional. Unfortunately, such a view leaves out the major part of tradition. It has not always appeared to them that it is possible in a very narrow sense to be all this without much aid from art at all, because beauty is a creative thing, for which learning and orthodoxy are not sufficiently adequate equipment in themselves, though we are not at enmity with either. But in such a case revelation may have ceased altogether, and what we have to seek again for the church is that contribution of art which is creative and which, in becoming so, will give life to tradition once more.

The clergy have been too much accustomed to look for art of one pattern, and to order it from the catalogue, to consider enough what they are really seeking. In the deepest sense of it, to judge of men is to judge of art; and we must not depend on our own recipe for virtue, and should look beyond outward and inherited semblance and the conformities of the catalogue if we are to judge of it. Our standards are too much concerned with the use and want of custom, which has built up a large manufacture of art products, the result of industrialism and its commercial ideals. Beauty has little to do with this, and our minds have to become freed of habit and the customary for its influence to become greater. Industrialism has woven such an organisation around us that it is very difficult to penetrate beyond it to where beauty dwells in the heart of the artist, and our outlook is largely wrong.

To instance a case. A memorial window is required for the church, and it will not be unusual for the incumbent to ask for estimates and designs from half a dozen people; and perhaps, if well advised, there will be an artist among them, not working on competitive commercial lines, who will very likely not have been told that others are competing. The design chosen is the one showing the lowest estimate or that one which is most conformable to the expected, *i.e.*, the design which is "-exclusive" and made from the old material of the eminent Sir Blank Dash, R.A., who died from twenty to thirty years ago. But it is more like that to which we have become accustomed, while the artist's—who has created his design—is not, and therefore asks much more from us. And then, as finale to it all, this artist asks to be paid a small fee for his design, to the consternation of the incumbent, for the other competitors submitted their designs without charge for them. Cannot the clergy interpret the inference of this without our labouring it here?

The clergy need the training which shall enable them to recognise authentic beauty from the substitute, and to reject plausible and the imitative and standards of a commercial approach, this is essential to the prospects of n vital art. In such circumstances timi will not help us to a more exalted living tradition. We need to decentra art from all this, and seek it independe in the individual, from the artist, get through to him at first hand.

The clergy are shy of the artist, bec they are not sure, and do not underst his orthodoxy, through which his titl artist is sustained, and consequently often in the wrong place in an easy acc ance of bad conditions. But in saying we do not fail to recognise that there exceptions, and that credit is due to efforts made by some among the clerg the face of many difficulties.

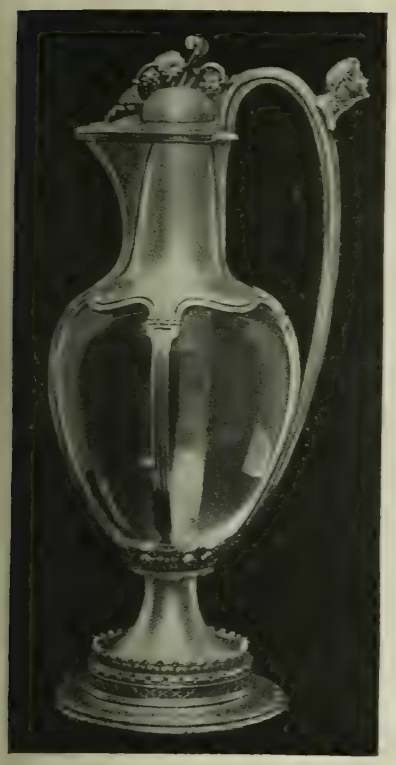
In looking for the remedy we must rely too much on organisation. We ca raise ourselves above our own sta merely by numbers. Committees, exper committees of taste—are often but to m "art tongue-tied by authority"—bec they are only expedients, whereas we n for security the illumination of our minds—to be something ourselves. In end the church has the art it deserves, the better appreciation by the clergy of nature of art is a greater security trusting to experts and committees. Ha is the art which has but little governm and which emerges as the rightly dire activity of the race. For by the tim committee has sat long enough, will play for safety, and there no safety in the finest adventures of or life. But it is better to risk defeat t to risk nothing, and the best hope for lies less through the accredited ways channels than through our own enligh ment as to where it should be found.

It is not unusual to hear the state that craftsmanship in the old meanin the term is dead. It is often the case while we are deploring the loss of a t in one direction it is appearing thro another. Craftsmanship in the old s has little application to mass product with its minutely divided processes, were this the only direction for pers craftsmanship we might accept the los a fact. But there has grown through development of a more applied craft-t ing a considerable expansion of the s industry in recent years, and we are at the beginning of this development w includes within it a change in hu objects, from those of rivalry in compet to a more corporate aim. We do not to exaggerate the consequences of this direction, nor, because believing in little leaven, disregard the many diffic in the way. But it is the case that small workshop, the local industry, is r fying the situation, and, far from c manship being dead, it is very much and extending its hold. Instead of cre new wants, exploiting the weakness dulgence of the community, it is cre new worth and co-operating in the ends of art, which are the amelioratio satisfaction of life. It is when regard these issues that the gravity, in neglect to foster the real ends of be comes home to us, and the responsibil the clergy becomes so great. For art out of life, not out of former art or dent; nor can our knowledge of past and schools create it for us.



At the Church Congress Exhibition.

A'abaster Panel representing a Visit of the Magi (said to be 13th century work), from Treslotham, Cornwall.



Claret Jug presented to H.R.H. The Duke of York by the Royal Academy.

THE CHURCH CONGRESS EXHIBITION

The Bishop of Exeter on Saturday afternoon st opened the Church Congress Exhibition and an Collection, held in Millbay Drill Hall, Plyouth. The exhibition, the fortieth of its kind, probably one of the most remarkable in the story of the Congress. A feature of the loan llection is that the bulk of the exhibits have en drawn from the two counties of Devon and rnwall.

The Mayor of Plymouth (Councillor S. phens) officially welcomed the Congress. Mr. H. W. Hill, Director of the Exhibition, d the exhibition showed that even in these dern days the old crafts were not yet dead. The Exhibition remains open until this ning (September 28).

The Royal exhibits include the addresses of come, lent by the Prince of Wales, which e presented to H.R.H. at Bradford, Birgham, Bath, Leeds, Liverpool, Nottingham, chester and Manchester. H.R.H. the Duke ork has lent the claret jug presented to him members of the Royal Academy on the occaof his marriage. The jug, which is entirely d wrought of sterling silver and crystal glass, very great interest. The lid is surmounted cresting of forged vine leaves and tendrils. handle bears a miniature bust of Dionysus, god of wine. The actual mountings of the s are made after the manner of a "spider net," so that in case of breakage a new can easily be inserted. The foot, which s the dedicatory inscription, is fashioned in motely castellated manner, as a symbolic ence to the fortified dignity of Royal e. It was designed and made by Mr. r Ramsden.

Devon and Cornwall are rich in ancient h plate, and some exquisite specimens are iew. What is probably the oldest paro- chalice in use in England is lent by the r and churchwardens of Ashprington, es. It is a fine example of thirteenthry work and the date assigned to it is It is just under 6 in. in height. It has mispherical bowl with the addition of a lid 4¼ in. in diameter and about 2½ in. deep. The stem is octagonal, with large rounded boss or knob, and a circular foot, outward spreading, with plain vertical edge.

The chalice (date 1628-9) lent by the vicar and churchwardens of Dawlish is of interest from the fact that it is a replica of the chalice from which King Charles received his last Communion, and is by the same maker.

The only example yet known of a chalice by an Exeter goldsmith, named Richard Osborne, who was working at Exeter from 1562 to his death in 1607, is lent by the rector and churchwardens of Cadleigh, Tiverton. It may be dated as *c*1572.

A chalice and paten, dated 1575, made for Duloe Church, Cornwall, is lent by the rector and churchwardens of that parish.

Some pieces of pre-Reformation plate, a chalice and paten, come from St. Mary's Bradoc, Lostwithiel, lent by the rector and churchwardens, but it bears signs of modern "restoration." From the same source comes an Elizabethan chalice and cover paten, dated 1576.

Many points of interest are to be noted in the communion cup, dated 1650, lent by the rector and churchwardens of St. Tudy, Cornwall. It bears the annual date letter of the London Assay Office for the year 1650. The cup is of the peculiar type which was introduced about 1640 and continued until 1660. The most marked characteristic of the cup is the adoption of a stem of the baluster form. There are supposed to be only two others like it in the Kingdom.

The communion cup with cover, lent by the rector and churchwardens of St. Petrock's, Exeter, is dated 1572. Seven complete figures of saints are worked on the material with silk and gold thread. It is possible to recognise St. John Baptist, St. Dorothea, St. Paul, and Edward the Confessor.

The Wraxall chalice, lent by the rector and churchwardens of the parish, is quite unlike any other in Dorset or Wilts. The bowl is straight-sided and tub-shaped; the stem tapers from the base almost to a point. It bears a maker's mark which resembles one found on plate made between 1615 and 1629, which may perhaps be the date of the cup, or it may be later in the seventeenth century.

Of Bibles, manuscripts, &c., there are many examples, including a quarto Bible and Prayer-Book dated 1575; also a quarto Bible and Prayer-Book, dated 1730, with office of "At the Healing." More interesting still is the copy of "The Four Gospels," by Andrew Jukes, 1864. It has General Gordon's signature in pencil and many passages marked by him.

An autograph letter of Sir Walter Raleigh (1584) and the "seal" of Joanna Southcott, discovered in an old house in Exeter, are shown by the courtesy of the Royal Albert Memorial Museum, Exeter.

The great missionary, Henry Martyn will always have an interest for West Country folk, and in the exhibition will be found a view of a house at Shiraz, where he stayed in 1811. A view of Martyn's grave at Tokat is also shown.

Among the manuscripts lent by the Proprietary Library of Plymouth is one entitled "A Cat may look at a King," by Sir A. Welding (1652). It is believed that this MS. is unpublished. It contains the characters of the English sovereigns to Charles I.

A pathetic interest attaches to the hearse cloth or funeral pall presented to Westminster Abbey by the Actors' Church Union in memory of members of the theatrical profession who fell in the war, and lent by the Dean and Chapter. It was first used at the interment of the Unknown Warrior in the Abbey on November 11, 1920. Designed by Mr. W. D. Caroe, F.S.A., and executed by Miss M. Hollier, the pall follows the model of certain mediæval specimens preserved by various City Companies. The groundwork is of white brocade, powdered with the Tudor rose and portcullis badges.

The exhibits also include Charters lent by the Mayor and Corporation of Plymouth; the white Plymouth china sphinx; the alms box from the south wall of Pinhoe Church, known as "The Poor Man of Pinhoe"; the Ducking Stool (1656-7) which was in use at the Barbican, Plymouth, as a punishment for "scolds," as recently as 1806; the thirteenth-century alabaster panel, representing the Visit of the Magi; a large number of crosses, including the Siege Cross of Ladysmith made by soldiers from a Boer shell fuse; the Ascoti Cope; the deck cannon from the Spanish Armada, the ramrod of which was broken in the gun, so that the vessel blew up in the act of charging; the last club used in war by Thinkambo, the last King of Fiji; a touch piece of Charles II presented by the King to persons whom he touched for the King's Evil.

The Builder model of Old St. Paul's is also on view.

£150 Housing Subsidy.

Pontardawe (Glam) R.D.C. has decided to add £50 from the local rates to the £100, the capitalised grant permissible under new Housing Act, making an advance of £150 per house erected by private enterprise.



At the Church Congress Exhibition.

The St. Petroc's Casket (said to be 12th-century work), from Bodmin.

THE ANCIENT CHURCH OF COPFORD IN ESSEX.

BY W. DE GRAY BIRCH.

VERY few churches in the county of Essex possess so many features of interest from an archæological point of view as that of Copford. The village and small parish takes its name as being the site of a ford over the "Roman River," so-called, which, rising in the adjacent neighbourhood of Mark's Tey, runs in a south-westerly direction towards Abberton, and falls into the River Colne at Wivenhoe and Rowhedge. The church lies about a mile and a half from the junction of the Great Eastern Railway at Mark's Tey and about five miles to the south-west of the great town of Colchester. This ancient building of early Norman date—of which I am enabled, by the kindness of the Rev. Edmund R. Ruck-Keene, rector, to reproduce four photographic illustrations of much attraction to antiquaries and architectural students—is dedicated to St. Michael the Archangel and All Angels, It possesses an arcaded nave with fine arches of early Norman style, chancel with round-headed arch of large radius, nave with curiously arched roof, and remnants of arches on each side which suggest, from the reduced radius of their segment, that they met in the centre of the nave by a kind of pendentive arrangement, a south aisle, a south porch carrying a small wooden turret at the west end, in which are three bells, covered with a shingled spire, and a very remarkable semi-circular apse at the east end. This apse and the nave are probably the oldest features of the building and belong to an early Norman design—if, indeed, they are not the creation of a Saxon architect whose career extended into the closing years of the eleventh century. The aisle is an addition of about the end of the fourteenth century. This aisle was cut through the south wall of the original church, and in course of the work the original windows had their lower parts destroyed, but their arched heads are still visible in the view (Fig. 2) on the right. They were filled in with rubble when the alterations took place. The old Norman buttresses of the south wall of the church constitute the pillars separating this aisle from the nave. About 1690 the church was "restored" by the parishioners, and upon scraping the inside walls, with a view to giving them a coating of whitewash, "there appeared," as is stated in Wright's "History of Essex," "very fair and fresh paintings of Christ upon the Cross, the mother-in-law of the apostle Peter lying sick of a fever (error for the centurion appealing to Christ), Mary Magdalene, &c., which were all whited over again, but not otherwise injured." This statement led to the scraping off of the whitewash in 1872 from the interior of the apse, and the interesting paintings as now seen were brought to light, and unfortunately "recoloured" by a Mr. Daniel Bell "exactly as he found them." But none of those mentioned by Wright were among those then uncovered. In 1880 the body of the church was "thoroughly restored," when the entire surface of the Norman walls was found to be covered with very beautifully designed and drawn early mural paintings, evidently those referred to by Wright, constituting a veritable and comprehensive *Biblia Pauperum*, as it is called, a series of Biblical pictures adapted to the simple understanding of the peasant votary of the "unlettered muse," whose limited education did not go so far as to enable him to read the Scriptures. These quaint pictorial efforts of an early mediæval artist, we are told, have not been marred by repainting but remain in their pristine condition. The pose of the figures, the drapery and accessories, are elegantly drawn and bear close comparison with similar drawings contained in illuminated manuscripts of English origin as old as the twelfth and thirteenth centuries.

With respect to the fabric of the church, some antiquaries conjecture that the walls form part of a building erected by the Romans during their occupation of Britain, others give the early Norman times to its foundation. It is at any rate, very rich in Roman materials. The quoins of the buttresses consist, for the most part, of Roman tiles, and a course of these passes round the whole (see Figs. 1 and 4). Some very fine specimens of these tiles are visible, especially one by the north door, with the large dimensions of 22 by 18 ins. Were this church built by the Romans it would probably have been a temple, afterwards converted into a Christian church, but no record exists to confirm this view. The principal point of interest is the circular apse, carrying very beautifully proportioned windows with round-headed arches not provided with voussoirs, but having slender columns at the sides, and set high up between massive buttresses (see Fig. 4) which are carried up to the top of the wall. The work here shows extensive employment of Roman tiles and bricks, no doubt obtained, as was the case at St. Alban's Abbey Church and many other buildings, from some Roman edifice not far off. In contrast to this antiquarian charm is the lavish display of mural decoration which detracts, as at Ely Cathedral, from the appreciation of the archaic *ensemble*. Passing from the chancel and noting the wide overhanging eaves of the apse, and proceeding along the north side, one observes a narrow doorway, now blocked up, of the kind said to have been in use for the entry of the choir from the fifth to the twelfth century, but later reserved for the use of the priest only. This door was visable as late as the sixteenth century, for the unfortunate Bishop of London, Edmund Bonner, resided in the adjacent Copford



FIG. 1.—SOUTH-WEST VIEW.



FIG. 2.
CHANCEL AND SOUTH WALL, WITH WINDOWS AND ARCH OF NAVE

Copford Church, Essex.



Fig. 3.—Church Apse with Wall Paintings.
Copford Church, Essex.

Hall," and his remains, which were discovered in 1809 by John Kelly (then rector), still lie buried beneath the altar.

A few steps take us to the adjoining buttress in the church wall, which has a peculiar division in its heading, showing that it originally led through a doorway into the roof of the church. The north door, with circular arch, is curious, for the door itself was at first the south door of the church, and on it, as related by Newcourt (who is somewhat sceptical about the story), were found remains of a human skin, said to be that of a Dane who was captured in a field, still called "Dane's Field," and as a punishment for sacrilege flayed alive and his skin nailed on the door, small portions of which are still visible under the massive ironwork on the door, and other pieces of it are preserved in the vestry and in the Colchester Museum. The wall of the west end is considerably out of plumb; this was probably caused by its being overweighted by the tower, a fourteenth-century erection, with slight Norman buttresses, insufficiently strong to carry the additional weight resting on them. These buttresses had, indeed, been strengthened at an early date by rude masses of brickwork, now replaced by those of an Early English style of architecture. The church itself is lofty, having been at one early time, as stated in Holman's MSS. in the library of the Colchester Museum, all arched over, as appears by the vast thickness of its walls and existing remains of the vaulting work. Above the west window was a door, with holes on each side for lighting the interior of the old groined roof, where the priest had a private chamber or parvise furnished with a lavatory drain pipe. At the south-west corner an aisle was added (see Fig. 2) in the fourteenth century, formerly furnished with a porch, unhappily destroyed in the latter half of last century. Curiously enough, the pillars already described as separating this aisle from the nave, and consisting of the old buttresses of the original church, show the same method of use of Roman tiles in the quoins. The chancel screen belongs to the late fourteenth or early fifteenth century. The mural paintings are too numerous to be described in detail within the scope of this short notice. I can only say that the church deserves close investigation of its numerous details of ancient date, and being so close to London well deserves a pilgrimage which offers so many points to the notice of the student of ecclesiastical art, whether he be a novice or an advanced master in the science of ecclesiology.

The Architecture Club.

The next dinner of the Architecture Club has been fixed for Thursday, November 22, 1923.

EXHIBITION NOTES.

FRENCH ART AT THE LEICESTER GALLERIES.

It is doubtful whether the average lover of pictures in this country is attuned to the right point of appreciation of modern French art. The French painters obviously look at nature in a more or less different way from us and we always feel that there is possibly less sincerity and less self-abnegation amongst French painters than those of our own country. They have certainly taken up with avidity the lead into the bizarre and novel treatments which the last few years have seen developed, and it is not a little difficult to see why so many extraordinary pictures are painted, whilst we wonder if there exists any appreciable number of picture lovers who really like the outrageous stuff which has passed for pictures in the last ten or fifteen years. There are pictures in the collection of modern French work now open at the Leicester Galleries which are a pleasure to look upon, but there are a number which no amount of study or consideration can bring us the least atom of pleasure. It is not a little curious why it should be considered worth while to paint and draw the female nude in so coarse and disagreeable a way as to eliminate all the natural beauty or grace which the nude female is supposed to possess. Granted that these are graphic and true as studies, why should we be called upon to look at them in a public exhibition? There is certainly a fine nude study by Degas in the exhibition, but even at the loss of his masterly drawing we should be content to have remained in ignorance of many things he has done. It is curious to contrast the spirit which produced the beautiful "Moonrise," by Harpignies, the delicate Corot "Paysage d' Italie," or the later perfect picture of his making, "Le Coup de vert dans les dunes," with the terribly coarse and stupid work which is to be seen in the other gallery. What fine accomplishment there is in "Still Life," by Fantin Latour, and the "Dordrecht," by Boudin. And yet they hang in the same gallery, as things which in form or colour, in composition or sentiment, appear almost beyond the pale of civilisation. Our French neighbours are a nation of artists, but they have suffered as badly as any from the inroads of a restless groping endeavour after a new art.



Fig. 4.
East End Apse, showing courses of Roman Tiles in Walls and original Buttresses.
Copford Church, Essex.

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ILLUSTRATIONS.

Prince Hall, Dartmoor, Devon.

These plans show the rebuilding of the above as a sports club for the west of England, the existing building being incorporated as a nucleus. Messrs. Richardson and Gill, FF.R.I.B.A., are the architects.

Houses, Hughtown, Isles of Scilly.

The accompanying plans, elevations, and detail show a fragment of the rebuilding schemes now in operation in the Isles of Scilly. The work is being carried out by the building department of the Duchy of Cornwall. Messrs. Richardson & Gill, FF.R.I.B.A., of London, are the architects.

Sketches in Devonshire.

The late J. D. Sedding used to say what a splendid place the west country was for "crib" as a refresher for the architect. It is certainly specially interesting for the wealth of quaintness and spontaneity of detail in the work of the old craftsmen. The telling effects of architectural form is shown in our Devonshire sketches this week. Probably none of them were evolved from the architects' plans as we know them to-day, yet how pleasing is the effect of soaring height in the buttressed tower above the little cottage at Stoke Fleming; what a sturdy breadth there is in the old farmhouse at Stokenham, and how pleasingly picturesque are the other subjects, all teaching something of natural and unaffected simplicity.

"Archerton," Postbridge, Devon.

This house was built originally in 1840; it then consisted of the ground floor and one story in the roof, which was of thatch. The house was destroyed by fire in 1916. The new building partly incorporates old stem walls which escaped damage, but the plan is quite different. The design is a free adaptation of the Regency style treated in a modern way. Messrs. Richardson & Gill, FF.R.I.B.A., are the architects and Mr. John Halfyard, of Princetown, the contractor.

St. Luke's Church, Maidenhead.

This chapel, which abuts against the north wall of the chancel, consists of three bays, and its construction involved the demolition of the original vestry. The roof of the chapel, which continues the line of the general aisle roof of the church, has oak purlins, wall plates, and principals. The open boarding is coloured blue, while the rafters are white, with stencilled patterns on their faces. It is intended to carry the colour down, with a coloured and gilt reredos, screens, and panelling, at a later date At present this object is effected by a rich stained-glass window made by Mr. A. K. Nicholson, of 105, Gower-street, representing in the centre light the Madonna and Child, with St. Luke and St. Martin in the side lights. Beneath this is a blue and gold dossal, the work of Miss Beckh, of 20, Thurloe-place. The altar is of fumedoak, and was made by Messrs. Bowman & Son, of Stamford. The floor covering is in light and dark green squares of Ruboleum, divided with black bands. The effect is quiet both in colour and sound. The chapel is lighted by three windows on the north, as well as the east window. These have simple tracery heads without cusps. The artificial lighting is obtained by linolites, which are fixed on the face of the rafters, immediately east of the principals, and is invisble except from directly beneath or from the east. Arches have been formed between the chapel and the chancel, giving interesting views from the nave, looking across the chancel. The chapel is to be consecrated by the Bishop of Buckingham on October 21. The general contractors were Messrs. J. K. Cooper & Sons, of Maidenhead and the architects are Messrs. Cheadle & Harding of 2, New Square, Lincoln's Inn, W.C. 2.



Window at Westminster Abbey.

[This window is by Messrs. James Powell & Sons (Whitefriars), Ltd., and was recently unveiled by H.R.H. the Prince of Wales. It is in memory of officers and men of the Queen's Westminsters who fell in the war.]

Porch of Plympton St. Mary's Church.

The porch of Plympton St. Mary's Church (three miles from Plymouth) is rather uncommon in its design, having two stories over the porch itself, and the walls are carried higher than the parapet of the side walls of main building. The church is of the Transitional period. The actual date of the building is uncertain, but it is evident that the porch was built in the latter part of the fifteenth century, as it shows some distinct features of Perpendicular work. The porch is a fine example of the well-proportioned though rude work which is so characteristic of Devonshire. The walls are executed with local granite in courses varying from 6 in. to 18 in. in depth and crowned with a battlemented parapet of the typical Perpendicular style 38 ft. high. It has two substantial and bold projecting buttresses with three moulded and weathered offsets in each and finished with a pinnacle (41 ft. 10 in. from the ground), which is also a typical feature of fifteenth century work. Just underneath the cornice there is a large canopied niche finely ornamented and crowned with a crocketed finial which contains a much-decayed figure representing the Almighty Father sustaining Our Lord on the Cross, whilst in the niche below is depicted the Annunciation. A sculptured figure of the Blessed Virgin Mary stands in one on the east and that of the Angel Gabriel in the one on the west side of the window. The doorway is a good specimen of Perpendicular work containing the typical carved spandril and a moulded jamb which is continued around the arch. The interior of the porch contains a holy water stoup, and three richly carved canopied niches over the inner doorway, and the ceiling is also richly groined with fan vaulting, with carved boss at junction of the ribs. The centre boss is larger than any of the others and has the Crucifixion depicted on it, and on the four sides of it are other smaller ones carved with figures of angels.

The drawing is by Mr. W. W. Hitchins.

MEETINGS.

Wednesday, *October* 3.

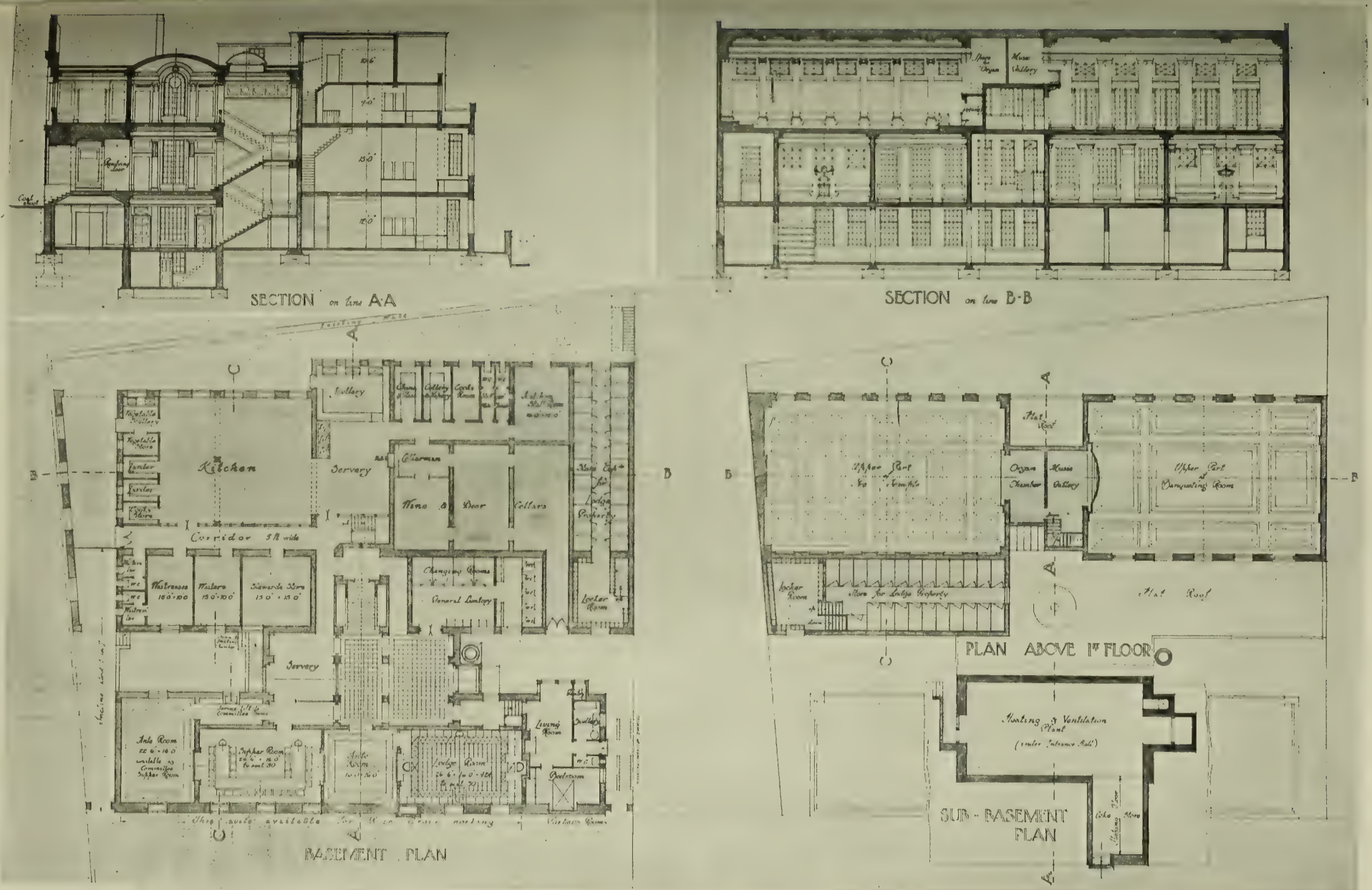
Institution of Sanitary Engineers.—Opening Meeting. At the Cabin Restaurant, Caxton House, Tothill-street, S.W. 1. 7.30 p.m.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher, F.R.I.B.A., on "History of Architecture: Introductory Survey." Southampton-row, W.C. 1. 6 p.m.

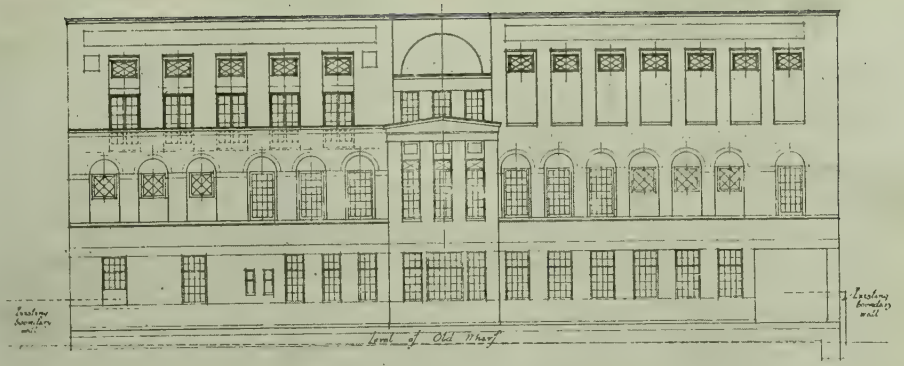
Essex Archæological Society.

The Essex Archæological Society visited St. Osyth Priory by permission of Brigadier-General K. Kincaid-Smith, K.C.B., for the September excursion. The Priory, which is a few miles from Clacton-on-Sea, was founded early in the twelfth century by Richard de Belmeis, Bishop of London, who established there a priory for Austen Canons on the supposed site of a nunnery founded by St. Osyth, daughter of Frithwald, King of East Anglia. The great gatehouse, built late in the fifteenth century is one of the finest examples of its class in the country. The clock tower and the beautiful oriel window were built about 1527 by Abbot Vyntner. In 1553 Lord Darcy converted the buildings into a house and Queen Elizabeth twice visited the Priory as his guest. Some years ago many parts of the ancient building were restored.

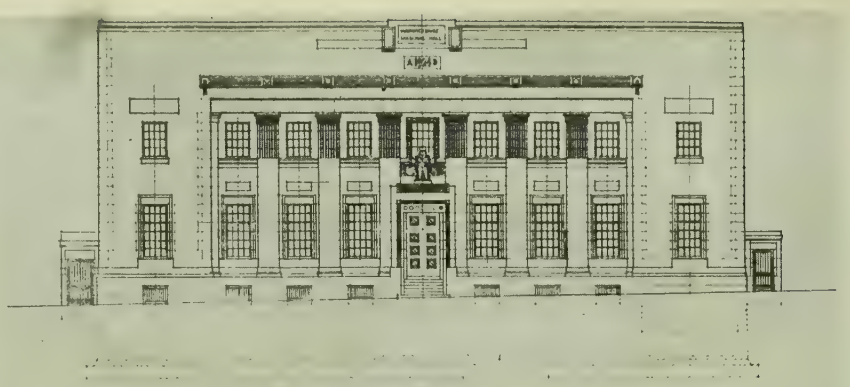
The party also inspected St. Osyth Church, dating from the twelfth and thirteenth centuries, and passed on to the neighbouring town of Brightlingsea. The church of Brightlingsea was built in the thirteenth century, and the lofty west tower was erected in the fifteenth century. The ancient house known as "Jacobs" in High-street, Brightlingsea, built in the fifteenth century, was also visited. The house has good timbered ceilings.



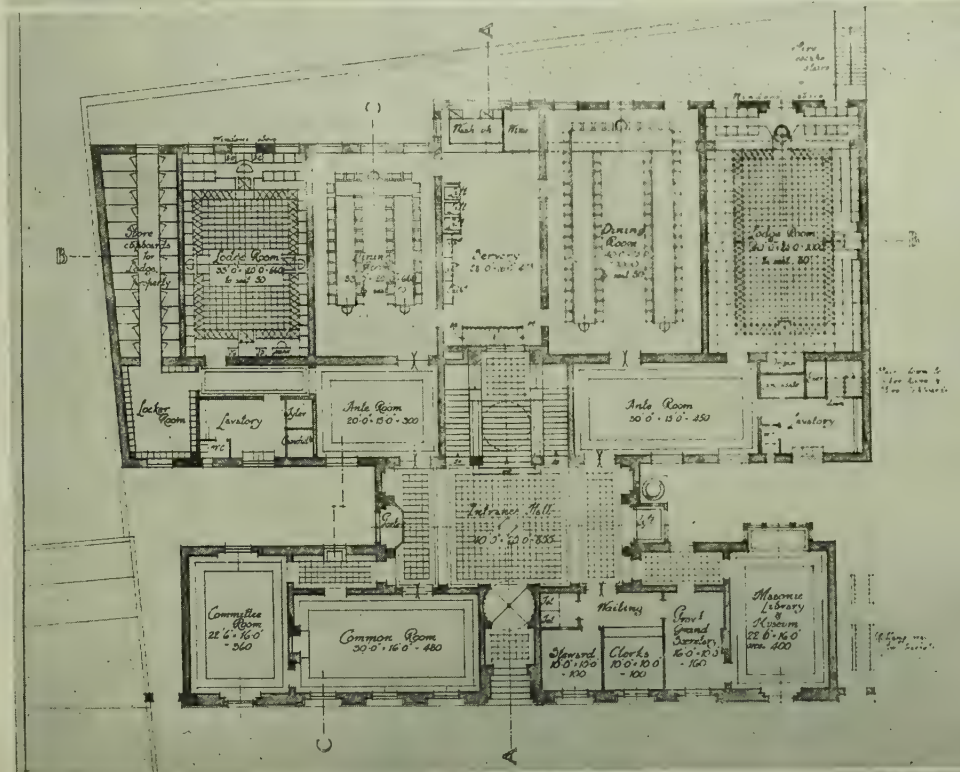
Birmingham Masonic Temple Competition. Design placed first. By MR. RUPERT SAVAGE, F.R.I.B.A. (*See p.* 489.)



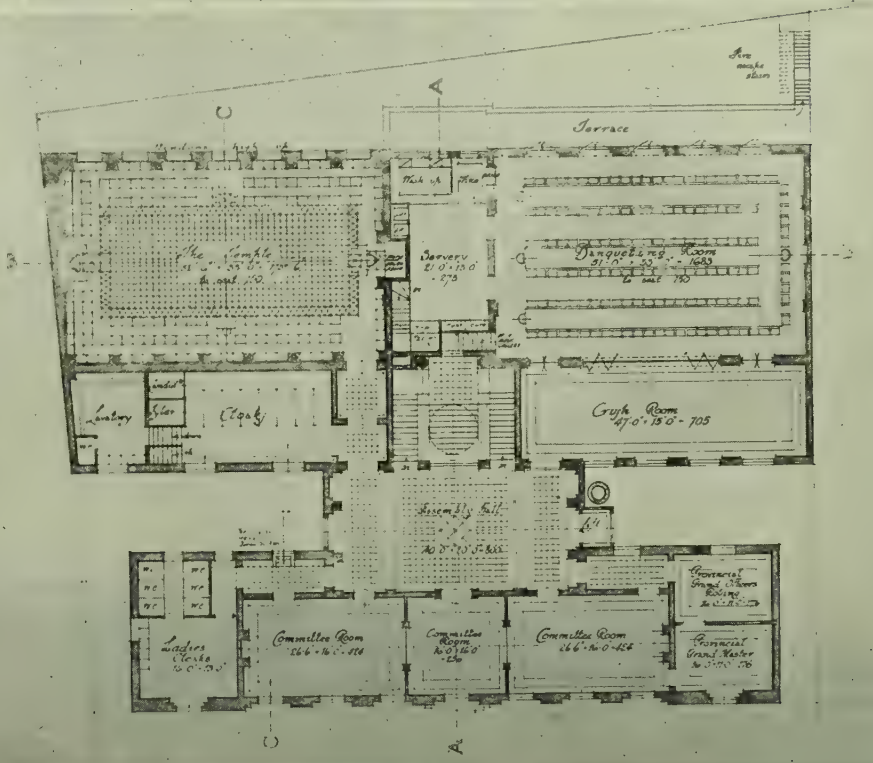
BACK ELEVATION



FRONT ELEVATION

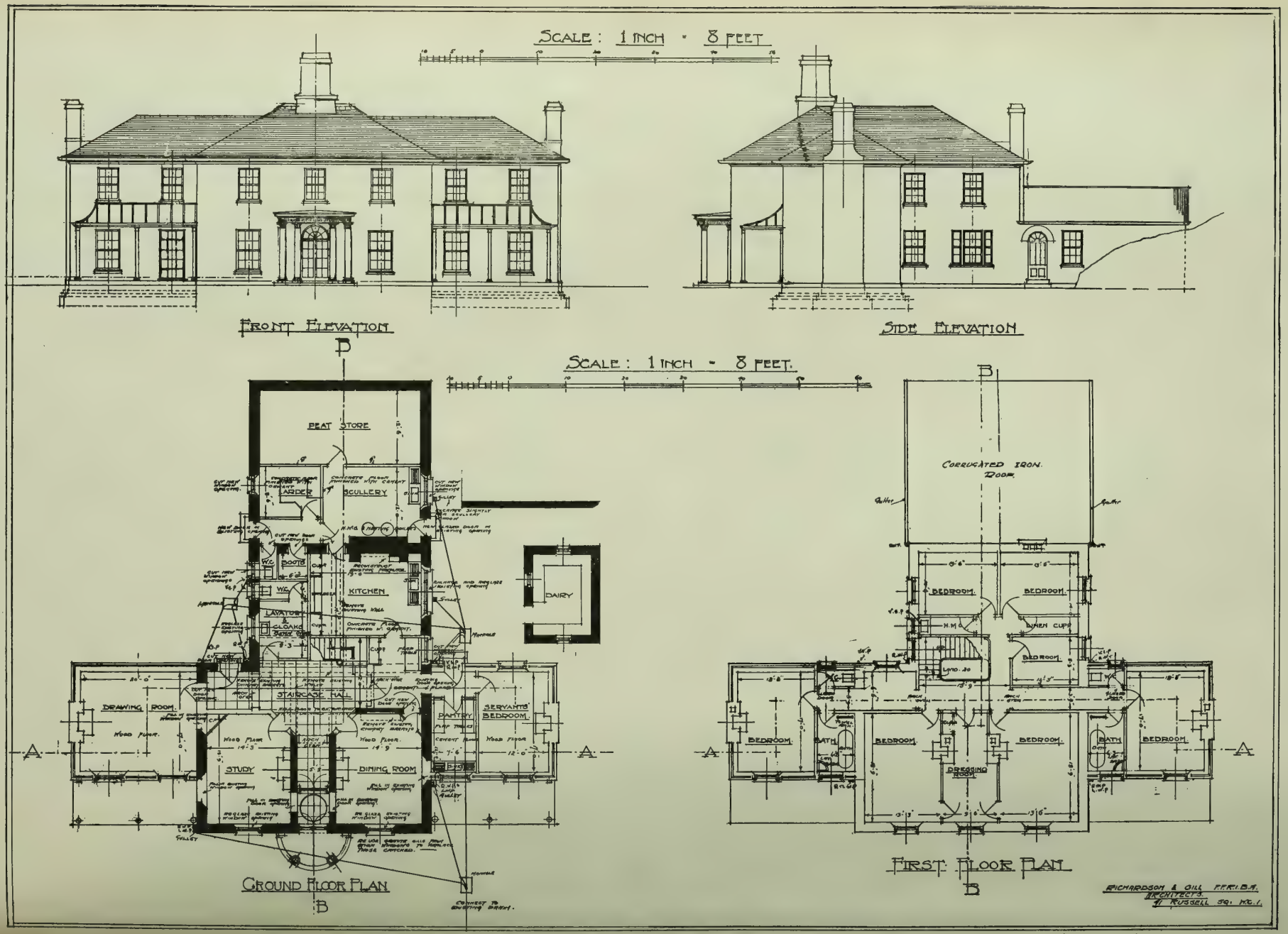


GROUND FLOOR PLAN

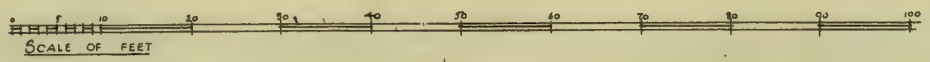


FIRST FLOOR PLAN

Birmingham Masonic Temple Competition. Design placed first. By MR. RUPERT SAVAGE, F.R.I.B.A. (*See p.* 489.)

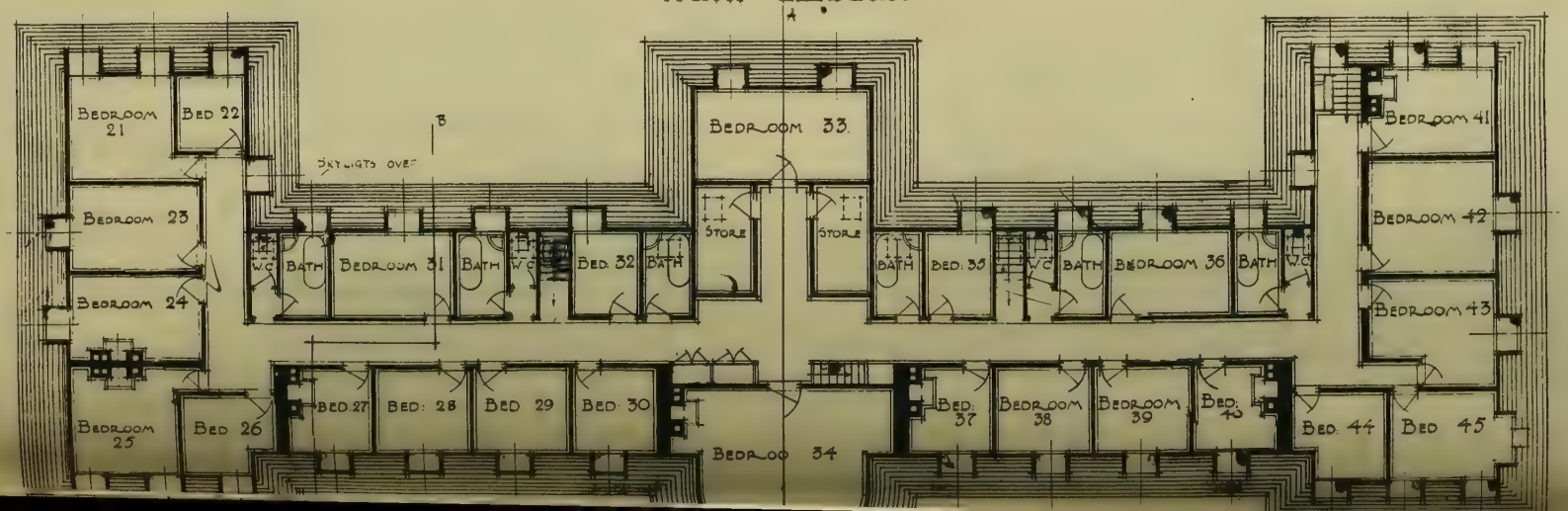


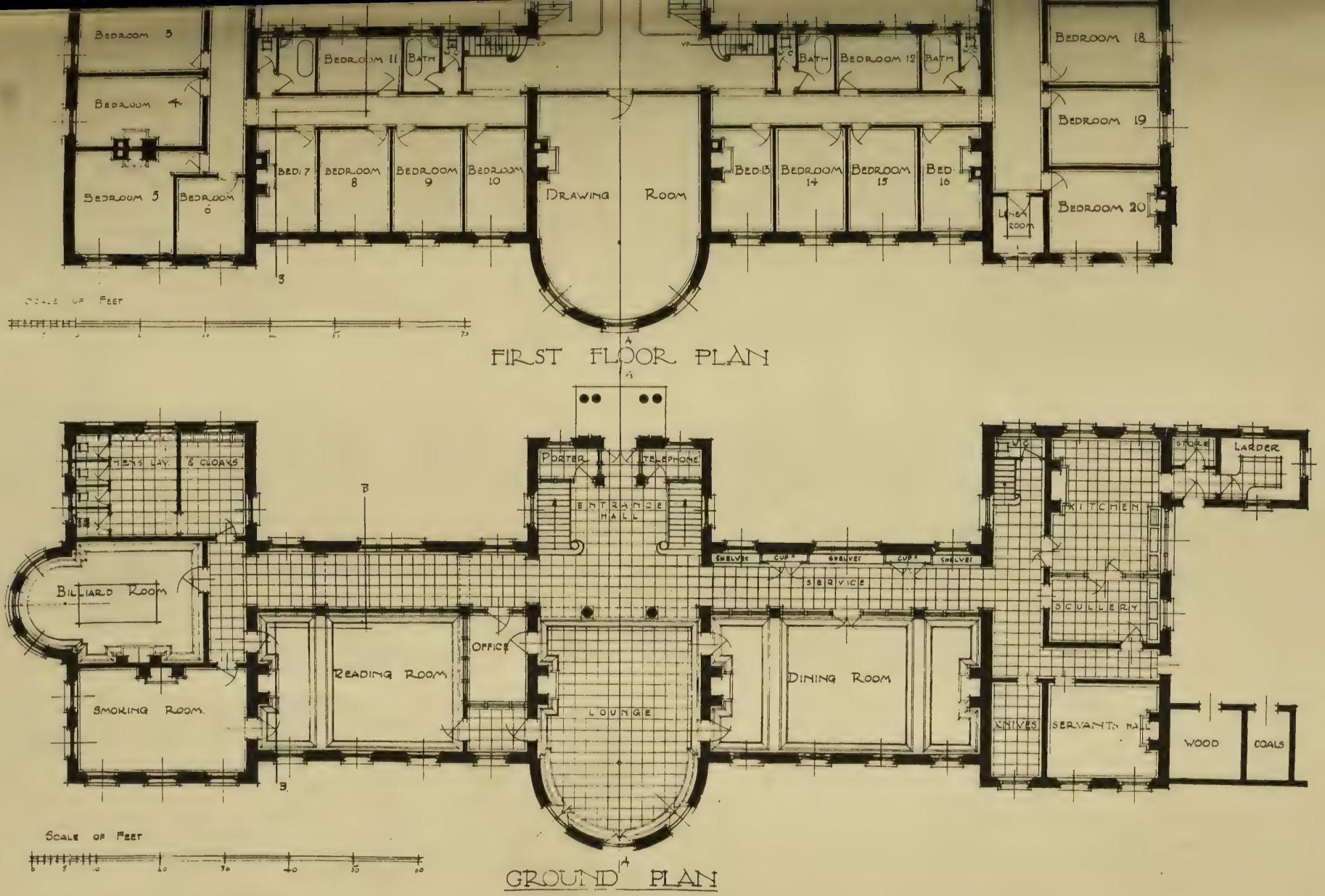
"ARCHERTON," POSTBRIDGE, DEVON. MESSRS. RICHARDSON & GILL, FF.R.I.B.A., Architects.





FRONT ELEVATION





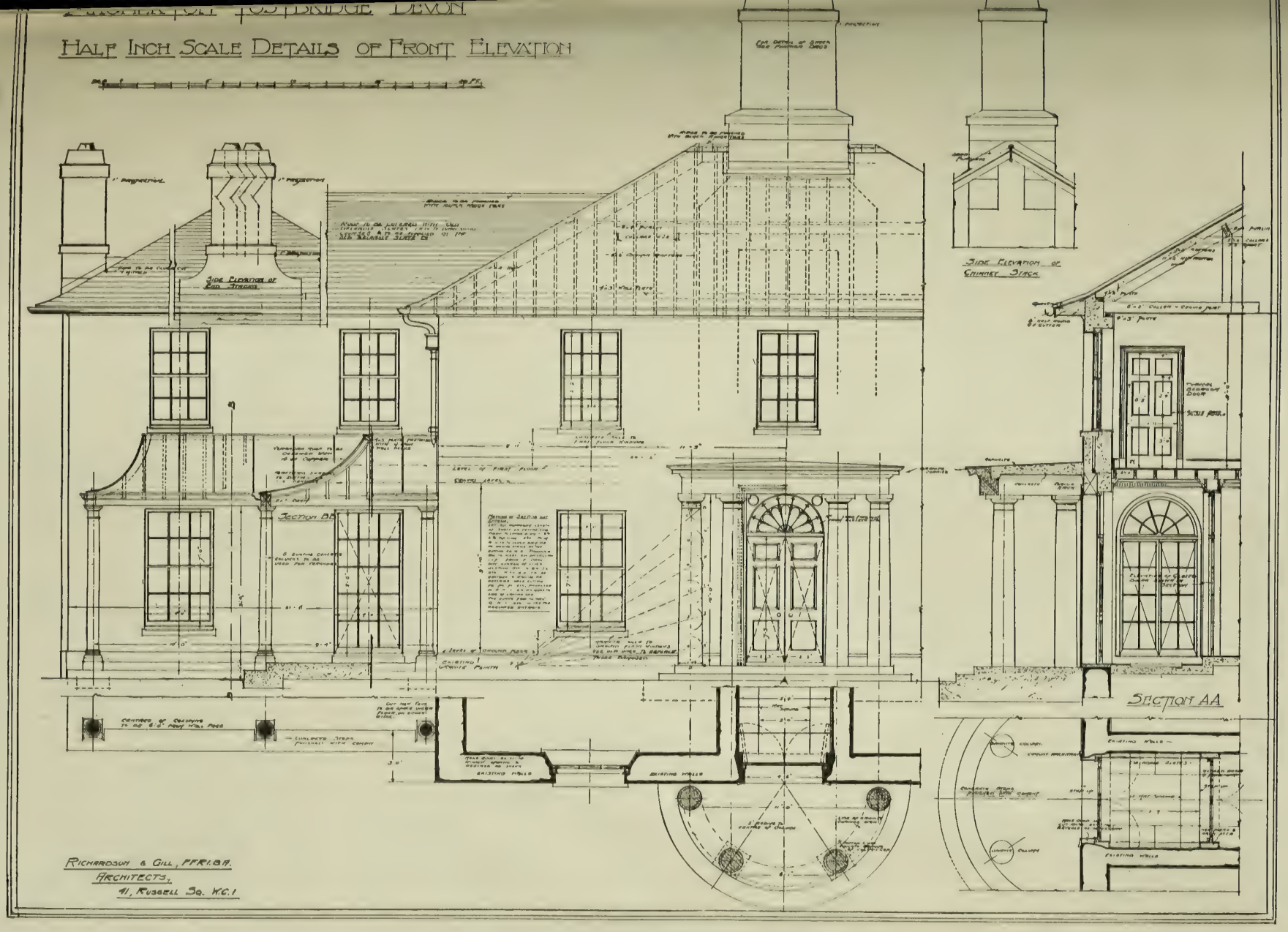
PRINCE HALL, DARTMOOR, DEVON. MESSRS. RICHARDSON & GILL, FF.R.I.B.A., ARCHITECTS.



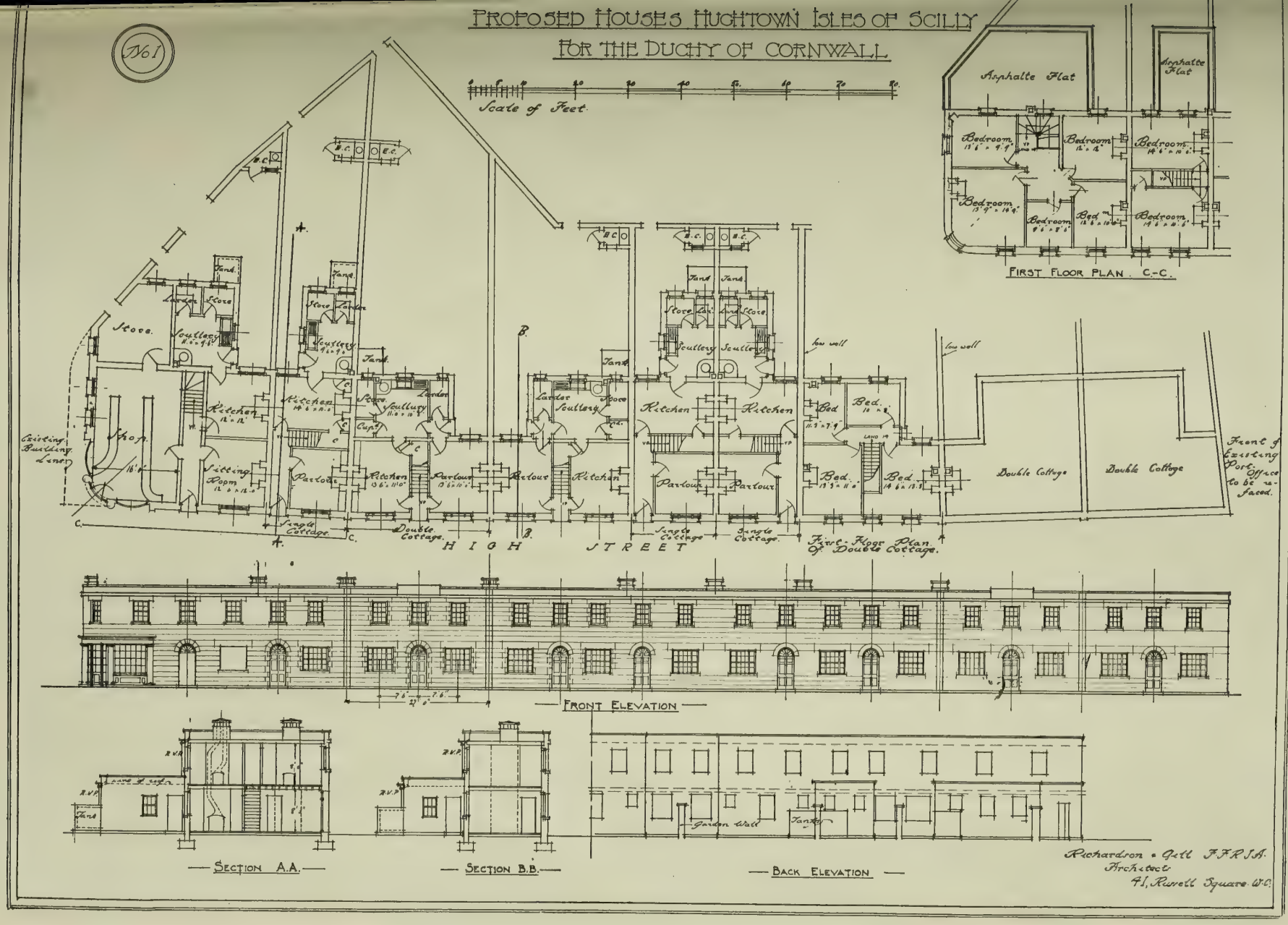
1923.



TES DAVISON.



MESSRS. RICHARDSON & GILL, FF.R.I.B.A., Architects.

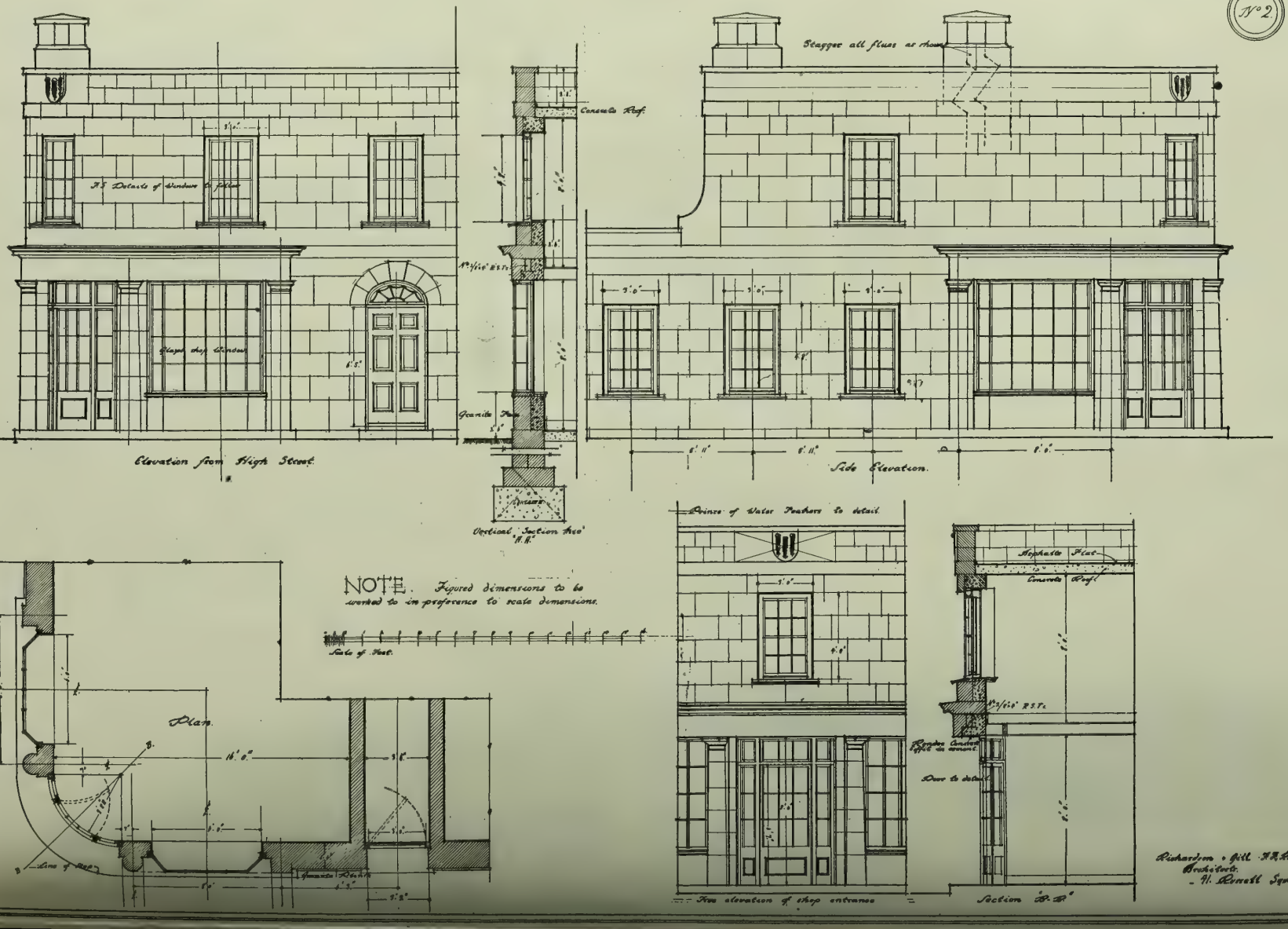


MESSRS. RICHARDSON & GILL, FF.R.I.B.A., Architects. (*See p.* 482.)

NEW HOUSES IN HIGH STREET, HUGHTOWN, ST MARY, ISLES OF SCILLY.

Half-inch detail of shop

No 2.

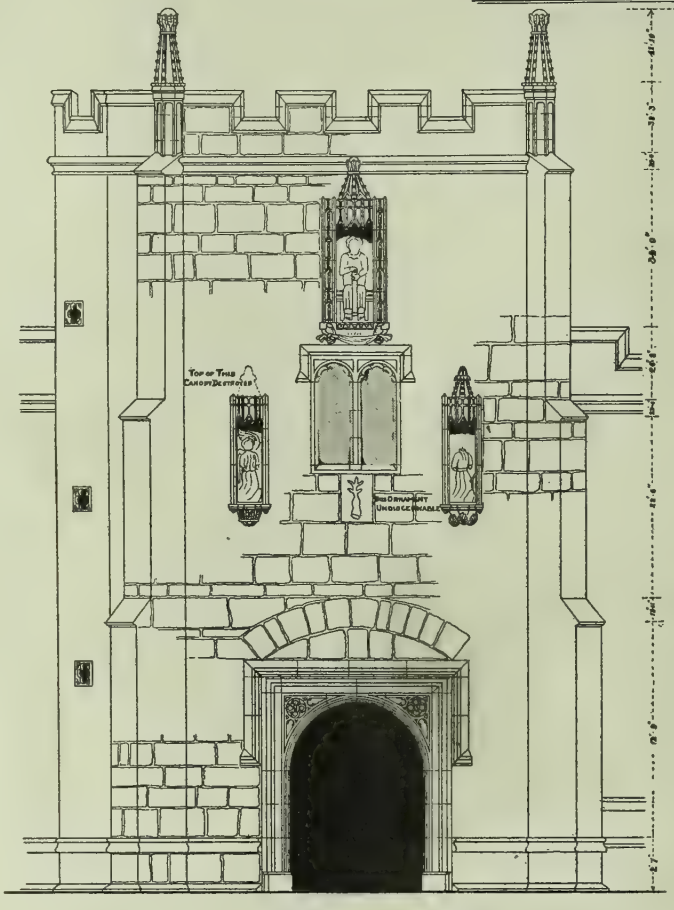




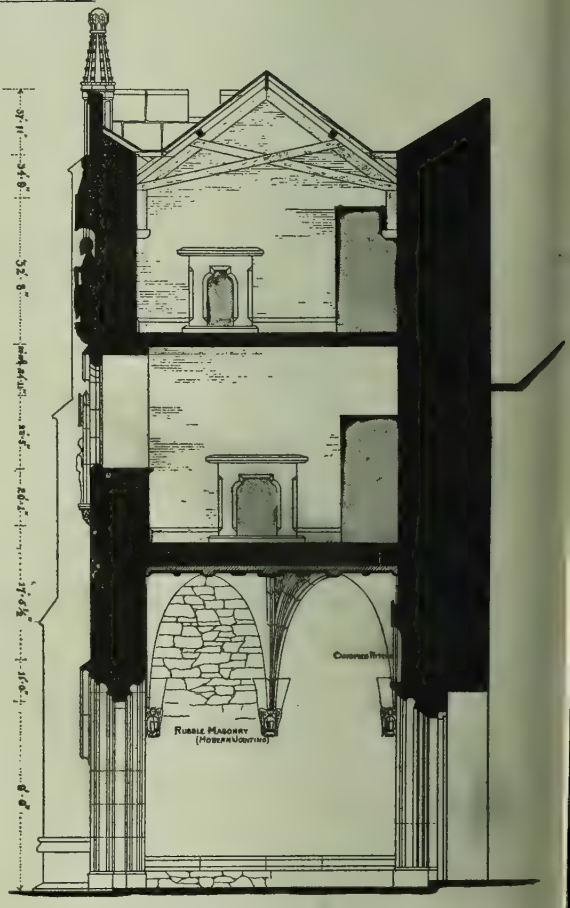
St. Luke's Church, Maidenhead. MESSRS. CHEADLE & HARDING, Architects. (*See p.* 482).

Plympton St Mary

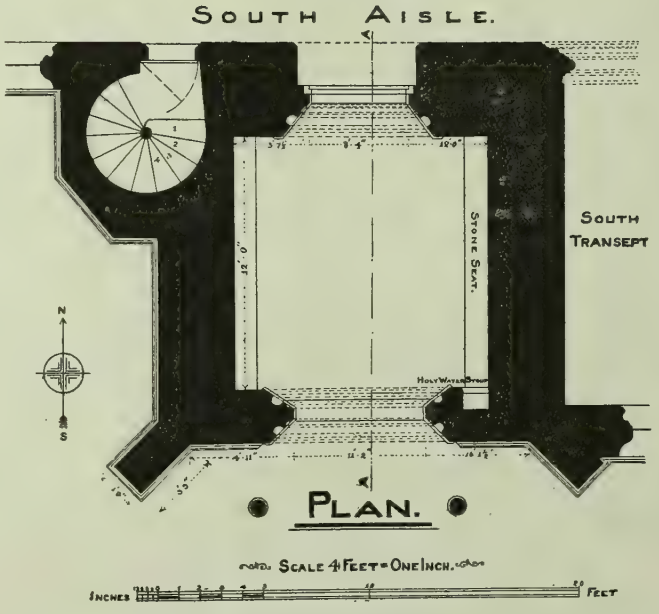
South Porch.



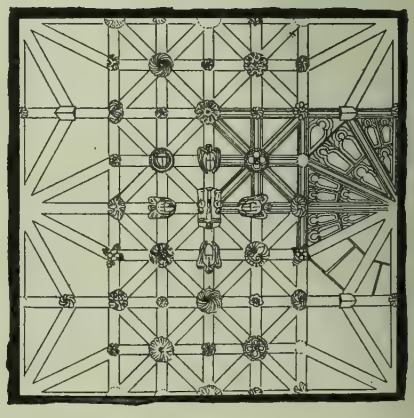
ELEVATION.



SECTION ON A.A.



PLAN.



PLAN OF VAULTING.

SCALE 4 FEET = ONE INCH.

INCHES FEET

SCALE FOR VAULTING.

INCHES FEET

From drawings by Mr. W. W. Hitchins. (*See p.* 482.)

MASONIC TEMPLE COMPETITION, BIRMINGHAM.

ive this week the design placed first in npetition by the Assessor, Sir Banister r, F.R.I.B.A., who, in his report, says :— author of design No. 3, to whom I he first premium of £500, has been most ul in fulfilling the conditions and re- nts, and has produced a straightforward ilfully arranged plan. The basement s the kitchen department with scullery, stores, staff room, wine and beer cellars side entrance) all conveniently placed ation to a central servery with lifts and stairs to the upper floors. This floor tains the quarters for the resident porter, ently placed at the western entrance of The general lavatory with the dressing for brethren are in proximity to the aircase. The lodge room to seat thirty, r with ante room and dining room, would careful ventilation. The author has y considered that the general lavatory the lodge room would be sufficient, but ample room for lavatories in the ante t the east end of the suite. A heating r is provided in the sub-basement. round floor has a central doorway and a s entrance hall with passenger lift and box, and with main staircase to the loor. Convenient to the hall are the ial Grand Secretary, Clerk and Steward, ion room and committee room well close to a service lift, and the masonic and library. The lodge room to seat nd the lodge room to seat fifty are both d with ante rooms, lavatories, rooms for te, ample locker rooms, and store cup- for lodge property. The dining rooms e two lodges are provided with an ample with lifts from the general servery in it.

irst floor contains an assembly hall with er lift, and three of the committee rooms service lift; also Provincial Grand and Provincial Grand Officers' robing A ladies' cloak room and lavatory is l, and, if necessary, could be con- y used in conjunction with the com- oom on ladies' nights. The lodge room 150 is of good proportions, with ante loaks, and lavatory, and with locker d store for lodge property in a mezzanine The banqueting room is of ample size, ly arranged with large servery having rs, and with lifts to kitchen servery in t. The author has not adopted the on that this banqueting room should be p with a smaller dining room, but has a crush room which would be capable ons of seating 70 additional persons.

The front elevation is extremely simple and distinctly original, somewhat reminiscent of an Egyptian pylon, with plainly treated wings, flat pilasters, and a dignified central entrance. It presents a very reposeful appearance, quite in harmony with the purpose of the building, and I feel confident that it would make an extremely satisfactory façade, of which Warwickshire Masons would have reason to be proud. The back elevation has been well handled and possesses considerable merit. I have read the report submitted with this design, and think the remarks with regard to the railway tunnel, heating, ventilating, &c., are well considered, and that the work could be carried out within a reasonable margin of the total of £72,371.

The author of design No. 5, to whom I award the second premium of £300, has sent in a symmetrical and well-arranged plan. The accommodatoin is provided on the ground, first, second and third floors, with a mezzanine over part of the ground floor, and there is a small basement. This design has many excellent points with two internal areas giving light to entrance and inner hall, and main staircase enclosing lift. The Provincial Grand Secretary is placed near the entrance adjacent to the clerk, with the general lavatory and dressing-room for brethren at the one end, and ladies' lavatory at the other end. The entrance hall, main staircase, and inner hall are all of ample size and well lit. The lodge rooms have ante rooms well arranged with respective dining rooms *en suite* on the same floor, all somewhat large and thereby adding to the cost of the building, as do also the connecting corridors. The lavatories for the lodge room to seat 150 are on a mezzanine, which is not such a convenient arrangement as when adjacent to the ante room. The serveries are well planned and of good size; they are connected by lift and stairs to the kitchen on the third floor, and could each be provided with two doorways into the dining rooms which they serve. The kitchen store-room accommodation could, however, be advantageously increased.

The elevation to Broad-street is effective and restrained, with a good rusticated basement supporting a range of free-standing Ionic columns and surmounted by a low attic, while the back elevation has been well handled and possesses considerable merit. The author's report deals satisfactorily with the question of cost, and in my opinion the building could be carried out with a reasonable margin of his total of £79,512.

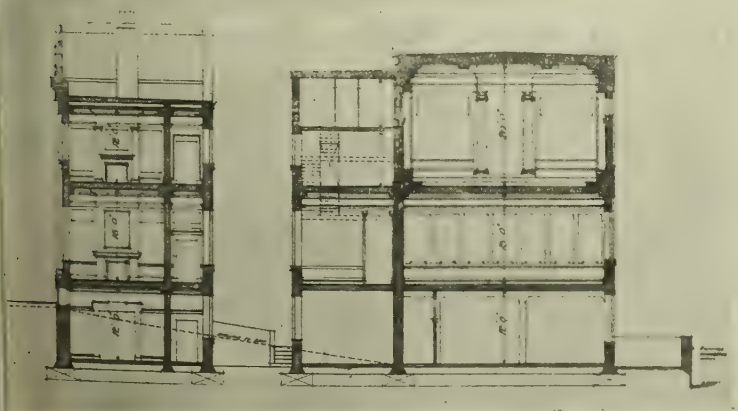
The author of design No. 1, to whom I award the third premium of £200, has sent in a very compact plan, largely controlled by placing the lodge rooms diagonally alongside each other in pairs on the ground and first floors. The accommodation is provided on the basement, ground, first and partly on the second floor. The Provincial Grand Secretary, Clerk and Steward are conveniently placed by the entrance hall, and the main staircase is kept centrally, close to the front wall, and with two lifts gives easy access from the entrance to the upper floors. The lodge rooms are arranged *en suite* with their respective dining rooms, but the lodge rooms to seat 80 is the same size as the lodge room to seat 150, and is, therefore, too large. It could, of course, be easily reduced by throwing the western bay into an ante room and including the present ante room with the hall. The service room on the ground and first floors serves in each case two dining rooms, and being inadequate for the purpose, would require reconsideration. The ladies' lavatory is approached through a room marked "Members' Common Room or Ladies' Room," but this could easily be avoided by placing the common room, where it would be of greater service, on the second floor beyond the committee rooms over the dining room to seat 30, or in the place of the two committee rooms facing the front, and it would be easy to add two committee rooms over the dining room to seat 30. The kitchen department in the basement is ample and well arranged, and the wine distribution room is conveniently planned in connection with the servery and lifts. The elevation to Broad-street is a well-balanced and extremely satisfactory composition in the Renaissance manner, and dignity is obtained by the central Ionic portico carried through three stories which would give fine architectural character to the building. The report submitted gives a good statement as to the scheme, and I consider that the building could be carried out within a reasonable margin of the total cost of £74,163.

As I have already stated, many of the remaining designs show considerable merit, and the Temple Committee is to be congratulated on the response to their invitation for competitive designs. All of these have defects of some kind; some are too large and wasteful or extravagant in character, or in having improper lighting; others have bad service accommodation to the dining rooms, an inconvenient kitchen arrangement, improper linking up of lodge rooms with ante rooms and dining rooms, etc.

[The names of the authors of the premiated designs are given on p. 476.]



Fountain Mask, Arles.
From a sketch by Mr. G. Norburn.



Birmingham Masonic Temple Competition: Design Placed First.
By Mr. Rupert Savage, F.R.I.B.A.

LEGAL SECTION.

NOTES ON CURRENT CASES.

Building Estates and Approaches.

THE recent case, Cory *v.* Davies (1923, 2 Ch. 95) illustrates the difficulties that may arise on building estates as to mutual rights of way. About the year 1857 the owner of a large freehold estate at Cardiff was developing it as a building estate. Part of the estate consisted of a rectangular piece of land bounded on the north by an occupation road, on the south by a public highway, the Newport-road, on the east by a street called East-grove, and on the west by another street, West-grove. This piece of ground was divided into three rectangular building plots fronting on the Newport-road, and extending back to the occupation road and three contemporaneous leases were granted of the three lots. The three lessees were connected or related, and the three leases were identical in form except as to the names and parcels. The leases were for 99 years. The lessee's covenants included one that within one year dwelling houses were to be erected on the land and boundary walls and fences, and the buildings, boundary walls, &c., were to be repaired and maintained. The leases demised all ways and easements, and did not except or reserve the same.

The plots thus conveyed were laid out as follows:—Seven houses were erected in all, forming a terrace fronting on Newport-road, and set back about 40 ft. from it, and in front the highway was shut off by a continuous wall. In this wall there were two sets of gates at each end of the terrace, forming an access to a drive which was made in front of the houses and which, being only 9 ft. in width, was only available for a carriage to enter at one gate and leave by the other, as there was no sweep in which to turn a carriage. This drive formed the only means of access to the front of the houses, none of which had a separate tradesmen's entrance. The only other access to the Newport-road was a narrow gate made in about the year 1869 by the occupier of the middle house for foot passengers. In October, 1920, the defendant had bought the house at the easternmost end of the terrace. This house had been assigned in July, 1878, by one of the original lessees to a Mr. Williams, and that assignment did not contain any reservation in favour of the assignor of the right to use that part of the drive which fronted the house assigned or of the right to use the eastern gates.

The defendant had locked the eastern gate, and prevented the other occupiers of houses in the terrace from using the drive and gates opposite his house, and the action was brought by the owners of all the other houses, claiming a declaration that they were entitled to a right of way over the drive and through the gates and an injunction restraining the defendant from locking the entrance gate opposite his house. The gates had never been locked, except that between 1896 and 1900 the gates at the east end had been locked, and in 1919 the gates at the western end had been locked, but this, as the Court found, had been done for the mutual convenience of the owners and occupiers of the houses to ensure greater privacy for whom keys had at all times been available.

Before turning to the judgment it may be mentioned that the plans on the original leases were only ground plans in bare outline, the houses then not having been erected, or the plots laid out, but the above facts were obtained from plans which came from the custody of the successors in business to the original lessor's architect and surveyor. The position, as pointed out by the Court, was a curious one, for if the defendant was entitled to lock the gates at his end of the terrace, the same would be the right of the owner of the house at the other end of the terrace, and the result would be that the owners of the intervening houses would be cut off from vehicular access to the Newport-road. These persons could not make any new access to that road for two reasons—first, because they were bound by their covenants to maintain and repair the boundary wall, and secondly, because even if they could make an entrance through that wall, there was no space to make it suitable as an approach for vehicles, and in these circumstances the Court intimated that common sense seemed to demand that the Court should, if possible, find some legal origin for the right openly enjoyed by the plaintiffs for so long a time.

The inferences drawn by the Court from the facts proved at the trial were that in 1856 the three lessees, having ascertained from the lessor that he was willing to let them have building leases of the three plots, verbally agreed amongst themselves that they would lay out the plots as a terrace in the manner described, and after having obtained the lessor's approval to such laying out would procure the lessor to grant them building leases in accordance with their plans and specifications. The Court also inferred that the boundary wall and the gates were commenced to be built before the leases were actually granted, and that the three lessees shared the expense of erecting the front wall and the gates. The right had been enjoyed for over sixty years, but, as the Court laid it down, "It is well settled that a lessee cannot acquire a right of way over the land of another lessee under the same lessor either by prescription at common law, nor under the doctrine of a lost grant, nor by prescription under the Prescription Act, 1832 (Wheaton *v.* Maple & Co., 1893, 3 Ch. 48; Kilgour *v.* Gaddes, 1904, 1 K.B. 457)."

The Court, however, then held that the circumstances of the present case were such that, in order to give effect to the common intention of the parties, the law would imply the appropriate grants and reservations in the three contemporaneous leases, and this common intention would be given complete effect to if there were implied in the lease of each plot a grant to the lessee of the right during the term to use the drive and entrance gates and a reservation to the lessor and to his lessees as owner and occupiers of the houses erected on the other two plots of the right to use the drive and entrance gates so far as such drive and gates were erected on the demised plot.

The power to make this implication was derived by the Court from the judgment in Pwllbach Colliery Company *v.* Woodman (1915, A.C. 634), as the Court held that this case came within the second of two classes of cases dealt with in that judgment where easements may impliedly be created, and where it was stated that this class of case does not depend upon the terms of the grant itself, but on the circumstances under which the grant was made and that the Court will readily imply the grant or reservation of such easements as may be necessary to give effect to the common intention of the parties to the grant with reference to the manner or purpose in and for which the land granted or some land retained by the grantor is to be used, provided, however, that it is an essential condition of the implied creation of such easements that the parties should intend that the subject of the grant or the land retained by the grantor should be used in some definite and particular manner and that it is not enough that the use intended by the parties might or might not involve that definite and particular use.

The Court held that neither the absence of a reservation in favour of the lessor nor the fact that the leases contained some particular reservations in favour of the lessor prevented the grants and reservations being implied, and the case formed an exception to the general rule laid down in Wheeldon *v.* Burrows (12 Ch. 31). That general rule is that if a grantor inte reserve any right over the tenement gr it is his duty to reserve it expressly in the In this case, however, the Court held the leases were really parts of one transactio the easements were only required for the ficial enjoyment by the lessees of the three The lessor in granting the three leases cont covenants to lay out the three plots in the of a terrace was only giving effect to the ar ment made between the three lessees therefore, this was not a case where the or anybody deriving title under him by of a subsequent grant was claiming the b of an implied reservation in favour o lessor for his own benefit, and in these ci stances the Court should not allow the g rule to stand in the way of implying the a priate grants and reservations, to give eff the common intention of the parties to the

It will be remembered that the case, Han *v.* Jago (1921, 1 Ch. 322), which we not *The Builder* Legal Section, April 29, has application to this point as to imply grant of right of way, and that case was upon amongst others by the Court. It argued that, as the lessor was no party t arrangement made between the lessees grant by him or reservation in his favour be implied, but the Court as to this point that the lessor, by approving the plans specifications and by making the lessees cov to erect the wall and entrance gates acc to such plans and obliging them to ma them, had made himself a party to such ar ment. But the learned Judge, in case held that the Court had not the power to hol the necessary grants and reservations cou implied, dealt with the case from another of view. He held that the several lessees the same lessor had power as between them by express grant to create such ease limited to the duration of the term o lease and that, although the grants wer under seal, there was part performance t the case out of the Statute of Frauds.

Two other points were dealt with: that the defendant had bought the without notice of the existence of an ease and, therefore, he could not be boun implied reservation or by a verbal agre between the original lessees. The answ this, the Court said, was that the nature premises should have put him on inqui to the existence of any easements. O point we may refer our readers to the Yandle & Sons *v.* Sutton (*The Builder*, Se ber 29, 1922), where this question was disc The last point was that, as against some plaintiffs who were executors of the assigning to the defendant's predecessor i no reservation was made in the assign and any claim by the executors to the would be a derogation from the assign but this was also decided in the plai favour, for reasons we need not detail.

This case is technical, but highly instru as it shows the pitfalls to be avoided by accepting leases on a building estate entering into common arrangements. reservations and grants should be contai the deeds and then all such questions w avoided.

Before parting with this case, we may r our readers of another case which we no our Legal Section, November 24, 1922, Att General v. Hodgson. There a house had erected fronting a public park, and a b of the Corporation prohibiting motor had resulted in one means of access to the by this kind of traffic being cut off.

Workmen's Compensation: Onus of Pr

A recent decision of the House of Lo the case, Moore & Co. *v.* Barkey (*Weekly* July 28) is of importance, as it bears o question of onus of proof under the Work

ensation Act. The claim was for com-tion by the dependants of Barkey, who been employed in the appellant's colliery. uly 17, 1921, Barkey had gone down the ith a night shift foreman named Gillespie sist in clearing gas away. Gillespie had nnie oil safety lamp which discloses the nce of gas by burning low or going out, t Barkey had an electric lamp. By the Mines Act, 1911, section 34, subs. (1) iii, afety lamp shall not be unlocked except appointed lamp station. . . . by a competent person appointed in writing by the manager for the purpose, nor except in the case of electric hand lamps shall it be relighted except by such a person." Both men were killed by an explosion, and on exploring the scene of the explosion the Glennie lamp was found to be unscrewed and a box of matches was found between the two parts of the lamp.

The arbitrator found that the explosion was due to an attempt to relight the Glennie lamp in breach of the regulation. Gillespie had the control of the lamp but the two men were working together, and on these findings he refused compensation. The Second Division of the Scotch Court of Session had reversed this finding and the House of Lords affirmed this decision, on the ground that the arbitrator was wrong in placing the onus on the claimants, for there was a strong presumption that the accident arose out of the employment of the deceased man, and the onus lay upon the employers to prove that the deceased had added a peril to his employment in contravention of a statutory regulation.



Memorial Window for a House at Purley. Designed by Mr. Reginald Hallward.

[his window, of which the central three lights only are shown in the ograph, the whole being composed of five lights, was executed he staircase of a private house. The figures are silhouetted on a r-white plain glazing and are without background, surrounded by der of varying tints of blue and green. The central figure represents ving Kindness," holding a basket full of varied flowers—the strongest of colour—and giving gifts to the children. The centre top-light contains the dedication, with little angels playing instruments on either side. In addition to the metallic oxides, enamel colours are used in the painting of the glass, such as the embroidered patterns on the dress, &c. The plain glazing surrounding the figure portions and to which the two outside lights are limited, contain quarries scattered through them with floral patterns. The whole window is an excellent example of modern craftsmanship.]

HEATING, LIGHTING, AND VENTILATING

ELECTRICAL INSTALLATIONS.

THE ARCHITECT AND THE BUILDER.

By "M.I.E.E."

In the electrical equipment of homes, factories, shops—whatever it may be—there are four parties concerned: the architect, the builder, the electrician, and the owner. Obviously, the last named, who has to foot the bill, would be the gainer if the other three could work together with a view to keeping down the cost of the work; but in how many cases do we find effective co-operation between even two of the three? Only in the case of large and important buildings, in which the adoption of electricity for lighting and power is a matter of course, do we find provision made, more or less efficiently, for the execution of the electrical work at the proper time and in the best way—or, in recent times, when a local authority decides to provide for the use of electricity in a housing scheme. Yet the fact that for illumination electricity is nowadays without a rival, and that its use is rapidly extending for cooking, for occasional heating in dwellings, offices and shops, and for an infinite variety of other purposes, cannot be ignored. Nevertheless, it is common practice still to design and erect houses and other buildings and to finish them ready for occupation before the installation of electrical equipment is so much as considered. Usually they are piped for gas and water, apparently because from time immemorial it has been customary to make such provision; but the times have changed, and modern needs should be met in modern buildings from the first.

The owner depends upon the architect to advise him and to adopt the most up-to-date practice; the builder must act upon the instructions of the architect, and the electrician comes in a bad third, to make good the omissions of his predecessors on the job, and to overcome the difficulties with which he is confronted as best he can. It is to the architect, therefore, that the appeal must be addressed, for he should give the subject his close consideration.

Dealing first with illumination, it would be too much to expect the architect to be an "illuminating engineer" and to devise a complete scheme in detail for this purpose; but he is compelled to deal with the matter in respect of daylight, at least, and as he is solely responsible for that class of illumination, he must necessarily be familiar with the broad principles by which it is governed. Since he is charged with the design of a building which shall be habitable and suitable for its purpose, surely he ought to take into account not only the daylight hours, but also those during which artificial illumination will be necessary and make the proper provision for it in the first instance. The mode of illumination—direct, semi-indirect, diffused or concentrated—and the quantity of light required, measured in lumens, for average conditions should fall within his purview, and in a building which has claims to architectural beauties he should specify and approve the design of the fittings. By providing ducts for the wiring in the walls and ceilings he can go farther and fix the exact positions of the lamps; but in important cases of this class the collaboration of a trained illuminating engineer is almost indispensable. On no account should such matters be left to the discretion of the contractor.

But to equip a building only for electric lighting is a mistake. The innumerable benefits derived from a supply of electricity render it desirable that ample provision should be made in the first instance for their enjoyment. The applications that we have in mind fall into two classes: those in which the electrical apparatus is permanently fixed, and those which involve the use of movable appliances. Under the former head are included electric lifts, cookers, water heaters, &c., all of which call for specially heavy wiring Their positions can be determined before the work is commenced, and even if the building is not actually wired at the time, suitable ducts should be provided in the walls, with outlets at appropriate points, to enable the wiring to be done at minimum cost and without damage to walls and floors. It will be found that a very few of such ducts will suffice to give access to every story at trifling cost. The main thing is to provide for the vertical runs of cable from floor to floor—the rest is easy. Much damage to floors can be avoided by the simple expedient of screwing instead of nailing one or more of the floor boards lying near the centre of the room or corridor. These facilities b provided, it is surprising how much wiring be done without disturbance to decorations,

Under the head of movable appliances radiators, suction cleaners, irons, fans, kett standard lamps, and a host of minor accesso With the possible exception of the first nam none of these requires heavy conducto even a three-kilowatt radiator at the us pressures needs nothing larger than 7/22 S.W whilst the smallest conductor permissible lighting circuits will readily carry any of others. To supply devices of this class, at le two wall sockets should be fixed in each ro Here, again, vertical ducts from basement roof are necessary, these ducts also carrying cables for lighting purposes, bells and t phones; but, as the sockets should be fixed the skirting boards, no further provision t the ducts and the screwed floorboards need made for them.



East Window: Church at Anglesey.
Designed by MR. J. CLEMENT BELL.

important point may be mentioned in tion with the use of electric radiators. these are used there is no necessity what- r coal fires and chimneys in bedrooms or n small offices. Hence a very material ny in building work can be made—suffi- n fact, to cover not only the cost of wiring ilding throughout, but also to pay for no art of the electrical apparatus installed. ating ducts, of course, should be provided; ese can be included in the thickness of the nd the abolition of chimney breasts and lpieces increases the useful floor area of the It is not yet generally realised that, in f the supposedly high cost of heating with city, it is not an uneconomical proposition when properly carried out, if due allowance is made for the value of the cleanliness, saving in labour, longer life of decorations, and unrivalled convenience resulting from its adoption.

A point which calls for mention is the provision of proper accommodation for main switches and fuses, meters, and distribution boards. Suitable positions for the latter can readily be foreseen, and recesses should be provided so that they can be sunk flush with the surface of the wall, in line with the ducts previously mentioned. Under the usual conditions, when electrical work is carried out as an afterthought in a building already completely finished and plastered, the cost of sinking the boards, &c., into the walls is prohibitive, and the consequence is that various items of the installation are obtrusively prominent and unsightly excrescences.

The subject of this article has by no means been exhausted; indeed, the writer has barely touched the fringe of it, but it is hoped that the important position that electricity occupies in an up-to-date building and the urgent necessity for making provision for its use *ab initio* may be more fully realised by the architect, with the result that under his instructions the builder will be enabled to provide for its economical installation and the electrical contractor will be brought on the job at the right time, to find that "cutting away and making good" is reduced to the minimum and that his work is already half done.

HOT-WATER SUPPLIES AND HEATING.—I.

following is the first of a series of rticles, by a hot-water engineer, dealing simple systems of supply—boilers and ct methods of heating, combined heat- ot-water supply systems, and central g—treated in a practical manner:—

Hot-Water Supplies.

Englishman is nothing if he is not, we say as a mild form of expression, vative! Little progress has been made the right lines; and although many s and appliances are now on the market, s which will lead to great improvements domestic and other supplies, their adop- s very slow indeed. He is taught at to say that the best steel comes from ld, and that the best of everything produced in some English town. But travels he gets the right perspective. hat we have not the appliances on the t: many appliances by British firms , if applied to the production of hot regulation of supplies, etc., can result othing but improved conditions and ncy of the heating apparatus. Mr. . Wingfield, Ph.D., M.I.E.E., in a read at the sessional meeting of the ute of Heating and Ventilating En- s on January 12, 1923, on "Automatic ation in Heating Installations" (and enting on a paper read by Mr. Herbert in 1912) stated: "I am sorry to say great deal of what Mr. Jones said years ago as to the scanty attention bject of automatic control has received country is even now only too true." hstanding the fact that in the U.S.A. a single heating plant is installed t some sort of automatic regulation, tic heat and temperature control has made any progress in this country. Vingfield stated further that, having requent opportunity to discuss the with consulting engineers and con- , he was invariably met by some emark as "Doubtless such regulation nice, but our clients or customers (as se may be) would never go to the involved"; or "Yes! we should like ose it, but there are so many in for ," etc. The writer goes on to say believes the fault lies chiefly with the r and contractor, who always prefer of least resistance, but that if they e convinced of the advantages obtained ould be better prepared to popularise ic control. Yet it is an easy matter e the added convenience of automatic improved conditions of comfort, and ial saving in working cost which will ustify the necessary initial outlay of d other units of an up-to-date instal-

is a deal of truth in the assertion of rican lady who, in the *Times*, stated all our love of hot water we were e of producing it for domestic use. average medium-sized house, both in and in the country, the hot-water supply is totally dependent on a boiler in the kitchen range which, even at its best and most extravagantly nourished moments, cannot supply a large family with a succession of hot baths.

The chief cause of this condition is that the small back boiler has been expected to do the impossible. The power of a small fire back boiler is very limited: the prevailing mistaken idea has been that such a boiler uses waste heat. The amount of waste heat absorbed is very limited, and where such a boiler exists extra fuel must be put on to supply the British thermal units which are racing away through the circulating pipes on their way to the hot store vessel. Indeed, with such a boiler, waste occurs by heat escaping into the mass of iron and brickwork, flues, etc., when fired simply for heating water, and when no cooking, etc., is needed.



War Memorial Window, South Transept, High Pavement Chapel, Nottingham.
Designed by Mr. J. Clement Bell.

For economical running it is gradually becoming recognised that the independent boiler, whether heated by solid fuel or by gas, is often more economical as a proposition for heating water for domestic purposes, even for small properties. To meet this demand there are many small boilers now on the market which are designed to give a maximum heating area exposed to the fire, for conveying the heat to the water and at the same time, by coloured mica doors and plated fittings, give a certain aspect of comfort, suitable for kitchen or living room of small properties. Many builders, and even architects, have very little knowledge of the modern requirements of hot-water and heating apparatus: to give a working knowledge it will be necessary to make a short survey on the systems in vogue.

The Tank System.

One great cause of the failure of the hot-water supply apparatus, as pointed out and observed by many, including the American visitor, was the indiscriminate adoption of the "tank system." For ten, twenty, and thirty years back thousands of two, three and four-story buildings were fitted with this apparatus. Space will not permit a full description of all its failings, but briefly the hot store is necessarily fixed above the highest fitting. This entails that the main circulating pipes, "flow" and "return," must run the whole height, often including long horizontal runs, from the basement to the hot store, usually in the roof. Whatever heat from the little back boiler is imparted to the water, it is lost to an appreciable degree on the way; and, further, the tank is in a cold situation, thus assisting in the general loss. If by chance, or by covering the circulating pipes and tank with non-heat-conducting material, real hot water exists in the tank, it cannot be drawn off without being diluted with cold. A glance at Fig. 1 will show this. It was not realised until comparatively recently that when a hot "draw-off" tap is opened all water in the apparatus will commence to flow by the most convenient course to the open tap. The direction of the arrows shows that the hot water cannot be drawn off without being diluted with water from the colder parts of the system when the tap is open. This condition is not peculiar to tank systems, and may occur in other types if incorrect connections are made. Fig. 2 shows a modified type of tank system with the same disadvantages, except that the tank is in a warmer position and the circulation a little shorter. If the draw-off pipes were arranged as indicated by the "dash" lines, then it is very similar in principle to the cylinder system, except that a rectangular tank is used in place of the cylinder.

The Cylinder System.

The cylinder system has many advantages over the tank system; all draw-offs are, or should be, taken from off, or near, the crown of the cylinder. This provision en-

sures that only the hottest water, which naturally is near the crown of the cylinder, can be drawn off. In the event of the cold water from any cause being cut off, the cylinder and boiler cannot be inadvertently emptied, with the consequent risk of fracturing the boiler. The cylinder is fixed near the boiler. This ensures a minimum run of main circulating pipes; the cylinder is in a warm situation—both factors reduce loss of valuable B.T. units from the stored water. In Fig. 3 a typical apparatus for a small villa is shown, with a run of pipes marked on the drawing. On such a small scheme, and where the fittings are conveniently grouped in a position near to the cylinder, the secondary flow and return to the fittings is hardly necessary. The object of the secondary circulation is to provide good hot water right up to the draw-off. If the pipes to these draw-offs are taken as a single line, the stagnant water in the pipes has to be drawn off before hot water can be obtained. On all secondary circulations the pipes must be so inclined that the circulation is assisted, and that all air given off can automatically escape. The expansion pipe is taken off from the highest point, forming also a natural air vent. The drain cock, safety valve, and the fullway valve on the feed pipe are essential features for a properly equipped apparatus. It is often not realised that the outflow at the taps is dependent upon the power of the feed pipe, *i.e.*, the height of cold feed tank and the diameter of the pipe. For this reason the feed pipe must be large enough to supply any number of hot taps open simultaneously. The minimum size would be one inch. The diameter of the primary circulating pipes is determined by the size of the apparatus; for a small villa type in a hard-water district, 1¼ in. is the minimum diameter, and 1 in. in a soft water district. Secondary circulations, towel rails and coils, as shown, all entail extra work on the boiler, and in fixing these it is essential to provide sufficient boiler power (*i.e.*, area of boiler exposed to heat of fire) to cope with this extra duty. Too much stress cannot be laid on this point. In the past, one of the most usual mistakes made in hot-water fitting has been to provide

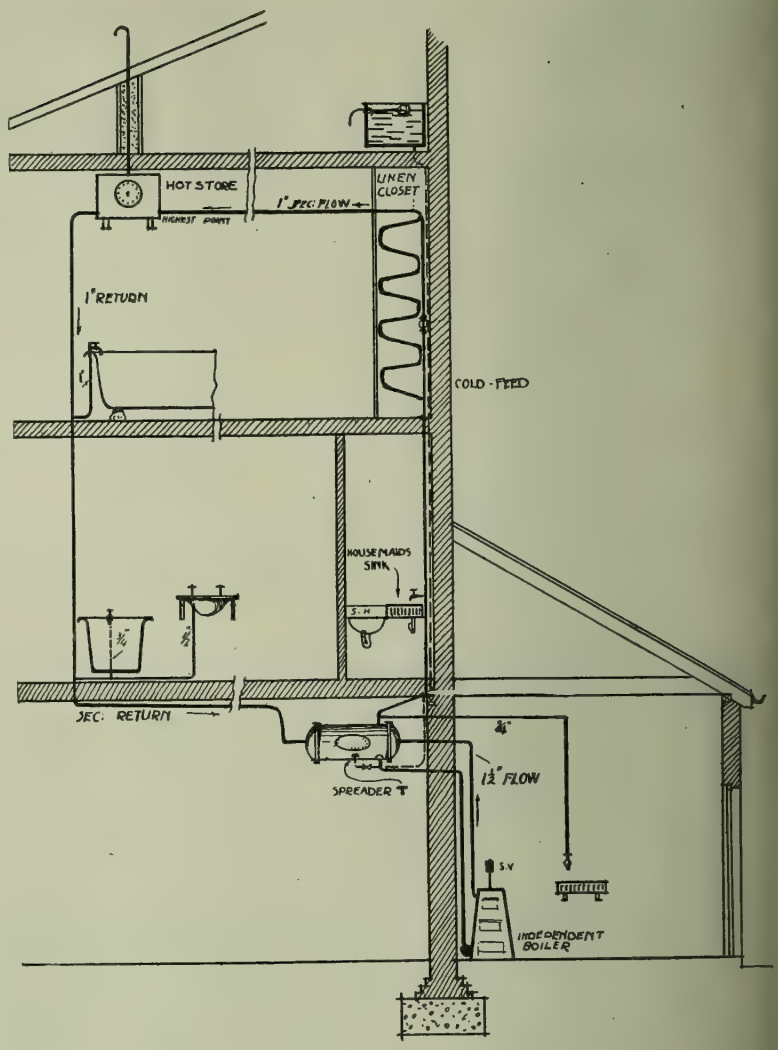


FIG. 4.

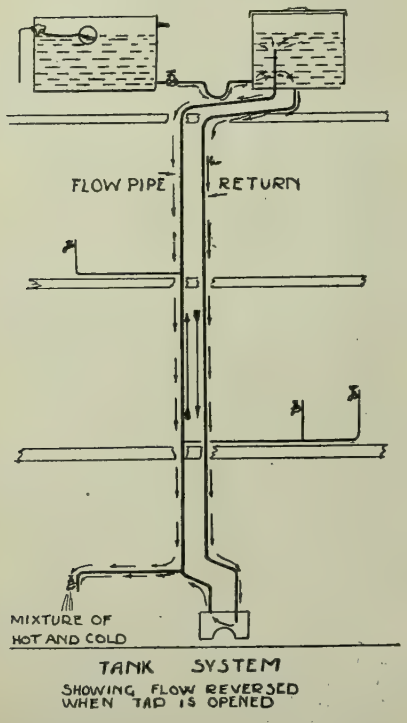


FIG. 1.

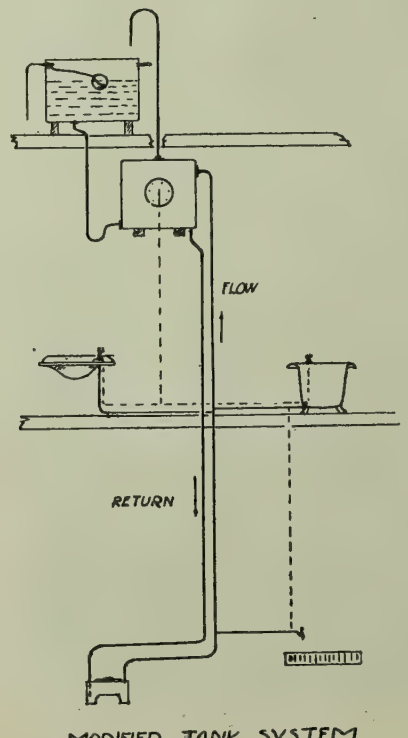


FIG. 2.

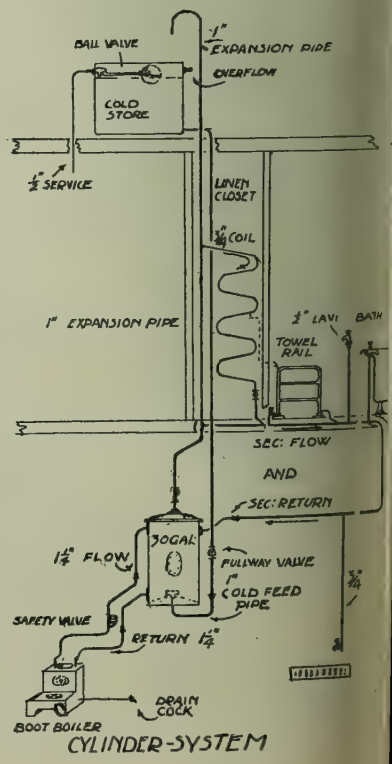


FIG. 3.

t-store vessel of too large a capacity in ortion to the power of the boiler, on the mistaken assumption that a large store el will give a big volume of hot water. domestic purposes a small volume of hot water is much more satisfactory a large volume of luke-warm water. very hot water can always be diluted n to bathing requirements, and good hot r is essential for dish washing. The most general types of boiler fixed at the of a kitchen range are the "Block er," with arched flue, sometimes known ne saddle boiler, and the "Boot Boiler, arched flue. Of the two the latter natur- is more efficient as it presents a larger to the heat of the fire; but, as before d, the independent boiler is gradually ing favour.

ne following table is offered as a rough e to determine hot store in relation to h of "fire back" cooking range boilers:

h of Fire.	Block Boiler with Arched Flue.	Boot Boiler with Arched Flue.
in.	20 galls.	.. 25 galls.
„	25 „	.. 30 „
„	30 „	.. 35 „
„	35 „	.. 40–45 „
„	45 „	. 50 „

has previously been asserted that the position for the cylinder is near the r. In many small villas the cylinder is l in the bathroom as the most convenient position. There is not much objection to this practice, providing that the cylinder is immediately over, or adjacent to, the bathroom, thus giving a comparatively short run of the main circulation. The advantages claimed for this practice are: the cylinder keeps the bathroom warm, and the top portion of the enclosure can be used as an airing cupboard for linen. Against these advantages it should be stated that from a hygienic standpoint the bathroom is not an ideal place for storage. A good deal of steam is given off during bathing and the lower half of the encasement forms a trap for dirt which cannot easily be cleaned out. Further, it is difficult to form a secondary circulation if needed. To ensure that the hottest water only can be drawn off, the secondary return should not rejoin the cylinder at a point lower than about 6 in. from the crown. If connected lower, water from the cool parts of the apparatus would mix with the hot water when a draw-off is opened, in a similar way to that described in Fig 1 of the "tank system." To take the secondary flow from the expansion pipe and drop to the floor to again rise to the proper point of connection would be impracticable as a dip of about 3 ft. would be formed in the circulation. This would, under the given circumstances, stop any natural circulation. If the cylinder must be on the upper floor and a natural circulating "head" cannot be obtained, the only way out of the difficulty would be to connect to a lower point, generally the primary return, and fix in a check valve, that known as the "Feather-weight" non-return, to prevent the cooler water escaping when a hot tap is opened. Many existing faulty systems can be improved by fixing this valve at a suitable point. To provide heat for the bathroom, a small radiator or a towel rail should be fixed; to the linen closet a small circulation is zig-zagged on the back wall as shown.

The Combined Cylinder-Tank System.

The cylinder system has one fault on large installations which does not exist to the same extent on the tank system. Distant fittings, high up on the installation, often get a poor outflow of water. To improve this condition a tank, which is virtually an enlargement of the secondary circulation, is fixed over the affected fitting, thus giving a direct "head" of water. As this tank is a part of the hot store it is essential that the boiler should be powerful enough to do this extra work. Such a scheme is shown in diagrammatic form. The cylinder may, of course, be fixed in a vertical position if the head room permits. When fixed as shown it is essential that a "T" piece should be screwed on the end of the feed pipe inside the cylinder, to prevent the cold water, by its entering velocity, boring a way through the body of hot water contained in the cylinder, escaping with the hot water when a tap is opened. It is a distinct advantage to "lag" the hot-store vessels to prevent loss of heat by radiation.

CARCASSING MODERN BUILDINGS WITH GAS PIPES.

By A GAS EXPERT.

the years which immediately preceded a steadily increasing number of archi- and builders were making it their prac- to carcass, as a matter of course, with pipes the residences, shops, offices, etc., h they were erecting. In many cases work was carried out by, or in conjunc- with, the local gas undertaking; but quite uently the latter was not consulted in the ter, with the result that the pipe-runs were etimes limited to certain points which the itects or builders considered necessary, which did not cover all probable uses of ; and sometimes pipes were run which e not large enough for the ultimate needs he subsequent occupiers.

rom 1914 to 1918 normal building ations were practically suspended, and k was principally confined to the erection premises for purposes connected with the , including many factories of various s. Comparatively few residences were t, though many of those already in exist- underwent serious structural alterations. outstanding merits of the use of gas as el for various purposes became almost ersally recognised in connection with the buildings above mentioned, but perhaps e than anything else the adaptation of ting buildings brought home to architects, ders, property owners, and Government ials the remarkable developments which taken place in the application of gas to ous purposes and processes, and its adapt- ty to the changes in circumstances which taken place regarding the buildings in tion.

as proved the only practical solution of problems which arose in these recon- ted buildings regarding cooking, heating, hot-water supply. But when the installa- of the necessary gas apparatus was under ideration it was discovered in all too y instances that either the gas pipes h already existed were hopelessly inade- e to supply the premises as altered, or their runs were limited to one or two ts only, which, for all the value they were, might as well never have been run at all. There is no doubt whatever that experiences such as these, coupled with the knowledge which was acquired by all classes of people regarding the services which gas could render to the community in general and the individual in particular, led to a considerable change in the outlook of those who were destined to deal with the general building operations on their gradual resumption after the war.

Piping Systems since the War.

In spite, however, of all past experience and the present popularity of the use of gas as a fuel, there are still occasional cases where premises of various kinds are erected without suitable and, indeed, necessary gas appliances being already installed, and sometimes—though still less frequently—without even an adequate system of gas piping being run during building operations, when such work can be done most conveniently, expeditiously, and cheaply. It is obvious that when gas pipes are thus installed the need for further disturbance of the building (with the consequent unavoidable damage to decorations) is obviated; moreover, the premises are rendered more valuable, more attractive, and indeed more habitable, to the prospective occupier. It will be noticed that the words "an adequate system of gas piping" are used, and the purpose of this article is to impress upon architects, builders, and others concerned with the erection of buildings the absolute necessity not only of piping premises for gas, but the advantage when preparing their plans of consulting the local gas undertaking as to the sizes of pipes and points which should be run, having in view the modern developments in the applications of gas and in gas apparatus.

It is not too much to state that not only is no modern building of any type or size complete without a gas service from the main being run into the premises and some form of gas-piping system being installed, but that all residences should have a complete gas-piping system run throughout, to every point where gas appliances could be needed for the immediate use of the incoming tenant, or ready for their subsequent installation in the future.

The use of gas appliances is still rapidly extending, their design and efficiency are constantly improving, and the price of gas is being rapidly reduced. All these factors go to justify the above claim, but a few further facts may be given.

There is an ever-present and persistent demand by the public for gas in one or many of its applications for use in buildings of all kinds. The purposes for which gas may be economically used are constantly increasing. Every building, therefore, should be prepared for future developments as well as for present needs.

Gas is hygienic in use, and it is the only economic and commercially sound solution of the smoke abatement and domestic service problems.

Gas is at the service of mankind, and while it may be suggested that some striking improvement and/or cheapening of one of the other existing sources of heat may occur in the future, is it not obvious that in case this does not happen preparations should be made for the use of something that is known to fulfil all the desired purposes? Moreover, it may confidently be assumed that the gas industry is not standing still, and that if improvements in appliances and reductions in price are achieved by its competitors, so assuredly will the same progress be made as regards gas.

The Cost of Installing Gas Pipes during Building.

The expense involved in installing a complete gas-piping system to cover all present and possible future needs is infinitesimal compared with its immediate and prospective future value; moreover, it is a mere fraction of the total cost of any building in which it is to be included. A comprehensive gas-piping system is very unlikely to cost more than

1 per cent. of the total money expended in the erection of any building; indeed, it usually costs less than this figure.

A gas-piping system should be looked upon as an investment, not an expense; first, from the point of view of the builder or seller of the house, because it immediately becomes more saleable and is worth a higher figure; second, from the standpoint of the occupier, who, when paying for it in an inclusive purchase price, certainly gets it at a lower figure than he would need to pay for running the necessary pipes after the building is completed, in order to supply the gas apparatus which he would wish to install.

Further advantages gained by the running of gas pipes while buildings are being erected are the prevention of subsequent discomfort and disturbance, and of the additional expense which is inevitably connected with making good damage to the structure and decorations. Moreover, even if all the points which are run are not immediately required by the prospective occupier they are ready for use at a later date, when apparatus can be connected to them with a minimum amount of disturbance at a minimum cost.

Gas Cooking.

It is perhaps permissible here to make short reference to some of the many possible uses of gas. The gas cooker is now almost universally installed or provision made for it in new buildings, and if this is not done the first tenant or purchaser is usually dissatisfied. Practically every large gas undertaking, however, has at times met with cases where houses have—very unwisely—been erected with no provision for gas, and inevitably the demand has arisen from the occupier for at least a gas cooker, with the result of additional cost of installation work and disturbance to the building and decorations. As an example, it may be mentioned that a large gas undertaking is at the present moment dealing with a number of requests from the tenants of two local authorities for the installation of gas cookers where none has been fitted under the housing scheme adopted by these authorities, and, incidentally, many applications from the tenants of another housing authority for gas for lighting, where electric light has been installed. In neither of these cases are pipes ready for the requisite purpose. Another somewhat similar case may be quoted. A large company a year or two ago erected some houses on its estate with no proper system of gas pipes installed. The superintendent who handled the sale of the houses subsequently found himself inundated with inquiries as to where were the pipes for gas water-heating, gas coppers, or gas fires, and owing to their absence he found it impossible to dispose of the houses. The gas undertaking was approached, and it was found necessary to go to the expense and trouble of pulling up boards, etc., to run the pipes which could and should have been run at a very low cost during the erection. Needless to say, arrangements were made, in connection with the extension of this estate, for the gas undertaking to run a complete system of supply pipes in the houses while they were being erected.

The above are cases of which full particulars can be provided to anyone interested in housing problems, and they are by no means unique.

Water Heating.

The use of gas for water heating as a complement to gas cooking has increased enormously in the past decade, and appliances either of the instantaneous type, such as the geyser, or in the form of gas water-heater and cylinder combined, to supply hot water to sink, bath, and basin, have been installed in thousands, even for houses constructed to be occupied by tenants of the working class. It is, therefore, obvious that if gas can be installed for water heating with advantage in working-class property—provided that the hot-water system and pipe runs in the houses have been designed for its use—its use should be anticipated and prepared for when erecting houses of a larger and more expensive type.

Gas Coppers.

The gas copper, which is now very extensively installed in residences of all kinds, has proved a boon to the housewife in abolishing the worst terrors of washing day. At a very low fuel cost it will deal with the week's wash without the labour, dust, and dirt which inevitably accompany the use of the old-fashioned solid-fuel coppers.

Refuse Destruction.

A field for the use of gas which has not yet received all the attention which it deserves is its application to the destruction of household refuse. Medical Officers of Health attached to large towns have for some years past been advocating the destruction of refuse by burning it in the household itself, instead of collecting it in vans which have to be loaded in the streets, through which it has to be carted to the destructor. However carefully it is tipped into these vans, that is obviously not a hygienic process, especially in windy weather. Moreover, these guardians of the public health have rightly drawn attention to the drawbacks connected with the use of the dustbin. In several large London boroughs leaflets have recently been sent to the householders asking them to burn their own household refuse as far as possible, and so help to secure—

(1) The better health of the community in general.

(2) The better health and comfort of their own families.

(3) The freedom from smell from the dustbin and the lack of flies arising therefrom.

(4) A reduction in the cost of refuse collection, which must subsequently reduce the amount which they pay in the form of rates.

The domestic gas-fired refuse destructor known as the "Burnall"—which is not costly and is let out on hire by some gas undertakings—has solved the problem of how to burn domestic refuse both conveniently and economically.

Gas Fires and Building Costs.

Gas fires are becoming so popular on account of their many advantages that their installation should be contemplated in all modern buildings, and pipes run to every fireplace accordingly; but in recent years a development has taken place in connection with gas heating to which reference is necessary when dealing with the question of building construction. The "economy" gas-fire flue is the development referred to, and if gas fires of the type known as "built-in with mantel register" are installed a great saving may be effected in building cost, and, what is also of great importance, more floor space made available on the same ground area. This economic principle has gone far beyond the experimental stage, and thousands of houses have been and are being erected containing such installations, with most, or all, of the usual coal-fire flues, with their large area, resultant chimney breasts, and heavy structural costs eliminated.

A further point of great importance is the fact that, the flue being constructed within the thickness of the wall, the face of the wall inside as well as out is flat, and this straight surface, without breaks or angles, saves many hours of the plasterers' time. It is perhaps not necessary to remind architects and builders that one of the difficulties connected with modern building is the lack of sufficient plasterers. In a housing scheme at Liverpool more than 1,000 houses have been built with two or three "built-in" gas fires in each, and in the London County Council's Becontree Estate some thousands of similar gas fires have been fitted. These are in houses of a small type for people of moderate means, and as it has been proved to be possible for such tenants to afford and enjoy the advantages which accompany the use of a gas—its cleanliness, availability, and labour-trouble-saving qualities—it will readily realised that the principle still more app and has spread to residences of a larger superior type.

The economy which may be effected building cost by the substitution of gas flues for coal-fire flues has in some cases b carried too far, and their construction has been treated with proper respect.

It must still be remembered that they and must always be regarded as, flues, that from the point where the gas fire pa its products of combustion into them, onwa throughout their entire length, they should constructed in the same manner as coal flues, and, to ensure freedom from do draught, should discharge at the highest p of the roof, as is usual with a coal-fire f The economy to which reference has b made is effected by the reduction in the a of the flues, its resultant effect on the bu ing construction, and the provision of a tional floor space on the same ground a The value of these advantages is so defi and substantial that there is neither need justification for taking risks.

There has been a tendency here and t to construct gas-fire "economy" flues sizes which are inadequate to deal with products of combustion from the fires wh discharge into them, and they have also b permitted to terminate in a position wher satisfactory pull and ventilating effect car be ensured in all weathers. Indeed, writer has actually met with cases wher piece of pipe has simply been stuck strai through the wall behind the gas fire carried up to the ceiling level of the r and then taken out to the open air. C have also occurred where gas fires have b fitted with their flue outlets discharging cavity walls with no proper flues constru therein. Such work is unsatisfactory, leads to the necessity of subsequent re struction work being carried out, and t additional expense and trouble are incurre

The Ministry of Health made the follow recommendations on "built-in" gas economy flues in its official organ, *Hous* dated June 21, 1920:—"The cavity o hollow wall should not be used as a flue gas fires unless a suitable shaft is prop constructed therein. If smoothly finished, size of the flue for a gas fire need not ex 20 in. in area, but should not be less t 18 in. in area, nor less than 3 in. wide i narrowest part. All flues for gas fires sh discharge into the outer air at the top of building, so that there may be no dange back draught into any room. Additional f of about 20 in. in area might with advan be provided as ventilating flues adjoining flues, with inlet openings near the ceiling.

This information concerned the small fires which are being installed in connec with housing schemes carried out by l authorities, but below are quoted the m mum flue areas and the sizes suggested all gas fires from the smallest to largest:—

Gas Fires. *Radiants.*	*Fire Front.*	*Minimum Flue Areas.*	*Size of suggest*
5 ..	8″ ..	18 sq. ins. ..	(4½″×4
7 ..	10″ ..	18 ,, ..	(4½″×4
10 ..	14″ ..	27 ,, ..	(4½″×9
12 ..	17″ ..	36 ,, ..	(4½″×9
14 ..	21″ ..	40 ,, ..	(4½″×9

The interior depth of any such flue a completion should be at least 3 in.—preferably 4½ in.—at its narrowest po Each gas fire should have its own flue. throughout the entire length it should no connected with or run into the flue of other fire or fires. It should be constru in brick or concrete block; parging is necessary, but the interior should be c fully trowelled.

The gas fire should not discharge im diately into the flue shaft, but an opening full width of the fire outlet should be gra ally (not abruptly) gathered over in the s

anner as would be done in the case of a
al fire. In effect, a products chamber
ould be constructed above the gas fire outlet
rresponding with the smoke chamber
ich is always constructed above a coal
e. There will then be no check to the free
ssage of the products of combustion into the
e shaft proper, and the full ventilating
ect will be ensured.
Exceptional cases may arise in which some
parture from the standard methods set out
rein may be permissible, but no deviation
ould be made from the general principle
thout consulting some competent authority
the matter.

Central Heating.

In recent years an extension of the prin-
le of installing central-heating systems in
ge houses and other buildings has occa-
nally been advocated, but without any very
terial results. There are various reasons
the comparatve unpopularity of such
tems in this country, among which may be
oted :—
. Their heavy installation and maintenance
ts compared with gas heating by separately
tained gas-fire or gas-radiator units.
. The love of the British people for the
erful appearance and hygienic ventilating
ct of an open radiant type of heat, such as
t provided by the coal or the modern gas
. In the dull gloomy days of autumn and
ter a hot-water or steam radiator is a
erless companion compared with the glow
a gas fire
. The climatic conditions in this country,
ich call for some ever-ready, no-work-
king form of heating at practically any
e of the year, as it is not unknown for a
to be required in one or more rooms (but
throughout the house) for an hour or so.
n on a June, July or August day. It is,
course, impossible to obtain such local and
rmittent heat by any central-heating
tem. This statement is proved by the fact
t at the present moment some premises
ch have a centrally heated system installed
having gas economy flues constructed
in the walls, and "built-in" gas fires
alled for the comfort of the occupants on
many occasions during which heat from
central system is not economically obtain-

hile on the subject of central heating,
ever, it is also worth mentioning that
re such systems are installed gas can still
utilised as the source of heat. Gas is now
easingly being used for heating central
ems, large gas-fired hot-water or steam
rs having been designed for the purpose.
efore, even when central heating may be
r consideration for a building which is
t to be erected, gas will probably be
ired either for the boiler or boilers, or
some auxiliary form of intermittent heat-
by gas fires as outlined above.

Gas Lighting.

We occasionally meets people who seem to
the opinion that gas need not seriously
considered when lighting problems are
r discussion. While there are, of course,
in buildings in which gas lighting would
nlikely to be installed, it would be very
rom true to state that it cannot play an
omical and satisfactory part in a very
number of buildings of all kinds. For inside and outside shop lighting, for factory lighting, and many classes of residences, it is still being extensively installed. Modern gas fittings are now obtainable of good design, and there are many other improvements, such as super-heated cluster burners, distant lighting systems, and heat-resisting globes, which reduce the cost of maintenance. Therefore lighting points should generally be included when carcassing premises for gas heating, cooking, etc., and while the other work is being carried out they will only add a fraction to the total cost of the whole piping system.

Factory and other Premises.

It is practically impossible nowadays to find a manufacturer who does not use gas for some purpose on his premises. It may be for any one or all of the domestic uses already outlined, and in addition to these he will probably use gas for power purposes and for producing the heat required to carry out some trade process or processes.

Gas in Industry.

It is interesting to note that there are about three thousand trades which are known to use gas for manufacturing purposes, and that there is an average of seven gas-fired processes carried out in each one of these trades; moreover, this already large and comprehensive list of processes to which gas can be, and is being, applied is being steadily increased.

As an illustration of the need for running gas supplies in any factory which is in the course of erection it is, perhaps, not out of place to give a recent case which occurred on the area of supply of a large gas undertaking. A factory was being erected in a new roadway which ran through an area which had been demolished, and the building was about to be occupied by a firm of manufacturers. On the representative of the gas undertaking calling upon the builder, and subsequently the manager of the firm in question, he was advised that no gas would be required, because the firm were using steam for all their processes at the factory from which they were about to remove. The gas representative pointed out that if no arrangement were made to have a main run down the road in question, and no service pipe or carcass pipes were installed in the premises, it would probably lead to great inconvenience and extra expense to the firm at a later date, especially as the roadway was to be laid very solidly with a considerable depth of concrete. He explained also that modern applications of gas had proved that many of the purposes for which the central steam boiler was being used could more satisfactorily be carried out locally by separate gas-fired units, and that even supposing that a fairly large steam installation were also required such work could now be carried out by a modern gas-fired steam boiler of the type which has recently been installed by the proprietors of the *Times* for raising the steam required in their processes. Further consideration was given to the matter, with the result that the main and service were laid and pipes installed for a suitable gas installation. It may be mentioned that the firm in question may have been further influenced by the fact that some of their competitors had already discovered the economic possibilities attached to the use of gas.

Gas for Canteen Work.

Another point to remember when the erection of factory premises is under consideration is that in almost every factory nowadays (and in many offices) some kind of welfare work is carried on, the scope of which frequently includes the running of a luncheon-room or workers' canteen. In such cases some form of gas-cooking apparatus is always required, and, of course, the necessary pipes to supply it

The Provision of Adequate Pipe Runs.

It is probable that the statements and information contained herein may have satisfied any interested reader that it is a commercially sound proposition to install a system of gas piping in any modern building. But he may then wish to know what is the best method of procedure when considering the erection of premises, and whether there is any formula obtainable which sets out the sizes and runs of the pipes which will be required for various buildings. It is clearly impossible in an article such as this to set out any such definite simple formula, but it must be remembered that gas engineers have recently been giving great consideration to the provision of mains and services of adequate sizes, and they are naturally in a position to know the quantity of gas which these will deliver. They have also given considerable attention to the planning of comprehensive systems of gas piping for all classes of buildings, and practically every gas undertaking is prepared to give the services of representatives who are qualified to offer advice and supply information free of charge on the subject of running suitable pipes to—and throughout—any building which may be under consideration.

Whenever it has been decided to carcass premises for gas there is one definite principle which should be followed in every case, and that is that pipes should be run of a size sufficiently large to supply any possible present or future apparatus which may be required, in any room or part of the building, with a safety margin in hand in every case, in order to allow for a possible loss of pressure in any part of the system through any local stoppage that may occur after the pipes have been in use for a number of years.

For the information of those dealing with houses of a small type, the British Commercial Gas Association has prepared and published a pamphlet entitled "Standard Instructions for Preparation of Specifications for Gas Piping," free copies of which can be obtained from the Secretary.

Beyond the facts already given to show the extent to which gas is used to-day and to confirm the truth of the statement that the number of gas installations is steadily increasing, it is sufficient to say that in Great Britain in 1922 there were 4,900,000 gas cookers and grillers in use; and 67,000 new installations of gas stoves were made by one London gas company alone. Nearly 20,000,000 tons of coal are carbonised annually, producing 258 thousand million cubic feet of gas.

Finally, when it is known that over eight million houses and factories use gas, and that the demand for gas appliances steadily continues, it must be realised that in planning any new building whatsoever the consideration of gas facilities is absolutely fundamental.

VENTILATION.

RING the last few decades some important
iments in ventilation have been followed
less important enquiries into their practi-
sults, and, despite the very definite state-
ts that have been made in praise or blame,
ost certain thing that can be said about
ience of ventilation applied to buildings is
pinions differ.
troversy may not be quite so public, nor
r so violent, as when the new Sessions House was first erected at the Old Bailey and crowds of students flocked to see its labyrinth of air ducts, its air washing and heating chambers, air filters and the machinery for setting up currents to the various parts of the great and complex building; but still different authorities take kindly to one or other of the rival principles of ventilation with absolute confidence in their own convictions. Natural and mechanical ventilation have each their devotees, and if, at the moment, the advocates of natural ventilation are enjoying the spectacle of their rivals suffering under the lash of certain eminent scientists, the Mechanical Party is still in active practice, and such an important building as the Council Chamber of the New County Hall has been fitted with appliances for mechanical ventilation of the most complex description. The facetious reports which appear in the daily press concerning the tortures of long suffering

Members of Parliament or of criminal judges slowly suffocated at their posts in chambers where a mechanical system has been installed, have, presumably, in some instances, some small substratum of fact, for even a judge should be capable of stating whether he can breathe in comfort or otherwise just as well as any ventilation expert can decide the point for him.

But if certain buildings are to be classed as failures when considered as examples of mechanical ventilation, and a source of mirth to those who unthinkingly exult over the mistakes and misfortunes that are bound to attend upon science experimentally applied, there still remains the question whether the blame attaches to the principle or to its faulty application to a special case. In designing the County Hall ventilation scheme, for instance, the complaints which had been raised concerning certain details of the mechanical ventilation schemes at the Houses of Parliament and the Central Criminal Court were carefully considered, yet in the new building a mechanical scheme was used after all which embodied some variations on the former installations. These, in their turn, are being made the subject of criticism and abuse in some quarters, but time has hardly been allowed for a thorough test of their efficiency. No system is perfect, and under the conditions in force some hundreds of years ago the atmosphere of our Courts of Justice is reported to have been not only nauseating but deadly, since anyone attending a trial ran a severe risk of becoming infected with gaol fever, "a contagious distemper occasioned by confinement and close air." Critics of modern methods do not seem to mince matters either, and, since gaol fever is no longer available in England, they make excellent play with what verbal ammunition they can obtain from among the ailments more fashionable at the moment, accusing extreme forms of mechanical ventilation with the production of "lassitude and headache," and with probable complications such as "pleurisy, pneumonia and peritonitis." Every detail seems to be made the subject of contention, and while some authorities commend mechanical movement of the air as beneficial, even where the vitiated air is not expelled and replaced by new arrangements by which air that has been previously warmed or cooled is projected into contact with human beings, they are now meeting with expressions of disapproval from responsible medical men on both sides of the Atlantic.

Putting aside the somewhat remote chances of catching either gaol fever or peritonitis, the habit of living in a close artificially heated atmosphere has the inevitable disadvantage that severe discomfort is involved whenever the person so habituated is deprived of the means of maintaining himself within his favourite conditions.

Adaptability to changes of climate and of weather is a quality which the white man, and particularly the Briton, possesses in a high degree, and a system of ventilation which tends to deprive him of this valuable heritage in the interests of comfort, or even in the interests of increased efficiency for short periods, is to looked upon as pernicious in the long run.

A middle course can be found between crudities of the so-called "hardening proce in which individuals are encouraged to extremes of temperature without adequate tection, and the "warmth and comfort at price school," which devitalises in the run just as surely, if not so instantaneously, the other.

Much more scientific attention might directed to the homely side of ventilation that the designer of a house would be able provide by foresight that the rooms should free from draughts, that the flues should and fires burn without wasting half their in the form of soot—matters of immense imp ance to the householder, his family and to neighbours, but depending at present very m more upon good luck than good management.

Continuous application to both theory practice in another branch of sanitary scie has provided us with rationally designed d pipes and with efficient administrative con in respect to laying and testing them. same combination of intelligence and experim applied to ventilation will end by showing how to admit fresh air to a room with inviting a large proportion of filthy soot, how to warm it without discharging soot to detriment of our neighbours. And, if the sides of the problem are solved together, need for elaborate air washing and filte installations may be eliminated.

THE BIRMINGHAM GAS EXHIBITION.

SMOKE ABATEMENT.

To pass from the clean and pure air of the countryside into the murky, smoke-laden atmosphere of an industrial town is one of the most depressing experiences of the traveller, and is more noticeable when seen from the window of a railway carriage. The trees give way to factory chimneys. Cottages kept clean by the rain are followed by buildings which the smoke-belching chimneys have coated with an unlovely garment of soot and grime, which the rain, polluted from the same source, fails to wash away and only succeeds in making worse. The ever-changing beauties of the sky are almost unknown to the town dweller: a canopy of smoke hangs over all.

Collateral with the formation of these industrial areas was the erection of large areas of what soon degenerated into slums. Unhealthy dwellings appear to be part of the price we pay for our position as an industrial nation, and it is a debatable point how far the smoke which makes these towns so gloomy to live in darkens the people's outlook on life and deadens the desire for a better condition of things. It is certainly strange that the smoke evil has been tolerated so long, for it is only within recent years that any determined effort has been made to deal with it.

This smoky blight has been proved to be costing millions of pounds per annum by its decaying effect on buildings alone, while the amount of disease it causes and its toll of human life can hardly be estimated. In its worst form it has been checked by legislation prohibiting the emission of black smoke from factories, railway engines, &c., and the development of other forms of heat from industrial and domestic purposes during the past few years has been of great assistance to those who in the interests of the general public have been pressing for the abolition of the smoke nuisance. That smoke is not a necessary adjunct to industrialism is proved by the case of Pittsburg, which, formerly one of the most smoke-ridden cities in the world, now has the atmosphere of a country town. This remarkable improvement has been brought about by stringent legislation forbidding the use of soft coal, and the inhabitants have not only gained in having a better town to live in, but the manufacturers rapidly recouped the expense of adapting their works to the new conditions by increased efficiency on the part of the workers.

It is now recognised that domestic fires contribute quite as much to the smoke evil as factories; but while any attempt to convert existing coal-burning grates to consume their own smoke, or to burn smokeless fuel, would undoubtedly fail, much may be done by popularising the alternative methods of heating and cooking. The gas and electricity undertakings, and the manufacturers of fires, cookers, geysers, &c., are doing much to make the advantages of these smokeless methods better realised, and the increasing extent to which they are being adopted is the measure of their success.

The National Gas Exhibition now being held at Bingley Hall, Birmingham, and which remains open until October 3, is an excellent example of what can be done in this direction. The exhibition is under the patronage of H.M. the King, and has the support of the National Gas Council, the Institution of Gas Engineers, the British Commercial Gas Association, the Society of British Gas Industries, the Gas Companies' Protection Association, the Midland Association of Gas Engineers and Managers, the various District Gas Associations, and the leading Corporation Gas Committees and Boards of Gas Companies. It is under the control of an Executive Committee representing the Midland Commercial Gas Association, and has for its President the Rt. Hon. the Lord Mayor of Birmingham (Alderman Sir David Davis, J.P.).

At this Exhibition are demonstrated the convenience and cleanliness and other advantages of the "all-gas" house. And although these advantages were formerly mostly appreciated by those who found difficulty in obtaining domestic assistance, the increasing adoption of gas fires, coppers and geysers in the housing schemes of local authorities, is bringing these labour-saving devices before the notice of those who probably most need them—the working classes. At the exhibition the apparatus shown ranges from elaborate schemes of a large central geyser supplying hot water to all parts of the house for heating by radiators as well as for other purposes, to simple and inexpensive fires, cookers, and hot-water apparatus specially designed for cottage property.

Some of the gangways are brilliantly illuminated by lamps supplied by Messrs. James Keith & Blackman Co., Ltd., of Farringdon-avenue, E.C. These are of 1,500 and 1,000 c.p. each, and are served with ga the increased pressure of 3 lb. per sq. by this means they are giving an efficienc 60 c.p. per cubic ft. of gas.

The Stands.

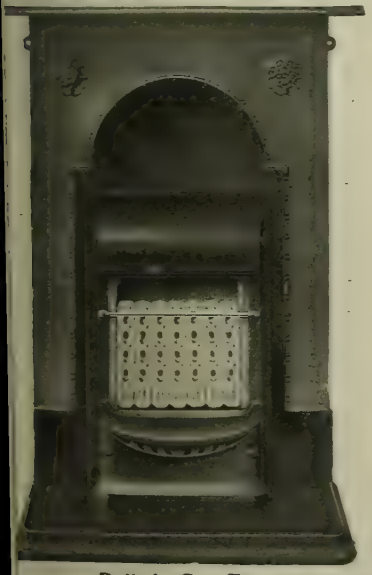
The City of Birmingham Gas Departm has two stands, one of which exhibits san of gasworks' by-products, including small burned in an anthracite stove without possibility of explosion, while the othe devoted to a working model of a new furnace.

This new type of high-efficiency furnace has an inside working chambe 4 ft. 6 in. long by 2 ft. 6 in. wide by 18 in. working with town's gas at the ordinary mingham main pressure with a natural dra It has been developed by Messrs. Gil Brothers, Ltd., in conjunction with the I trial Research Laboratories, with the obje producing a heating plant of a high th efficiency, especially in the larger sizes h hearth areas of from 3 ft. by 2 ft. up to by 5 ft. The construction follows closel lines of existing large type producer gas furnaces, and includes a special type of cou current regenerator applying to both gas air supplies. The gas is admitted in through specially-designed ports, and mee total supply of heated air in a combu chamber under the furnace hearth. The ing gases pass into the furnace chamber then through suitably arranged outlet po the waste gas flues of the regenerator. waste gas flues are independently controll dampers which provide a simple and effe means of regulating the end-to-end tempe of the furnace. Temperature control is en by wheel valves to each gas port, and atmos control by separate air slides at the top regenerator, communicating direct with gas port. By these means it is a simple n to obtain either an oxidising or reducing a phere in the furnace chamber. Recent carried out on a furnace 4 ft. 8 in. by 2 ft. by 18 in. show a thermal efficiency of 3 cent. under normal working conditions dealing with charges of 10 cwts. in weigh

The British Commercial Gas Associat

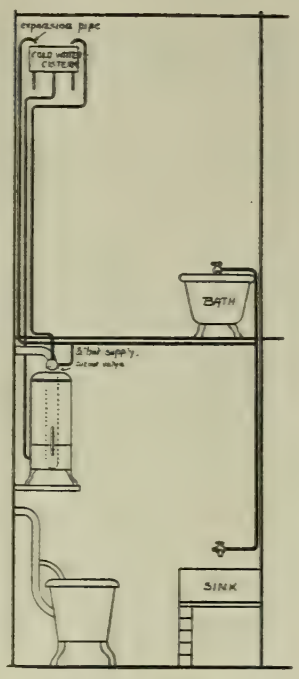
nonstrating a series of effective designs for
showrooms.
The products of Messrs. Sidney Flavel & Co.,
d., of Leamington, are now well known, and
se shown here embody some new improve-
nts. In their new cooker a novel form of
ner is introduced with the object or solving
problem of the use of highly efficient and,
refore, high temperature flame in the
king of thick or viscid foodstuff. In the
arrangement by the touch of a lever the
ner may be depressed so that flame contact
prevented when viscid food is involved, yet
fficient heat can be maintained to meet all
uirements. At the recent Royal Sanitary
titute Congress, at Hull, a silver medal
awarded for this cooker. Attention is
called to a cooker with two ovens, the
al hot-plate, and a hot closet with sliding
s door, all the metal work except that on
hot-plate being of rustless steel.
The chief exhibit of Messrs. Ewart & Son, Ltd.,
Euston-road, N.W. 1, is their "B" pattern
alifont," which furnishes an independent
ply of hot water wherever required. This
be fitted in any part of the house, and
vides hot water to any number of taps. The
perature of the hot water may be regulated
vill. The hot water continues to run as long
he tap is left open and the closing of the hot
er draw-off tap instantly lowers the gas to a
t light. There is considerable saving of gas
he gas only burns fully alight while the water
ctually running into the vessel in which it is
ired. For bath purposes only this firm is
wing the "Lightning" geyser, which is fixed
r one of their cast-iron porcelain enamelled
hs, and the "Elite," which is arranged with a
wer. Bath heaters of the geyser type are also
wn. For cafés and hotels, where there is a
and for a boiler which will give rapid
plies of boiling water, freshly boiled, for tea
coffee making, the "Ever Ready" boiler
xhibited. The merit of this boiler is that
water is boiled as required, *i.e.*, cold water
rs the apparatus and boiling water leaves it.
er exhibits on this stand include a geyser for
with lavatory basins and sinks, a gas copper
which the pan is made from one sheet of
al without a seam or joint, a gas-heated
n-cupboard heater, and a gas-heated towel

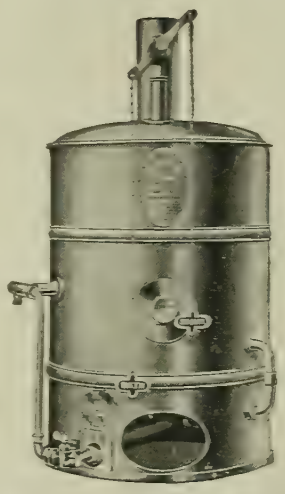
ome apparatus of special interest to those
cerned with housing schemes or small
perty is exhibited by the Parkinson Stove
Ltd., of Stechford, Birmingham, whose
lucts have been installed in some thousands
tate-aided housing schemes. The "built-in"
ire (illustrated herewith) has been extensively



Built in Gas Fire.

on the London County Council's housing
at Becontree. It is specially designed for
new houses, where the cost of erection may
duced and space gained by the elimination





"New Cottage" Water Heater.

of chimney breasts. The height is 38 in., and the width 23¾ in.; the shelf is 28½ in. wide by 5¼ in. deep. The base measures 11 in. from back to front. The fire and hearth are finished art black, and the surround and shelf primed only. The fire takes five or seven radiants. The "Liverpool" series of gas cookers, such as are being supplied for the Liverpool Corporation's new houses, are also exhibited. These are supplied in two designs. The larger size measures 34 in. high on stand, and has an oven door opening 14 in. wide by 16 in. high and a hot plate 20½ in. wide by 17 in. deep. The smaller size has a height (on stand) of 34 in., the cooker itself having a hot plate 20 in. wide by 17 in. deep and a door opening 14 in. wide by 10 in. high. Another interesting exhibit on this stand is the sealed pattern "New Cottage" water heater (illustrated above), which has also been largely adopted on the Becontree estate. This heater is made in non-rusting copper, and no galvanised iron fittings are used. It supplies hot water either above or below its own level. A separate expansion pipe from the cylinder prevents the accumulation of steam when the cut-out valve is closed, or the expansion pipe may have the connection to the hot-water taps taken off at one or more branches. The illustration shows a heater for supplying bath and sink, and, as will be seen, by the manipulation of a chain-operated valve either the bath or sink may be supplied.

The "Hurry" Water Heater Co., of 39, Broad-street, Birmingham, are showing their well-known cylinders, furnaces, and bath heaters. These are supplied in sizes to meet all requirements. This firm's 10-gallon cylinder has been adopted for the Nottingham Corporation's housing schemes, and many others.

Messrs. James Stott & Co., of Vernon Works, Oldham, are making a special feature of their coffee-making machine, which has several novel features. The coffee grains are first scalded and their pores opened, then the extraction or expressing of the essence takes place. The machine is fool-proof and economical, convenient to use, and automatic in operation. After lighting the pilot burner, putting in the coffee grains and filling the boiler with water, the machine does the rest, no further attention being required except when a fresh infusion is desired. There is no gas to shut off, no steam tap to turn when boiling, and no filling tap to operate. The action of filling with water automatically turns on the gas before infusion, and the process of displacing the water automatically turns the gas off after infusion. An automatic operation is also set up which is the means of dispensing with the necessity for a water filling tap. Immediately the water boils infusion commences automatically. The apparatus forms a complete and self-contained appliance for both making coffee and holding it economically in bulk ready for use, and should be of considerable interest to hotel and restaurant proprietors. Water heaters and urns specially designed for use in cafés are also shown by this firm.

Messrs. Evered & Co., Ltd., of Surrey Works, Smethwick, are exhibiting a large range of lighting fittings and other specialities, including the "Everite" lighting service burners and fittings, which are equally applicable to street lighting, the lighting of public buildings, and domestic use.

Messrs. R. & A. Main, Ltd., of Falkirk, are showing a new type of gas fire which has a close resemblance to a coal fire. This fire is designed to fit into any fireplace by simply removing the front bars of the existing grate. The resemblance to a coal fire is obtained by a separate "mat" of black cokette strung together with wire, and laid over the radiants. A representative selection of fires, cookers, grillers, hot-plates, &c., is also to be seen on this stand.

It is estimated that by the use of automatic devices of lighting and extinguishing street lamps, such as those shown by the Horstmann Gear Co., Ltd., of Newbridge, Bath, a saving of over 70 per cent. may be saved on this head. The simplest type of this firm's "Newbridge" controller requires winding fortnightly, and it is so made that the winding, time-setting, and the adjustment of the times of lighting and extinguishing are independent of one another, and can be operated and adjusted without disturbing the other elements.

A selection of attractive fires is shown by Messrs. General Gas Appliances, Ltd., of Guide Bridge, Manchester; these are made in a variety of finishes. A new type of treble-tube loop radiator embodying some new features, and a range of gas cookers, are also shown by this firm.

A representative range of the "Radiation" pattern standard gas grates as manufactured by the six firms comprising Radiations, Ltd., *i.e.*—Arden Hill & Co., the Davis Gas Stove Co., Ltd., Fletcher, Russell & Co. Ltd., Wilsons & Mathiesons, Ltd., and John Wright & Co.—is shown. All of these fires have the "Radiation" standard patent injector-ventilator, which changes the air of the room up to six times an hour. The "Radiation" patent "Thermo-XX" radiants used in all these gas grates are a distinct advance on the old pattern, inasmuch as the loose top piece is dispensed with, and the design assures more efficient combustion, with consequently greater heating power. All working parts of these grates are interchangeable, size for size, among all the "Radiation" firms, which makes for economy in maintenance. The fires are shown in many attractive designs, specially noticeable

being the "Sunbeam," which has a remarkable resemblance to a coal fire. This firm has a separate stand for the demonstration of cookers. Particular attention is drawn to the "Regulo" automatic oven heat controller, which has been introduced for the first time in the "New World" self-controlled cooker. By its use the temperature of the oven can be set at a certain figure, and it will be automatically maintained under all conditions throughout the cooking of the food. A "time-chart" is provided, which sets out the requisite times and settings for all classes of cookery. The latest model of this cooker, in which the oven is placed on one side and the hotplate on the other, with a rack underneath for pans, &c., is also shown.

The Midland Gas & Water Fittings Co., of 181, Aston-road, Birmingham, are making a special feature of "Hosler's" Midland heater, which is designed to provide and maintain a constant supply of hot water at a low cost.

A new material for piping is shown by the Non-Corrosible Pipe Co. (the British Uralite and Cellactite Works), of Higham, near Gravesend. This firm is making all kinds and sizes of gas piping, bends, flues, down-draught preventers, and other accessories and fittings, in asbestos-cement. Besides cheapness in first cost, the chief advantage claimed for this material is that it does not require painting, and this results in lower maintenance cost. The material is claimed to be gas-tight but at the same time absorbent, thus preventing condensation.

In addition to their patent burners, the Etna Lighting & Heating Co., Ltd., of 295, Broad-street, Birmingham, are showing their economical factory lamp, which automatically superheats the gas and has a consumption of only 3 ft. of gas (low pressure) per hour for a 150 candle-power lamp.

A screw with a square-headed recess in the head, in place of the usual groove, is shown by the Rawlplug Co., Ltd., of Gloucester House, Cromwell-road, London, S.W. 7. A special screwdriver is supplied for fixing these screws, which may thus be driven with one hand only; they should be specially useful for fixing to ceilings or other overhead work. The well-known "Rawlplug" outfits, for fixing to brick, tile, or other hard substances, are demonstrated, and the stand also contains some aluminium towel-rails and bathroom fittings.

The above notes on some of the more representative stands give a general outline of the nature of the exhibits. The show is of considerable interest, and should be seen by all interested in the smoke abatement movement or in the planning of convenient and labour-saving homes.

BOOK REVIEW.

The Construction of a House. By CHARLES GOURLAY, B.Sc. (Glasgow University), F.R.I.B.A., Professor of Architecture and Building in the Royal Technical College, Glasgow. Second edition, revised. (London: B. T. Batsford, Ltd. 1922. Price 7s. 6d.)

Professor Gourlay's book should be of great value to students of building construction in that the forty plates which illustrate the methods of house building and joinery all refer to the same scheme, and each detail can be studied in relation to the whole. A large mansion standing on an open site near a stream has been chosen as the subject and stone as its material, the character of the work being such as would be seen in the country surrounding a large Scottish city. Economy has not been made a first consideration in the design, but the usual complement of features, both external and internal, are shown in order that their construction may be elucidated in the sheets allotted to detailing them.

Modern building construction is most complex, and a set of plates designed in illustration of its normal practices inevitably departs somewhat from ideal simplicity. Professor Gourlay must be congratulated on having found accommodation for a great many typical details without doing violence to his theme or departing from the style suitable for execution in small stone masonry. As he writes in his Preface: "Although the several parts of the house itself have been adopted largely in order to bring together a number of constructive features, yet the external grouping of the whole house has been kept in view with the object of maintaining the unity of the design."

Students are warned that copying alone will not make them masters of their subject. The plates should be used as a basis for the student's own design, which will be the more instructive to him if it differs from the pattern, provided that he works it out consistently in plan section, elevation and details. Apart from the unavoidable diversity in the matter of features, the house is distinctly of a practicable order, and is compactly arranged with passages of only moderate length. Those on the ground floor are arranged to afford pleasant effects of light and shade by windows in their sides, not at their ends, and all are capable of good natural ventilation. Each plate is briefly described in the letterpress, and the student is forewarned of many difficulties that occur in practice. More might have been said in the text concerning the question of aspect, which has, in fact, been admirably worked out in the design. Bedrooms receive the morning sun, larders are screened from the heat, and hall and vestibule are placed where they act as buffers to the north wind. These essential elements of architecture too seldom receive adequate attention, and it is a pleasure to recognise them in an excellent and moderately priced text-book.

RUBBER FLOORS AND RUBBER ROADWAYS.

THE first meeting of the session of the Institution of the Rubber Industry was held on September 17 at the Engineers' Club, Coventry-street, Piccadilly, when a paper was read by Mr. Evan J. Edwards entitled "Rubber Floors and Rubber Roadways." The chair was taken by Mr. Francis Hooper, F.R.I.B.A., Vice-Chairman of the Standing Science Committee of the Royal Institute of British Architects.

The Chairman stated that architects' daily problems are both economic and social, their aim being to employ the most suitable materials in the varied undertakings entrusted to them. This trust precludes the employment of untested materials for obvious reasons. Their duties concern the wise outlay of the capital of others, and they can embark therefore upon no experiments without their full concurrence. The Standing Science Committee of the Royal Institute of British Architects have for some months past been considering the subject of architectural acoustics, which may be considerably affected by the employment of rubber for flooring and wall surfaces.

Mr. Edwards dealt with the second part of his subject first. The question of rubber roadways at the present time is attracting a great deal of interest. We, as a nation, are frequently told that we are behind the times, and we let other countries get in front of us, but rubber roadways are a good example of British enterprise, it being admitted that we are the only nation which has seriously considered this problem. The first rubber roadway ever to be constructed was invented by Mr. Morland M. Dessau, and this was in 1913 in Southwark, at the junction of the New and Old Kent-roads. The construction employed in this case was the mounting of a Yarrah wood block, 3 in. wide by 8 in. in length, with a pure plantation rubber facing ½ in. thick. Probably we have all been very much interested during the last week or two in seeing rubber blocks laid round the Cenotaph in Whitehall. In this case a smooth concrete surface has been prepared, and on this hot pitch has been spread just prior to laying the rubber. The rubber blocks are constructed with a groove one side and a corresponding projection on the other, so that when laid they are really mortised and tenoned into position. Before being laid each block is dipped in hot pitch. Rubber roadways constructed by a different method have been laid in Glasgow and Edinburgh during the present year. In these cases a rubber block measuring 9 in. by 4½ in. by 2 in. thick, is fixed by means of an embedded steel spike into a concrete base block of slightly smaller dimensions.

Mr. Edwards' personal opinion is that the greatest point in favour of rubber roadways will be proved to be economy, *i.e., ultimate* economy. It is the only road material which will absorb and distribute the weight of the traffic carried. Other materials by their non-resilience immediately transmit the loads to the foundations of the roads. Before leaving this subject, mention must be made of the fact that large slabs of rubber were laid a good many years ago at the entrances to both St. Pancras and Euston Stations and elsewhere, though as these were under cover the results obtained are not of very great use when considering ordinary road work. The rubber pavement in Princes-street, Edinburgh, was down for over twenty years, and each year it must have been walked upon by many millions of people, yet it was found to have lost only a fraction of an inch in thick ness during that period.

Turning now to floors, rubber as a flooring for interiors has been known and used for many years, and has abundantly justified the claim that it is absolutely the best and most economical flooring in existence. During recent years a great development has taken place and in public buildings as well as in many private houses rubber has supplanted marble, mosaic, parquet, carpet, linoleum and other floor coverings. The different types of rubber floorings may be roughly classified into four. Interlocking tiling, as its name implies, consists of separate tiles which interlock, each one being kept in position by the others. The second form is solid tiles, not interlocking, but owing to difficulties connected with laying is not found to be quite so satisfactory. The third type—which is far and away the most popular and which Mr. Edwards considers to be the best—is what is known as inlaid tiling. The tiling consists of two separate qualities of rubber which are put together before vulcanisation, and which after they have been in the hydraulic press cannot be separated from each other. The bottom layer is made of a grey resilient quality, while the top half is harder so as to withstand wear. Other advantages are that it is noiseless, non-slipping and beautiful; soft to walk upon, it cannot possibly harbour dust or dirt, all helping to render it the perfect flooring.

Last comes rubber carpeting. This was originated by a British manufacturer, but has since been copied in various parts of the world including Germany. Rubber tiling is vulcanised in a press, whereas rubber carpeting is made on a calender machine, making it possible to turn out rubber carpeting by the mile; in consequence there is a great difference in cost, rubber carpeting being, roughly, a third of the price of rubber tiling. A still more recent development of this rubber carpet idea has been the introduction of the thickness of $\frac{1}{16}$ in. instead of $\frac{1}{8}$ in. This has opened a still greater field, for already it is being extensively used for covering office and restaurant tables, counters, shop windows, and also for certain other purposes, such as wall of bathrooms.

The paper was illustrated with lantern slides of the laying of rubber roads in Edinburgh and Glasgow, and various floorings, together with wall covering.

THE BUILDING TRADE.

IE RATING AND VALUATION PROPOSALS.

s Government have drafted a Bill the of which is stated in the preamble to to simplify and amend the law with ct to the making and collection of rates otherwise, to promote uniformity in the tion of property for the purpose of rates axes, and for other purposes incidental connected with, the matters aforesaid." Memorandum issued with the Bill it is that the proposals contained in this Bill are submitted to the Associations cal Authorities, and other interests con-d, for their consideration and comments, ore, during the period allowed for con-tion, which we understand is three ns, it is of extreme importance that this hould be understood and any criticisms ggestions should be made, for this seems most unique opportunity offered by the nment for the careful consideration of al measure before it is introduced into ment, where as experience has shown, does not permit of such thorough in-ation of important measures as is often ble.

the Memorandum (paragraph 2) the objects of the proposals are stated to e simplification and improvement of the istrative machinery of rating and valua-nd the removal of various anomalies in-t in the present system, the substitution single valuation in the place of the te valuations at present required for ses of rating and taxation, and the pro-n of uniformity of valuation as a condi-precedent to any comprehensive review e system of Local Taxation and Ex-er Grants. The advantages which it is ed the Bill will bring are stated in para-3 of the Memorandum: "Economies e effected by avoiding the duplication of and the unnecessary expense occasioned e separate valuations for purposes of and taxes, the maintenance of a separ-ting authority for each of the 14,427 es, the levy of separate rates in urban (usually by separate staffs), the ob-multiplication of funds and accounts e valuation of each parochial section of y and other undertakings as a separate "

is an attractive programme, but care-nsideration will be necessary to ascer-ow far the proposals will affect the vers and whether the economies will them, or whether the Bill represents a fire for them in place of the frying-The Memorandum states that some of pposed reforms of the valuation system sed on the findings of various Commis-nd Committees of inquiry, others upon perience of the working of the Valua-Metropolis) Act, and that the rating s are mainly novel, although some of ger local authorities have obtained legislation in recent years to consoli-eir rates. In this preliminary notice do nothing but indicate some of the ns in the law proposed by this Bill ained in the Memorandum:—

arochial rating is to be abolished and s and urban and rural districts are to tituted as rating areas.

A General Rate is to be substituted present poor rate, district rate, high-te, etc., in boroughs and urban dis-nd in rural districts a general rate the place and having the same incid-the poor rate, and a special rate, y the rural district council on each r part of a parish which is separately le with special expenses under the Public Health Acts or lighting expenses under the Lighting and Watching Act, 1833.

In connection with this rate consolidation it is proposed to give effect to reliefs not in the assessment or collection of rates but in deducing "operative rateable values from gross values in the valuation lists," thus making it possible to levy the general rate at one and the same poundage in each area.

This is shown in section 16 and Schedule II. The gross value will be as heretofore the gross estimates rental, viz., the annual rent which a tenant might reasonably be expected to pay taking one year with another, the landlord bearing the cost of maintenance and the tenant paying the tenant's rates and taxes, so the case law will apply to this. But the "operative rateable value" is obtained by deducting percentages on scales as shown in the Schedule in place of maintenance allowances which, however, involves what appears to be a very complicated calculation. In this part of the Bill dealing with "rating" there are innumerable provisions which will require the most careful consideration. This deducing operative rateable values from gross value is one of them. At the present moment we can only say there are some useful provisions, and we may instance the provision which would make the contribution of an outgoing and incoming ratepayer to the General Rate correspond with the portion of the half-year he has been in occupation.

It is the second part of the Bill which may prove the most contentious, which provides that there shall be only one valuation, in the place of the separate valuations now required, for rating and taxation, that the values so determined should be the basis for the assessment of county as well as local rates, and that the gross values appearing in the valuation lists should be adopted as the gross values for the purposes of Income Tax Schedule A and Inhabited House Duty. This, as is stated in the Memorandum, is a system which has been applied in the Metropolis, but special considerations apply to the Metropolis, and its application to the whole country may be a different matter, for it will involve an interference with local self-government and a reversion to centralised authority. That this must be the case is shown by the paragraph in the Memorandum, which states: "The collaboration of the revenue officers with the local rating authorities will help to promote such uniformity, and inasmuch as the gross values are to be used for purposes of Imperial taxation it is, of course, necessary that the officers representing the Crown should be concerned in the preparation and revision of the valuation lists."

To carry this out we see it is proposed that two of the persons appointed by the County Council, or County Borough Council, as the case may be, to Assessment Committees, shall be General Commissioners of Income Tax. In the Bill "the Revenue Officer" plays an important part, and in section 60 this official is stated to be "Any Officer of the Commissioners of Inland Revenue authorised by the Commissioners to exercise any powers or perform any duties conferred or imposed on a revenue officer by this Act." The way this officer will function can be seen by one example. Thus where the rating authority has prepared a new valuation list it has to be delivered to the Revenue officer. If it appears to this official that the amount appearing in the preliminary statement as to the gross or rateable value of any hereditament is incorrect, or that the statement is in any other respect incorrect, he shall insert what is in his opinion the correct amount and shall make any other alteration therein as to him appears necessary. The rating authority shall consider these alterations, and if a difference of opinion arises, then the matter is referred to the Assessment Committee, upon which it must be remembered two revenue officials will sit, and before which the revenue officer will be present and be entitled to be heard and to examine any objector and to call witnesses. This officer has also the right of appeal against any decision of an Assessment Committee.

In a first notice of a measure of such complexity as this Bill it is impossible as well as undesirable to express any opinion whether for or against it. The Bill consists of 62 sections and five schedules, and the accompanying Memorandum is a document of 15 pages. We have only mentioned a few of the main provisions of the Bill, and our intention has only been to show that it will require the most detailed and careful examination. Some of its provisions, for instance those relating to the rating of railways and other undertakings as a whole, may prove advantageous and, as inquiry is invited with the view of obtaining suggestions from the local authorities and others interested, the good may well be winnowed from the bad in this measure, but we must draw attention to one clause which certainly should not be permitted to stand in any Act. We refer to clause 59, which applies only for a limited period, but which gives the Minister of Health power where any difficulties arise in connection with the first valuation list "or otherwise in bringing into operation any of the provisions of this Act" to make any appointment "or do anything" as appears to him necessary or expedient for bringing the said provisions into operation, and "any such order may modify the provisins of this Act so far as may appear to the Minister necessary or expedient for carrying the order into effect." We have hardly come to allowing a dictatorship in legislation even for a limited period, and only for the purpose of making an Act of Parliament workable we may mention that the rating of machinery is not included in the Bill as the Memorandum states the Minister proposes to appoint a Departmental Committee, and the question must be reserved until it has reported.

It is noticeable that the Bill, with two exceptions, is not to apply to London. Those two exceptions will not materially affect the present system in London as they are only the provisions contained in Part I as to precepts and the provisions contained in Part II as to the valuation of special properties (that is, tramways, docks, canals, telegraph or telephone works, gas works, water works, and electric light or electric power works), therefore the point which will be of the greatest interest to ascertain is how far the provisions of the present Bill differ from the present system in London, and how the system existing in London has been found to work in practice, for it appears that the evidence produced in these two heads will have a considerable influence on the reception accorded to the Bill.

Builders' Supplies for New Orleans.

The Department of Overseas Trade has received an inquiry from a firm in New Orleans who are desirous of receiving quotations and samples of slates, riding tiles, firebricks and builders' supplies from United Kingdom manufacturers with a view to purchasing on their own account or to acting as agents. Applications for further particulars should be addressed to the Department of Overseas Trade, 35, Old Queen-street, Westminster, S.W.1. (Reference 20143–F.W–M.C–(2).)

DAMAGE TO PROPERTY FROM HEAVY MOTOR TRAFFIC.

IN connection with the article which appeared in our issue for July 27 on "Heavy Traffic and Vibration," a correspondent writes urging combined action on the part of property-owners, and states that the National Citizens' Union would be prepared, if adequately supported, to take a test case where damage has resulted from vibration caused by the very heaviest class of motor vehicles.

Our correspondent also states that the law is deficient in the powers given to schedule side roads as unsuitable for heavy traffic, as under the Roads Act, 1920, a road can only thus be placed out of bounds when actual damage has taken place. We have not the Act before us to see what are its terms, but this scheduling of roads is a matter which should be dealt with on the application of the local authorities without delay, for if a local authority advises that a road should be scheduled it may be taken for granted there is good reason for it, as these bodies do not take at all a prejudiced view on motor traffic.

In an article in the September issue of the *New Voice*, the organ of the National Citizens' Union, to which our correspondent has drawn our attention, it is stated that on the Committee now being set up by the Ministry of Transport the ratepayers are not adequately represented, and there are other points in this article worthy of consideration. Thus it indicates that although through the action of the Ministry a more just distribution of the cost of road upkeep may result it is not a full remedy for the road trouble so far as the property owner is concerned, for his house is being shaken to pieces; and it points out that this question of vibration will also arise even if Lord Montagu's scheme for great motor-ways is adopted, for then the vibratory area and the compensation to property within the vibratory limit will still have to be considered.

The present problem of heavy motor traffic on roads forms a great contrast to the inauguration of heavy traffic on the railways. Our forefathers were impressed with the danger of the new kind of traffic introduced by the railways, and before that traffic was allowed to develop every possible precaution was taken. The railway companies had to acquire the land, all the amenities of adjoining property owners were safeguarded, and compensation had to be paid, not only for the land but for any injury sustained by vibration or otherwise. Motor traffic has, on the contrary, developed and extended on the roads until it closely resembles the heavy traffic conveyed by rail, but the legislation, instead of preceding it, has lagged behind and the property owner is uncertain as to his rights and is left without adequate statutory protection. The railway company remains burdened with rates and fenced in by statutory regulations, but the rival traffic on the highways, especially heavy through traffic, escapes the same burdens as to rating in the various districts it passes through and is immune from the question of compensation to the owners of property. The railway companies maintain their own rail roads, but the heavy motor traffic uses the public highways and its contribution to the upkeep of those highways is not proportioned to the wear and tear it entails.

In the article in question this question of the contribution to the highways is dealt with, and some figures are given showing the contribution to the Road Fund made by the various classes of mechanically-propelled vehicles. The question of the mere upkeep of the roads is not, however, the only point to be considered, and both our correspondent and the writer of the article lay very necessary stress on this point, for the damage to house property is also extremely serious and yet does not receive the attention it should do from those in authority.

We are in accord with the observations of these writers, that the vehicles themselves must be "tackled," that they must be built of less tonnage and with vibration absorbers, good springs, pneumatic tyres, and on principles that will ensure the least possible damage. Strict legislation on such points would assist the property owner in obtaining compensation for damage done to his property, for, although the user of the highway it itself may give no cause of action, damage caused by a breach of a statutory regulation would give a cause of action by itself if the damage could be proved to result from that breach. The property owner has good cause for anxiety, however, when he sees that even serious loss of life from motor traffic is almost accepted as an inevitable concomitant of motor traffic, and in this connection we may refer to the return recently made by the Metropolitan Police as to motor accidents in the London area during April, May, and June this year. A total of 12,962 accidents is reported, with fatal results in 153 cases. Out of this number of accidents, however, the private motor-cars contributed 4,445 accidents with 51 deaths, but "trade and commercial" mechanically-propelled vehicles come next with 3,391 accidents and 60 deaths.

THE BRITISH ASSOCIATION AND BUILDING.

AT least 280 different subjects were dealt with at the ninety-first annual meeting of the British Association held at Liverpool.

Professor Henry Clay, in dealing with "Post War Wages Problems," showed that the settlement of wages before the war was facilitated by the existence of well-understood and stable relations between wages in different occupations, kept in close correspondence with commercial exigencies by continual small modifications. The effect of the war was to dislocate those relations, interrupt this modification, and bring wages into correspondence with wartime economic needs instead of normal commercial needs. The post-war problem was to restore the stability in the relations of wages and the close correspondence with commercial possibilities that existed before the war. This involved changes from pre-war relations, and the recognition as lasting of changes that were still regarded as temporary, in order to allow for certain important changes since 1914 in the factors underlying wages. The chief of these were changes in the distribution of workers among different occupations; changes in the organisation of wage-earners; in the character of the work required; and in the markets of British industries. It was difficult to ascertain whether the general level of real wages had risen or fallen, and impossible to forecast its level in the future; so far, however, as a general level had to be assumed for the purpose of settling particular rates, it would prove necessary to take the average level of wages in export industries as the norm, rather than continue the present custom of taking the pre-war level of money wages and raising it to compensate for the increased cost of living.

Mr. Clarke dealt with the problems of re-housing the slum dwellers, in three main divisions: (1) Pre-war re-housing; (2) immediate post-war re-housing; and (3) the future. Under the first head, he reviewed the function of the private builder before the war. The work had been done by private enterprise, and he had come to believe that private enterprise could do whatever was required. The problem of re-housing on the same areas had been done in one case to the extent of 99 per cent., and in another of 95 per cent. After the war, owing to the cessation of building during the war, local authorities decided on a conservative estimate that they required a little more than one million houses. About 18 per cent. of the requirements in 1918 had been met. In an area near the Liverpool University 597 persons were living in 56 houses, with a total of 163 bed-rooms. Of those persons 349 were over 16 years of age. At Birkenhead, a house let before the war at 6s. 2d. per week was yielding its tenant 32s. 6d. by being sub-let. Another that was rented at 5s. 5d. before the war was sub-let to y 42s. 6d. per week.

The house shortage still being very acute a million men unemployed and receiving ou work pay from the Government, Mr. Cl urged that the Government should prompt action. All men between 18 and years of age, who had done no work for, twelve months, and could give no evidenc any prospect of work, should, he said, be cruited into the Royal Engineers to consti Housing Battalions on the lines of the Doc Battalions created during the war. Each should be given a course of trai at the e piration of which he sh be drafted into a battalion ready service. The Government should adopt housing survey of 1919 as the standard require this programme to be carried out. local shortage of man-power would be me reinforcements from the Housing Battalio occasion demanded. To prevent any que arising with trade unionists, the members Housing Battalions would be paid at the t union rates. At the same time the Govern should introduce a system of costings fo building trade as a whole. This was done effectively during the war in other trades, would have the effect of benefiting privat dustry as well as the natural and local auth activities. Where necessary, also, mat should be commandeered.

The paper by Mr. W. Barnes, M.I.M.E., with "The Development of the Single-bu Excavator." Single-bucket excavators in nection with the excavation for the fou tions of buildings were in common use, espec in America, where they were sometimes us remove only a few hundred cub. yds. of mat At one end of the scale they had the small line excavator, weighing about 20 tons, with a ¾ cub. yd. bucket. At the opp end was the huge 300 ton dragline excav which had just been delivered to cut the canals, some of them 200 to 300 ft. wid connection with the irrigation schemes in I About 20 dragline excavators were at use the irrigation scheme in the Sudan, and i an excellent proof of the usefulness and efficiency of those machines to know that could satisfactorily compete with the coolie labour in India and the Sudan.

Book of Normals (Section IV).

A book which should prove of interest large number of people has been prepar the Meteorological Office, Air Ministry published by H.M. Stationery Office. entitled "The Book of Normals of M ological Elements for the British Isles." S IV, just issued, price 3s. 6d., gives for 30 se places in the British Isles, for each month year, the average temperature and the h and lowest temperatures which may be exp also the average amount of rainfall and n of raindays. Such questions as: "What highest temperature reached at —— o normal August day?" "What is the lowes perature on the normal January night? what month is there normally the largest fall?" can be answered at a glance. In ad there are tables giving for various plac number of days of thunder, hail, snow, fro fog which occur on the average in each m

Lord Leverhulme's Scheme.

Viscount Leverhulme, describing to a representative his scheme for giving fr building sites to all who wanted them Spital estate, near Port Sunlight, said it experiment. When the house shortag apparent he advocated the municipality the surrounding fringe of land and stimu building by giving free sites. Smallholde to pay high prices for small sites. The cipality, he said, would have little beyond lighting and policing, and would get a high return on the transaction. proposed to allow eight or ten houses acre, including roads, and at present the nearly 500 plots.

THE SHORTAGE OF BRICKLAYERS.

THE Director of Housing of Edinburgh, Mr. ...sburgh Campbell, states :—The city has on ...d at present schemes for the erection of 1,774 ...ses, representing its immediate housing ...gramme. To carry through this work ...in a reasonable period a staff of 250 brick... ...rs or masons and bricklayers combined, is ...ired. Apart from the Corporation schemes, ...e are housing contracts proceeding in Edin...gh (including the erection of fully 200 houses ...he villa class), requiring approximately 600 ...ons and bricklayers. The total number of ...emasons in the city is 460, and of brick... ...rs 180—a total of 640. Of this number, ... 25 men are engaged in the work of house ...ding for the Corporation. It is apparent, the ...ctor of Housing observes, how deficient is ...skilled man-power available for the city's ...ing needs. A ten-fold increase is required. ...re-war times there were in the city 920 ...ons and bricklayers, so that the present ...e shows a reduction of 280. During recent ...ths 82 Edinburgh masons and bricklayers ...e left for America, where the wages offered ...ublic advertisement represent £18 per week ...a bricklayer.

...he first regrettable result of this insufficiency ...he practice of excess payments above the ...dard rates of wages to the men employed by ...in of the employers in order to retain the ... they have, and, if possible, to induce further ... into their service from other works and ...loyers.

...he following suggestions are put forward :— ...Representation to the Trade Unions to find ... for the housing work ; and to increase the ...ber of apprentices and trainees. (2) Repre...ation to the master builders not to offer ...cements above the standard rate of pay. ...ome possible restriction against the erection ...buildings which—without injury to the ...try—could well abide their time and stand ...poned. (4) In general, making it obligatory by Statute that housing work shall have precedence. (5) The adoption for houses of the kind which concerns the Committee, of materials —other than brick or stone—so as to utilise labour at present unemployed. (6) Building by machinery. This idea, although under trial and practical test, is not yet sufficiently developed for recommendation.

Side by side with this great shortage of skilled artisans is the fact that there are to-day in the City of Edinburgh about 12,500 men registered as unemployed, the cumulative cost of which to the citizens of Edinburgh is about £500,000 per annum, producing no economic return.

Dealing with the possibility of using concrete for house building, the Director of Housing observes :—"I am satisfied that the system holds the possibilities required to relieve the emergency with which the Committee are now confronted—that is, a hold-up of housing work ; or, in the alternative and constructive point of view, making the housing needs to subserve the cause of the unemployed, and so absorb hundreds of men in the city now workless. It might be added that the work could be undertaken by local contractors employing wholly local men."

NEW INVENTIONS.

"Easy Access" Stairs.

THE stairs illustrated have been specially designed to give easy and safe access to the usually wasted space in the roof void. By using the stairs, of which the accompanying illustrations give the general principle, the often considerable space in the loft becomes easily accessible.

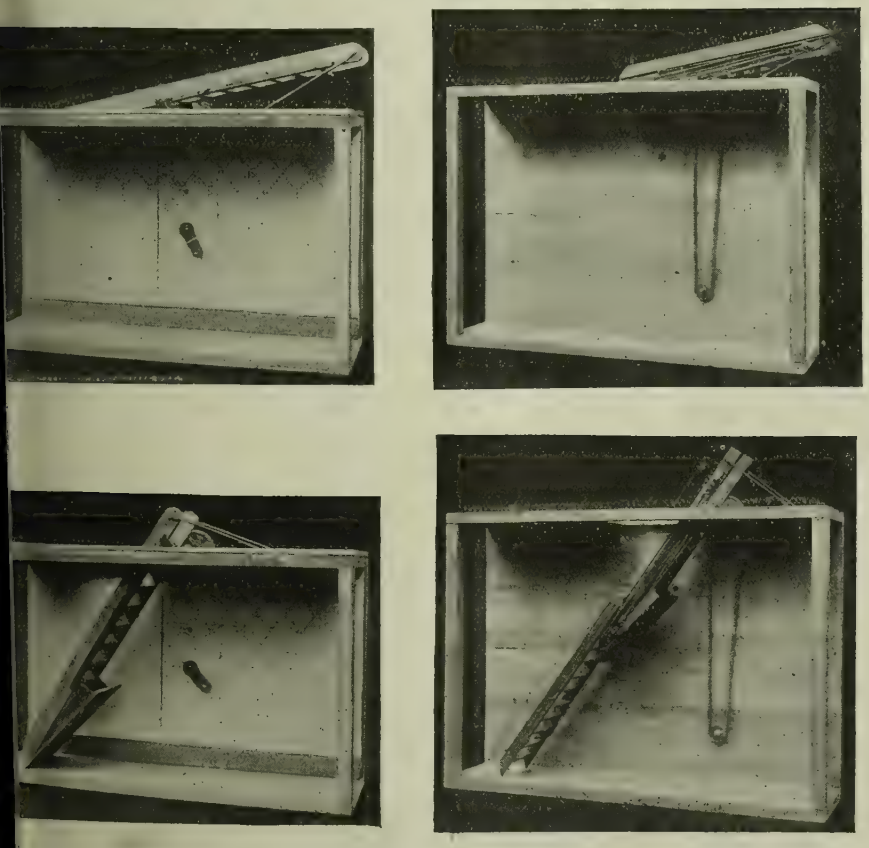
The principle is as follows :- The undersides of the steps are provided for about half the upper length with racks which engage pinions on a shaft at one end of the trap opening. (On another pattern the shaft may be fitted with drum-barrels, from which wire ropes lead to the top and bottom ends of the steps instead of racks and pinions). Safety clips prevent the stairs coming off the pinions or drum-barrels. The shaft is fitted with a chain sprocket or worm wheel, which is operated by chain or worm from a handle situated at a convenient place on the wall below the trap opening. The handle may be detachable or folding, so that it does not protrude beyond the wall into which it is recessed, and is covered—when out of use—by a small door. The chain or worm is also encased. The lower end of the ladder itself forms the trap cover. At the extreme top end of the ladder are attached fulcrum links, the other end of which are pivoted either on or below the loft floor. When out of use the steps are thus housed in the loft itself, but are ready at hand whenever required.

The overhanging portion being longer than that in the trap opening, the weight of it will keep the trap well closed, and exclude draught and dust. By the single operation of turning the handle either way the stairs are lowered or hoisted, the trap cover automatically following the stairs. The lower end of the stairs travels in a practically vertical line between floor and ceiling, and therefore requires but little room.

The space required in the loft for the ladder when housed does not exceed 6 ft. lengthwise and about 3 ft. headroom, but it would naturally be placed where there was greatest headroom for the person using the steps.

Another pattern on the extending principle is intended for use in lofts with very limited space. It requires only about 4 ft. 6 in. lengthwise and about 2 ft. 6 in. upwards.

The patentee, Mr. M. T. Berner, is prepared to grant licences for the manufacture of the ladders.



Easy Access Stairs.

WATERPROOF SAND-PAPER.

THE Painting Trade Materials Committee write :—

"It is understood that legislation will be introduced to give effect, either in whole or in part, to the proposals of the Geneva International Labour Conference of 1921 in regard to the use of white lead in painting. The Government have not yet announced their decision as to whether this legislation will include any degree of prohibition of the use of white lead for the painting of interiors, but it is extremely likely that it will include regulations for the use of white lead wherever it is not prohibited. These regulations may be expected to comprise the set of regulations drawn up at the conferences of the Painters' and Decorators' Industrial Joint Council of Great Britain and representatives of the Home Office. One of these (Regulation 3 of the draft code) provides that 'surfaces painted with lead paint shall not be rubbed down or scraped by a dry process.' In view of the change of practice which will, in some cases, be necessitated, and in view of the well-known disadvantages of using ordinary sandpaper or glasspaper with water, the Painting Trade Materials Committee of Great Britain and Ireland think it right to call the attention of members of the trade to the introduction of waterproof sandpaper, of which more than one satisfactory make is on the market. While the chief merit of waterproof sandpaper in regard to the regulations is that it enables water to be used so as to avoid the creation of harmful lead dust, the use of waterproof sandpaper has the advantages that when clogged by the particles of paint it can be made effective by wiping or rinsing in water, and that the scratching of the surface by detached particles of abrasive is avoided. The lubricant action of the water also promotes smoothness of surface and rapidity of working. It appears to the Committee to be in the interests of the craft that members should acquaint themselves with waterproof sandpaper in order that they may have formed their own opinion as to its practicability for the purpose of their particular requirements before the Regulations come into operation, and they will also doubtless form their own opinion as to the relative merits of the different makes of waterproof sandpaper now on the market."

BUILDING ACTIVITIES IN EDINBURGH.

AN Edinburgh correspondent has supplied us with the following information :—

BOTH in the centre and suburbs of Edinburgh there is evidence of building activity. Bakers have been extending their premises in Princes-street, notably McVitie & Guest, at the west end, who now own the solid block from Charlotte-street to the entrance to their premises in Princes-street. Mackie & Son, having dislodged an adjoining firm, have taken over the premises, which are being organised for their business. Both these two bakers and confectioners, in addition to their normal business, have tea-rooms and luncheon-rooms. There is at present being erected on ground reclaimed from the Canal basin at Fountainbridge, off Lothian-road, one of the largest bakeries in the Kingdom, for St. Cuthbert's Co-operative Store. The iron girders and beams are supplied by Redpath, Brown & Co.; there has been a deficiency in skilled bricklayers which has delayed operations. Mr. William Grant, managing director of the biscuit firm of McVitie & Price, is to receive the freedom of Edinburgh shortly as a recognition of his generosity in giving £100,000 towards the conversion of the Advocates' Library into a Scottish National Library.

In the last report by Mr. Horsburgh Campbell, Director of Housing of Edinburgh, it was pointed out that the city had on hand at present schemes for the erection of 1,774 houses, representing its immediate housing programme. To carry this through 250 masons and bricklayers are required. Apart from Corporation schemes there are housing contracts proceeding in Edinburgh, including the erection of about 200 houses of the villa class, requiring about 600 masons and bricklayers. The total of masons and bricklayers in the town is 640, and of this number only 25 are engaged in Corporation work. There are 12,500 men registered as unemployed in Edinburgh, so that scarcity of skilled workmen is where the shoe pinches here as elsewhere. As a way out of these difficulties the report of a deputation from Edinburgh Town Council, which visited Newcastle and Leeds, has been favourably received upon the construction of concrete houses, similar to what was seen in England. The method recommended was the duo-slab system —a series of concrete slabs laid on edge one upon the other, without any liquid cement or mortar, the slabs being laid on edge in dry contact. These slabs are 4 ft. in length and 3 ft. high, composed of clinker, sand and cement. The mixing for the slabs is done by a concrete-mixing machine; when formed it is left until dry enough for use. The placing of the slabs can be done by unskilled labour. Newcastle Corporation has erected 311 houses by this system, and Leeds 1,600.

The sub-division of houses in the New Town, under Mr. John White, still proceeds, as also by Mr. A. W. Millar, F.S.I., in the old town. Only six individuals desired to avail themselves of the offer made by the Corporation in the way of a subsidy to builders or to private individuals who wished to erect houses for their own occupation. The subsidy is high, ranging from £85 to £150 for houses of three, four and five apartments. The lowest figure for a four-apartment house under this scheme is £570. The great difficulty, as already indicated, is in shortage of labour. The Corporation has schemes of reconstruction work in slum areas in Grassmarket and Leith. Approval was given by the Town Council for the spending of £283,000 there. Some time ago Principal Laurie explained to a meeting of the Royal Society of Arts a method adopted at some shale works for the utilisation of the shale in making bricks. If this method succeeds it might lessen the disfiguring mountains of shale refuse in the oil districts. Road widening has been done, or is still in progress, at Colinton-road, Morningside-road, Braid Hills-road, and elsewhere. In this last, fringing the great golf course, the road is being straightened and greatly improved.

RATES OF WAGES IN THE BUILDING TRADE

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur :—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-Masons' layers' Labourers.	Pla terers
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Bedford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4	
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½	
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Cambridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Chelmsford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Colchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1 0½	
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0	
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½	
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Great Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0	
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½	
Ipswich	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/0	
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½	
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½	
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½	
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/4	
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/2½	
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½	
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½	
Luton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/0	
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/2½	
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Norwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½	
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
St. Albans	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Scarborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½	
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	1/2½	
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0	
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	0/11½	
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/0½	
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½	
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½	
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
York	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	

(For rates of wages in the Building Trade in Scotland, see page 505.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk e advertised in this number. Certain conditions beyond those given in the following information e imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any nder; that a fair wages clause shall be observed; that no allowance will be made for tenders; and at deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names those willing to submit tenders, may be sent in; the name and address at the end is the person from whom place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

EPTEMBER 29.—**Bangor (Teifi.**—CHURCH ROOM.—the erection of a church room, with out offices, at ngor Teifi. Mr. D. Emrys Rees, Bangor Teifi tre Court.

EPTEMBER 29.—**Holsworthy.**—LYCH GATE.—For ding a new lych gate at Stanbury Cross, sworthy, for the U.D.C. Mr. Claude Kinsman, k, Council Offices, Holsworthy.

EPTEMBER 29.—**South Molton.**—HOUSES.—Erection wo blocks of five houses, for the T.C. Mr. P. G. ks, Borough Surveyor, South Molton, Devon. osit £2 2s.

EPTEMBER 29.—**Tiverton.**—BATH.—Construction of pen-air bath in reinforced concrete, for the T.C. J. Siddalls, Borough Engineer, Town Hall, Tiverton. osit £2 2s.

CTOBER 1.—**Almondbury.**—DYEHOUSE.—Erection of house at Northfield Mills, Almondbury. Messrs. erry & Sons, architects, 3, Market-place, Hudders-d.

CTOBER 1.—**Beeston.**—HOUSES.—Erection of 16 ses in Farfield-avenue, Beeston, for the U.D.C. E. A. Bush, Surveyor, Public Offices, Beeston. osit £2 2s.

CTOBER 1.—**Dukestown.**—SCHOOL.—Erection of a temporary infants' school to accommodate 200 dren at Dukestown, near Tredegar, for the Mon-thshire E.C. Mr. John Bain, F.R.I.B.A., County l, Newport, Mon.

CTOBER 1.—**Edinburgh.**—BUILDINGS.—For the erec-of two blocks of buildings (nine houses in all), k-avenue, Bangholm, Ferry-road, for the Corpora-. Mr. J. D. Gibson, Surveyor, 60, Frederick-street.

CTOBER 1.—**Gillingham (Kent).**—ALTERATIONS.—alterations, painting, &c., at the Infectious Diseases' pital. Mr. J. L. Redfern, Borough Surveyor, ingham.

CTOBER 1.—**Haddington.**—HOUSES.—Erection of houses, for the T.C.: Messrs. Reid & Macleod, itects, Haddington.

CTOBER 1.—**Hatfield Heath.**—REPAIRS.—Repairs to rch. Rev. E. A. Ducane, Vicarage, Harlow, Essex.

CTOBER 1.—**Hertfordshire.**—COTTAGES.—Erection completion of 32 detached cottages at various es in Hertfordshire, for the C.C. Mr. A. Ernest scott, M.Inst.C.E., Lieut.-Col., County Surveyor Architect, Hatfield. Deposit £1 1s.

CTOBER 1.—**Newbridge.**—ADDITIONS.—For addi-s to St. Thomas's College, Newbridge, Co. Kildare, the Dominican Fathers. Messrs. Morris & Kava-h, quantity surveyors, 68, Harcourt-street, Dublin. osit £3 3s.

CTOBER 1.—**Stoke-on-Trent.**—PAINTING.—For ting children's homes for the B.G. Mr. A. R. P. cy, Architect, Union Offices, Stoke. Deposit £1 1s.

CTOBER 1.—**Tredegar.**—ERECTION OF SCHOOL.—erecting a new temporary Infants' School for the mouthshire Education Committee at Dukestown, egar. School to accommodate 200 children. l labour to be employed so far as possible. Mr. Bain, F.R.I.B.A., County Hall, Newport, Mon.

TOBER 1.—**Warrington.**—SUB-STATION.—Erection new sub-station in Golborne-street, for the T.C. F. V. L. Mathias, Borough Electrical Engineer, tricity Works, Warrington. Deposit £1 1s.

TOBER 2.—**Cardiff.**—SUB-STATION.—Erection of tation, St. Michael's-road, Llandaff, for the T.C. rical Engineer, The Hayes, Cardiff. Deposit

TOBER 2.—**Coxhoe.**—RENOVATIONS.—For reno-g outside of Primitive Methodist Church, Quar-n-hill, near Coxhoe. Mr. G. Smith, 10, Steetley-e, Quarrington-hill, Coxhoe.

TOBER 2.—**Featherstone.**—PAINTING.—For the ing, distempering, &c., of the Lister Baths, field-road, for the U.D.C. Mr. Samuel Chesney, yor, Council Offices, Featherstone.

TOBER 2.—**Greenwich.**—HOUSES.—Erection of 50 s in two sections, for the B.C. Town Clerk, Hall, Greenwich. Deposit £2 2s.

TOBER 2.—**Oldham.**—PAINTING.—For painter's at Central and Northmoor Libraries, for the T.C. gh Librarian, Oldham.

OBER 2.—**Thornhill.**—PAINTING.—For cleaning ecorating inside and outside Thornhill Wesleyan l and Sunday School. Mr. J. R. Walshaw, n-lane, Thornhill.

OBER 3.—**Leicester.**—EXTENSION OF HOSPITAL.—he extension of the Isolation Hospital, for the City Treasurer, Town Hall, Leicester. Deposit

OBER 3.—**Ramsgate.**—SEA WALL.—For the ruction complete of a new reinforced concrete ll, on the indented bar principle, on the foreshore St. Lawrence Cliffs Estate, for the Borough. G. Taylor, Borough Engineer, Borough En-s Office, Albion House, Ramsgate.

BER 3.—**Westcraigs.**—BRIDGE.—Improvement tcraigs Bridge, Westcraigs. Mr. W. A. Chap-oad Surveyor, Airdrie.

BER 4.—**Blackpool.**—SCHOOL.—Erection of ol Tyldesley Council School in Condor Grove, ilitegate Drive, for the Blackpool Education ttee. Mr. Francis Wood, M.Inst.C.E., Borough r and Surveyor, Municipal Buildings, Black-Deposit £2.

OCTOBER 4.—**Pleasley.**—INSTITUTE.—Erection of Miners' Institute. Messrs. Warren & Bocock, architects, Sutton-in-Ashfield. Deposit £2 2s.

OCTOBER 4.—**Tilbury (Essex).**—TELEPHONE EXCHANGE.—Erection of a new telephone exchange at Tilbury, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s., payable to the Secretary.

OCTOBER 5.—**Bootle.**—DRESSING BOXES, &C.—Construction of new galleries and portable dressing boxes in the gentlemen's plunge bath, Balliol-road Baths, for the T.C. Borough Engineer, Town Hall, Bootle.

OCTOBER 5.—**Nottingham.**—POWER STATION.—Erection of buildings in connection with North Wilford Power Station, for the T.C. Mr. T. Wallis Gordon, City Engineer, Guildhall, Nottingham. Fee £2.

OCTOBER 7.—**Edinburgh.**—HOUSES.—Erection of two blocks of buildings (composing nine houses in all), two stories in height, at Bangholm, for the T.C. Mr. George Simpson, architect, 14, Hill-street, Edinburgh.

OCTOBER 7.—**Greenwich.**—REPAIRS.—Execution of repairs, on a schedule of prices, to property on the Roan Estates during the period ending March 31, 1924. Mr. P. B. Dannatt, Surveyor to the Foundation, 18, Nelson-street, Greenwich, S.E. 10.

★OCTOBER 8.—**Enfield.**—HOUSES.—Erection of 34 houses in Nag's Head and Scotland Green-roads, Ponder's End, Middlesex, for the Enfield U.D.C. The Council's Surveyor, Public Offices, Enfield, Middlesex. Deposit £2 2s.

OCTOBER 8.—**Pontypool.**—ADDITIONS, &C.—For alterations and additions to the Old Penygarn Baptist Chapel, Pontypool, for the Trustees. Mr. A. Langley, 70, Hanbury-road, Pontnewynydd, Pontypool.

OCTOBER 9.—**Basingstoke.**—POST OFFICE.—Erection of a new Post Office at Basingstoke for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

OCTOBER 9.—**Buxton.**—LAVATORIES.—Erection of public underground lavatories in the Market-place, for the T.C. Mr. F. Langley, Borough Engineer, Town Hall, Buxton. Deposit £2 2s.

★OCTOBER 9.—**Northfleet.**—COURT HOUSE.—Court House and other works at Northfleet Police Station, for the Kent Standing Joint Committee, County of Kent. Mr. F. W. Ruck, the County Architect, 83, Week-street, Maidstone. Deposit £2 2s.

OCTOBER 9.—**Perran.**—VIADUCT.—Reconstruction of Perran Viaduct, near Perranwell Station, Falmouth Branch, for the Great Western Railway Co. Chief Engineer, Paddington Station, W.

OCTOBER 9.—**Swansea.**—WALLS.—For the construction of retaining walls, bridges, and other works, at High-street Station, Swansea, for the Great Western Railway Co. Chief Engineer, Paddington Station, W.

OCTOBER 9.—**St. Faith's.**—BRIDGE.—Erection of a reinforced concrete bridge over the Ford at Ringland, for the R.D.C. Mr. Charles Row, Clerk. 1 Redwell-street Bank Plain. Norwich.

OCTOBER 9.—**Yorkshire.**—REPAIRS.—Adaptation and repairs to four farmsteads on the Gargrave Estate, for the West Riding C.C. County Land Agent, County Hall, Wakefield. Deposit £1.

OCTOBER 10.—**Darton.**—SCREEN.—Erection of a folding screen at Darton Infants' Council School. Education Department, County Hall, Wakefield.

OCTOBER 10.—**Leeds.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange, &c., at Headingley, Leeds, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

OCTOBER 10.—**London.**—ALTERATIONS.—Alterations for the provision of washing and changing rooms for outdoor female staff at the Eastern Fever Hospital, Homerton-grove, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

OCTOBER 11.—**Llandudno.**—LAVATORIES.—Construction of underground lavatories with reinforced concrete roof in Lower Mostyn-street, for the U.D.C. Mr. W. T. Ward, Surveyor, Town Hall, Llandudno.

★OCTOBER 12.—**Coventry.**—DEMOLITON WORK.—For demolition work at the head Post Office, Coventry, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

★OCTOBER 13.—**Tilbury, Essex.**—HOUSES.—Erection of a further 125 houses in Tilbury for the U.D.C. Mr. A. W. Buckner, Clerk to the Council, Council Offices, Tilbury.

OCTOBER 15.—**Salford.**—GARAGE.—For building a motor garage adjoining the Central Fire Station, for the T.C. Borough Engineer, Town Hall, Salford. Deposit £2 2s.

★OCTOBER 16.—**London, W.**—EMPLOYMENT EXCHANGE.—Erection of Edgware-road Employment Exchange, W., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

OCTOBER 16.—**Margate.**—PAVILION.—Erection of a steel and timber bathing pavilion, for the T.C. Mr. E. A. Borg, Borough Engineer, 13, Grosvenor-place, Margate. Deposit £5.

★OCTOBER 17.—**Gosforth.**—POST OFFICE AND TELEPHONE EXCHANGE.—Erection of a Post Office and Telephone Exchange at Gosforth, for the Commissioners of H.M. Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

OCTOBER 17.—**Manchester.**—SUB-STATION.—Erection of the new Hulme Sub-Station, for the T.C. Mr. F. E. Hughes, Secretary, Electricity Department, Town Hall, Manchester. Deposit £2 2s.

★OCTOBER 18.—**London, E.C.**—TELEPHONE EXCHANGE.—Erection of Bishopsgate Telephone Exchange, E.C., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick-layers.	Car-penters, Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Brick-layers' Labourers.	Plas-terers' Labourers.
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/-	
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire(Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 504.

✱OCTOBER 19.—**London, N.W.**—GARAGE AND STORE.—Erection of a garage and store at Dollis Hill Research Station, N.W., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W. King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

OCTOBER 20.—**Leckaun.**—RESIDENCE.—Erection of a parochial residence at Leckaun, Co. Leitrim, for Rev. Francis Prior, C.C. Mr. P. J. Brady, architect Broomfield House, Ballyhaise, Co. Cavan.

OCTOBER 20.—**Near Abergavenny (Mon).**—HALL, &c.—For erecting a parish hall at Llanvihangel Crucorney (near Abergavenny), with submission of alternative estimate for same, if erected of timber framing and galvanised corrugated sheeting. Mr. B. J. Francis, architect, Abergavenny. Names of intending tenders must be sent to Mr. W. H. Wood, Clerk to Parish Council, 1, Pant Glas, Pandy, near Abergavenny, by September 15th.

OCTOBER 29.—**Durham.**—SCHOOL.—Erection of Kirk Merrington New School, for the C.C. Mr. F. Willey, F.R.I.B.A., 34, Old Elvet, Durham.

✱NOVEMBER 2.—**London, N.9.**—E TENSIONS.—Extensions to the Edmonton United Se vices Club, Ltd. Registered Office, 99, Hertford-road, Edmonton, N.9. Plans and specifications may be seen at the office on Wednesday, Thursday and Friday, October 17, 18, and 19, between the hours of 11 a.m. and 3 p.m. Mr. J. W. Shaw, Secretary, 99, Hertford-road, Edmonton, N.9.

NOVEMBER 30.—**Singapore.**—POST OFFICE.—Erection of new general post office, Singapore. Crown Agents for the Colonies, 4, Millbank, S.W.1. Deposit £10.

NO DATE.—**Abbot's Langley.**—HOUSES.—Erection of three detached houses at Abbot's Langley. Messrs. Stimpson, Lock & Vince, architects, Watford.

NO DATE.—**Banff.**—HOUSES.—For the erection of three blocks of houses at Banff. Messrs. Sutherland & Clement George, architects, 26, Crown-street, Aberdeen.

NO DATE.—**Belper.**—PAINTING.—For external painting of the workhouse and hospital buildings and the internal decoration of the board room and offices, for the B.C. Mr. John B. Mason, architect, of Duffield, near Derby. Deposit £1 1s.

NO DATE.—**Buckley.**—PAINTING.—For painting and decorating Buckley Congregational Church throughout. Mr. T. Crozier Jones, The Cross, Buckley, near Chester.

NO DATE.—**Carmarthen.**—DRILL HALL.—For erection, for the Carmarthenshire Territorial Association, of a drill hall at the Barracks, Carmarthen. Sir C. T. Ruthen & Co., Bank Chambers, Heathfield-street, Swansea, and 44, Bedford-row, London, W.C. 1.

NO DATE.—**Kirkcaldy.**—SHOPS.—For the erection of four shops in Kirkcaldy, for the Pathhead and Sinclairtown Reform Co-operative Society, Ltd. Mr. A. Welsh, architect, 233, High-street, Kirkcaldy.

NO DATE.—**Leven.**—HOUSES.—For the erection of eight blocks of four houses each at Leven. Mr. A. C. Dewar, Town Clerk, Municipal Offices, Leven. Deposit £2 2s.

✱NO DATE.—**London.**—HOUSES.—For the conversion of two houses in South Kensington. Plumbing, slabbing, joinery, electric lighting, distempering, painting. F. Nixon, 12, Emper r's-gate, S.W.7.

NO DATE.—**Mapplewell.**— LUB.—For a new working men's club at Mapplewell, near Barnsley. Whole works or separate trades. Newbald & Hartley, 1, Barstow-square, Wakefield.

NO DATE.—**Renton.**—HOUSES.—For the erection of six blocks of 24 houses at Renton, adjacent to the first development for the Western District of the County of Dumbarton. Mr. J. Weekes. Deposit £1 1s.

NO DATE.—**Shotts.**—HOUSE.—For the erection of a five-apartment house at Springhill-road, Shotts, Lanarkshire. Messrs. Peter Lawrence & Co., F.F.S., Surveyors, 50a, Frederick-street, Edinburgh.

FURNITURE, MATERIALS, etc.

OCTOBER 1.—**Burnham-on-Sea.**—MATERIALS.—150 tons granite macadam, 1,000 tons limestone macadam, 200 tons limestone binding gravel, for the U.D.C. Mr. Wm. H. Chowins, Surveyor, Public Offices, Burnham-on-Sea.

OCTOBER 1.—**Ealing.**—MATERIALS.—Supply of limes, pipes, &c., cement, ironmongery, iron castings, paints, &c., to the B.C. Mr. W. R. Hicks, Borough Surveyor, Town Hall, Ealing.

OCTOBER 1.—**Gellygaer.**—MATERIALS.—Supply of materials to the U.D.C. Mr. F. Read, Surveyor, Council Offices, Hengoed.

OCTOBER 1.—**Loughton.**—MATERIALS.—Supply of granite, hoggin, kerb, &c., to the U.D.C. Mr. H. White, surveyor, Loughton, Essex.

OCTOBER 1.—**Warrington.**—MATERIALS.—For concrete flags, Rawtenstall flags, Rawtenstall kerbs, sewer pipes, &c., copper slag, cement, bricks (St. Helens and blue), for the T.C. Mr. A. M. Ker, Borough Engineer, Warrington.

OCTOBER 2.—**Littleborough.**—MATERIALS.—Supply of 2,300 tons of 4 in. by 5 in. granite setts, for the U.D.C. Mr. G. H. Wild, Surveyor, Council Offices, Littleborough.

OCTOBER 2.—**Maesteg.**—SUPPLIES.—For supplying to the U.D.C. the following materials for a period of 12 months: (1) Cement, (2) hay, (3) corn and bran, (4) ironmongery, (5) stoneware pipes, (6) bricks, (7) stone, flagging, kerb and channel, (8) gas tar, (9) disinfectants, (10) gas mantles and burners, (11) harness repairs, (13) lime and mortar, (14) coal, &c. Separate contracts for each item. Mr. S. J. Harper, M.S.A., Council Offices, Talbot-street, Maesteg.

OCTOBER 2. — **Margate.** — MATERIALS. — Cement, bricks, ironwork, sanitary pipes, &c. Mr. E. A. Borg, Borough Engineer, Margate.

OCTOBER 2.—**Margate.**—ROLLER.—For 8- to 10-ton road roller, for the T.C. Town Clerk, Margate.

OCTOBER 3.—**Edinburgh.**—SAND.—Supply of 9,000 tons of clean, sharp Loch Etive sand to the T.C. Messrs. J. & A. Leslie & Reid, 29, Waterloo-place, Edinburgh. Deposit £5.

OCTOBER 4.—**Hemel Hempstead.**—MATERIALS.—Supply of various materials for six months to the T.C. Mr. A. E. Usher, Town Clerk, Hemel Hempstead.

OCTOBER 5.—**London.**—MATERIALS.—Supply to the Director-General, India Store Department, of (1) steam hammer, (2) paint. Store Dept., 14, Belvedere-road, S.E.

OCTOBER 5.—**Birkenhead.**—STORES.—For supply of stores to the Mersey Railway Co. Mr. J. Shaw, General Manager, Central Station, Birkenhead.

OCTOBER 5.—**Saffron Walden.**—GRANITE AND SLAG.—For supply of granite and slag to the R.D.C. Surveyor, King-street, Saffron Walden.

OCTOBER 9.—**Islington.**—MATERIALS.—Supply of salt-glazed ware pipes and gullies, river ballast, hoggin, hardcore or clinker, bricks and Portland cement to the B.C. Borough Engineer, Municipal Offices, Islington, N.1.

ENGINEERING, IRON AND STEEL.

SEPTEMBER 29.—**Keel (Ireland).**—BRIDGE.—For reinstating the superstructure of the iron bridge at Keel (near Ballinrobe), for Mayo C.C. County Surveyor, Courthouse, Castlebar, Co. Mayo.

SEPTEMBER 29. — **Thetford.** — CAST-IRON PIPES. — Supply of 1,800 yds. of 7 in. and 4 in. cast-iron pipes, &c., for the T.C. Messrs. Sands & Walker, Engineers, Milton Chambers, Nottingham. Deposit £3 3s.

OCTOBER 1.—**Bristol.**—HEATING, &C.—For the heating and ventilating of the Council School at Shirehampton, for the Bristol Education Committee. Mr. A. E. Oaten, P.A.S.I., architect, Phœnix Chambers, 22, Clare-street, Bristol. Deposit £1 1s.

OCTOBER 1.—**Egypt.**—STEAM LAUNCHES.—For three 40 ft. steam launches, for Ministry of Public Works, Egypt. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Westminster, S.W. 1.

OCTOBER 1. — **Kenilworth.** — RESERVOIR. — For a covered service reservoir, 500,000 gallons capacity, for the U.D.C. Mr. Sholto Douglas, Surveyor, Council Offices, Kenilworth.

OCTOBER 1.—**Llanmorlais (Glam).**—DRIVAGE.—For sinking a new slant at the Brynlais Collieries, Llanmorlais. Distance 200 yds., about; inclination 2 ft. per yd.; size of collar, 5½ ft.; height, 5½ ft. from rail; width, 9 ft. Drilling machines by compressed air and explosives supplied by company. The Secretary, Colliery Offices, Llanmorlais.

OCTOBER 2.—**London.**—AIR WASHING MACHINES.—Supply and installation of two air washing machines, with pumps, motors, &c., at the Imperial College of Science, South Kensington. Contracts Branch, H.M. Office of Works. King Charles-street S.W. 1. Deposit £1 1s.

OCTOBER 2.—**Portland.**—STEEL MAINS.—Supply of 2,820 yds. of 6 in. steel main to the U.D.C. Mr. W. Shadbolt, Engineer, Gas Works, Portland.

OCTOBER 3.—**London.**—ELECTRIC LIGHTING.—For electric wiring of New Science Museum, South Kensington, for H.M. Commissioners of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. Deposit £1 1s.

OCTOBER 3.—**Rochdale.**—CONCRETE WORKS.—For cementing in concrete the bed of river Roch, &c., for T.C. Mr. S. H. Morgan, Borough Engineer, Town Hall, Rochdale. Deposit £5.

OCTOBER 5.—**Hanwell.**—ELECTRIC LIGHTING.—Extension of the electric lighting installation at the Central London District School, Greenford-avenue, Hanwell, W. 7. Mr. George P. Morrell, Clerk to School, Hanwell. Deposit 10s.

OCTOBER 6.—**Kirkby Stephen.**—BOILER.—Provision and setting to work of a Cornish boiler, together with work in connection with heating, domestic hot water, laundry, and kitchen apparatus, at the Poor Law Institution, for the B.G. Mr. G. J. Gibbs, 7, Lunestreet, Preston. Deposit £2 2s.

OCTOBER 8.—**Harrogate.**—DEPOT.—For roadworks, sewering, construction of siding, retaining walls, bridge, &c., in connection with the Central Depot, Dragon Junction, for the T.C. Mr. C. E. Rivers, Borough Engineer, Municipal Offices, Harrogate.

OCTOBER 9.—**Neath.**—BRIDGE.—Construction of a bridge over the River Neath and other works near Glyn Neath Station, for the Great Western Railway Co. Chief Engineer, Paddington Station, W.

OCTOBER 9.—**Toronto.**—Alternating current generator, for T.C. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

OCTOBER 10.—**Ely.**—WATER WORKS.—(1) Supplying and installing three-throw ram pumps, capacity 9,000 galls. each per hour, and semi-Diesel crude oil engines; (1a) Sinking two 20 in. boreholes, 60 ft. deep; (2) Laying about 35 miles of 7 in., 3 in., and 2 in. mains; (3) Construction of two reinforced concrete water towers, capacity 100,000 galls. each; (4) Supplying approximately 2,000 tons of cast-iron pipes and specials; (5) Supplying cast-iron valves and fittings, for the R.D.C. Mr. F. W. Green, Clerk, Council Offices, 11, Lynn-road, Ely, Cambs. Deposit of £5 for 2 and 3.

OCTOBER 12.—**London.**—MATERIALS.—Supply of the South Indian Railway Company of (1) copper rods, (2) miscellaneous articles. Offices, 91, Petty France, Westminster, S.W.1. Charges, 5s. and 2s. 6d. respectively.

OCTOBER 15.—**Falmouth.**—ELECTRIC INSTALLATION.—For the installation of electric light at the Poor Law Institution of the B.G. Mr. E. P. Skinner, Clerk, Town Hall, Falmouth.

OCTOBER 15.—**Gravesend.**—AIR COMPRESSORS.—Supply and erection of two electrically-driven air compressors at sewage works, for the T.C. Mr. F. T. Grant, engineer, Woodville-terrace, Gravesend.

OCTOBER 15.—**Manchester.**—STEELWORK.—Supply and erection of steelwork required in the bridge carrying the new road from Moston-lane to Bower-lane over the Rochdale Canal, for the T.C. City Engineer, Town Hall, Manchester. Deposit £2 2s.

OCTOBER 15.—**Newcastle-on-Tyne.**—HEATING, &C.—For the remodelling of the heating and lighting installation at the City Hospital, Walker, for the T.C. Mr. Ernest Hatton, General Manager, Transport and Electricity Undertaking, Newcastle-on-Tyne.

OCTOBER 15.—**St. Pancras.**—BOILER.—For a Cornish boiler, for the B.C. Mr. C. H. F. Barrett, Town Clerk, Town Hall, Pancras-road, N.W. 1.

OCTOBER 15.—**Sunderland.**—ELECTRICAL INSTALLATION.—For installation of electric power and light at the Institution and Cottage Homes of the B.G. Mr. W. P. Brantingham, Clerk, Offices, 17, John-street, Sunderland. Deposit £1.

OCTOBER 22.—**London.**—TUNNEL.—Construction of a tunnel under the River Thames at Barking, for the County of London Electric Supply Co., Ltd. Sir Alexander Gibb & Partners, Queen Anne's Lodge, S.W.1. Deposit £15 15s.

OCTOBER 24.—**Australia.**—BRIDGE.—Construction of bridge for Country Roads Board, Victoria. Agent General for Victoria (Australia), Melbourne-place, Strand, W.C.2. Preliminary deposit £500.

OCTOBER 31.—**Australia.**—ELECTRIC CRANES.—Supply and erection at Port Adelaide of four 7-ton electric coal-handling cranes, for the South Australia Harbours Board. Agent-General for South Australia, Australia House, Strand, W.C.2.

NOVEMBER 1.—**Siam.**—BRIDGES.—Supply of superstructures of steel railway bridges to Siam State Railways. Messrs. C. P. Sandberg, 40, Grosvenor-gardens, S.W. 1. Charge 28s.

NOVEMBER 9. — **India.**—STEELWORK.—Supply of structural steelwork for wagon repair shop, Trichinopoly workshops scheme, for the South Indian Railway Co. Company's Offices, 91, Petty France, Westminster, S.W. 1. Charge £1.

NOVEMBER 30. — **Sydney.**—BRIDGE.—Construction of the superstructure and substructure of a cantilever bridge across Sydney Harbour; also an alternative tender for the construction of the superstructure and substructure of an arch bridge across Sydney Harbour. Agent-General for New South Wales, Australia House, Strand, W.C.

DECEMBER 3.—**Sydney.**—High tension switchgear for Municipal Council. Department of Overseas Trade (Room 52), 35, Old Queen-street, S.W.1.

ROAD, SANITARY, AND WATER WORKS.

SEPTEMBER 29.—**Sankey.**—BRIDGE.—Reconstruction of Barnes Bridge, Sankey, for the Lancashire C.C. Offices of the County Surveyor and Bridge Master, County Offices, Preston.

OCTOBER 1.—**Beckenham.**—ROAD WIDENING.—For the widening of a portion of Bromley-road, for the U.D.C. Mr. John A. Angell, Surveyor, Council Offices, Beckenham. Deposit £2.

OCTOBER 1.—**Brierley Hill.**—PAVING.—For laying about 9,800 sup. yds. sett paving, together with reinforced concrete foundations, kerbing, &c., for the U.D.C. Mr. John Yorke, Surveyor, Town Hall, Brierley Hill. Deposit £5 5s.

OCTOBER 1.—**Edinburgh.**—ROADS.—Supplying and laying of Whinstone Causeway setts to front of the two gateways at the Central Kitchen and Store Block of Bangor Mental Hospital. Mr. James D. Gibson, Surveyor, 60, Frederick-street, Edinburg .

OCTOBER 1.—**Friern Barnet.**—ROADS.—For resurfacing Oakleigh-road, for the U.D.C. Mr. E. J. Kindell, Surveyor, Council Offices, New Southgate.

OCTOBER 1.—**Hull.**—TRAMWAY TRACK.—For the renewal of tramway track in Witham and Beverley-road, a total length of about 5 miles single track. Mr. the T.C. Mr. F. W. Bricknell, City Engineer, Guildhall, Hull.

OCTOBER 1.—**Hurst.**—PAVING.—For about 2,0 superficial yards of paving, for the U.D.C. Samuel Shirt, Council Offices, Lower King-street, Hurst.

OCTOBER 1.—**Southwick.**—SEWER.—Laying 130 yards of 8 in. stoneware pipe sewer, for the U.D. Mr. George W. Warr, Surveyor, Town Hall, Southwi

OCTOBER 1.—**Stockton-on-Tees.**—SEWERAGE WORK —Construction of a pumping station, tanks, pipe sew cast-iron rising main, &c., for the T.C. Mr. J. P. Wak ford, Borough Engineer, Stockton-on-Tees. Depo £1 1s.

OCTOBER 1.—**Ventnor.**—SEWER, &C.—For (1) exte sion of main sewer, (2) laying down four hard ten courts, (3) redecking pier promenade, for the U.D Mr. D. V. Howard, Surveyor, Town Hall, Ventnor, I.

OCTOBER 1.—**Warrington.**—ROADS.—Laying of abo 1,800 square yards of bituminous work on Park-aven housing site, for the T.C. Mr. A. M. Ker, Borou Engineer, Warrington.

OCTOBER 2.—**Littleborough.**—ROADS.—For 9,7 super yds. of granite sett paving on concrete and oth works (setts provided by the Council) in Church-str Featherstall-road and New-road, for the U.D Surveyor, Council Offices, Littleborough.

OCTOBER 2.—**Margate.**—ROADS.—For carrying private street works at (a) Northdown Way Estate; (b) Wellclose-square, for the T.C. Borough Surveyo 13, Grosvenor-place, Margate.

OCTOBER 2.—**Portslade-by-Sea.**—PAVING, &C.— supply of road materials and for paving works, for U.D.C. Mr. A. Taylor Allen, Surveyor, Council Offic Portslade-by-Sea, Sussex.

OCTOBER 3.—**Cardiff.**—ROADS.—(a) Widening R tory-road, Leckwith; (b) Widening Caermain-ro Llancarfan, for the R.D.C. Mr. W. Farrow, Survey Park House, 20, Park-place, Cardiff.

OCTOBER 3.—**Stockton-on-Tees.**—SANITARY.—(version of privies into w.c.'s in various streets, for T.C. Borough Engineer, Victoria Buildings, Stockt

OCTOBER 3.—**Wembley.**—ROADS.—For surfacing carriageway of Ealing-road with natural rock aspha for the U.D.C. Mr. C. R. W. Chapman, surve Wembley. Deposit £1 1s.

OCTOBER 4.—**Cudworth.**—SANITARY.—Conversion of vies into w.c.'s at Cudworth. Mr. J. R. Shepherd, rveyor, Council Offices, Cudworth.
OCTOBER 4.—**Fulham.**—ROADS.—For remaking the dway at the Workhouse, Fulham Palace-road, for B.G. Mr. E. J. Mott, Clerk, 129, Fulham Palace-d, W. 6.
OCTOBER 4.—**Hove.**—ROADS.—Making-up Avon-e-road, for the T.C. Mr. H. H. Scott, Borough veyor, Town Hall, Hove.
OCTOBER 4.—**Southend-on-Sea.**—ROADS.—For mak-up parts of Branksome, Christchurch, Theobalds Station-roads and Macdonald-avenue, for the Mr. R. H. Dyer, Borough Engineer, Southend-on-. Deposit £2 for each road.
OCTOBER 4.—**Wandsworth.**—ROADS.—For paving gate-road, Fontaine-road, Ockley-road, Strath-ok-road, Woodbourne-avenue, Cricklade-avenue rt), and Downton-avenue (part), Streatham; Eller-road (part), Headington-road, Lid ard-road, and kford-road, Wandsworth; and Victoria-road, thfield, for the B.C. Mr. E. J. Elford, Borough gineer, 215, Balham High-road, S.W. 17. De-t £1 1s.
OCTOBER 6.—**Birmingham.**—ROAD.—Construction of road, 10 miles in length, between Birmingham and verhampton, for the Joint Committee. Mr. H. H. nphries, City Surveyor, Birmingham. Deposit 10s.
OCTOBER 6.—**Chester.**—ROADS.—For road and age works on Heath-lane Housing Site, for the T.C. Charles Greenwood, City Engineer, Town Hall, ster. Deposit £1 1s.
OCTOBER 6.—**Ilford.**—ROADS.—Extension of Perry's Farm-road to Horns-road, Barkingside, for the .C. Surveyor, Town Hall, Ilford. Deposit £2 2s.
OCTOBER 8.—**Morley.**—ROADS.—For the paving of rtion of Churwell-hill with Elland Edge setts, for .C. Mr. F. Turner, Borough Engineer, Town Hall, ley. Deposit 10s.
OCTOBER 10.—**Ely.**—WATERWORKS.—Supplying and alling three-throw ram pumps, semi-Diesel crude oil nes, sinking boreholes, laying and jointing about miles of mains, construction of two reinforced rete water towers, supplying 2,000 tons of cast-pipes and specials, and supplying cast-iron valves fittings, for the U.D.C. Clerk, R.D.C. Offices, Lynn-road, Ely, Cambs. Deposit £5.
OCTOBER 11.—**Kingston-on-Thames.**—ROADS.—For ing up portion of Oil Mill-lane, for the B.C. ough Surveyor, Kingston-on-Thames. Deposit s.

Competitions.

(See Competition News, page 476.)

uction Sales, Tenders, etc.

PTEMBER 29.—**Carnarvon.**—Messrs. Wm. Dew on and R. Arthur Jones will sell in voluntary dation by order of the liquidators, at the Royal el, Carnarvon, valuable slate and granite quarries Vaunfawr, near Carnarvon, all those valuable slate granite quarries and three farms, together with ing rights on Douen Las sheep walk. Auctioneers, gor, Conway, and Colwyn Bay.
OCTOBER 2.—**Dalston, London, N.**—Messrs. Joseph bard & Sons will sell by order of the High Court ustice, Chancery Division (Mr. Justice Russell), *re* Warden. Ltd., Temple *v.* Warden, at the Dalston Mills, No. 26, Regent's-row, Queen's-road, Dalston, mill machinery and plant. Auctioneers, 15, ington-green, Islington, N.16.
OCTOBER 2.—**Dalston, London, N.**—Messrs. Joseph bard & Sons will sell, previously to the sale of by order of the High Court of Justice, Chancery sion (Mr. Justice Russell), *re* W. Warden, Ltd., ple *v.* Warden, at the most moderate reserve upon remises, No. 26, Regent's-row, Dalston, brick-built eniently arranged leasehold sawmill, timber yard residence, known as Dalston Saw Mills, No. 26, nt's-row, and 60, Pownall-road (situated by the of the Regent's Canal, together with nine-roomed ence vacant possession (except of the house) will ven upon completion. Auctioneers, 15, Newing-reen, Islington, London, N.16.
TOBER 4 & 5.—**London, E.C. 3.**—Messrs. C. C. & oore will sell by order of executors of the late Hickmott (the elder), deceased, forty acres of with frontage at Longford, Kent, 16¼ acres of with frontages to London-road and Swanley-road. oneers, 7, Leadenhall-street, E.C. 3.

★OCTOBER 9.—**London, W.**—Messrs. J. T. Skelding & Co. will sell, at 22, Gray's Buildings, Duke-street, W., without reserve, by order of Mr. C. W. French, in consequence of expiration of lease and his relinquishing the business, Manchester-square, W., the stock and plant of a builder and decorator. Auctioneers, 48, Gresham] street, Guildhall, E.C.2.

OCTOBER 9.—**Middlesex.**—Messrs. Allsop & Co. will sell by direction of the George Cohen & Armstrong Disposal Corporation at R.A.F. Depot, West Drayton, Middlesex (G.W.R.), timber, glass and other building materials. Auctioneers, 141, Park-road, N.W. 8, and 15, Soho-square, W. 1.

★OCTOBER 9 AND 10.—**Poole, Dorset.**—Messrs. Curtis & Son have been instructed by the Senior Official Receiver in Companies Liquidation, to sell, without reserve, at the Company's Depot, Stanley Green, Poole, Dorset, in the matter of the Waller Housing Corporation (in liquidation), wooden buildings, electric generating station, machinery, tools and plant of the concrete housing works, power and lighting plant, machinery and tools, cranes, permanent-way rails. Auctioneers, The Poole Auction Rooms, 42, Station-road, Poole, Dorset.

OCTOBER 23.—**London, S.W.**—Messrs. Bradshaw, Brown & Co. have received instructions from Messrs. W. G. Tarrant, Ltd., to sell, owing to the completion of contracts, Wandle Valley Relief Sewer, L.C.C., contractors' plant and material, laying at the following depots, viz., 536, Garrett-lane, Tooting, S.W., close to Earlsfield Station, and Church-lane, Tooting, S.W. (near by). Auctioneers, Billiter-square Buildings, London, E.C. 3.

★OCTOBER 23 AND 24.—**London, E.C.**—Messrs. Fuller, Horsey, Sons & Cassell will sell, by order of the Port of London Authority, clearance sale of contractors' and engineers' plant, machine tools and stores, laying at various docks and wharves, will be sold in lots at the Commercial Sale Rooms, Mincing-lane, E.C. Auctioneers, 11, Billiter-square, E.C.3.

★OCTOBER 24.—**London, N.W.1.**—Messrs. Parsons, Clark & Bodin will sell at a low reserve, on the premises, 9A, Diana-place, Euston-road, the beneficial lease of extensive workshops, stores and yard, known as 9A, Diana-place, with immediate possession. Auctioneers, 24, Hanover-square, London, W.

OCTOBER 25.—**Essex.**—Messrs. Knight, Frank & Rutley will offer for sale as a going concern the valuable freehold Portland cement, lime and whiting Works, Saffron Walden, Essex. Auctioneers, 20, Hanover-square, W.1.

OCTOBER 30.—**London, W.1.**—Messrs. Henry Holmes & Co. will sell at Mortimer Hall, 93, Mortimer-street, Oxford Circus, W. 1, important building site, 14, 16 and 18, Great Titchfield-street, and 9A, Margaret-street, Oxford Circus, W. Auctioneers, 82, Mortimer-street, W. 1.

★Messrs. Veryard & Yates will sell without reserve, to clear site at "The Old Manor House," Bushey, building material, timber and fittings, arising from demolition of above. Auctioneers, 365, Norwood-road, S.E.27.

Public Appointments.

SEPTEMBER 29.—**Carmarthen.**—Competent Assistant (London trained preferred) for a period of six to twelve months, for school designs and details, by the Carmarthenshire C.C. Mr. W. Vincent Morgan, A.R.I.B.A., County Architect, Carmarthen.

SEPTEMBER 29. — **Newcastle-upon-Tyne.** — Senior Architectural Assistant required in the office of the Housing Architect by the City and County Council of Newcastle-upon-Tyne. Mr. A. M. Oliver, Town Clerk, Newcastle-upon-Tyne.

OCTOBER 6.—**London, S.W. 1.**—Assistant Civil Engineers required in Civil Engineer-in-Chief's Department, Admiralty, at H.M. Naval Establishments at Home and Abroad; also Temporary Engineering Assistants required in London Office of Civil Engineer-in-Chief's Department, Admiralty, and at Outports. Civil Engineer-in-Chief's Department, Admiralty, London, S.W. 1, on recognised form.

★NO DATE.—**Zanzibar.**—Clerk of Works required by the Government of Zanzibar, for the Public Works Department for a tour of from 20 to 30 months continuous residential service with possible extension. Crown Agents for the Colonies, 4, Millbank, Westminster, S.W.1., quoting M/12268.

Business Openings at Belgrade.

Captain E. Murray Harvey, O.B.E., Commercial Secretary at Belgrade, will be in attendance at the Department of Overseas Trade on October 1, 2 and 3, for the purpose of interviewing manufacturers and merchants interested in trade with the Serb-Croat-Slovene Kingdom. Such interviews will only be given by appointment, and applications should be addressed to the Comptroller-General, Department of Overseas Trade, 35, Old Queen-street, London, S.W.1. In all cases the reference 4937-T.G. should be quoted.

Spitalfields Market.

An improvements scheme at Spitalfields Market shortly to be put in hand is estimated to cost £2,000,000. The extension of the market to the west will give an additional area of about 87,500 ft. super., making the total area of the market about 213,000 ft. super., or over four acres. The improvement scheme provides that Lamb-street, on the north side, and Brushfield-street, on the south, shall both be widened to 60 ft., and the road suggested for the western side of the new market is to be 80 ft. in width. Altogether there will be an area of some 50,500 ft. super. available for use by market carts in delivering and taking away goods. To meet the requirements for re-housing people displaced by the new scheme the Corporation have acquired sites in Stepney for 600 people, and one block of buildings that has just been completed is in High-street, Shadwell. Inasmuch as the greater part of the buildings to be cleared away may be described as slum property, the scheme will not only be of great advantage to a market the business of which is growing rapidly, but to the neighbourhood and its residents generally. Traffic will also be largely facilitated.

Hull Housing Schemes.

At their last meeting the Hull Corporation Housing and Town Planning Committee adopted the plan of a proposed new street from near the Hull Paragon Station to the corner of Beverley-road and Spring Bank, in Prospect-street. The City Council have approved the principle, and the proposal will be included in the next Corporation Parliamentary Bill.

The City Architect was instructed to prepare plans for 600 parlour houses on the three Corporation Housing sites, the City Engineer to advertise for contracts for the necessary street work. It was agreed that individual houses erected privately should rank for subsidy if they occupied an eighteenth of an acre of land.

The Hull Building Trades Employers' Association wrote urging that the subsidies of £100 and £85, fixed by the Corporation, would not encourage a great volume of house building. If the investor in property was to be attracted they considered that the full provisions of the Act must be applied. Accordingly they asked the Committee to consider further the question of financing builders in connection with the Act.

It was resolved that, in connection with the buildings erected by general builders under the Small Dwellings Acquisition Act the Corporation were prepared to make advances on mortgage to the extent of 80 per cent. of the cost, the same to be repayable in 20 years.

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PROPOSED NEW BUILDINGS & OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERAYRON.—Plan passed by T.C.: District war memorial hall, for the Fund Trustees.——A drainage scheme is to be considered for the district by the Council, and the Engineer, Mr. Mossflowers, is preparing report.

ABERDEEN.—Plans passed: House, Tanfield-walk, for Mr. W. T. Shirras, per Mr. George Watt; war memorial court, Cowdray Hall, and art gallery extension, for the Aberdeen T.C., per Messrs. A. Marshall Mackenzie & Son.

ABERSYCHAN.—Engineering firms have been requested by U.D.C. to frame a bridge scheme for the Cwmavon-road. The Council has nearly completed arrangements preparatory to putting in hand electricity scheme, mains laying, &c.

BEDFORD.—Plans passed by T.C.: Mr. H. Parr, for Messrs. Newland & Nash, alterations, Midland Railway Hotel, Midland-road; Mr. H. Parr, for Messrs. Newland & Nash, alterations, "The Bear Inn," High-street; Bedford Gas Co., alterations, Ford End-road; Mr. E. H. C. Inskip, for W. Whitlock & Co., alterations, 117, High-street; Mr. K. Gammell, for Mr. J. V. Cooke, conversion into flats, 23, Pemberley-avenue; Mr. A. Smith, for Mrs. F. T. Saintsbury, house, St. Albans-road; Mr. E. H. C. Inskip, for Bedford Steam Laundry, additions, Goldington-road; Messrs. Usher & Anthony, for Charles Wells, Ltd., garage, "Gordon Arms," Castle-road; Mr. E. H. C. Inskip, for Mr. A. Garrity, conversion into flats, 10, Queen-street; Mr. W. B. Stonebridge, for Messrs. Dudeney & Johnston, alterations, Cauldwell-street; Mr. J. B. Thomas, for Mrs. E. E. Field, bungalow, Park-road North; Mr. A. W. G. Prosser, for The Muntona Co., alterations, Hassett-street.

BEDWAS.—The Bedwas and Machen Council and the Gellygaer U.D.C. are to join with Glamorgan and Monmouth County Councils in erecting a viaduct from Hengoed to Maesycwmmer.

BELFAST.—Plans approved: Stores in Millfield, for Mr. James Kelly: architect, Mr. W. C. Porte; reconstruction of premises after fire in Royal-avenue, for Messrs. Steele & Milliken: architect, Mr. Samuel Stevenson; villa in Myrtlefield Park, for Mr. A. McDowell: architect, Mr. T. R. Eagar; shop and house in Short Strand, for Mr. John Cosgrave: architect, Mr. S. J. McAvoy; reconstruction of premises in Castlereagh-street, for Mr. W. J. McEntagart: architects, Messrs. E. & J. Byrne; dance hall in Agincourt-avenue, for the representatives of the late Joseph McKibbin: architect, Mr. Gordon O'Neill, builders, Messrs. Cairns Bros.; offices and stores on Grosvenor-road, for W. & R. Jacob: architects, Messrs. Munce & Kennedy; two villas in Castle-avenue, for Mr. Wm. Curran: architects, Messrs. Blackwood & Jury; house and shop and house in Cupar-street and Wilton-street, for Messrs. McArdle, Moore & Co., architect, Mr. Charles Macalister; dining-room on Sydenham-road, for the British Petroleum Co.'s depot; additions to two villas in Myrtlefield Park, for Mr. A. McDowell: architect, Mr. T. R. Eagar; villa in Fortwilliam-drive, for Mr. Louis Morton: architect, Messrs. Taggart & Silk; extensions to Royal Victoria Hospital on the Grosvenor and Falls roads, for the Board of Management: architects, Messrs. Young & Mackenzie: builders, Messrs. McLoughlin & Harvey; two villas in Cyprus Park, for Mr. W. Rodgers. architect, Mr. James Scott; addition to shop and house on Oldpark-road, for Mr. Joseph Kennedy; offices, stables and sheds in Beechmount-avenue, for Mr. T. B. Kennedy: architects, Messrs. F. & J. McArdle.

BIGGLESWADE.—Plans passed by R.D.C.: Pair of cottages at House-lane, Arlesey, for Mr. F. Phillips.

BISHOP'S STORTFORD.—Plans passed: Bungalow in Maze Green-road, for Mr. E. Markwell.

BLACKWELL.—At a recent meeting of the R.D.C. it was decided to proceed with a scheme of sewerage and sewage disposal for their Langwith area. Messrs. W. H. Radford & Son, civil engineers, of Nottingham, have been instructed to prepare plans for submission to the Ministry of Health.

BLYTH.—Plans approved by T.C. include a new recreation ground at Plessey-road, at an estimated cost of £2,500. This will be carried out as relief work by the unemployed.

BRADFORD.—The Y.W.C.A. have acquired Enoch Shaw Buildings for their new hostel, at a cost of £16,500. The internal alterations, estimated to bring the total cost to £23,000, is to be carried out immediately.

BRAMPTON.—Plan for bungalow at Moss Pladdow, passed by R.D.C.

BRIDGEND.—At a meeting of the Bridgend Council this week a letter was read from the Surveyor to the Great Western Railway Co. asking for permission to make a statement on housing at Bridgend. A member explained that the railwaymen were thinking of forming a society under the company's housing scheme and taking advantage of the Government's financial assistance. The G.W.R. scheme was much more favourable than that of the Government, and if the railwaymen could form a society, it would materially assist the Council. It was decided to give the opportunity asked for.

BRIDLINGTON.—Plans passed by T.C.: Mr. M. B. Parkin, bungalow, Gilbert-street, for Mr. and Mrs. E. B. Baron; Mr. F. Vaux, new shop, &c., Quay-road, for Mr. Higginson; Mr. F. W. Martindale, garage and store, Ashbourne-avenue, for Mr. F. W. Martindale; Mr. S. Dyer, house, Easton-road, for Mrs. Witty; Mr. J. R. Earnshaw, house, St. James's-road, for Mr. J. W. Emmerson; Mr. J. R. Earnshaw, house, Mayfield-road, for Mr. R. Plowes; Mr. J. R. Earnshaw, house, Mayfield-road, for Mr. G. Turner; Mr. J. R. Earnshaw, two houses, Lamplugh-road, for Mr. J. Leason; Mr. J. R. Earnshaw, house, Kingsgate, for Mr. H. W. Hutton; Mr. C. L. Waite, house, Flamborough-road, for Mr. W. Witting; Mr. J. H. Hudson, house, Marine-drive, for Mr. S. L. Haldane.

BRIDPORT.—The T.C. has decided to erect 30 more houses.

BURRY PORT.—The Council is to spend £750 on laying water mains, &c.

BURTON-ON-TRENT.—The T.C. has decided to expend £6,000 on extending the Museum.

CARMARTHENSHIRE.—The County Education Committee has decided upon new works estimated to cost £135,000—chiefly provision of schools—to be carried out within a fixed time-limit.——At the Carmarthen Town Secondary Schools a fund of £750 has been raised to provide swimming baths.

CHESTER.—Plans passed by T.C.: Bungalow, Lache-lane, for Mr. H. Sequin; house, Cliveden-road, for Mr. Geo. Barlow; two semi-detached houses, Liverpool-road, for Mr. E. Cooper; house, Curzon Park, for Mrs. W. Welsby.

COLWYN BAY.—With the object of erecting between 200 and 300 working men's houses, the U.D.C. has purchased Tanlan, Old Colwyn, which comprises a farmhouse and 15 acres of land, for £6,500. It is the Council's intention also to build a further batch of 30 houses at Rho-on-Sea. The Council has purchased Tanycold Estate for £5,500. for the purpose of widening Beach-road, in Old Colwyn, a thoroughfare connecting the Abergele main road with the East Promenade. It is proposed to lay out the slopes on either side as public gardens, with paths and grottoes.

CROYDON.—Plans passed by B.C.: R. J. Sadleir, two houses, Blake-road; J. Midmer, five houses, Pollards Wood-road; W. G. Ingram, six houses, Green-lane; Research Association of British Rubber & Tyre Manufacturers, solvent store, 105–107, Lansdowne-road; Berney & Son, parish memorial hall, Cross-road; H. Sawyer, eight houses, Morland-road; S. G. Gee, house, Croham Manor-road; G. & A. Parris, house, Haling Park-road; S. M. Dempster, house, Monks Orchard Estate; C. Lewin, bungalow, Addiscombe-road; S. H. Laver, three houses, Pollards Hill South; C. H. Ridge, new bakehouse, 49, Church-street; W. G. Ingram, seven bungalows, Downsview-road; H. N. Dering, nine shops and houses, Lower Addiscombe-road; R. B. Manser, house, 62, Compton-road: L. Horrocks, bungalow, Monks Orchard Estate; C. Bankes, shop and three garages, Handcroft and Sumner roads; R. Weller, two houses and garages, Alton-road; A. Andrews, five houses and garage, Tunstall-road; G. Poulton & Son, house, Addiscombe-road, and 16 houses, Shirley Church-road; Paish, Tyler & Crump, 14 houses, Selwood-road; H. E. Davey, bungalow, Whitehorse-lane; J. W. Dawson, house, Crown-lane; W. M. Marcus, garage with rooms over, Norbury-avenue; J. B. Hemmings, 25 houses, Tunstall-road; Morgan, Baines & Clark, 14 houses, Mount Park-avenue; E. Evans & Sons, house, Elmwood-road; Young & Macintosh, house, Briar-avenue.

DORCHESTER.—The Justices have passed plans by Mr. C. W. Pike, architect, for alterations at the Junction Hotel, for the Dorchester Brewery Co.

DRIGHLINGTON.—Plans passed: Alterations to the U.M.C., for the Trustees; house in King-street, for Mr. Calvert Render; and a new meat factory, for the Co-operative Wholesale Society, Ltd.

DUBLIN.—Plans passed: Eight houses, Hollybank-road, for Mr. T. J. Boyd; chapel to St. Teresa's Church, Clarendon-street; cottage in Clinch's-court, for Mrs. Carolan; front and flank wall at 11, Dolphin's Barn-street, for Mrs. Togood; top story and roof to 52, Dorset-street, Upper, for Mr. Cronin.

EAST DEAN.—The R.D.C. has approved a scheme for the construction of a new road 600 yards long, constructed of ferro-concrete and spanning the Severn at Newnham, at an estimated cost of £150,000. The scheme has been submitted to the M.T. for approval.

GILDERSOME.—Plans passed by U.D.C.:—Sanitary conveniences in King-street, for Messrs. Melton & Newsome; conversions at Moorside, for Mr. Grayshon; alterations at the United Methodist Church; conversions at Adwalton, for Mr. Buttery.

GREAT YARMOUTH.—Plans passed by T.C.: Addition to factory, Middlegate-street, Messrs. W. Docwra & Co.; audition rooms, King-street, Messrs. Wolsey & Wolsey; alterations to 119, Beccles-road, Gorleston, Mr. B. H. Mutton; bungalow, Poplar Grove-road, Gorleston, Messrs. Crow & Palmer; arcade of shops, Row 74 to Regent-street, for the Great Yarmouth and Gorleston Investment and Building Co., Ltd.; eight houses, Mill-road, Cobholm, for Mr. F. Brett.

GREENOCK.—At a meeting of the Housing Committee Lord Pirrie, managing director of Messrs. Harland & Wolff, and Mr. J. W. Kempster, local manager, were present. The subject of grants to private builders for the erection of houses was discussed with the object of ascertaining if Messrs. Harland & Wolff would be prepared to acquire a number of houses under that scheme for their workmen. Lord Pirrie indicated that his firm would give the matter their favourable consideration.

HARPENDEN.—Plans passed by U.D.C.: House, Sauncey-avenue, for Mr. W. H. Lambert; two houses at Elliswick-road, for Mr. J. M. Wadsworth; house at Ox-lane, for Mr. Lovegrove.

HARTLEPOOL.—A scheme to provide new accommodation for the nurses at the Workhouse has approved by the B.G. The cost will be £4,700.——The B.G. has decided to carry extensions to the Infirmary at an estimated cost £4,700.

HAVERFORDWEST.—Plan passed by R.D.C.: house at Llaneast, for Sir Evan Jones.

HEALEY.—The Congregational Church authorities have acquired a site at the junction of Deighton- and West Park-road for a new church. The work to be put in hand at once.

HEMSWORTH.—The Ministry of Health has approved payment of the Government subsidy in respect of 78 of the 90 houses being built by the South Kirkby, Featherstone and Hemsworth Collieries. Ltd. Fitzwilliam. Sanction has also been obtained to payment of the Government subsidy on the 250 houses estimated to be erected within the next nine months in the urban district.

HESTON AND ISLEWORTH.—Plans passed by U.D.C.: Messrs. Roper, Son & Chapman, two bungalows, Lampton-road; Mr. A. C. Stephens, bungalow, Hanworth-road; Messrs. Daneis & Son, Ltd., bungalow, Spring Grove-road, Lampton; Mr. L. Fowler, converting "Eastholme" into two dwelling houses, Staines-road; Mr. J. P. Blake, house, Hibernia-road; Mr. A. C. Hodges, house, Jersey-road; Mr. H. Byron, new walls and milk store, 481, London-road; Mr. A. J. Weekley, cooling room, 165, Hanworth-road.

HUDDERSFIELD.—The Dalton Chemical Works Ltd., has decided to erect new benzol storage tanks their works, and tenders for this work are to be invited Abbey & Hanson, architects, Cloth Hall-street, Huddersfield.

ILFORD.—The London City Corporation has agreed to sell 168¼ acres of the surplus land at Ilford, which was bought by the Corporation in connection with the Addison housing scheme, in order that the land might be developed by private enterprise.

JARROW.—To provide work for the unemployed during the winter months the T.C. is seeking loans for the following: Albert-road relief sewer (approved by Ministry of Health) at a cost of £6,430; street paving £9,137 4s. 6d.; improvement of Western-road, £4,8 and widening Bede Burn-road, at Belsfield, £1,6 The Council have also adopted a scheme for erecting an additional 100 houses, and are calling a conference of builders, building societies, and others, with a view to co-operation in the building of more working-class houses.

LEEDS.—The famous hostel known as the "Chain Bull" at Moortown is to be reconstructed for Messrs. Ind Coope, Ltd., Burton Brewery. Messrs. A. & Mosleys, Wormald-row, Leeds, are the architects.

LLANDILO.—The Ministry of Health is to hold a public inquiry into the proposed Joint Council sewerage scheme.

LLANELLY.—Plans and estimates for a new station are being considered by G.W.R. Co. It is proposed to make a four platform station, 1,000 ft. long, with wide overhead connecting bridge. Two-story structure will be erected as offices and waiting-room. In addition, an extension of Llanelly engine-sheds is to be made.——Road estimates adopted by B.C. Highways Committee for half year commencing October amount to £15,000.

LONDON (BERMONDSEY).—Plans passed by B.C.: Lock-up shop, 247, Lower-road, for the L.C.C.; saw-mill, &c., Odessa-street, for G. Tate & Sons; factory, 44, Grange-walk, for H. Kent.

LONDON (LEWISHAM).—Plans passed by B.C.: W. H. Stevens, two houses, Marvels-lane: Eagle Bros., four houses, Burnt Ash-hill; Eaglen Bros., houses, Heather-road; Frank J. Langston, local shop, Manor-lane; C. Cutler & Sons, house, Colbrook-road; J. G. Witcombe, house. Winn-road: Rees & Archer-Betham, house, Brockley Park; Scott & Jones, 10 houses, Coniston-road.

LONDON (WANDSWORTH).—Plans passed by B.C.: W. F. Goodchild, house, 24, Wandle-road, Springfield; J. S. Quilter & Son, eight houses, Valley-road, Streatham; F. H. S. Keens, 33 houses in Granville-road; J. Willmott & Sons, Ltd., shops and billiard hall, 103, 105, Upper Tooting-road, Balham; W. Day, garage and four houses in Maplestead-road, Streatham; E. Eggleton & Son, house, Orlando-road, Clapham North; G. P. & H. Barnes, two houses, Abbotsley-road, Streatham, and parsonage, Garratt-lane, Tooting; C. Newman, shop, 118, Mitcham-road, Tooting; F. & R. A. Harrop, three houses and garage, Mount-road, Streatham; Chapple & Fulford, two houses, Woodfield-grove, Streatham; Phœnix Construction Co., two houses, Mount Nod-road, Streatham; Pratt, addition to Wimpole Laundry, Standen-road, Southfield; A. Monk, showrooms, 126 and 128, High-street, Wandsworth; E. M. Patterson, conversion into flats of Oakley House, West Hill, Southfield; Boothman, nine houses, Crowborough-road, Streatham; G. W. Beattie, four shops, Upper Richmond-road, Putney; W. F. Goodchild, two houses, Thrale-road, Streatham; J. Garrett & Son, vicarage and out-houses, St. Paul's Church, Rectory-grove, Clapham No. 1; W. H. Taylor, 10 houses, Valley-road. Streatham.

LOWESTOFT.—Plan passed by T.C.: Mr. A. Bond, three bungalows, Sandy-lane, Oulton Broad.

MABLETHORPE.—The U.D.C. has decided to put down a test bore at Maltby-le-Marsh, some three and a half miles from the centre of the town. A recent survey leads to the assumption of an adequate water supply being tapped here.

MANSFIELD.—Plans passed by T.C.: Wm. S. conversion of house into house and shop, Rosemary street; A. Meakin, house, Clifton-grove; D. I. house, Nottingham-road; Thos. Smith, eight ho Selwyn-road and Rifle-parade; George White, b low, Little Barn-lane; F. Wain, house, South road; A. Mather, stable and cartshed, Some street; Miss Wakefield, house and shop, Chester road; The Croft Mill Twist Co., new street called Sandhurst-avenue, Bottle-lane; The Croft Twist Co., two houses, Sandhurst-avenue; H. galey, two houses, Bottle-lane; C. H. Walker, and garage, Atkin-lane; Committee of the Spirit

* See also our List of Contracts, Competitions, etc.

, church and out-offices, Dallas-street; J. W. bungalow, Clifton-grove; — Jackson, house, ell-road; C. Stafford, house, Southwell-road; pleman, garage, Midworth-street; Jno. Parsons, George-street; J. H. Pembleton, bungalow, ham-road; Blythe & Son, bungalow, Eakring- George Fowler, house, Oaktree-lane; Dobb & bungalow, Grange-avenue; Dobb & Foster. ow, Meadow-avenue; H. Fell, house and shop, a-street; Duke of Portland, additions to 's Barn, Southwell-road; Mansfield Leather ree lock-up shops, Newgate-lane; J. H. & T. d, two houses, Southwell-road.

ORD.—It is reported that the G.W.R. Co., to te the acquisition of Welsh docks, is to acquire of Milford docks and make large extensions. ubling of the railway lines to the docks is also d to be in view.

YPOOL.—The R.D.C. has accepted a grant offer linistry of Transport to repair Penycaemawr- estimated cost £1,54 . —The Surveyor is to scheme for reconstruction of Lower ontnewydd

SUNLIGHT.—Viscount Leverhulme has an- d that freehold building plots will be given their workpeople at Lever & Co.'s Works for or semi-detached houses, built to the owner's and approved by the company's architect. ners would have preference.

MNEY VALLEY.—The Rhymney Valley School ers (Monmouthshire Section) have decided to for addit onal school accommodation in the of Cefn Forest, where great developments are ated. The Board of Education sent formal tion of their proposal to provide new public tary central schools at Rhymney and Pontllan-

HESTER.—Plans passed by T.C.: Bungalow and Jersey-road, Strood, for Mr. F. Holmes; bun- Dark-lane, for Mr. C. Miller; house, Priestfield- for Paymaster-Commander A. W. B. Messinger, house, Southfields, for Mr. W. Fraser; two ows, Wilson-avenue, for Messrs. W. E. R. ll & Sons; bungalow, Wilson-avenue, for Mr. w; bungalow, Wilson-avenue, for Mr. D. C. B. alteration of cinema, Strood-hill, for the Strood & Engineering Co., Ltd.; and two villas at bury-hill, for Mr. T. Fowle.

HERHAM.—Plans passed by R.D.C.: Miners' te at Dalton; bungalow at Laughton Common, r. A. Elvidge; two houses on Bawtry-road, orth, for Mr. J. W. Gray; house in Moor-lane, field, for Mr. H. Senior; two houses in Nether ane, Wickersley, for Messrs. T. W. & T. W. n; bungalow for Mr. P. Clarke in Northfield- Wickersley.

FFIELD.—It is proposed to erect a new Primitive list Church at Carter Knowle-road, in the dale district. Building operations are to be nced shortly.

KTON.—Plans have been approved by the for a bungalow in Darlington-lane, near Hard- arm, for Mr. T. Morris, Middlesbrough; and for e at Redmarshall Mains Farm, Redmarshall, . W. Hall.

EET.—The U.D.C. has instructed the Surveyor pare plans for two semi-detached houses and s of four houses.

NSEA.—Plans passed by T.C.: Church Green- reet, for the Rev. W. J. Bromham; two houses, -road, for Mr. E. Jeffreys; house, Maple-grove, . G. J. Anthony; house, Middle-road, for Mrs. len; bungalow, Trewyddfa-road, for Mr. D. ; house, Westfa-road, for Mr. J. Pye; house, s-road. Birchgrove, for Mr. Geo. Warren; 24 New-road, off Derwen Fawr-road, for Messrs. Spragg; house, West Cross-lane, for Mr. A. V. s; house and shop, Carnglas-road, for Mr. C. ; house and shop, Clydach-road, Ynistawe, for Davies; house, New-road, Westcross, for Mr. an; house, Pont Lassau, for Mr. T. Hughes; Llangyfelach-road, Morriston, for Mr. J. G. r; house, Llangyfelach-road, Morriston, for Jones; bungalow, Hendrefoilan-road, for Mr. loyd; store-room, Haslemere-road, for Mr. llen; house, Percy-street, for Mr. D. Hopkins; West Cross-lane, for Mr. H. R. Brown; house od-road, for Mr. R. C. Norman; two houses, ood-road, for Messrs. Davies & Kay; house, td Cliffs, for Mr. E. T. Rich; two houses, -road, Sketty, for Mr. J. Priestly; two houses, oilan-road, for Messrs. D. W. & G. H. Barnes; West Cross-lane, for Mr. A. V. Hopkins; seven Maple-crescent, for Mr. John Pye; layout and e. Glanmor Estate, for Messrs. John Pye & Co.; ses and shops, Woodfield-street, Morriston, for ic Jones; two houses, New-road, off Sketty- r Mr. M. D. Morgan; house, Middle-road, for Davies; sweet factory, 150, St. Helen's- for Mr. W. G. Collins; offices, Grandison- for Messrs. Lloyd & Penhale; bungalow, road, for Mr. Wm. Watkins; 13 garages, off s-avenue, for Dr. D. R. Edwards; house, oss-lane, for Mr. Ll. Thomas; four houses, oss-lane, for Messrs. Beynon & Davies; bunga- mbles-road, Blackpill, for Mr. H. P. Honey; ses, Swansea-road, Dunvant, for Mr. G. house, Glanmor Estate, for Messrs. J. R. & Son; house, Clydach-road, Ynistawe, for T. Davies; house, Middle-road, for Mr. M. two houses, off Sketty-road, for Messrs. Rowe; house, Clydach-road, Ynistawe, for . Williams; two house, Mary Twill-lane, d. for Mr. John Evans; two houses, Sketty- Mr. D. George; two houses, Beechwood- Messrs. J. B. Jenkins & Son; six houses, lan-avenue, for Messrs. Griff, Davies & Co.; unarlwydd-road, for Mrs. Rees; bungalow, ven-crescent, for Mr. C. G. Roberts; bungalow, uth-road, Blackpill, for Miss Parkinson; n of Mission Hall to bungalow, Boarspit-lane, r Mr. H. F. Maslen; classroom, St. Barnabas Hawthorn-avenue, for the Vicar and Church- house, West Cross-lane, for Mr. H. L. seven houses, Maple-crescent, for Messrs. e & Co.; conversion of house into two, Felin-fran, Llansamlet, for Mrs. D. Evans; house, Oystermouth-road, Blackpill, for Mr. H. P. Honey; bungalow, Carmarthen-road, for Mrs. Williams; house and shop Newton-road, Mumbles; lock-up shop, Neath-road, Llansamlet, for Mr. W. Phillips.——The T.C. has adopted a report dealing with the opening up of an area on the east side of the town for building purposes. Alderman David Williams, M.P., said the area was some 3,000 to 4,000 acres, and within the next ten years—and even less—there would not be a yard of vacant land within the borough. Messrs. Palmer, who were building the new dry dock, would in the next three or four years be importing from 3,000 to 4,000 men in connection with their work. This firm alone were prepared to put up 500 houses for their workpeople, and other firms would be found to do the same.

TAMPORLEY.—The U.D.C. has passed plans for a house at Salter's Well, for Mr. H. P. Huxley.

THAKEHAM.—Local road improvement schemes which are being considered include the reconditioning of the Marehill to Nutbourne-road, £1,883; the Storrington-Coolham-road, £10,200; and the Alversane-Ashington-road, £10,450, making a total of £22,550, towards which it is anticipated that the Ministry of Transport will contribute.

THORNE.—The R.D.C. has submitted a scheme to the Ministry of Health for rendering assistance to private enterprise in the promotion of house building. The Clerk has reported that if assistance was granted 1,200 houses would be erected in the district.

THORNHILL.—The District Committee has decided to carry out an extensive improvement scheme on the Durisdeer-Dalveen-road. The road is to be widened to 16 ft. for a distance of three miles. The estimated cost is £5,600, of which sum the Treasury will pay £4,200, leaving £1,400 to be paid by the committee.

TREGARON.—The G.W.R. directorate is considering the erection of new station accommodation.

TYNEMOUTH.—Plans passed by T.C.: Shops and flats, Front-street, Chirton, by Messrs. F. R. N. Haswell & Son, for Mr. G. S. Scorer; rebuilding of premises, Bedford-street, by Mr. W. Stockdale, for Messrs. C. R. Park & Co.; social club, Silkeys-lane, Chirton, by Messrs. Steinlet & Dixon, for Chirton Social Club Institute; semi-detached houses, Queen Alexandra-road, by Mr. W. Stockdale, for Messrs. Ball Bros.; two houses corner Argyle-street and Hotspur-street, Tynemouth, by Mr. W. Stockdale, for Messrs. B. Peel, Ltd.; two houses corner Hotspur-street and Syon-street, Tynemouth, by Mr. W. Stock ale, for Messrs. B. Peel, Ltd.; shop and house, 58, Clive-street, by Mr. W. Stockdale, for Mr. Bouyoukas; four houses, Clevelandroad (Campville Estate), by Messrs. Hays & Gray, for Messrs. Hodgson & Swan.

UCKFIELD.—Plans passed by R.D.C.: House, Sweet Haws, Crowborough, for Mr. Buckingham; cottage, Old Mill, Mayfield, for Mr. A. J. Walton; house, Harlequin-lane, Crowborough, for Mr. C. H. Cruttenden; additions to house, West-street, Mayfield, for Mr. Hodges; bungalow, Station-road, Crowborough, for Mr. J. H. Troy; cottage, Steel Cross, Crowborough, for Captain Thompson; two houses and shops, Station-road, Tilsmore, Waldron, for Mr. F. G. Collins; cottage, Queen's-road, Crowborough, for Mrs. Roberts; additions to house, Eridge-road, Crowborough, for Mr. J. Crittall.

UPHALL.—The Bathgate United Free Presbytery has passed plans for the erection of a new United Free Church at Uphall.

USK.—The Usk Agricultural College building is shortly to be erected, and work to be put in hand will include elaborate drainage system.— The Usk Council has nearly completed negotiations for land frontage for scheme of road widening to be put in hand.

UTTOXETER.—Inspector Cox, of the Ministry of Health, has held an inquiry with reference to an application by the U.D.C. for power to borrow £27,000 for the purpose of acquiring an additional supply for the town from the springs at Quixhill.

WALLASEY.—The Housing Committee have accepted a tender of £16,950 for the erection of 30 houses in Belvedere-road. The Ministry of Health have sanctioned the borrowing of £17,470 for the erection of 42 houses on the Mill-lane site. Borrowing powers are also being sought for the Belvedere-road contract.

WALLSEND.—Major J. Stewart, Inspector of the Ministry of Health, has held an inquiry into the application of the T.C. to borrow £4,600 for private street improvement works.

WHITEFIELD.—The Council approved scheme for a bowling green 44 yards square, bowl house, w.c., shelter, &c. Estimates are to be obtained for these works, also for the necessary fencing.

WIGAN.—Permission has been given by the B.C. to the Colliery Explosives Co., Ltd., Earlestown, for a new factory for the manufacture and storing of explosives to be erected at Hawkley Hall, Carr's-lane, Wigan.

WILLESDEN.—Plans passed by the U.D.C.: Conversion of house to shop, 307, Cricklewood Broadway, for Mr. H. C. Brown; eight lock up garages, Bridge road, Willesden, by Mr. H. Shaw, for Mr. R. S. Avery; additions to shop, 71, Craven Park-road, Harlesden, by Mr. H. Shaw, for Messrs. Williams Bros.; eight houses, Dollis Hill-lane, Cricklewood, for Messrs. Farrow & Conner; two houses, 26 and 27, Sidmouth-road, for Messrs. C. W. B. Simmonds; boiler house at factory, Oxgate-lane, by Messrs. Forsyth & Maule, for E. Brown & Sons; machine shop, Oxgate-lane, Cricklewood, by Messrs. Forsyth & Maule, for E. Brown & Sons; ten houses with garages, Melrose-avenue, Cricklewood, by Mr. Jesse Catton, for Broadway Properties, Ltd.; two houses, North-way, Neasden, by Mr. E. J. W. Hider, for Mr. Ernest Wilson; two houses, Herbert-gardens, Harlesden, by Mr. Arthur Welford, for Messrs. Jermey & Son; four houses, 87, 88, 89, 90, Dewsbury-road, Willesden, for Mr. A. Pearce; house, North-way, Kingsway Garden Village, Neasden, by Mr. James Denton, for Mr. E. W. Hinbest; four houses, North-way, Kingsbury Garden Village, Neasden, for Mr. F. Marks.

WINCHESTER.—Plans passed by R.D.C.: Addition to the Bridge Inn, Shawford; farm cottage at Northbrook (H. Orchard); bungalow at Littleton (F. Oxenbury); bungalow at King's Worthy (T. Whitcher); garage at Wonston (H. J. Gardiner); cottages at Wonston (H. J. Gardiner); houses at Itchen Abbas (Sir J. Shelley-Rolls); house, Fair Oak (C. Ames).

WINDSOR.—Plans passed by T.C.: Messrs. J. & H. Ottrey, drainage of Clewer Mead; Messrs. J. & H. Ottrey, drainage of "Hadspen," Dedworth-road; Mr. J. H. Weaver, bungalow, Parsonage-lane; Berks and Bucks Motor Co., Ltd., three motor lock-ups, Keppel-street; Mr. L. H. Pollard, bungalow, Parsonage-lane.

WOMBWELL.—The U.D.C. are considering the question of extending the baths, and the fitting of a new movable floor so that the hall can be used for public meetings.

WORTLEY (S. YORKSHIRE).—The R.C. have decided to construct a new road from the "Crown" Inn, extending to Hangmanstone Bar, at an estimated cost of £60,000.

YARMOUTH.—The plans passed by the T.C. for a new arcade from King-street, running west, and curving into Regent-street, at its junction with South Howard-street, provide for the erection of forty lock-up shops. The arcade will have a width of 14 ft., and be roofed over. It will take in Row 74, the south side of Row 73, and the north side of Row 78. It will mean the demolition of over forty small houses, and this prevents the work being put in hand immediately. As soon as other houses are available for the occupiers the rows can be cleared, and building operations started.

FIRES

CARDIFF.—A warehouse in Wesley-lane, belonging to Messrs. W. Kent & Co., has been almost destroyed by fire.

CIRENCESTER.—Barton Mill, occupied by Messrs. R. Townsend & Co., has been gutted by fire.

DONCASTER.—Damage caused by fire at Messrs. Hanley & Sons' flour mills, on Saturday, is estimated at £100,000.

GLASGOW.—Considerable damage by fire has been caused at the premises of J. Hart, 43, Mitchell-street, printer and stationer, and at the tailoring workshop of H. Brown, 37, Jamaica-street.

PONTEFRACT.—The garage of Messrs. Ewbank & Co., Wakefield-road, has been destroyed by fire.

NEW BUILDINGS IN LONDON.

Earlsfield.—FACTORY.—The Columbia Gramophone Co., Ltd., are about to extend their factory at Earlsfield to more than double its capacity.

Fleet-street.—BANK.—The general contractors for Barclays Bank in Fleet-street are Allen Fairhead & Son. The sub-contractors are as follow:—Stonework, F. J. Barnes, Ltd., 25, Nine Elms-lane, S.W.8; steelwork, Sanders & Forster, Thames Works, Hertford-road, Barking; lifts, Aldous & Campbell, Ltd., Lower Bland-street, Great Dover-street, S.E.1; electric light wiring, A. & F. Goodwin, 28, Minories, E.1. Messrs. C. J. Dawson, Son & Allardyce, Clock House Chambers, Barking, are the architects.

St. Pancras.—HOUSING SCHEME.—The architect of the B.C. has prepared estimates and plans for a housing scheme situated between the north side of Aldenham-street and the south side of Johnson-street, and including the east and west sides of Wolcot-street, this being the southern portion of the area included in the original scheme. The scheme presented by the architect comprises 72 flats, of two and three rooms in equal proportion, each having, in addition, a scullery, bathroom, lavatory, &c. The flats are contained in four blocks of 16, and one block of 8, each block consisting of four stories. The estimated cost of the work, including architects', quantity surveyors', &c., fees, is £49,110, and the value of the land is approximately £13,500, making a total expenditure of £62,610. Accommodation would be provided for 360 persons, as compared with 309 persons who would be displaced. The scheme is to be forwarded to the Ministry of Health.

London Stonemasons.

The majority of the London stonemasons came out on strike this week in support of a demand for a 3d. per hour increase in wages.

We are informed that as the result of the interchange of views between the national representatives of the builders and operatives, the representatives of the Regional Council for London is advised to hold a meeting at the earliest possible date, with the object of dealing with wages, hours of labour, and overtime. There is every possibility that the dispute may be ended this week.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£	s.	d.
Best Stocks	4	2	0
Second Hard Stocks	3	17	0

Per 1,000. Delivered at London Goods Stations.

	£	s.	d.		£	s.	d.
Flettons, at King's Cross	2	13	3	Best Blue Pressed Staffs.	9	11	6
Do. grooved for plaster	2	15	3	Do. Bullnose	10	1	6
Do. Bullnose	3	8	3	Blue Wire Cuts	7	11	6

Best Stourbridge Fire brick:—

2½ in.	11	3	0	3 in.	13	2	0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22	0	0	D'ble Str'tch'rs	30	10	0
				D'ble Headers	27	10	0
				One Side and two Ends	31	10	0
Headers	21	10	0	Two Sides and one End	32	10	0
Quoins. Bullnose and 4½in. Flats	28	10	0	Splays and Squints	30	0	0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.
Delivered London.

	s.	d.		s.	d.
2 in. per yd. super	2	1	3 in. per yd. super	2	9
2½ in. „	2	5	4 in. „	3	7

	£	s.	d.		
Thames Ballast	10	6	per yard.	delivered 2 miles radius Paddington.	
Pit Sand	14	9	„ „		
Thames Sand	15	6	„ „		
Best Washed Sand	15	6	„ „		
¾ in. Shingle for Ferro-Concrete	14	0	„ „		
½ in. „ „	15	0	„ „		
¾ in. Broken Brick	10	6	„ „		
Pan Breeze	5	6	„ „		

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 51/- alongside at Vauxhall in 80-ton lots.	3	6	
Ferrocrete per ton extra on above	0	10	0
Super Cement	4	8	0
Roman Cement	8	15	0
Parian Cement	5	13	0
Keene's Cement, White	5	8	0
„ „ Pink	5	3	0
Plaster, Coarse, Pink	3	0	0
„ „ White	3	12	6
„ Fine	5	12	0
Sirapite, Coarse	3	9	6
„ Finish	3	17	6
Grey Stone Lime	2	10	9
Chalk Lime	2	10	9
Best Ground Blue Lias Lime	2	13	6
Hair	17	0	0
Granite Chippings	1	12	0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.
Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s.	d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2	9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2	11½
PORTLAND STONE—		
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4	4
Do. do. delivered on road wagons at above stations, per ft. cube	4	5
White basebed, 3d. per ft. cube extra.		
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ¼d. beyond 30 ft.		
HOPTON-WOOD STONE.		
Delivered at any Goods Station, London.		
Small random blocks, up to 10 ft. cube. Per ft. cube	7	/-
Random blocks from 10 ft. and over „	17	/-
Sawn two sides „	27	/-
Sawn three or four sides „	32	/-
YORK STONE, BLUE—*Robin Hood Quality.*		
Delivered at any Goods Station London.	s.	d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5	3
6 in. rubbed two sides, ditto „	5	9
3 in. sawn two sides slabs (random sizes) „	2	1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1	5½
1½ in. to 2 in. ditto, ditto „	1	3
HARD YORK—		
Delivered at any Goods Station London.		
Scappled random blocks Per Ft. Cube	5	6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5	4½
6 in. rubbed two sides ditto „	6	0½
4 in. sawn two sides slabs (random sizes) „	2	10
3 in. ditto. ditto „	2	5
2 in. self-faced random flags. Per Yard Super	7	11

ARTIFICIAL STONE.

	s.	d.
Delivered in London Area in full van loads.		
Plain per ft. cube	6	6
Moulded „ „	7	9
Cills „ „	8	3

WOOD.

GOOD BUILDING DEAL.

Inches.				per stan.	Inches.				per stan.
4	×	11		£34 0	3	×	6		£25 0
4	×	9		34 0	3	×	11		34 0
4	×	8		29 0	2	×	11		34 0
4	×	7		28 0	3	×	9		33 0
3	×	8		26 10	2½	×	9		33 0
3	×	7		26 0	3	×	4½		24 0
2½	×	7		26 0	3	×	4		24 0

WOOD (*Continued*).

PLANED BOARDS.

1	×	11	£38 10	1	×	9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅞	21/-	1¼	33/6
⅞	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.	Inches.	per sq.
1	26/6	1½	33/6
1¼	33/6	1¾	38/6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	22/-
1	26/-

BATTENS

Inches	s.	d.	
¾ × 2	2	4	per 100 ft.

SAWN LATHS.

Per bundle					0	2	10
Dry Wainscot Oak, per ft. super, as inch	0	2	0	to	0	2	6
¾ in. do. do.	0	1	6	to	0	2	0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1	9	to	0	2	6
Cuba Mahogany	0	3	0	to	0	3	6
Teak (Rangoon, Moulmein or Java), per load	45	0	0	to	50	0	0
American Whitewood planks, per ft. cube	0	14	0	to	0	16	0
Best Scotch Glue, per cwt.	4	10	0	to	—		
Liquid Glue, per cwt.	4	7	0	to	5	10	0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£	s.	d.		£	s.	d.
24 by 12	37	12	6	18 by 10	21	2	6
22 by 12	34	0	0	18 by 9	18	12	6
22 by 11	31	5	0	16 by 10	17	12	6
20 by 12	29	15	0	16 by 8	13	15	0
20 by 10	25	12	6				

TILES.

Per 1,000 f.o.r. London.

	£	s.	d.
Best machine-made tiles from Broseley or Staffordshire district	5	7	6
Ditto hand made ditto	5	12	6
Ornamental ditto	5	17	6
Hip and valley tiles (per dozen) Hand made	0	9	6
Hip and valley tiles (per dozen) Machine made	0	9	0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£	s.	d.
R. S. Joists, cut and fitted	13	10	0
Plain Compound Girders	15	10	0
„ Stanchions	17	10	0
In Roof Work „	20	10	0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£	s.	d.	Diameter.	£	s.	d.
⅛ in.	16	10	0	⅝ in. to ⅞ in.	13	10	0
¼ in.	14	10	0	⅛ in. to 2⅞ in.	13	0	0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2¼	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7¼	1/5½	5d.
O.G. GUTTERS.			
3 in.	1/6½	1/2⅜	3½d.
3½ in.	1/6¾	1/2¾	3½d.
4 in.	1/7⅜	1/4	3½d.
4½ in.	1/9⅛	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1⅜	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6¾	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s.	d.	Bends, stock angles. s.	d.	Branches, stock angles. s.	d.
2 in. per yd. in 6fts plain	3	0½	2	2½	2	8
2½ in. „	3	6½	2	5½	3	3½
3 in. „	4	2½	2	8	4	0½
3½ in. „	4	7	3	3½	4	8½
4 in. „	5	1	3	9½	5	5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s.	d.	Bends, stock angles. s.	d.	Branches, stock angles. s.	d.
3 in. per yd. in 9ft. lengths	4	9	5	8	8	10
4 in. „ „	6	3	6	8	11	4
5 in. „ „	7	6	11	6	18	2
6 in. „ „	8	10	14	4	23	5

Per ton in London.

	£	s.	d.		£	s.	d.
IRON—							
Common Bars	14	0	0	to	15	0	0
affordshire Crown Bars— good merchant quality	14	10	0	..	15	10	0
Staffordshire "Marked Bars"	17	0	0	..	18	0	0
Mild Steel Bars	13	10	0	..	14	10	0

METALS (*Continued*).

	£	s.	d.		£	s.
Steel Bars, Ferro-Concrete quality, basis price	13	10	0	..	14	10
Hoop iron, basis price	16	10	0	..	17	10
„ Galvanised	31	0	0	..	32	0
Soft Steel Sheets, Black—						
Ordinary sizes to 20 g.	15	10	0	..	16	10
„ „ „ 24 g.	16	10	0	..	17	10
„ „ „ 26 g.	18	10	0	..	19	10
Sheets Flat Best Soft Steel, C.R. & C.A. quality—						
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21	10	0	..	22	10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22	10	0	..	23	10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24	10	0	..	26	10
Flat and Galvanised Corrugated Sheets—						
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21	0	0	..	22	0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21	10	0	..	22	10
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23	10	0	..	24	10
Sheets Galvanised Flat, Best quality—						
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23	10	0	..	24	10
Best Soft Steel Sheets, 22 g. and 24 g.	24	10	0	..	26	10
Best Soft Steel Sheets, 26 g.	26	0	0	..	27	0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	21	10	0	..	23	0

METAL WINDOWS—Standard sizes suitable for c plete houses, including all fittings, painting coats, and delivery to job, average price about to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£	s.	d.	
LEAD—Sheet, English, 4 lb. and up	35	0	0	..
Pipe in coils	35	10	0	..
Soil Pipe	38	10	0	..
Compo pipe	41	0	0	..

NOTE—Country delivery, 30s. per ton extra; lots u 3 cwt., 2s. per cwt. extra and over 3cwt. and un cwt., 1s.6d. per cwt. extra. Cut to sizes, 2s. cwt.ex

Old lead, ex London area, at Mills per ton	22	10	0	..
Do., ex country, carriage forward per ton	23	10	0	..

PLUMBERS' BRASS WORK.
Delivered in London.

NEW PATTERN SCREW DOWN BIB COCKS IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per

NEW RIVER PATTERN SCREW DOWN STOP COCKS UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per

NEW RIVER PATTERN SCREW DOWN MAIN FERR

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	4 in.	
7/6	10/-	14/-	23/-	30/-	42/- per do

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.	
7/6	11/6	17/-	29/-	36/-	63/-	per do

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.	
10/-	12/-	20/-	24/-	31/-	per doz.

NEW RIVER PATTERN CROYDON BALL VALVES. S

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	
35/-	56/-	98/-	162/-	228/-	per

DRAWN LEAD P. & S. TRAPS WITH BRASS CLE SCREW.

	1½ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- pe
8 lbs. S. traps	35/-	45/-	66/-	126/

COPPER—	£	s.	d.	
Strong Sheet per lb.	0	2	3	..
Thin „ „	0	2	4	..
Copper nails „	0	2	3	..
Copper wire „	0	2	4	..
TIN—English Ingots „	0	2	0	..
SOLDER—Plumbers' „	0	0	11	..
Tinmen's „	0	1	1	..
Blowpipe „	0	1	3	..

PAINTS, &c.

	£
Raw Linseed Oil, in pipes per gallon	0
„ „ „ in barrels „	0
„ „ „ in drums „	0
Boiled „ „ in barrels „	0
„ „ „ in drums „	0
Turpentine in barrels „	0
„ in drums (10 gall.) „	0
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	56
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	77
Red Lead, Dry (packages extra) per ton	42
Best Linseed Oil Putty per cwt.	0
Filocoi per cwt.	0
Size, XD Quality firm.	0

[*Concluded on next page.*]

* The information given on this page ha specially compiled for THE BUILDER and is cop Our aim in this list is to give, as far as possi *average* prices of materials, not necessarily the or lowest. Quality and quantity obviously prices—a fact which should be remembered by who make use of this information.

ICES CURRENT OF MATERIALS (*contd.*)

GLASS.

GLISH SHEET GLASS IN CRATES OF STOCK ES AND IN SQUARES IN ORDINARY SIZES.

Per Ft.		Per Ft.
oz. fourths.... 3¾d.	32 oz. fourths	8¾d.
,, thirds .... 4½d.	32 ,, thirds	10½d.
,, fourths.... 5d.	Obscured Sheet, 15 oz.	4d.
,, thirds .... 6¼d.	21 ,,	5¾d.
,, fourths.... 6d.	Fluted 15oz. 6¾d., 21oz.	9¾d.
,, thirds .... 7¾d.	En'lled 15 ,, 5¼d., 21 ,,	7¼d.

ra price according to size and substance for squares from stock.

GLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
Rolled plate	4¼d.
Rough rolled	5¼d.
Rough rolled	7⅝d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6¼d.
Ditto, tinted	9d.
Rolled Sheet	6 .
White Rolled Cathedral	5¼d.
Tinted do.	7¾d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Varnish	Outside	0 14 0
ditto	ditto	0 16 0
Copal	ditto	0 18 0
Copal	ditto	1 0 0
Copal Carriage	ditto	1 4 0
ditto	ditto	1 12 0
r Varnish	Inside	0 18 0
Pale Paper	ditto	0 18 0
Copal Cabinet	ditto	1 2 6
Copal flatting	ditto	1 0 6
l drying Oak	ditto	0 18 0
Hard drying Oak	ditto	0 19 0
Copal Varnish	ditto	1 0 0
ditto	ditto	1 2 0
ditto	ditto	1 12 0
Japan Gold Size		0 12 0
Black Japan		0 12 0
and Mahogany Stain (water)		0 12 0
nswick Black		0 9 0
in Black		0 14 0
tting (patent)		1 5 0
ch and Brush Polish		0 17 6
id Dryers in Terebine		0 9 0
ass Black Enamel		0 7 0

TRADE NEWS.

Ir. J. Attwood, of Foster-street, Stourbridge, issued a new catalogue of heating specialities, ch includes many new lines. This firm nufactures the well-known "Eclipsem," eme," and "Cultivatum" apparatus; the ultivatum" boiler is specially designed for ting greenhouses.

mong the exhibits at the Cycle and Motor-le Exhibition at Olympia on October 15 be the "A.L." products of Allen-Liversidge, , of 106, Victoria-street, Westminster, .1. These are apparatus for brazing, lead ing, plumbing, soldering, paint burning, sundry uses in the building and kindred es as well as other industries.

& J. Main & Co., Ltd. (late Armstrong Iain, Ltd.), of Australia House, Strand, .2, announce that the reorganisation of the ness has now been completed. All the pany's branches are retained, and the Clydes-Works in Glasgow and Calcutta Bridge and Works in Calcutta are now more fully pped than before to deal with the same es of steel structural work as in the past, as as fencing, railings, and gates of every iption.

ssrs. J. Manger & Son, Ltd., the old-estab-l firm of soda manufacturers, of 57, High-t. London, E.8, have added a new line to well-known "Quality" products. This the form of a sugar soap for cleaning paint woodwork, and should be specially useful ilding repair and decorative work. In ion to the ease with which it cleans wood- and other materials, it has strong disin-nt properties. We are informed that this ct, which has only been on the market short time, is already being extensively ed.

very informative and useful booklet has ssued by the Lighting Service Department e British Thomson-Houston Co., Ltd., concise data relating to the design of ng systems for factories. The booklet is ded for the use of architects, engineers, manufacturers and others who are responsible for the installation and maintenance of, and extensions to, electric lighting systems in factories. Good lighting, to meet industrial requirements, can only be obtained after the very careful consideration of essential factors which, combined, necessitate numerous intricate calculations. Among these factors the height of workshop, the size of bays, and the spacing of units are a few of the most important. The designs in this booklet have been carefully compiled and are presented in such a manner that tedious calculations are entirely eliminated. One can obtain at a glance, given the height of workshop, size of bays, and the amount of illumination required, the exact spacing and type of units necessary to produce the best results. It will be found that a suitable design is available to meet the requirements of any workshop or factory with little or no alteration. The offices of the Lighting Service Department of the British Thomson-Houston Co., Ltd., are at 15, Savoy-street, W.C.2.

The illustration of the "Lefco" fireplace given below is from a catalogue just issued by the manufacturers, the Leeds Fireclay Co.,



Ltd., of Wortley, Leeds, which contains illustrations and particulars of a selection of various types of this fireplace. These fireplaces are made of Burmantofts terra-cotta—a material possessing a vitreous matt surface, which can be cleaned easily with a damp cloth. All iron-work is eliminated, and there is, therefore, nothing to rust and no unnecessary black-leading and cleaning. If the fireplace is preferred fitted with iron grate, ash pan and barless front, this can easily be arranged. These fireplaces are made with a minimum of jointings, and are therefore easily fitted into position. They are made only in a speckled-brown biscuit colour.

Liverpool Housing.

The report on the health of Liverpool during 1922 by the Medical Officer of Health states that 2,243 dwelling-houses have been erected in the city during that period, of which three are rented at £25 to £35 per annum, and the remainder at £35 and upwards. Of the total number erected 2,109 have been built under the direction of the Housing Department, these forming parts of Government-assisted schemes.

NEW BUILDINGS IN SCOTLAND.

Brechin.—HOUSES.—The T.C. has decided to erect two four-roomed houses under the Board of Health's original scheme.

Leith.—HOUSES.—The Housing Sub-Committee of the Edinburgh Corporation has received tenders for the erection of 66 houses at St. Clair-street, Leith. The lowest tender worked out at a little more than £350 per house.

Clarkston.—SCHOOL.—The Master of Works to the Lanarkshire Education Authority has been requested to prepare an estimate for a new school at Clarkston.

Portobello.—CONVERSIONS.—The Wakefield City Council is applying to the Health Ministry for sanction to borrow £3,000 for the adaptation of four houses as shops.

Whitecraigs.—HOUSES.—Plans have been passed by the Buildings Committee of the Upper District of Renfrewshire for the following:—House in Elphinston-road, for Mr. H. Thomson; villa at Craignethan-road, for Mr. J. G. Williamson; villa at Roddinghead-road, for Mr. W. Rowell; villa at Roddinghead-road, for Mr. G. Robin.

Murthly.—PUBLIC HALL.—Funds are being raised for a new public hall for the village of Murthly, Perthshire, the sum of £960 having been raised up to the present.

Ayr.—DWELLINGS.—The Dean of Guild Court has passed the following plans:—20 two-story cottages in Marchfield, estimated to cost £14,000, for Mr. T. McWhirter; Mr. R. Hutchinson, six houses of the bungalow type, to be erected in Robbsland-avenue off Monument-road, at an estimated cost of £4,900; Mr. W. Telfer, for a double cottage in Hunter's-avenue, the cost of which is estimated at £1,600; Mr. F. H. McPherson, for two bungalows in Robbsland-avenue, at a cost of £2,400. The question of extension and reconstruction of the slaughter-house has been referred to a special sub-committee.

Kirkcaldy.—VARIOUS.—The T.C. is considering the erection of a slaughter-house on a more convenient site. The Dean of Guild Court has passed plans for three houses and two shops at the corner of Sutherland and Viewforth-streets, for Mr. J. Malcolm, builder; and a cottage at William-street, for Mr. R. D. Venters.

Hamilton.—HOUSES.—The T.C. has approved of plans prepared by Mr. James Lochhead, architect, Hamilton, for the improvement of insanitary areas in the fourth ward. Under the scheme the erection of 120 houses will be proceeded with. The estimated cost is £37,424.

Kilwinning.—HOUSES.—The T.C. has concluded contracts for the erection of 14 houses on the Stevenson-road site, amounting to £5,702 5s. 7d. The Northern District Committee of Ayrshire has passed plans for new buildings, including a cottage at Kilwinning, cottages at West Kilbride and Portencross, two bungalows at Kilbirnie, houses at Largs and West Kilbride, and two "flatted" houses at Southannan and Fairlie.

Giffnock.—HOUSES.—The Buildings Committee of the Upper District of Renfrewshire has passed the following plans for houses at Giffnock:—Villa, Eastwood Mains-road, for Mr. J. Crofts; double cottage, Milverton-road, for Mr. M. Wallace; bungalow, Davieland-road, for Mr. Pitt; double villa, St. Ann's-drive, for Mr. P. Gray.

Broughty Ferry.—SWIMMING BATHS.—The Dundee Corporation Markets and Baths Sub-Committee will report on the estimated cost of providing a swimming pond with six plunge baths, six washing stalls, one extractor, and a drying machine.

Yoker.—HOUSES.—The Housing Committee for the Upper District of Renfrewshire recommends the erection of 60 houses at Yoker by the District Committee.

Ruthergien.—HOUSES.—The T.C. has fixed contracts for the erection of 58 houses on the Gallowflat site, and they propose to borrow £30,000 to carry out the work.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	„ „	1	0
Add for every additional depth of 6 ft.	„ „	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	„ „	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	„ „	7	6
Add if in floors 6 in. thick	„ „	3	6
Add if in beams	„ „	4	0
Add if aggregate 1 : 2: 4	„ „	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	„ „	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	„	7	10	0
Add if in Staffordshire blues	„	22	0	0
Add if in Portland cement and sand	„	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

		s.	d.
Neat flat struck or weathered joint	„ „	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	„ „	0	0	10
Axed in stocks	„ „	0	1	9
Rubbed and gauged jointed in putty camber or segmental	„ „	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	„ „	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	„	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	„ „	9	0
¾ inch on flats in two thicknesses	„ „	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	„ „	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	„ „	21	6
Bath stone and all labour fixed	„ „	10	6
Portland stone fixed	„ „	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	„	80	9
Do. 24 in. × 12 in. Do. Do.	„	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	„ „	5	9
Do. roofs, floors and partitions	„ „	6	3
Do. trusses	„ „	8	3

		¾″	1″	1¼″	2″
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	„	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	„	1	6
Gutter boards and bearers	„	1	0

FLOORING.		¾″	1″	1¼″	1½″
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	„		54/-	65/-	72/-
Do. matchings	„	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	„ „	2	1
Add for fitting and fixing	„ „	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	„ „	3	9

DOORS.		1½″	1¾″	2″
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	„	2/5	2/8	2/11
Two-panel moulded both sides	„	2/8	2/11	3/2
Four-panel Do. Do.	„	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1″	1¼″	1½″
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	„	1/5	1/7	1/10
Add if cross tongued	„	2d.	2d	2d.

STAIRCASES.

	1″	1¼″	1½″	2″	2½″
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail; average 3 in. × 3 in.	„ „	6	0
Add if ramped	„ „	11	10
Add if wreathed	„ „	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	„	20	0
Do. stanchions	„	23	0
In roof work	„	28	0

RAIN-WATER GOODS.

		3″	4″	5″	6″
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	„	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	„	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	„	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	„	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	51	0
Do. Do. in flats	„	49	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	„ „	1	6
Copper nailing	„ „	0	6

		½″	¾″	1″	1½″	2″	4″
Drawn lead waste	per ft. run	10d	1/6	1/9	3/1	3/10	
Do. service	„	1/5	1/11	2/3	3/6		
Do. soil	„						6/2
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	„	1/2	1/8	2/1	2/10	3/6	
Red lead joints	„	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	„	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	„				14/7	19/6	
Bib cocks and joints	„	6/4	9/7	15/4	41/-		
Stop cocks and joints	„	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	„ „	2	6
Do. Do. Keen's	„ „	3	6
Add sawn lathing	„ „	1	5
Add metal lathing	„ „	2	3
Portland cement screed	„ „	1	10
Do. plain face	„ „	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	„ „	1	1
Obscured sheet	„ „	1	3
⅛ in. rolled plate	„ „	0	9
¼ in. rough rolled or cast plate	„ „	0	11
¼ in. wired cast plate	„ „	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	„ „	0	7
Plain painting 1 coat	„ „	0	9
Do. 2 coats	„ „	1	2
Do. 3 coats	„ „	1	9
Do. 4 coats	„ „	2	4
Graining	„ „	2	3
Varnishing twice	„ „	1	9
Sizing	„ „	0	3
Flatting	„ „	0	7
Enamel	„ „	1	1
Wax polishing	per foot sup.	0	6
French polishing	„ „	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS.

lications for insertion under this heading should ed to "The Editor," and must reach him not Tuesday evening.
accepted. † Denotes provisionally accepted.
recommended for acceptance.
accepted subject to modifications.

ICK.—For the erection of a second group kmen's houses in Swansfield Park-road area, .D.C. :—
Thompson & Sons, Alnwick.. £9,089

LEY.—For the erection of Central School r-lane, for the T.C. :—
g, masonry and bricklaying—
r, Barnsley £6,049 0 0
f boundary walls—
r, Barnsley 863 7 0
and joinery—
am Goodyear & Sons, Barnsley 2,237 0 0
er, Barnsley 362 14 0
and glazing—
den, Barnsley 1,290 0 0
—
well & Austin, Barnsley.. 455 11 3
e Oates & Sons, Ltd., Barnsley 182 12 4

ORD.—For alterations and extension to f St. Andrew's Church, for the Vicar and Council. Mr. George P. Allen, architect and 79, High-street, Bedford :—
rby & Son, Bedford..... £139

ORD.—For alterations and decorations, &c., *Hordshire Times and Independent* offices, Mill-Mr. George P. Allen, architect and surveyor. street, Bedford :—
le, Bedford.

ORD.—For materials in connection with ins in Goldington and Kimbolton-roads, for
ley Coal & Iron Co., Chesterfield—
Kimbolton-road mains.... £305 0 0
Goldington-road mains.... 755 2 6

AS AND MACHEN.—For laying-out sub-wers, for the U.D.C., at Bedwas, Machen.
mmer and Trethomas :—
Evans, Newport..... £13,673

ORTH.—For sewage works, for the Parish e :—
Penn, Coventry £10,780 11 0
Rogers, Willenhall 10,293 7 4
ll, Lewis & Martin, Birmingham 9,282 9 6
Smith, Bedworth 8,349 1 4
y & Son, Foleshill 8,105 7 4
ew Blair, Lyell & Co., Birmingham 7,734 0 0
rey Trentham & Co., Ltd. 6,919 10 3

NDEN, KENT.—Alterations and additions n." for Captain Harold Gaisford, R.N. Mr. renshaw, F.S.I., F.A.I., architect, Tenterden.
eeks & Sons £725 0 0
idge 715 0 0
Woodgate..... 689 0 0
lliott 623 12 5

NHAM (BEDS).—For the erection of a for Mr. A. Scott-Cooper. Mr. George P. hitect and surveyor, 79, High-street, Bed-
wler £749 0
ter 688 0
by & Son..... 688 0
ughton 682 10

E.—For the erection of houses, for the
Scotney, 4 houses £1,579 0
Scotney, 4 houses 1,540 13

ORD.—For the erection of a new electricity at Carr (Bottom-road, Wibsey, for the Committee :—
Obank, Idle.

NGTON.—For the erection of 20 "B" on Postele Estate, for the T.C. :—
kes & Sons, Doncaster, per pr. £786 18 4

ON.—For supply of materials to the Board s :—
s. Brighton :
layers and plasterers £797 7 0
nters and joiners 358 6 4
ers and glaziers 747 7 2½
ers 549 11 7

ORTH.—For erection of house and shop his. Messrs. Crawshaw & Wilkinson, arnsley :—
Kidger Bros., Doncaster.

.—For the erection of 49 cottages on site, for the T.C. :—
ain & Sons, Ltd..... £19,571 15 6

IN.—For erection of mission hall at the Committee :—
t, Portsmouth..... £2,145

N.—For repairs and painting work at the spital, for the B.C. :—
ritt & Sons, Croydon..... £624 16

N.—For two Cornish hot-water boilers at s, for the B.C. :—
s, Sons & Jefferies, Ltd... £336 10

N.—For erection of motor van shed at for the B.C. :—
ell, Croydon..... £348

DURHAM.—For making up certain streets at Ushaw Moor, for the R.D.C. :—
*D. F. Hobbs, Stockton..... £2,260 11 6

GLASGOW.—For erection of convenience at Kirkpatrick-street, for the T.C. :—
*R. Murdoch & Son—*Construction work* £1,255
*H. Tweddle & Son—*Sanitary fittings*.. 165

GLASGOW.—For asphalte paving in Green-street, Govan, for the T.C. :—
*French Asphalte Co.—10s. 6d. per sq. yd. for concrete foundation, and 16s. 4d. for asphalte.

GRAVESEND.—For erection of additional accommodation at the hospital. Mr. E. J. Bennett, hon. architect, 191, Parrock-street, Gravesend. Quantities by Mr. W. H. Smith, architect, Maidstone :—
Lingham & Etherington, Gravesend £1,460 0
J. W. Ellingham, Ltd., Dartford .. 1,386 0
J. M. Dering, Gravesend 1,323 10
W. Blay, Ltd., Dartford 1,195 0
W. H. Archer & Son, Gravesend .. 1,195 0
Wallis & Son, Gravesend 1,179 0
*A. E. Tong, Gravesend 1,076 0

H.M. OFFICE OF WORKS (accepted during August).—*Building Works*: Bethnal Green Housing Scheme—Roads and Paths: Mears Bros., London, S.E. Blackburn Employment Exchange—Decoration: Colson Bros., Oldham. Plumbing: W. H. Law & Co., Blackburn. Carnoustie P.O.—Alterations, &c.: J. & R. W. Sievwright, Arbroath. Houses of Parliament—Redrainage: Dent & Hellyer, Ltd., London, W.C. Marton Telephone Exchange — Plastering: Austin & Gibson, Middlesbrough. Plumbing: T. B. Watson & Son, Ltd., Middlesbrough. Mayfair, P.O. Stores—Erection of Hut, &c.: W. Walkerdine, Ltd., London, W. Nottingham, Castle Boulevard Employment Exchange—Alterations, &c.: G. A. Pillatt & Son, Nottingham. Owlerton Telephone Exchange, Sheffield—Erection: Thomas Wilkinson & Sons (Builders), Ltd, Sheffield. Rampton State Institution—Erection of Cottages, &c.: Bernard Pumfrey, Ltd., Gainsborough. Royal College of Art, South Kensington—Renewal of Vertical Lights, &c.: Williams & Williams, Ltd., London, W.C. Builders' Work in connection: A. Roberts & Co., Ltd., London, W. Royal Mint—Demolition Work: Arthur Vigor, Ltd. London, S.W. Sheffield Central Telephone Exchange—Stonework: The Manchester Stone & Slate Co., Ltd., Manchester. Stanningley Telephone Exchange, Leeds—Erection: Arthur Mitchell, Ltd., Leeds. Weston-super-Mare P.O.—Roof Flats and Asphalte: Permanite, Ltd., London, E. Steelwork: A. D. Dawnay & Sons, Ltd., London, S.W. Woolwich Telephone Exchange—Plumbing: W. H. Earley, London, S.W.

Engineering Services: Birmingham G.P.O. Factory—Fuel Economisers: E. Green & Son, Ltd., Wakefield. Cornwall House, S.E.—Heating: The Thames Bank (Blackfriars) Iron Co., Ltd., London, S.E. Harrow, H.M. Stationery Office—Heating: H. J. Cash & Co., Ltd., London, S.W. New Public Offices, Parliament-street—Covering h.w. Mains: Sutcliffe Bros. & Bryce, Ltd., London, E. Southampton—Engineering Labour: The Southampton Electrical Engineering Co., Southampton. Threadneedle-street P.O.—Steel Sashes and Lantern Lights: George Wragge, Ltd., Salford.

Painting: Edwards Construction Co., Ltd., London, S.E.: J. Scott Fenn, London, S.E.: W. H. Gaze & Sons, Ltd., Kingston-on-Thames: M. Greenwood & Son, Ltd., London, W.: Thomas H. Jones, South Farnborough: Arthur Vigor, Ltd, London, S.W.

Miscellaneous: Buckingham Palace—Gilders' Work: Trollope & Colls, Ltd., S.W.

HAILSHAM.—For erection of bathroom at Poor Law Infirmary and conversion of storeroom into a bathroom, for the B.G. Mr. J. W. Wilton, Engineer, Hailsham :—
Gosden & Lambert, Hailsham .. £202 6 9
Ringmer Building Works, Ltd., Lewes 161 10 0
†Exors. T. Rich, Hailsham 157 0 0
Engineer's estimate 155 10 0

HEMSWORTH.—Erection of 10 houses, for the U.D.C. :—
*Jennings & Sons, Hemsworth..... £3,521

HOLME-NEXT-SEA, NORFOLK.—For erection of a garage adjoining "Brockley Cottage," for the Rev. C. F. Farrar, M.A. Mr. George P. Allen, architect and surveyor, 79, High-street, Bedford :—
*F. Southgate, Hunstanton..... £104 18

LEEDS.—For the erection of a house and fish shop at Middleton, near Leeds, for Mr. Castlelow :—
*John Ferguson & Sons, Ltd., Leeds.

LEEDS.—For the erection of new premises in Ventnor-street, for Messrs. J. H. Bean & Co., hardware merchants :—
*Wm. Airey & Sons, Leeds.

LONDON.—For the erection of a garage for electric vehicles, for the Hackney B.C. :—
Runham Brown Bros..... £553 11 3
W. Silk & Sons, Ltd. 515 0 0
George Bell & Sons, Ltd. 511 18 6
W. H. T. Kelland & Sons, Ltd... 498 0 0
Henry Boot & Sons, Ltd..... 495 0 0
F. & G. Foster & Co. 471 0 0
L. H. & R. Roberts 468 0 0
Wm. Shurmur & Sons, Ltd..... 434 7 0
*The London & County Public Works, Ltd. 420 11 10

LONDON.—For repair and decorative work to the "Galleons" Hotel, Royal Albert Docks, for Truman, Hanbury, Buxton & Co., Ltd. Mr. William Gilbert, M.S.A., architect, Broad-street-avenue, E.C.2 :—
Schooley & Son..... £878 0 0
Dearing & Co. 808 0 0
W. Harper & Sons..... 699 0 0
W. Harris 598 0 0
*Vigor & Co. 556 10 0

LONDON.—For repair and decorative work to the Central Buffet, Royal Albert Docks, for Truman, Hanbury, Buxton & Co., Ltd. Mr. William Gilbert, M.S.A., architect. Broad-street-avenue, E.C.2 :—
E. Beasley £850
Johnson Bros. 700
Dearing & Co. 666
Vigor & Co. 645
*W. Harper & Sons 617

LONDON.—For repair and decorative work to the "Connaught" Tavern, Royal Albert Docks, for Truman, Hanbury, Buxton & Co., Ltd. Mr. William Gilbert, M.S.A., architect, Broad-street-avenue, E.C.2 :—
Schooley & Son..... £797
Vigor & Co. 647
Johnson Bros. 637
E. Beasley 630
*W. Harper & Sons 605

LONDON.—For conversion of building into convenience at Stockwell-green stables, for the Lambeth B.C. :—
*T. Brown & Son..... £136

LONDON.—For exterior painting at stables, Stockwell-green, for the Lambeth B.C. :—
*A. W. Pelling.....£196 19

LONDON.—For the re-construction of various roads with bituminous material, for the Westminster B.C. :—

Road.	Name of Contractor and Description of Material.	Price per super yd.	Maintenance.
Roehampton-lane. (Upper Richmond-road to Clarence-lane). *Class I.*	*Highways Construction, Ltd. (3½ in. Bituminous Paving—two coats)	11 /-	7 years free, and 6d. per super yard per annum for further 3 years.
Streatham Common North. (Streatham High-road to Valley-road). *Class I.*			
Merton-road. (West Hill to Buckhold-road). *Unclassified.*			
Merton-road. (Buckhold-road to Borough Boundary) (Portion only). *Class I.*			
Merton-road. (Buckhold-road to Borough Boundary) (Remaining Portion). *Class I.*	*Limmer & Trinidad Lake Asphalt Co. (3½ in. Trinidad Asphalt—two coats)	12 /-	7 years free, and 6d. per super yard per annum for further 3 years.
Silverthorne-road. *Class II*			
North-street. *Class II.*			
Old Town. (North-street to The Pavement.) *Class II.*	*Constable, Hart & Co. (3 in. "Aztecmac")	9/10	7 years free, and 5d. per super yard per annum for further 3 years.
The Pavement. (Old Town to Woodpaving). *Class II.*			
Nightingale-lane. (Clapham Common South Side to Borough Boundary). *Class II.*			
Old Portsmouth-road. (Reservoir to Kingston-road). *Class I.*			
Queens-ride. *Class II.*			
Trinity-road. (Windmill-road to Burntwood-lane). *Class II.*			
Burntwood-lane. (Garratt-lane to Swaby-road). *Class II.*			
(Playing Fields to Burntwood Lodge). *Class II.*			
(Lyford to Trinity-road). *Class II.*	*Whitehall Asphalt & Engineering Co., Ltd. (2 in. "Duraphalt" Asphalt Carpeting)	9/2	7 years free and 4½d. per super yard per annum for further 3 years.
Tooting Bec Gardens. (Tooting Bec road to Mitcham-lane). *Class II.*			
Lower Richmond-road. (Woodpaving to Borough Boundary). *Unclassified.*			
Frogmore. *Unclassified.*			
Wandsworth Plain. *Unclassified.*			
Chelverton-road. (Part). *Unclassified.*			

LONDON.—For external painting work at 49 to 127, Swaby-road, for the Wandsworth B.C. :—

*H. Somerford & Son	£124

LONDON.—For cleaning down and repointing stonework of the church and chapel at Ladywell Cemetery, for the Lewisham B.C. :—

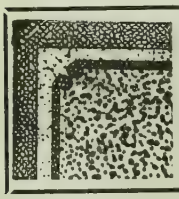
James Watt, Catford	£370 0 0
W. E. Burch, Lewisham	196 0 0
A. T. Peyton, Lewisham	184 17 6
*C. Cutler, Hither Green	164 0 0

LONDON.—For supply of 3,000 ft. run of 12 in. by 8 in. granite kerb, to the Lewisham B.C. :—

	Price per ft. run. s. d.
Brookes, Ltd.	3 2½
Brotherton-Ratcliffe & Co., Ltd.	3 2
A. & F. Manuelle, Ltd.	3 1½
*Wettern Bros., Ltd.	3 1½

MONKTON COMBE.—For erection of house. Mr A. J. Pictor, architect, Bath :—

Coles Bros., Ltd., Bath	£2,425 0 0
Saunders & Son, Ltd., Cirencester	2,216 10 0
C. Addicott & Son, Weston-super-Mare	2,132 18 4
W. F. Drew, Ltd., Stroud	2,050 0 0
J. Long & Sons, Ltd., Bath	2,049 0 0
G. Mannings & Sons, Ltd., Bath	2,029 15 5
A. Wills & Sons, Ltd., Bath	1,975 0 0
E. Linzey & Sons, Trowbridge	1,894 12 0
E. G. Padfield & Co., Shepton Mallet	1,890 0 0
*C. T. Tucker, Bristol	1,750 0 0



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NUNEATON.—For erection of 40 houses on the Attleborough Housing Estate, for the B.C. Mr. R. C. Moon, Borough Surveyor Municipal Offices, Nuneaton :—

Wm. Walkeraine, Ltd., Derby	£19 712 10 7
Geo. Cooper & Son, Nuneaton	18,783 18 8
W. A. Taberer & Co., Nuneaton	17,868 15 11
G. E. & W. Wincott, Nuneaton	17,681 11 8
Meigh & Green, Nuneaton	17,391 14 4
*E. O. C. Howells, Coventry	16,115 0 0

PRESTON.—For additions and alterations to Grammar School, Moor Park, for the T.C. Borough Surveyor, Town Hall, Preston :—

*Geo. Hill & Sons, Ltd., Preston	£7,600

ROCHDALE.—For asphalte lining to gutters of new mill, for Wicken Hall Calico Bleachers' Association :—

*Thos. Faldo, Manchester.	

SCARCROFT.—For structural alterations and additions to Oaklands, for Mr. T. G. Mylechrest :—

‡J. T. Wright & Sons, Leeds	£9,000

SOUTHAMPTON.—For addition of new western and eastern blocks to the Free Eye Hospital. Messrs. Gutteridge & Gutteridge, architects, 9, Portland-street, Southampton :—

*J. Bates & Son, Botley	£5,583

STOCKTON.—For an additional 100 houses on the Norton Blue House Estate, for the T.C. A subsidy of £90 will be paid in respect of each house :—

*H. M. Nowell	£35,500

SWANSEA.—For supply and erection of steelwork in connection with the installation of new boilers at the electricity station, for the T.C. :—

*South Wales Structural Co.	£925

SWANSEA.—For the erection of 14 non-parlour type houses at Llanerch, for the T.C. :—

*Samuel & Evans, Swansea	£6,246 14 4

WEM.—For resurfacing 800 yds. of road in tarred slag, for the U.D.C. Mr. E. Hill, Surveyor, Town Hall, Wem :—

Ceiriog Granite Co., Shrewsbury (*a*)	£266 0 0
Tarmac, Ltd., Wolverhampton	234 0 0
Partington Steel & Iron Co., Ltd., Irlam	225 0 0
Tarslag, Ltd., Stockton-on-Tees	216 13 4
W. Shepherd & Sons, Ltd., Milkstone	214 0 0
*W. Jenkinson, Springfield	194 0 0

(*a*) Tendered for granite tar-macadam.

WILLESDEN.—For making-up Clare-road, for the B.C. :—

*W. Walkerdine, Ltd.	£750

WILLESDEN.—For cleaning and painting at Municipal Hospital, for the B.C. :—

*W. Stamper	£572

WILLESDEN.—Erection of mess room and tool-house at Cobbold-road Cemetery, for the B.C. :—

*I. C. Tennent & Co.	£258

WILLESDEN.—For replacing old and worn tar paving on footpaths with artificial stone, for the B.C. :—

*E. Matthews & Co., 8s. 9d. per yd., super.
*C. Carter, 8s. 10½d. per yd., super.

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JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

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WORK AND LEISURE.

THE increase in the number of working hours per week in the building trade is a significant factor amidst our industrial troubles, although it has come as rather a disappointment to the prospective building owner that the increase in hours does not represent any ease in the cost of his building. Even so, it means that e work will be done in a working day, a fact which is of the ost importance when we consider the shortage of houses. 'he question of longer working hours per week is of greater ificance than appears at first sight. It is a factor which is up a large field for discussion and—as always—there are sides which are diametrically opposed. In a general way fairly obvious that the idea of shorter working hours is upon a basis which is largely sentimental, in the sense a large number of people who have no direct interest in stry sincerely desire to see the workman obtaining and ying better conditions than he had, say, in pre-war days. s important, however, to observe that these people are ier clear about what they mean by better conditions, nor these conditions are to be obtained and maintained. It is incredible that a person could hold these theories and e us to say that he feels compelled to wait until building s reach a figure at which he can afford to build. Further plications arise when we see that there are a number of ors which, in the opinion of many economists, cannot be nciled. There is a theory that the workman is entirely master of his fate; that his standard of living is directly nected with the amount and cost of the production. osed to this is the theory that conditions must come first; the standard must be set and trade will follow. It is that those who adhere to this theory express their views form which disarms us by its moderation. Reasonable king hours, reasonable wages, reasonable living conditions, onable security of employment, and so on, constitute rmidable group, particularly if we do not all agree upon definition of reasonableness. At the back of the whole blem is the irksome duty involved in work: a thing to be ied on and borne with, because we cannot go on living any other terms, despite the flamboyant phrases served to us about a better England. It is perfectly right that ur should press its claim to as much more than the bare istence wage level as the industry can be made to pay out injury to its prosperity; the difficulty is, how to e at that figure, when it is apparently so easy to find other ons to account for bad trade. It seems to be an established that leisure must be paid for, and individually it is an llent arrangement if we can get others to pay for it.

n these days we have become involved in statistics, which be used as the occasion demands. Where wages are fixed he hour it is simple enough to work out the percentage ase over pre-war figures, yet most of the published tables alculated upon a workman's weekly earnings. Obviously ncrease appears less than we had in mind owing to the ed number of working hours per day. The amount of y which is paid in a given time for work is a factor which tly affects the selling price of the article, and the absurdity sing our calculations upon any other basis is exposed if ssume the amount of wages per hour to be doubled, and number of working hours halved. There would be no ase in the total wages at the end of the week, but it is ple calculation to see that the labour costs of the work been doubled. A stage is reached when a man cannot out more than a certain amount of work in a given time, the selling price can only be lowered by scientific manage- and the use of efficient machinery. This has been clearly nstrated in the manufacture of certain articles which ot be classified as necessities; either the prices are lowered ing the demand or the factory closes.

The whole problem simply resolves itself into a question of the relation of work to leisure, with the important factor added that if we work shorter hours we require more payment. It is evident that the happy mean will not be found until it is realised that the wage per hour and the wage per week are two different factors producing economic results which differ widely. It is at least significant to note that, although the rate of wages per hour in many industries appears to be high, the number of hours worked has been low owing to the bad state of trade. We will not say definitely that this is merely cause and effect; we merely point out that a high wage per hour does not connote a high wage per week; on the contrary, it may mean a lower wage than pre-war, while the cost of living is higher. Meanwhile the cost of the article is maintained at a high level. In our opinion this is the true explanation of the recent objections which were raised against the acceptance of the index figure of the cost of living in relation to wages. When wages were raised during the war no complaint came from the trade unions that the index figure did not accurately represent the cost of living, but under the decline of wages consequent on the downward movement of the index figure the accuracy of the figure has often been challenged. The inferences which we would draw are these: that the method of fixing wages in relation to an index figure is as sound a method as could be devised, but the failure is that it cannot guarantee good trade and employment.

There is again a further complication which requires investigation by those who have no definite conception of what they mean in their references to the standard of living. Statistics have been published showing that the total consumption of certain foods has increased enormously; the increase is in the expensive and better-class goods, while the demand for the cheaper qualities has fallen. We confess that we find it difficult to accept these statements in so far as they apply to the workmen, though we bear in mind that for some years many people found themselves able to satisfy tastes which had previously been beyond their reach, and that the expenditure on food, clothing, amusements and holidays reaches a point without precedent. Accuracy is essential if we are to avoid irrelevant discussions all round the point, and it is obvious that there are many factors which are yet obscure. It is unnecessary to say that everyone sympathises with the workman in his discontent, which is inevitable under any process of curtailment, but it cannot be said that the method of putting conditions first is not being severely tested.

The experience will not be in vain if in the end it is discovered that the elusive factor governing the welfare of everyone engaged in industry proved to be the amount and quality of the production in relation to its selling price. Something is wrong with the economics of industry when the nation has to pay a dole to provide work, and it is evident that these measures can only be based upon the assumption that the industrial depression is merely temporary. No one believes that the Government is either indifferent or inactive, but very few realise the unfairness of saddling it with a problem which is so very one-sided. It may be that in providing relief work we are helping to maintain a price basis which in turn throws others out of employment. We would prefer to see an attempt to seek good trade through the adjustment of prices, and it is in this direction that we look for help from the workmen and their leaders instead of from the Government, which has no control in these matters.

The increase in working hours for the building trade may be the first movement towards a better understanding of the principles which govern our work and leisure, and of the fundamental differences between rates of pay per hour and an adequate weekly wage.

NOTES.

Obsolete By-laws.

It is satisfactory to see the record in the thirty-fifth annual report of the Sheffield, South Yorkshire and District Architectural Society, just issued, of the Society's attempt to bring about a better consideration of the revision of obsolete and hindering by-laws. The Council gave instances in which building owners in that district had suffered severely from the insistence of following obsolete by-laws and offered its assistance in their revision.

Demolition of St. Alphage.

The demolition of this church has now begun as the result of the union of the benefice with that of St. Mary Aldermanbury. The refusal of the vestry at first to sanction the demolition had reference to the existence of the fourteenth-century tower, the only remaining part of the old Elsinge Spital, the first institution to be founded for the blind. The tower is, however, to remain, and the consent of the vestry was only given when this was agreed. A portion of the old Roman wall is still preserved in the churchyard. It may be mentioned that this is not, like other old City churches, the work of Wren, having been erected in 1777, at a cost, so we are told by a contemporary, of £1,350, this amount appearing in the old records of the church.

Designing an Exhibition.

One unusual feature of the Decorators' Exhibition which will open at the Holland Park Hall on October 17 is the arrangement of the space. The usual method in planning exhibitions is to cram as many stands as possible on to the floor. Quite a different plan has been followed in the case of the Decorators' Exhibition, which is not, we understand, a commercial venture, but mainly a means of attracting the attention of the public to the possibilities of the decorator's craft. It is hoped in this way to stimulate business, and also to show the decorator himself the latest things in materials and methods. The object in planning the floor space, therefore, has been to make as attractive an exhibition as possible, rather than to let every possible foot of space. In the centre of the hall there is a wide open space approximately 60 ft. square, which, from the point of view of the attractiveness of the exhibition, is a real asset. There are lesser open spaces on either side, so that every stand in the hall can be seen to advantage, and the exhibition, instead of being a labyrinth of narrow passages bounded by stands, will be an affair of broad spaces, round which will be arranged exhibits of unusual attractiveness. This, most people will agree, is the "better way" in exhibition planning.



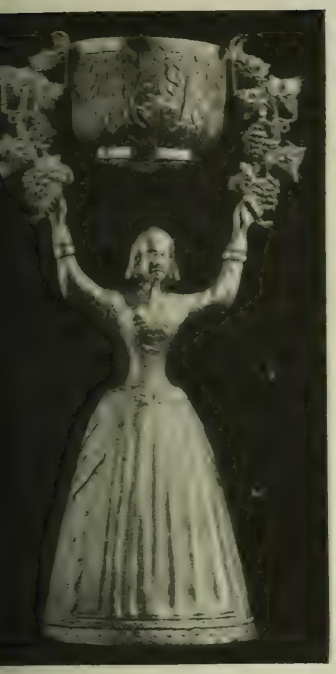
Pilaster in the Cathedral, Rimini.

Soane's Pupils.

Mr. A. T. Bolton is certai making well known the val of the Soane Museum, which he appears to be most energetic curator that it has e had. The state of architectural edu tion in this country after the Fren Revolution is illustrated by some accou of the 55 members of the staff of Sir Jo Soane in a pamphlet entitled "Archit tural Education a Century Ago," j produced by Mr. Bolton. Special note given to the career of Soane's m distinguished pupil, George Basevi (d 1845), architect of the well-known Fi william Museum, Cambridge. The deta given in this interesting publication sh that the study of architecture was follow with much genuine enthusiasm even those dull times. This, at least, we ho for our present-day students, that genuine love for their art may inspire a guide them so that they may make t dry bones of construction to live.

Art Metal-work and Jewellery.

Our attention has be drawn to the beautiful g and silver-work, jewelle and enamels produced by Colonial artist, Miss Francis, who shortly returning to Australia, af several years' work in the practise of l art in Europe. Her productions, whi maintain high traditions of design a workmanship, have been exhibited the Royal Academy, the Royal Colon Institute, and the Paris Salon, and ha been recognised by the South Kensingt diploma and silver medal. There great refinement and versatility abo Miss Francis' work, which is entirely do by hand. Though largely based traditional motifs, her designs are origi in the best sense, and are worthy p ductions of this period. The Limo enamels are composed of grains of fine ground coloured glass applied to a cop plate and pushed into position, after be fused together in the furnace. Th enamels are delightful with their gorge iridescent hues, and are mostly based the old masters. This artist seems equa at home with cloisonné work, in wh the enamel fills the spaces formed by g wire twisted accurately into patter In this and in other kindred departme of the art—jewelled silver caskets, p boxes, finger rings and other *objets d'ar* Miss Francis displays considerable r traint in the use of ornament, which adapts to the nature of the object which it is applied. She retains, too, due proportion between stone and setti and in repoussé work there is vitality a gracefulness, amply justifying the abse of superadded garnishing. In the cha ing pierced work of her necklets a pendants she manages to combine t freshening spirit of natural forms w the impress of her creative power, and produce a texture of plaited and twis



Cup: Milk Maid Wager Cup, 1787.
up was exhibited at the Church Congress tion, held at Plymouth last week, and ed in our last issue.]

—all of which are wrought one by nd soldered on. We hope that some s work will be permanently housed museum as an indication of what resent age can do and as an inspira- to the artistic craftsmen of the .

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ister orial ard.

A POWERFUL plea for the preservation of the Lister Ward at the great Glasgow Infirmary has been issued . J. A. Morris, A.R.S.A., F.R.I.B.A., nemorial to one whose services to nity can hardly be over-estimated. alue of a building as a memorial, hough it be comparatively modern, oubted, and the volume of opinion reighty and distinguished in favour retention of the ward in which evolved his experiments, as a durable ial of his great services, that it is t to see how the hospital authorities hore it. Mr. Morris deals with the ons urged against its preservation nd convincingly, and we sincerely is efforts will meet the success they . He appeals " to those in whose the destiny of the memorial ward think thrice before they remove so a landmark in the progress of ity."

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olicy the .A.

THE Council of the R.I.B.A. has, we are informed, appointed a Charter and By-laws Committee for the purf considering and advising the upon the revision of the Charter y-laws. This Committee has also been directed to consider the question of the general policy of the R.I.B.A., to explore the existing situation, and to submit a report to the Council upon it at the earliest practicable date. The Committee consists of the following members: Mr. J. Alfred Gotch, President; Major Harry Barnes, Mr. H. T. Buckland, Mr. E. Guy Dawber, and Mr. W. Curtis Green, Vice-Presidents; Mr. Arthur Keen, Honorary Secretary; and Mr. Herbert A. Welch.

Guides to Housing.

A USEFUL work has been done by the Garden Cities and Town Planning Association in the issue of three leaflets on Town Planning, Public Utility Societies, and the "Chamberlain" Housing Act. We have passed through so many phases in regard to housing that the public may well feel somewhat bewildered as to the exact position to-day. Even now, as the leaflet states, it may be necessary to introduce a new housing policy, but houses are so urgently required that any doubt as to this should not stand in the way of making the fullest use of the present policy. It is a definite attempt to induce private enterprise to take up housing where official authorities have failed, and it remains to be seen whether the inducements offered will lead to the desired results.

"Honesty and the Crafts."

A PAMPHLET with the above title, written by Mr. S. G. Russell, of Lygon Cottage, Broadway, contains a plea for a more genuine craftsmanship, founded on a workshop practice which does not limit the scope of the worker to the mechanical repetition of some fraction of the whole product, but permits him to make the whole table or chair; and we are glad to know that this is not advanced theoretically, but is actually the practice in Mr. Russell's workshops, as we are glad to think it is in some others. He goes on to ask that repairs to old furniture should be frankly repairs, and not intended to deceive, so abolishing shams and the faking of old furniture, and doing things rightly and honestly, not disregarding traditional ways of doing things but "determined to make the work of the present as good as the work of the past—and why not?" It is evidently a very much more intelligent view which directs us to see in the work of the past the best expression of ourselves, which finds in old work the sound practice and direction, the conduct and outlook which are qualities inherent in all time, without making a fetish of it. The improvement of workshop practice which is growing among the younger craftsmen is the re-assertion of human values against their disregard, bringing with them the liberation which such connotes.



Pilaster in the Cathedral: Rimini.

GENERAL NEWS.

Professional Announcements.

Mr. Walter W. Gibbings, architect and surveyor, late of 231, Strand, is carrying on his practice at new offices at 53, Great Marlborough-street, W.1. Telephone: Gerrard 6158.

Mr. Ernest J. Thomas, Licentiate R.I.B.A., P.A.S.I., late of 120, High-street, Gosport, and Pearl Buildings, Portsmouth, has recommenced practice at No. 30, Landport-terrace, Portsmouth, and would be pleased to receive manufacturers' catalogues.

South Wales Institute of Architects.

The 33rd annual report of the South Wales Institute of Architects, allied to the R.I.B.A., contains information of use to architects and others connected with the building industries in South Wales, and records the many activities of the Institute during the past year.

Architect's Death.

The death has occurred at Knaresborough of Mr. Geo. Wilson, architect and surveyor. He was Surveyor to the Knaresborough Council for 14 years. In the open competition for the laying-out of the Castle gardens, which was carried out in commemoration of Queen Victoria's Jubilee, Mr. Wilson was awarded the first premium.

Bury War Memorial.

The Bury War Memorial Committee has asked Sir R. Blomfield, R.A., to submit a design for a war memorial in the centre of the town. The proposal is to erect a memorial near the Market-place, the site for which will be obtained by taking a portion of the graveyard of Bury Parish Church. The memorial is in conjunction to the erection, equipment and endowment, at a cost of about £42,000, of a new Children's Ward at the Bury Infirmary, which is now in course of erection.

"The New Day."

We have received the October number of *The New Day*, a monthly summary of the work of the Women's Housing and Village Councils Federation. The Federation has now formed councils in eleven counties, which has greatly stimulated women's interest in housing and national health.

Liverpool Architectural Society: The Honan Scholarship.

A travelling scholarship of the value of £50 for one year is open to members of the Liverpool Architectural Society under the age of 30. In computing the age the time spent in war service may be deducted. The scholarship will be awarded for the best design submitted for an entrance to a road-traffic tunnel under the Mersey, connecting Liverpool and Birkenhead. Competitions marked "Honan Scholarship" are to be delivered at the Society's Rooms, 13, Harrington-street, on January 1, 1924, and candidates must have been associates or students of the society on December 31, 1922.

The Architectural Association.

The list of meetings and other gatherings in connection with the Architectural Association for the 1923-24 session has now been issued. The session will open on October 19 with an address, illustrated by lantern slides, on "The A.A. Excursion, 1923 (Avignon)," by Mr. Gilbert H. Jenkins, F.R.I.B.A. The other Monday meetings for the session are as follows: November 26, "The Value of Study of Old Buildings," by Mr. J. Alfred Gotch, P.R.I.B.A.; January 14 (subject to be announced at meeting), Professor A. E. Richardson, F.R.I.B.A.; January 28, "The Case for the Preservation of Old Buildings," Mr. Basil Oliver, F.R.I.B.A.; February 25, "The Gothic Survival," Mr. H. Goodhart-Rendel; March 24, "Modern Swedish Architecture" (lecturer to be announced); April 28, "The Role of Phantasy in Art," Mr. H. Crichton Miller, M.A., M.D.; May 12 (subject to be announced).

The monthly exhibitions (open from 10 a.m. to 10 p.m.) will be as follows: October 1 to 27, Members' Holiday Sketches; November 5 to December 1, Lighting Fittings; January 14, Architectural Draughtsmanship of the Last 100 Years; January 28, Bricks and Tiles; Feb. 25, Drawings by F. L. Griggs; March 24, Modern Swedish Architecture; April 28, Wood Carving; May 26, Modern Furniture. All members are invited to send sketches, &c., for the annual exhibition, to be held between October 29 and November 22. Sketches, which should be framed and labelled, must be delivered to 9, Bedford-square, by October 15.



Buildings at the Gothenburg Exhibition.
(*See page* 520.)

COMPETITION NEWS

Park-avenue Church and Schools, Northam

The design placed first in this competition was by Messrs. George Baines & Son, F.R.I.B.A., F.S.Arc., 121, Victoria-street, Westminster, S.W.1. The estimated cost of the section to be proceeded with is £15,000.

Birmingham.

This week we illustrate the third premiated design in the Birmingham Masonic Temple Competition, by Mr. Hurley Robinson. The first premiated design and the assessor's award were given in our last issue.

Taunton.

Designs for a war memorial, for the Council Taunton School. Sending-in day, November Conditions may be seen at *The Builder* O (See our issue for September 21.) This is to an art and science block of an approximate of £10,000. Mr. Robert Atkinson, F.R.I.B. has been appointed assessor with power to a a second assessor if considered necessary. premiums are offered, £100 to the sele design, which will merge into the archit commission, and £50 to the design placed sec

Memorials to the Missing.

For the Imperial War Graves Commission.—Designs of memorials to the missin four battlefields on the Western Front. S ing-in day, January 1, 1924. (See our issu August 3.)

Southsea Common Lay-out Competitio

For the B.C.—Conditions and particula premiums will be forwarded on applicati the Town Clerk. Sending-in date, October *Banned by R.I.B.A.*

Bridge over the River Medlock, Limeh

For the R.D.C.—Designs for a bridge the River Medlock. Sending-in date, Octob Mr. Reg. Thompson, Council Offices, As under-Lyne.

Other Competitions.

Other competitions still open include following (the dates given are, first the sen in date, and second the issue of *The Build* which full particulars were given):—Sing College (Jan. 1, 1924; March 30). Hul Gallery (Nov. 5; May 4). D.I.C. H Manchester (Oct. 15; Sept. 7). Chiswick bankment—*Banned by R.I.B.A.* (Oct. 15; 7). Dudley Memorial (Jan. 5, 1924; Sept Eastleigh and Bishopstoke Assembly H *Banned by R.I.B.A.* (Dec. 3; August

NDEPENDENCE OF BEAUTY AND COST.

By J. HEMBROW, A.R.I.B.A.

Any building in which sufficient money is ailable for methods of sound construction ay have beauty. Its beauty depends wholly, the architect has a reasonably free hand, on the genius of the artist, and not the nount of money per cubic foot which can be ent. A common statement heard at the ection of work where only just sufficient means available to gain the accommodation required, that "nothing could be done from an archi-ctural point of view, because no money was ailable." This is mere indifference or incom-tence. The most beautiful things of life are ose obtainable without the command of ealth. Happiness is the offspring of just ring, and happy effects are the result of right ilding. Ornament in building is like luxury life—pleasant but not necessary. It is wise set about building with the determination at beauty shall be obtained first, and orna-ent added to complement it after.

We know that the highest beauty in art is tained with the minimum of elaboration, and at the lower forms and periods of art hold the aximum amount of mere decoration. In the wer races of humanity, where culture has ached only an elementary stage, as we judge we find the most profuse and costly decoration nceivable, involving enormous labour and rrible suffering; and yet the grand simplicity the classic proves the exact difference between e relative levels of the peoples. The Roman chitecture was much more profusely orna-ented than the Greek, yet it was admittedly wer in type. The beauty of the human figure ists in spite of clothes—not because of em.

In order to obtain beauty in architecture, it relatively negligible what money we may or ay not have for embellishment. It is vital, owever, to find the form most suitable to the urpose of the design which, when expressed with ire and taste and made permanent in good aterials, will give beauty just as the figure of ne man brought up to physical labour or nother to intellectual effort will each have its wn separate significance. Having obtained this undation of beauty, its dress according to the eans disposable should suit its purpose, ther in the elaborate form suitable to some portant civic building or the simplicity of a oup of humble cottages. Just as one should fferentiate in the clothes of a high personage d a humble one, we must discriminate in our ildings without losing sight of the fact that the mble personage or building may have the eater beauty of the two. Form, which is the sis of beauty, may have to be obtained in ite of many difficulties, but each difficulty s its solution if it is approached with con-ence and determination. Limitations must accepted without fretfulness and made into portunities; the problem which appeared some and dull can generally be solved in a y which will have an individuality and erest beyond any easily conceived and corded design which comfortable circum-nces might have made possible.

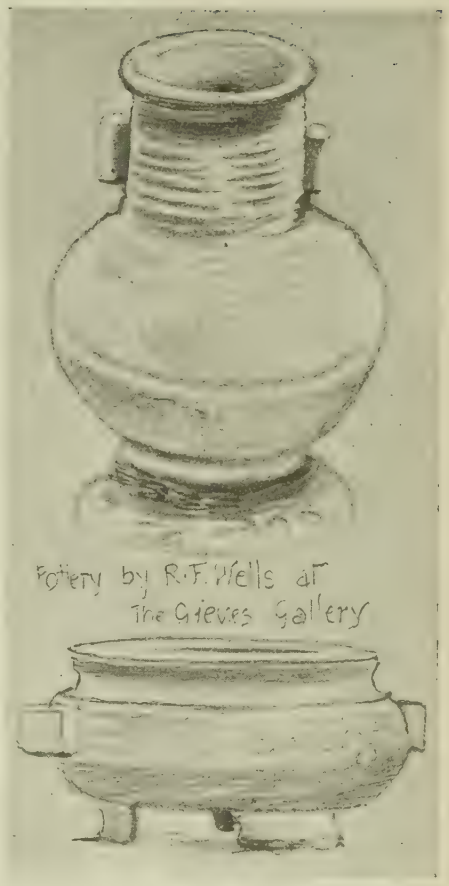
We have to consider also the best expression form, and here one is faced with the limitations material. In one district stone will be out the question; in another brickwork may be nd less easily than stone. Roofing materials ry, different kinds of craftmanship may be ficult and costly to obtain, but each material combination of materials forms an interesting dy, either from the point of view of colour surface and as the motives of the design are vast importance. Is it superfluous to point how hideous buildings become when the penditure of large sums of money is entrusted vulgar designers? It is a custom with all us to praise the beauty of the old half-bered houses and the old stone cottages of e centuries ago; but they appear in these ms, not because their designers in all cases se the most ornamental mode of expression, but because those forms and materials were the outcome of local conditions. The best and strongest buildings, except by accident or vandalism, have remained, and thus we have the happy result of right building. This emphasises the fact that we have to find the most suitable form for our purpose and the best material that we may attain to beauty. Finished work will not necessarily be more beautiful because part of it has come from Italy and India, but only more highly ornamental or costly. Where there is little money for ornament, it is often possible, by the judicious disposition of materials, to gain charming effects of colour; or, if little colour may be obtained, some careful method of design may give us the dignified plain surfaces and simple beauty of, say, the late Georgian period.

However exacting a material may be, it will be found to have possibilities of its own. The artist who designed the steelwork of those two beautiful bridges in Paris, the Pont Mirabeau and the Pont Alexandra, seems to have taken into account the very shadows of the rivets in their treatment, and so economically and justly have disposed this generally considered ugly form of construction (steel) that the steel-work itself is a thing of beauty, apart altogether from the ornamental features so well conceived and disposed. In shaping a beautiful building it is necessary to proceed as though we wished to make a painting of a beautiful human figure. Everything will depend upon the selection and realisation of the figure, and, having obtained it, it may be our fancy to clothe it; but the beauty of the work will lie in the figure itself. Bad taste in its clothing may even detract from its apparent charm. If it is a high personage to be clothed, the robes must be fitting their royal purposes; if a humble, they must be simple; but the result will remain a handsome king or a handsome peasant. In fact, so definite is this that while one might dress the high personage simply without much injury to his dignity, the humble one would be ill at ease in kingly wear. In the treatment of buildings naked beauty must be first obtained, then it may be clothed according to its purpose and our means; and, whatever its end, it will be beautiful.

So far does sympathetic observation corroborate this that the most casual observer even of the development of our towns, and particularly our suburbs of late, will find that the excessive ugliness of a very large part of them can directly be traced to their great cost. A sympathetic study of some of the continental and some exceptional modern English methods governing building will show us where beauty has been obtained in a substantial manner at considerably less cost than the weary ugliness we have hitherto associated with the growth of towns. It is not suggested that these modern styles of building have been more beautiful *because* they were cheaper, but it is contended that they have beauty and have been cheaper because the money expended was used in an artistic manner and affected the most vital elements of building; and because not only was the design of one building considered, but its relative effect on and the effect of other adjacent buildings upon it was taken into account when its style and type was decided and the possibilities and suggestion of the surroundings themselves were studied with care.

One of the most important matters—infinitely more important than the amount we are going to spend—is that the design should be suitable to its surroundings, either surrounding country or surrounding buildings. This effort is hampered somewhat cruelly when the surrounding features vanish or are wantonly destroyed, a contingency for many years unavoidable in this country, but certainly possible of avoidance now. In many districts, for instance, private acts exist compelling the culverting of all streams—surely one of the most costly methods of destroying beauty and seeking ugliness that could possibly be devised. Certainly no architect wishing to lay down a beautiful village would begin by doing away with an element so naturally beautifying and so likely to confer additional beauty. The beauty of a group of cottages does not so much depend upon the cost of them, but upon whether the individual buildings are interrelated and harmonious as a whole, or conflicting and badly considered. This is admirably illustrated by the cottages on the Duchy of Cornwall Estate, Kennington, S.E., or roads like Asmun's-place at the Hampstead suburb, each of which are suitable to their own individual setting, and are grouped together in their proper significance, and either of which would look wrong and possibly ugly if their settings were exchanged. Smith's-square or Lincoln's Inn are more beautiful than Leicester-square, but not because the buildings composing them are more costly; they are, in the main—in the first example, at any rate—the plainest of plain Georgian; while Leicester-square has the elaborate fronts of two theatres. But the features of Smith's-square are balanced and interrelated—were, in fact, designed. What ornament could add to the charm of Staple's Inn? Would it not detract from the beauty of the plain, gentle dignity of the houses, which have all the quiet beauty and simplicity of the best thought of their century? Would Staple's Inn be more beautiful if the buildings around it were richly ornamented at great cost? To create beauty it is not so much money as brains that is required—not so much the unlimited expenditure of a spendthrift purse as the generous expenditure of the heart of the artist. In simple taste we can have beauty, while the largest purse misapplied will bring nothing but tawdry poverty.

How many an old barn has more beauty than some of our modern churches and civic buildings, smothered in ornament? The difference is not so much that which lies between a barn and a church as between a good plain barn and a bad ornate church. Or what one of us does not



Pottery by Mr. R. F. Wells at the Grieves Gallery.
(*See p.* 523.)

know of the villa erected by some successful retired man of vulgar mind, designed by his successful speculative builder, with a drawing-room a bad "Choctor," a dining-room like a saloon bar, and a hall like nothing on earth? And who has not turned with relief to simple plaster walls done in plain, delicate shades. We realise at once that it is not the expenditure of money but of art which makes success. Half the ugliness of our streets is due to the anxiety of young architects to dominate the street with the vigour and originality of their own designs, irrespective of the proper office of the building designed in regulation to its neighbours. In such cases buildings lose even their own value as examples of individual design, and become mere arrogant and egoistic nuisances which annoy and disturb much more than they interest or satisfy. We shall not be judged by what we could have done if things were different, but by what we did with the opportunities given to us.

In country districts problems are sometimes less difficult. Nature has a way of adopting the efforts of man and forcing them into her scheme of universal beauty, and unless they be very bad they lose most of their minor faults under her generous hand; but an ignorant and bad design remains an ignorant and bad design to the end of the chapter, and because we have much more freedom we have more responsibility. It is cowardice to say that nothing can be made of a building because little money is available. If we have enough to build well—and no architect ought to build ill—we must imbue our work with beauty of some kind or we are not artists. We can attain character and interest whether it be by the scholarly use of pure proportion or an artistic use of rambling outline and scrambled colour.

That which goes against the general attainment of beauty by our profession as a whole, so far as the design of more humble buildings is concerned, is the spirit—most heartily to be condemned—of a very commercial origin, in which the architect gets together more or less "stock" designs to fit all places and conditions and is too lazy and indifferent to face each individual problem which arises with the new interest it surely has. He mostly turns the matter over to an assistant, saying, "Just plot down something like that house for So-and-so," making a few rough notes of the different requirements and coming back when the pencil sketches are done, saying: "That is good enough for the job; *there is nothing in it.*" He excuses himself by asking, "Well, what can be done for a shilling a foot?" Much may be done at a shilling per foot even now if the "artist" is an *artist*, and has spirit enough to try. And this assuredly will be done: the architect will either prove himself a worthy artist or a mere money-grabber.

Problems are all so widely different that it is not possible, nor would it be desirable, to be dogmatic in detail. All depends on just the same subtle difference in temperament and spirit as lies between the two housewives and their two different homes—the one house often, too, a very poor one, where everything radiates brightness, freshness and fragrance; and the other, not always a poor one, where all is dull and musty and unattractive. One woman can make her poor home beautiful on a few shillings a week, while another, who lacks the interest and spirit and affection, can fail to do so on many pounds. What we as artists should do is, surely, to make our handiwork stand out in the same unobtrusive but delightful way, and we shall find the proof around us every day, as we can now if we look seriously for it—that it is the genius of the artist which counts.

The function of an architect is not merely to draw lines from which others can build, which indicate a house containing the various necessary parts. He should strive to imprint the highest impulses of our times upon the buildings set aside for their various purposes in the highest possible manner, and unless he attacks his problems sincerely in this spirit he will fail to attain the standard of beauty and usefulness which is open to us all.

THE GOTHENBURG JUBILEE EXHIBITION.

We have received from a correspondent the following notes on the buildings at the Gothenburg Exhibition, which we illustrate this week:—

The idea of commemorating the three hundredth anniversary of the foundation of the city of Gothenburg by the holding of a Jubilee Exhibition was already mooted a decade or more ago, and the actual work on the exhibition buildings and grounds has occupied some four or five years. Gothenburg is a rich city and possessed of the old Swedish spirit: if a thing is worth doing at all, it is worth doing well, without paying too much heed to the outlay involved. In consequence the exhibition has been very costly, both absolutely and relatively, but it has proved a complete success, and it will always keep its place in the record of such big shows.

Although the undulating site, with the solid rock showing itself in many places, lent itself admirably to a picturesque exploitation, with its slopes and terraces, it required a tremendous amount of putting into order, the permanency of some of the buildings of a necessity enhancing the difficulty of the problem. Everything was done to make the place beautiful; a huge pond was blasted in the rock, improving in the most effective manner some of the surrounding structures, more especially the Memorial Hall. The old trees found in the ground were preserved wherever possible, often in the most ingenious manner; decorative fountains and vases, ornamental shrubs, brought from foreign lands, abounded.

The two architects, M. Arvid Bjerke and M. Ericsson, were responsible literally for the whole scheme, but it goes without saying that they had a large and most able staff of helpers: architects, painters, sculptors, and other artists and craftsmen.

The exhibition was not really in the first instance intended to be a commercial fair; its purpose was more to show the high degree of excellence to which Swedish industries and crafts had attained, and how this had been gradually brought about. This also becomes manifest in the large industrial hall, an imposing structure, 200 metres long, breadth in one span 35 metres, and height 24 metres. The interior of this huge structure is entirely white, nothing but white, and the effect is very pleasing.

One thing at once strikes the visitor: of whatever type, the various buildings have been most skilfully placed; they and their location suit each without a single exception: one need only look at the elevated position of the Memorial Hall and its reflection in the pond beneath, or the semicircular colonnade with its wings of curving pergolas right against the water, or the massive dome of the main entrance, the high walls with the monumental arches, and the trees kept in their old place.

An imposing structure, admirably placed at the far end of the new Göta Square, is the art exhibition, a permanent, highly decorative building, Gothenburg's future art gallery or museum, and well adapted for its purpose. Of the two detached wings, the one on the right-hand side when facing the museum is also a permanent building, intended for the holding of art exhibitions, being designed for and having served as a gallery for modern Scandinavian art this summer. The interiors of the different buildings evidence the skill and artistic sense with which they have been designed and constructed. A singularly beautiful house is that devoted to Swedish crafts, a field in which the Swedes excel.



ENTRANCE HALL IN HANDICRAFTS' PAVILION.

Gothenburg Exibition.

CORRESPONDENCE.

Housing in Italy.

Sir,—In the *Times* of August 8 appears an ticle, by their Rome correspondent, on ousing in Italy. It explains the Italian post- r system of obtaining small houses in quantity, ich is summed up as follows :—

" Success in Italy has been achieved by the nt of a substantial annual subsidy in the m of (a) remission of taxation ; (b) by the ancing of building societies at a low rate of erest—2 per cent. to 3 per cent. ; (c) by a olute policy, at whatever cost in popularity, throwing the arrangement of the relationship ween landlord and tenant upon the first rties themselves."

As compared with our expensive complications d uncertainties, this system appears to be simple and common-sense one. Our pre-war tem of house building was one of private terprise financed on easy terms, backed by building societies with their loans for house rchase. It was our people's own way of getting ir homes. At the present time of uncertainty to future building costs the building societies not lend, on mortgage to a purchaser, a ficient percentage of the purchase price, and a consequence the builder must be content to ve a considerable sum, secured to him by a ond mortgage, sunk in each house he builds d sells ; he cannot continue to do so definitely.

Under a system of Government guarantees building societies would be prepared to lend most the full purchase price, or an amount ich, together with the purchaser's available h, would pay for the house. These loans uld presumably be made at about 5 per cent. erest ; they would relieve the builder of a eat burden and so free him to proceed with his ilding at a greater pace, and they would rmously increase the number of small house rchasers. Even better than this system would the financing of the building societies at tween 2 per cent. and 3 per cent. by Govern- nt loans, the societies' profit being restricted its present rate, for then the purchaser would paying no more in interest annually than he did pre-war days. On the face of it this proposal y seem absurd, but surely if it can be done a comparatively poor country it can be done Great Britain. In Italy the capital was vided by institutions which correspond to our st Office Savings Bank, and it seems very sonable that the people's savings should be towards assisting the building of the people's nes. To subsidise builders with cash sums the effect of raising prices of materials, but of wages ; this has been proved quite ently, and it looks as though it were now in cess of being proved again under the new .

There is, however, in this Bill, one hopeful . Section 5 (1) (b) empowers a local hority to guarantee to a building society the ayment of an advance made to any of its nbers desiring to build or acquire a house ing an estimated value of not more than 500. This clause looks something like the leus of a system of guaranteed house purchase, ch would not raise prices artificially, would enforce the acceptance of ninepence for pence on people who prefer to be independent uch gifts, and which would begin to provide required homes in adequate quantity. In it is the only system which can be per- ently successful.

he Italian system might be adapted to our housing problem without difficulty, and I convinced with economy and with as much ess as has been the case in Italy. It is ed certain that no efforts of Government can successful unless based on the old and well- d method of house building that existed for ng in this country before 1914. As to the that qualified architects might play in such heme, it will be recognised that a new eration of house builders is getting to work, that the Royal Institute of British Archi- s has already agreed with them upon a scale of fees to be charged by its members for this kind of work.

Arthur Welford.



Alabaster Panel in Long Melford Church, Suffolk.

Alabaster Panel " Visit of the Magi."

Sir,—I enclose a photograph representing an alabaster panel of the above subject in Long Melford Church, Suffolk, which, I think, shows such close similarity to the panel from Tresletham, Cornwall, in your last issue, as to afford strong evidence that these carvings were produced on something not greatly removed from modern commercial lines by the Derbyshire alabaster workers. My example is better preserved than the Cornish specimen, but the similarity of grouping, pose, and details of dress is as close as it is reasonable to expect in panels of slightly differing proportion.

Edwin Gunn.

Houses and House Agents

Sir,—I think it is only fair that you should know my experience of house agents and auctioneers in the matter of selling houses of recent years. The misdescriptions of these gentlemen are somewhat an outrage.

I read of one house, standing in its own ground, well back from main road, entrance hall, &c. I found it was just 17 ft. from road and the entrance hall was 3 ft. 8 in. wide by 10 ft. long. This is only one point, however. What of their methods of getting extra commission ? I have an instance of a working-man willing to sell a house at £475. He was visited by an auctioneer's " runner," who took particulars and said he could sell at once as the house was cheap. A few days later the owner was visited with a suggestion to sell the property at over £475, the auctioneer to have half the difference between the £475 and what he could realise for the property, in addition to his commission on the £475.

This house remained empty for many months, and at last someone, unable to find a dwelling, was obliged to pay £550 for the property, of which the auctioneer took £37 10s., plus his usual commission on £475.

E. Boulton.

[*** We have already stated our views on this subject, and the second case given by Mr. Boulton does not seem a business procedure to which much, if any, exception can be taken.—Ed.]

One-Way Point Traffic.

Sir,—Standing in the Mall outside the " Regal Circle," it seemed " plain as a pikestaff " that if all traffic were directed to the right, round the centrepiece, there would be less confusion.

I am aware that the subject was discussed, experimented on, and reported on adversely before the war ; yet the matter is so important that a fresh demonstration would still be instructive if arranged at the point referred to, especially as there need be little expense in the preparation for it there.

O. B. I. T.

The Parliament Buildings, Winnipeg.

Sir,—In your issue of September 28, under the heading Competition News, " New Offices, Holt Line," the statement is made that Mr. H. J. Rouse went to Winnipeg to make the working drawings of the new Parliament Buildings, Winnipeg, of which I was the architect. Mr. Rouse was a short time in my office in Winnipeg and worked on the drawings with other assistants. As the building cost nearly a million pounds sterling and took about seven years to complete, most of which I spent myself in Winnipeg, the foolishness of such a statement is obvious. I shall be obliged if you will insert this letter in your next issue.

Frank W. Simon.

[*** We received the information from a source which we thought ensured its accuracy. —Ed.]

Colouring Relief Carving.

Sir,—I should be obliged if either you or your readers could give me advice in the following matter. I desire to stain or colour low relief carving in mahogany. The subject is the usual fruit and flowers, and the height is eye level. Any information as to method, and where examples can be seen, or the name of any artist in this material, would be most welcome.

C. Roche.

53, Loveday-road,
Ealing.

The Utilisation of Waste Materials for Making Building Materials.

Sir,—In connection with my lectures at the Royal Academy of Arts this year I propose lecturing on " The Utilisation of Waste Materials for the Making of Building Materials." I am already in possession of a good deal of interesting information under this head, but the subject is such a wide one that there may have been interesting experiments in this direction with which I am not acquainted. I should appreciate very much, therefore, if there is anyone among your readers who would care to supply me with any further information on this subject. I cannot, of course, promise in the course of a short lecture to utilise all the material with which I may be supplied, but will, of course, acknowledge the source of any information which may reach me and which I decide to utilise.

A. P. Laurie.

Heriot Watt College,
Edinburgh.

[Other letters are given on pp. 544 and 547]

THE COMPLEAT ARCHITECT.

By DUDLEY HARBRON.

IX.—TRAVEL.

"Anybody can travel nowadays by conducted tours," remarked a crusty English gentleman to the writer, in a foreign port. He intended that his remark should convey a sense of superiority, having doubtless taken up his residence abroad in order to live on a depleted income at a favourable rate of exchange. I agreed. None the less, a great deal of superior nonsense has been spoken about the value and importance of travel. Men dash across the Atlantic, and tour through the Continent of America in Pullman cars for a week or two, and then come home and write books about the American people; or they spend a week in Rome or Paris doing the sights, and for ever after they can be told nothing they do not know about those two capitals. You cannot "soak it in," as, I believe, Arnold Bennett says, in so short a time. Yet, a fortnight is better than never at all, for we cannot all live for ever in the shade of the Acropolis or Palatine Hill.

Though travel by its very nature can be a most tedious waste of time—the best part of a holiday being spent in the train—if it has no other advantage than that of furthering the correction of too roseate mental images, and the substitution in their places of the faded and crumbling reality, it is worth while to have deserted for a brief space the splendour of Taplow and Maidenhead, Brighton and Bexhill, though we can discover a fair amount of that which we voyaged far to see no farther away than Kensington and Russell Square.

It is difficult to reconcile with reality the advantages that can be gained from the actual contemplation over the abstract. They are widely different in practice from the supposed theoretical benefits. Travel certainly forms an advisable part of a liberal education, though now that we have so many books I am loath to call it essential. A student is no doubt sounder for having seen that which he has read about, because actual observation conveys at a glance and impresses the mind more surely than can with confidence be assumed to have been assimilated from the reading of quite a number of books. Still, altogether too much has been made of the need to visit Greece and Italy; it is time some progress were made, and Paris and New York, say, put forward as possible substitutes. Nor need the unfamiliar parts of Great Britain be ignored. For I believe it will be agreed that the chief impression received by a sensitive traveller upon viewing the remains of the ancient world is one of distress and dismay. We realise how many feet of dust have overlaid the past, and how remote from ourselves it is.

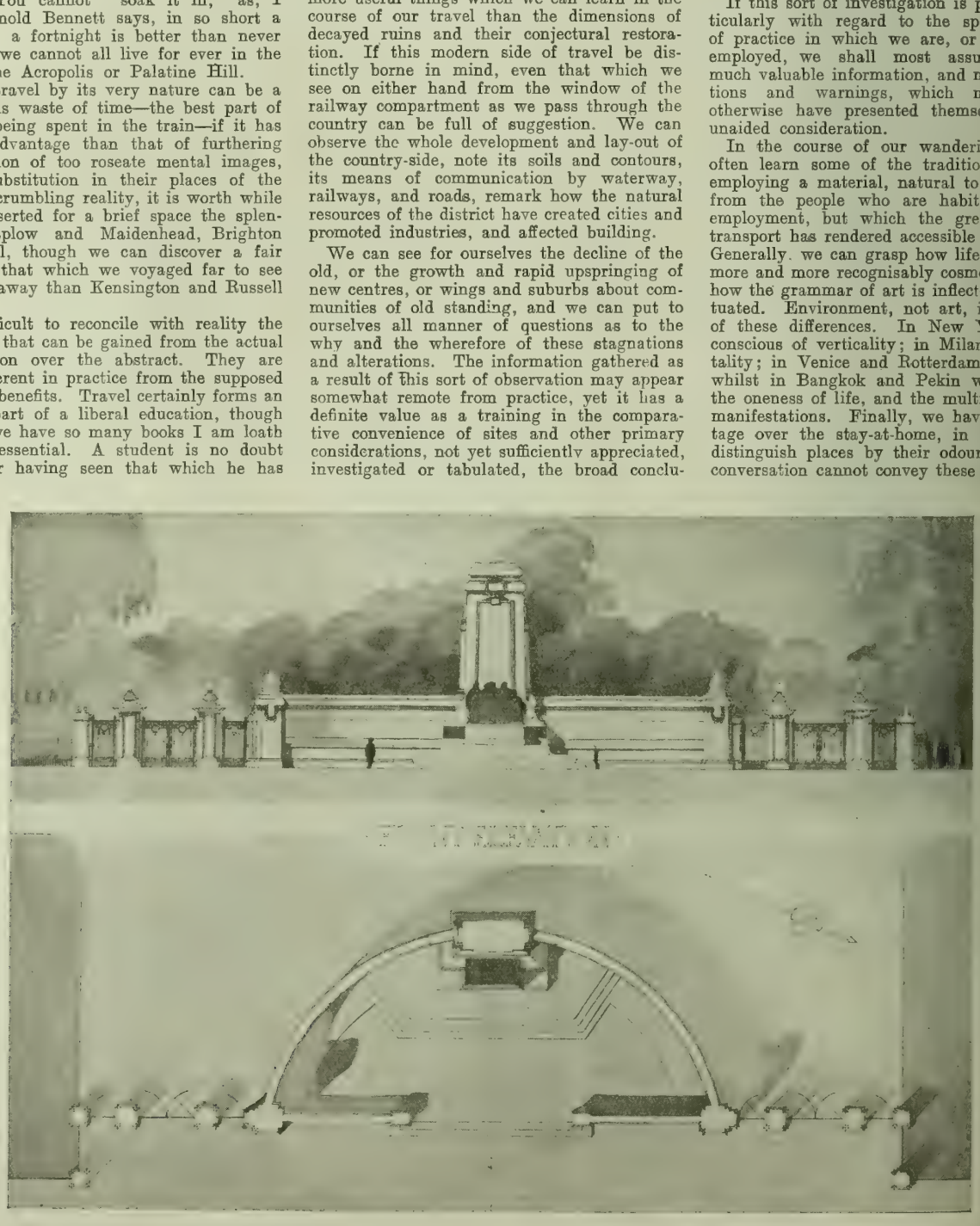
But, if we are observant, there are many more useful things which we can learn in the course of our travel than the dimensions of decayed ruins and their conjectural restoration. If this modern side of travel be distinctly borne in mind, even that which we see on either hand from the window of the railway compartment as we pass through the country can be full of suggestion. We can observe the whole development and lay-out of the country-side, note its soils and contours, its means of communication by waterway, railways, and roads, remark how the natural resources of the district have created cities and promoted industries, and affected building.

We can see for ourselves the decline of the old, or the growth and rapid upspringing of new centres, or wings and suburbs about communities of old standing, and we can put to ourselves all manner of questions as to the why and the wherefore of these stagnations and alterations. The information gathered as a result of this sort of observation may appear somewhat remote from practice, yet it has a definite value as a training in the comparative convenience of sites and other primary considerations, not yet sufficiently appreciated, investigated or tabulated, the broad conclusions of which should be applied in the development of unexploited parts of the world.

When we alight at our destination the railway station and its convenience will not escape criticism. We can study the methods employed to collect and distribute commodities, the situation of and the classes and processes of manufacture; the hewing, mining, and handling of raw materials; the marketing and display of commodities; and this embraces also the fascination of shopping without the expenditure of money. Nor should the extent and convenience of the public services be taken for granted and escape our notice—the parks, the libraries, the water service, the lighting, the roads and tramways; the amenities—i monuments and galleries; the administratio of justice; the modes, methods, and signific ance of worship; the recreations of the citizens—in theatre and public places; all th many coloured aspects of life, under a differen clime, but which has many aspects an problems similar to our own.

If this sort of investigation is pursued, par ticularly with regard to the special branc of practice in which we are, or hope to be employed, we shall most assuredly obtai much valuable information, and many sugges tions and warnings, which might neve otherwise have presented themselves to ou unaided consideration.

In the course of our wanderings we ca often learn some of the traditional ways o employing a material, natural to the district from the people who are habituated to it employment, but which the greater ease o transport has rendered accessible to ourselves Generally, we can grasp how life is becomin more and more recognisably cosmopolitan, an how the grammar of art is inflected and punc tuated. Environment, not art, is the sourc of these differences. In New York we ar conscious of verticality; in Milan of horizon tality; in Venice and Rotterdam of the sea whilst in Bangkok and Pekin we appreciat the oneness of life, and the multiplicity of i manifestations. Finally, we have the advan tage over the stay-at-home, in that we ca distinguish places by their odour; books an conversation cannot convey these distinctions



Design for the Guards' Memorial By Mr. W. T. Curtis, F.R.I.B.A., and Mr. John Tweed. (*See p.* 525.)



St. Peter's Church, Bradwell-on-Sea.

EXHIBITION NOTES.

THE GIEVES GALLERY.

We are glad not to have missed the poetic ork of Mr. Henry T. Wyse at the Gieves allery. His paintings and pastels (and the o media are often merged together) show a e sense of colour value, breadth and unity of ect, and a varied outlook both as to subject d treatment. "Trees in Autumn," "Summer ouds," and "Evening in Early Summer" ve a telling feeling of softness and mystery, ilst in his "Peat Moss and Cloudy Sky," ere the form is more definite, we have a arming picture of colour and light. "By e River" is a perfect piece of its kind, with a h glow of golden light. It is to be hoped that fore long we shall see another collection of . Wyse's work. The examples of pottery, W. S. Murray, R. F. Wells, and Henry T. yse, exhibited with the above-named pictures, ow that modern pottery of great excellence being produced. Refinement of form and cellence of texture and colour are apparent these pieces.

THE ALPINE GALLERY.

When one has got accustomed to look for e traditional style of painting, it is not easy first to realise the full values of the kind of ork to be found in the collection of paintings Mr. Frank Morse-Rummel; but on looking refully through the forty-six exhibits one alises how considerable is the charm of colour d what strong individuality of character are re to be found. Nos. 33, 29–23, 19, 24, 26, d 36 are passages of vivid and beautiful lour, whilst in No. 8, a picture of Lapp women, have combined a telling picture of the ghly characteristic and brilliant costumes of e people in a delicious setting of mountain d lake. We have in these pictures a vivid alisation of the characteristics of a far-away nd, and one feels compelled to wonder what e painter would do in regions familiar to us all. yone who can paint like this should be pable of great experiments.

THE FRENCH GALLERY.

From the admirably vivid "Study of a Man" pencil by W. Rothenstein (1) to the beautiful ture of "Northern Seas" (113) by G. Munthe, have a range of pictures and drawings of ch interest at the French Gallery (118th hibition). Brangwyn's "Orange Market, fa" (47) is one of his rich golden pieces which have seen before. The "Spring" (53) by C. ns is full of poetic life; the "Belated" (41) l "Returning to the Fold" (52) are two of Stott's best; whilst Lhermite (38), W. G. Glehn (46), Hornell (50), Lavery (54), and nder (102) give us of their best. There are admirable little water-colours by Harpignies and 37), and a beautiful little Diaz (10), lst H. B. Brabazon will delight his admirers a number of dainty water-colours. The whole hibition is an exceptionally interesting one.

AN ESSEX EARLY ANGLO-SAXON CHURCH.

We had the satisfaction of bringing to the notice of our readers recently some particulars of an interesting Anglo-Saxon church far away in the North. We can now offer them a view of one equally obscure, much nearer London, that may be compared with the one already described. In the parish of "Bradwell near the Sea," sometimes styled "Bradwell-on-Sea," about twelve miles east from Maldon, and about fifty miles from London (the church of which is dedicated to St. Thomas the Apostle), stands a little chapel dedicated to St. Peter by Cedd, the second Bishop of London (A.D. 654–666), who had been appointed to that see by Sigebert, King of the East Saxons, according to Bede. Old historians consider that the Saxon City of Ithancastra stood at or near this place, and that it is identical with the Roman Station of Othona, where the "Numerus Fortensium," under command of the "Count of the Saxon Shore," was established in the decline of the Roman Empire. The parish lies at the mouth of the Blackwater River, which forms its northern boundary, the North Sea lying to the east, near to which are the remains of the ancient chapel used as late as 1833 as a barn, but now rescued from lay uses, rededicated on June 22, 1920, and repaired; but the ancient rough condition has been preserved, as will be seen from the accompanying illustration, clearly showing the courses of the roughly-worked stones, the original window high up at the west end, the peculiar finish of the angles of the west wall, the blocked doorway of the north wall, the courses of Roman tiles or bricks towards the top of the wall, and other interesting Saxon features. The year 653 is assigned by antiquaries as the actual date of its erection. An annual pilgrimage to this venerable relic takes place under the auspices of the Essex Archæological Society, a proceeding which might very advantageously be adopted in regard to other ancient historic buildings for keeping them before the minds of their possessors as worthy of preservation and fostering a loving care for such valuable memorials of past ages. It is remarkable that neither Parker nor Bloxam have made any mention of this Saxon edifice in their classic works on the ancient architecture of our churches, which for its extreme simplicity, its well-established antiquity, and its instructive details, has rightly merited considerable notice, hitherto overlooked.



From a Sketch by Mr. Walter Millard.

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ILLUSTRATIONS.

New Paper Mills at Kemsley, Sittingbourne.

The illustration shows the main entrance front of this building, now in course of erection for Messrs. Edward Lloyd, Ltd. The mills are a one-story building of steel-frame construction, the external walls being of Kentish stock bricks with a blue brick base. The roof is of steel trusses filled in between with reinforced concrete asphalted on the upper surface, with roof lights.

The building generally has been designed by Mr. A. A. Richards, engineer to Messrs. Edward Lloyd, Ltd., the elevations being designed by Mr. T. F. W. Grant, F.R.I.B.A., 11, Buckingham-street, Adelphi, W.C.2, and is being erected under the supervision of Mr. W. Leonard Grant, Sittingbourne. The contractors are as follows: General contractors, Messrs. E. Bishop & Sons, Sittingbourne; steelwork, Messrs. Redpath, Brown & Co., Ltd.; artificial stone, Messrs. Malcolm Macleod & Co., Ltd.; roof glazing, Messrs. W. H. Heywood & Co.; steel sashes, Messrs. Henry Hope & Son, Ltd.; asphalte, Limmer & Trinidad Lake Asphalte Co.; stock bricks, Messrs. C. Burley, Ltd.; Portland cement, Messrs. Smeed, Dean & Co., Ltd.; reinforced concrete roof, Trussed Concrete Steel Co., Ltd.; sewage filter beds, &c., Messrs. Tuke & Bell, Ltd. "Hy-rib" reinforcement (supplied by the Trussed Concrete Steel Co.) is being used to the extent of over a quarter of a million sq. ft.; this material eliminates the necessity for using close-boarded shuttering.

Bournemouth Pavilion Competition.

We illustrate a design submitted in this competition by Messrs. Easton & Robertson & V. O. Rees. The essence of the scheme consisted in the arrangement of the concert hall, with adequate supervision of its exits and entrances, combined with a grouping of the latter so as to provide access either to ground level or to the amusement group consisting of tea-room, lounge, &c.

All the latter rooms are arranged to have exterior view, and no corridors pass in front of rooms. All rooms and services have proper and adequate lighting. An ample stage for all purposes is provided, a special setting for concert arrangements, and planning throughout is simple and direct.

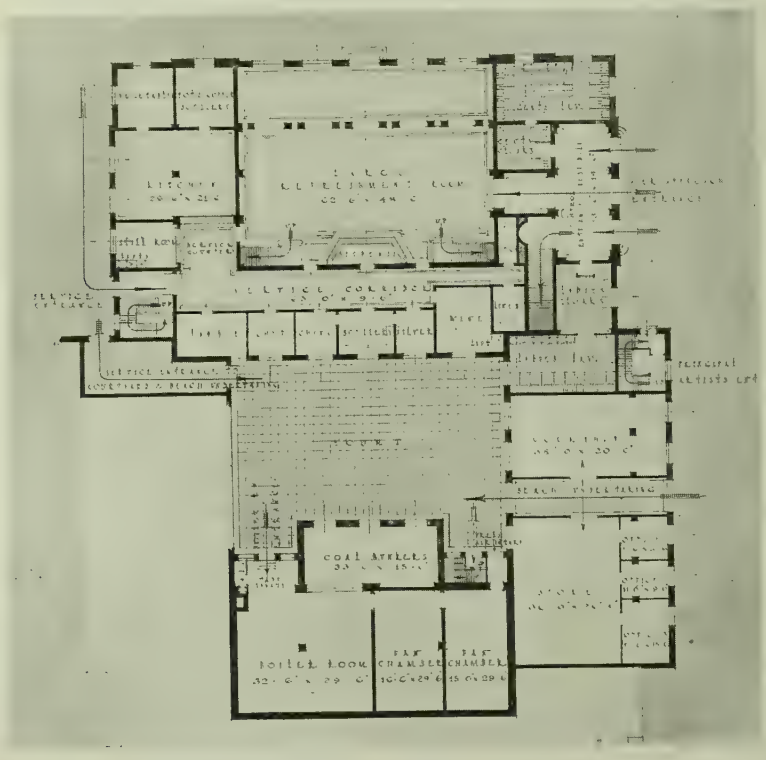
We published the premiated designs in our issues of July 6 and September 7.

Union Building, Armstrong College.

Messrs. Cackett & Burns Dick, FF.R.I.B.A., of Newcastle-on-Tyne, are the architects for Union Building, Armstrong College, Newcastle-on-Tyne.

The Guards' Memorial.

The design for the Guards' Memorial was submitted by Mr. W. T. Curtis, F.R.I.B.A., architect, and Mr. John Tweed, sculptor, in the recent competition.



Bournemouth Pavilion Competition.

Design submitted by Messrs. G. Murray Easton & Howard Robertson, V. O. Rees.

St. Mark's Church, Layton, Blackpool.

The new church of St. Mark's, Layton, Blackpool, will be cruciform in plan, having north a south transepts, nave with north and sou aisles separated by arcading of semi-circul arches and circular columns, and a well-light chancel terminating at the eastern end with apse. A lofty arch divides the nave a chancel, and an almost similar arch divides t nave and western nave, designed to receive gallery at a future date, if required. The tow rises from the south transept, and will conta a ringing chamber reached by a spiral sto stair, clock chamber (three dials) and belf (peal of eight). The organ is placed faci towards the chancel and the north transept, a as the transept will be carried up to the heig of the nave roof the instrument should be hea to full advantage. Choir and clergy vestr are conveniently placed on the south side of t chancel communicating with each other and a with the chancel and south transept.

The principal entrance leads into the sou aisle at the western end, on the left of which placed the font. A second entrance is by w of the north transept. A clerestory a windows in the aisle walls give ample light the interior. The timber roof will be of bar formation.

The site has presented many difficulti mainly by reason of its narrowness and contiguity with an eastern main approac the architect has, however, sought to bri into prominence the more potent features of t church by placing the massive tower as illu trated, thus also balancing the various co ponents in group formation, and by keepi the roof of the vestries at a comparatively l level so to give the best prospect of the wh fabric from Westcliffe-drive.

The new church has been designed on Norm lines throughout.

The architect is Mr. Edgar Dennis, of Blac pool.

Abbeydale Golf House, Sheffield.

The plans of this golf house are the co petition drawings which were placed first a recent limited competition, the assessor of wh was Mr. W. Herbert Fowler, of London. T erection of the building has been commenc Messrs. J. Eshelby & Sons, of Sheffield, be the contractors. The materials to be used stone base to walls with roughcast over, gr and rustic Delabole slates, iron casements wood frames, and leaded lights.

The plans are being slightly varied in exe tion to allow a card and reading room to placed on the first floor in the position sh for the steward's rooms, and a large ingle place is to be added to the smoke room.

The architects are Messrs. Chapman & J kinson, of Sheffield.

MEETINGS.

Tuesday, *October* 9.

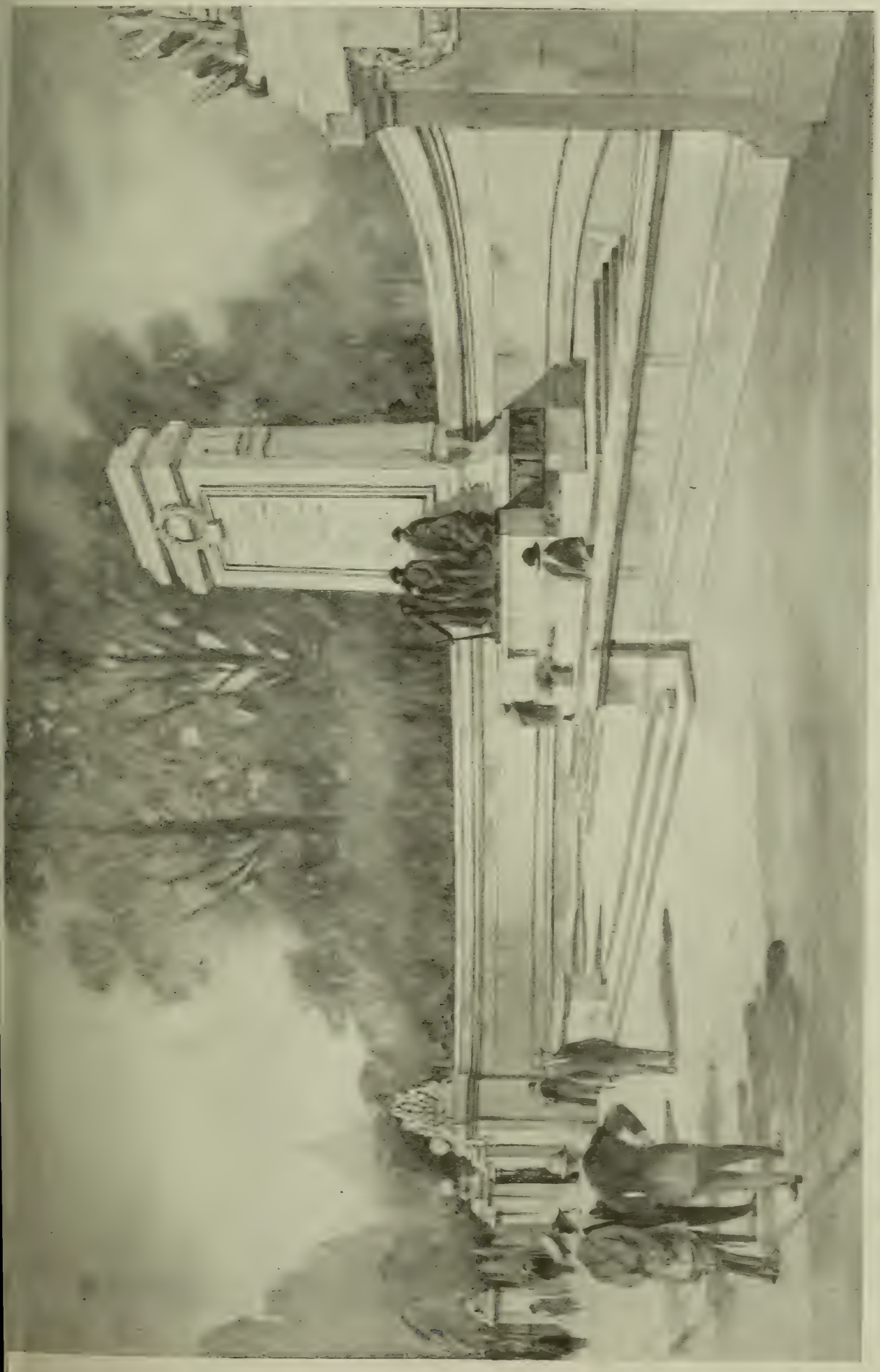
Institution of Heating and Ventilating En eers.—Autumnal General Meeting. At Ca Hall, Westminster, S.W.1. 7 p.m.

Wednesday, *October* 10.

L.C.C. Central School of Arts and Crafts.- Banister Fletcher on "History of Architect Egyptian Architecture (B.C. 5000 – B.C. 1 At Southampton-row, W.C.1. 6 p.m.

Glasgow Housing and Health Exhibiti

The Glasgow Housing and Health Ex tion was opened on Monday in the K Hall by Sir Thomas Lipton, Bart. The Provost, Sir Thomas Paxton, who pres said this was the fifth housing and h exhibition held in the Kelvin Hall unde auspices of the Corporation. The displ of a specially comprehensive and enterta character. *The Builder* Stand is No. Avenue G.



Design for the Guards' Memorial.

Submitted in the recent competition by Mr. W. T. Curtis, F.R.I.B.A., Architect, and Mr. John Tweed, Sculptor. (*See also p.* 522.)



ILLUMINATED TOWERS.



MEMORIAL HALL.

Buildings at the Gothenburg Exhibition. (*See p.* 520.)



CONGRESS HALL.



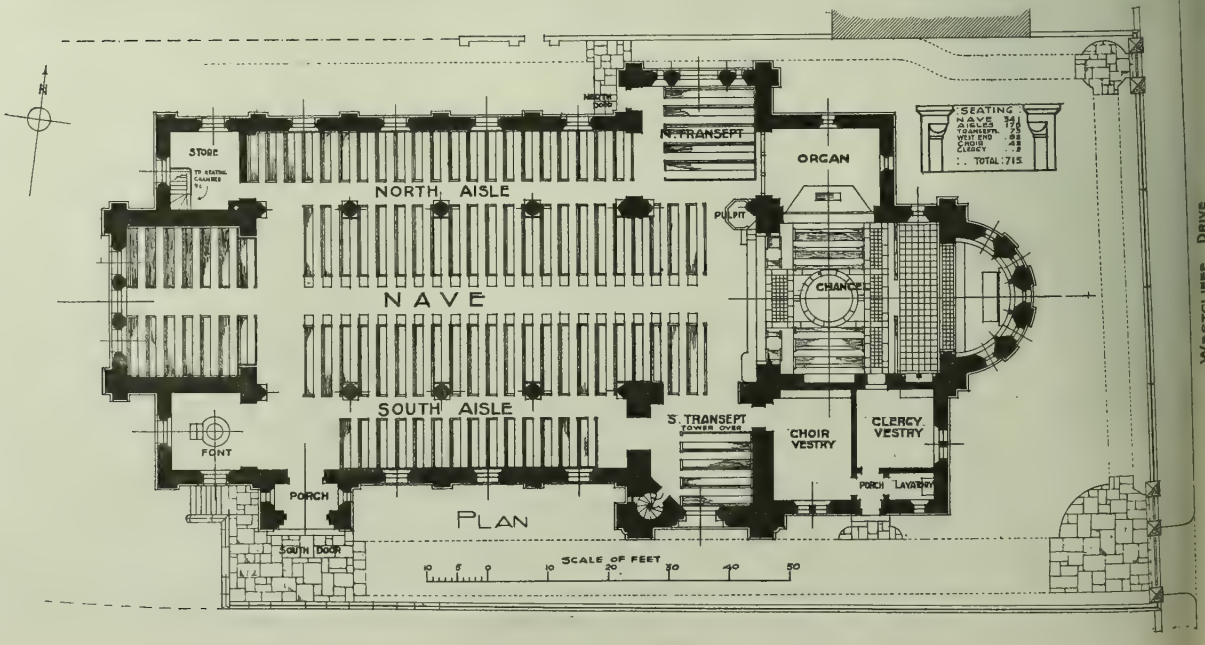
THE LAKE.



ENTRANCE GATEWAY.

Buildings at the Gothenburg Exhibition. (*See p.* 520.)





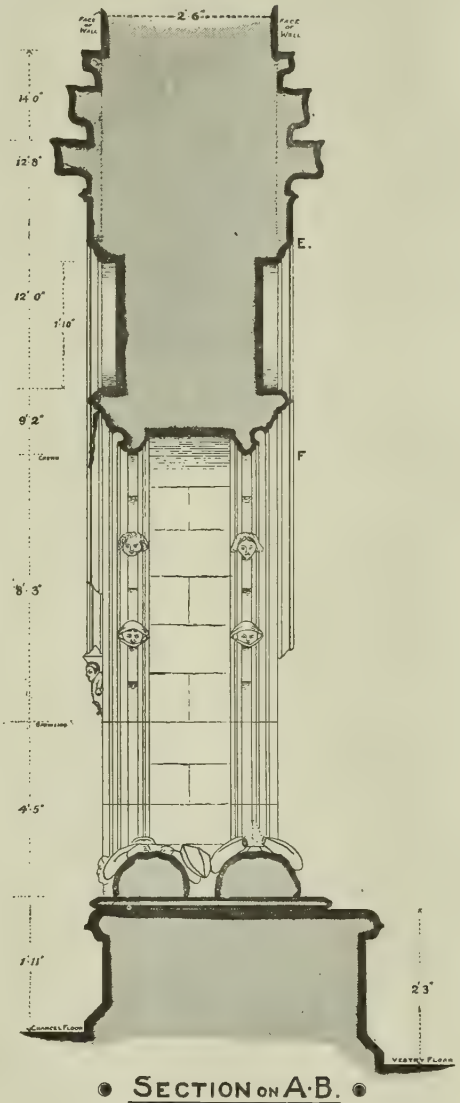
St Mark s Church, Layton, Blackpool. Mr. Edgar D. Dennis, Architect. (*See p.* 524.)

The Ancient Tomb
Beer Ferrers Church
Devon

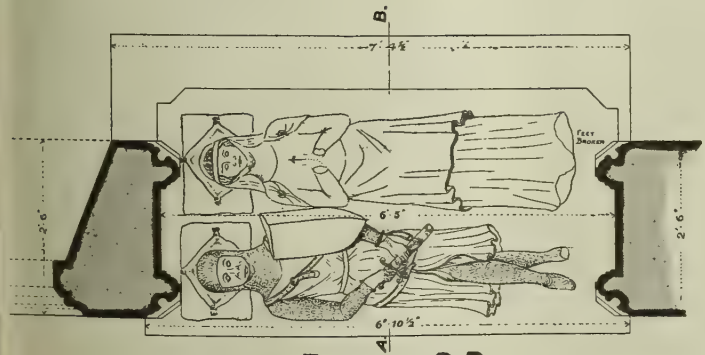


Note :-
Dotted Lines Indicate Broken Mouldings and Ornament. . . . . .

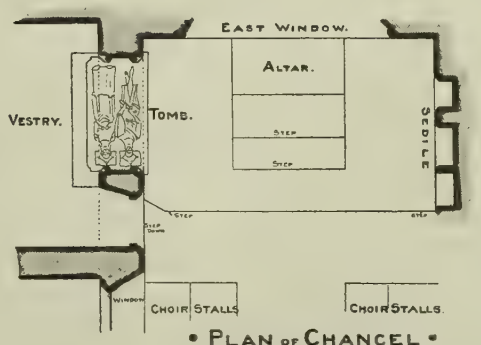
ELEVATION.



SECTION ON A-B.



PLAN ON C-D.



PLAN OF CHANCEL
SHOWING POSITION OF TOMB.
SCALE 4 FEET TO 1 INCH

SCALE OF FEET & INCHES
Inches. 1 2 3 4 5 Feet.

Measured and Drawn by . . . Walter W. Hitchins

From a drawing by Mr. W. W. Hitchins.

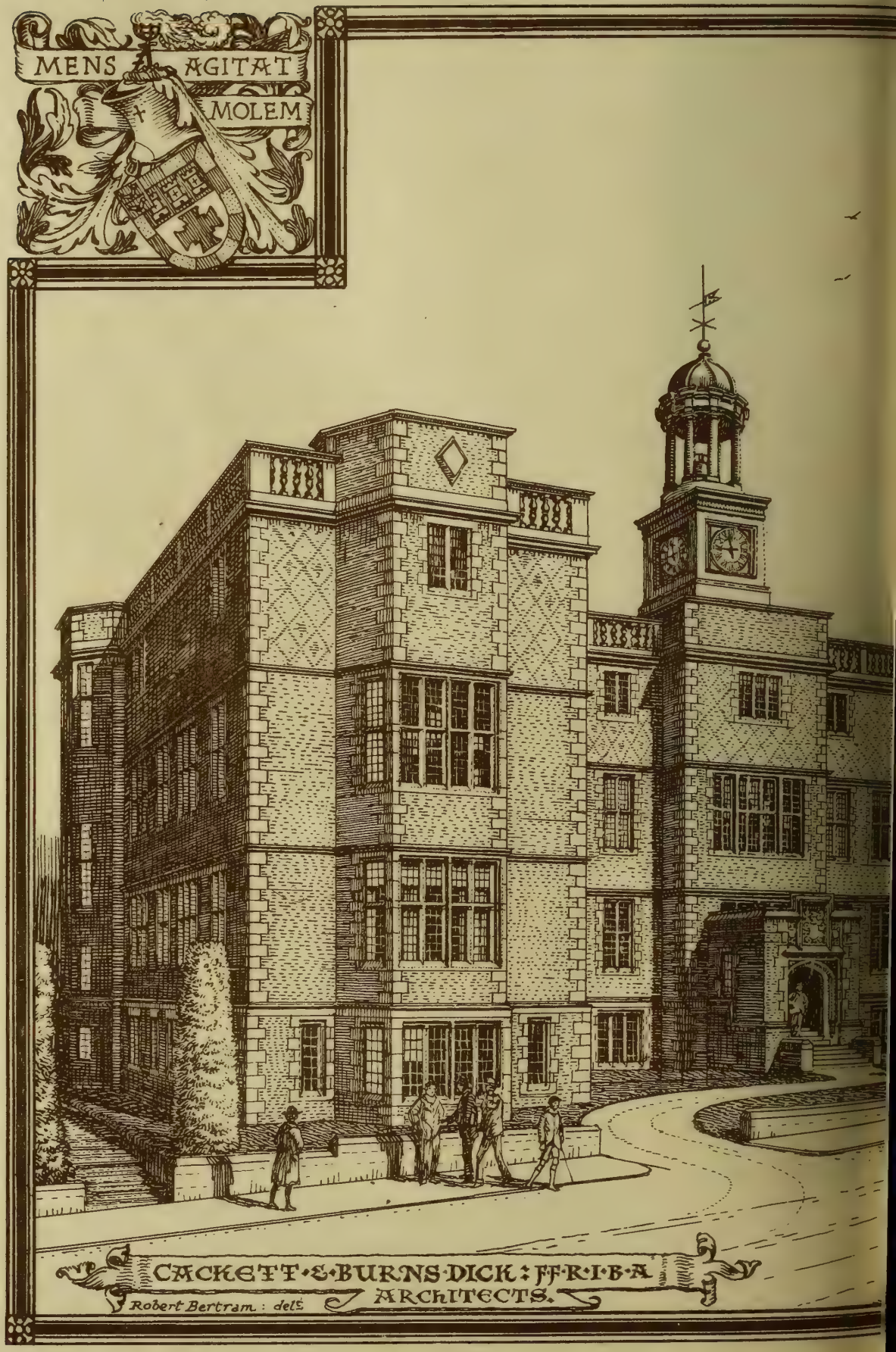
Abbeydale Golf Club House.



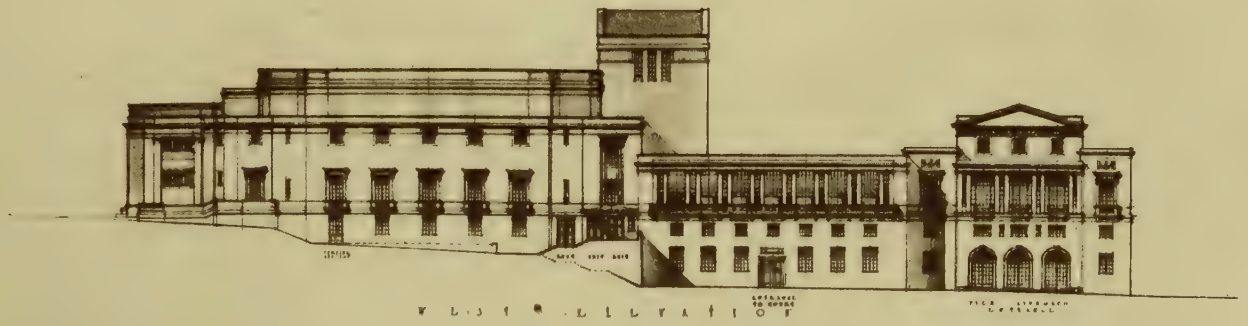
MR. THOMAS FR



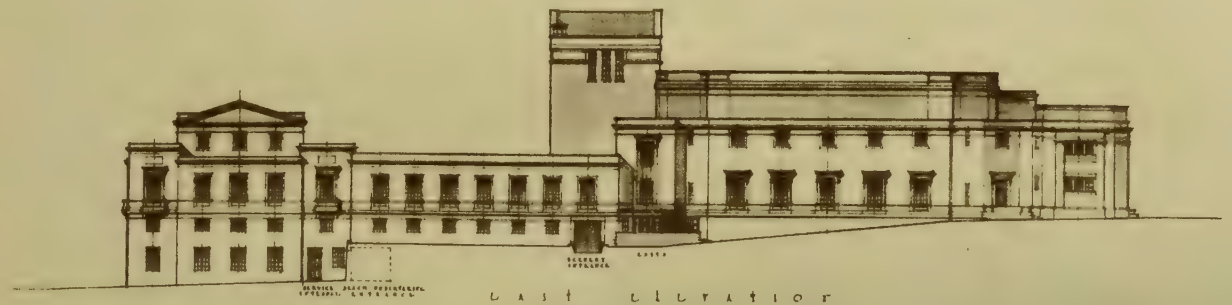
ARCHITECT.


MENS AGITAT MOLEM
CACKETT & BURNS DICK : FF R I B A
ARCHITECTS.
Robert Bertram : del.t

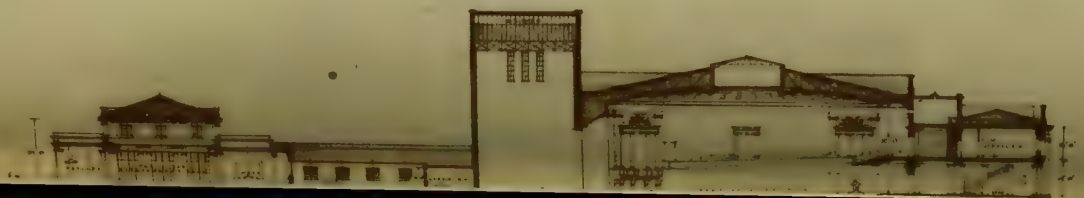

PLAN
UNION·BUILDING
ARMSTRONG·COLLEGE.
NEWCASTLE-UPON-TYNE.



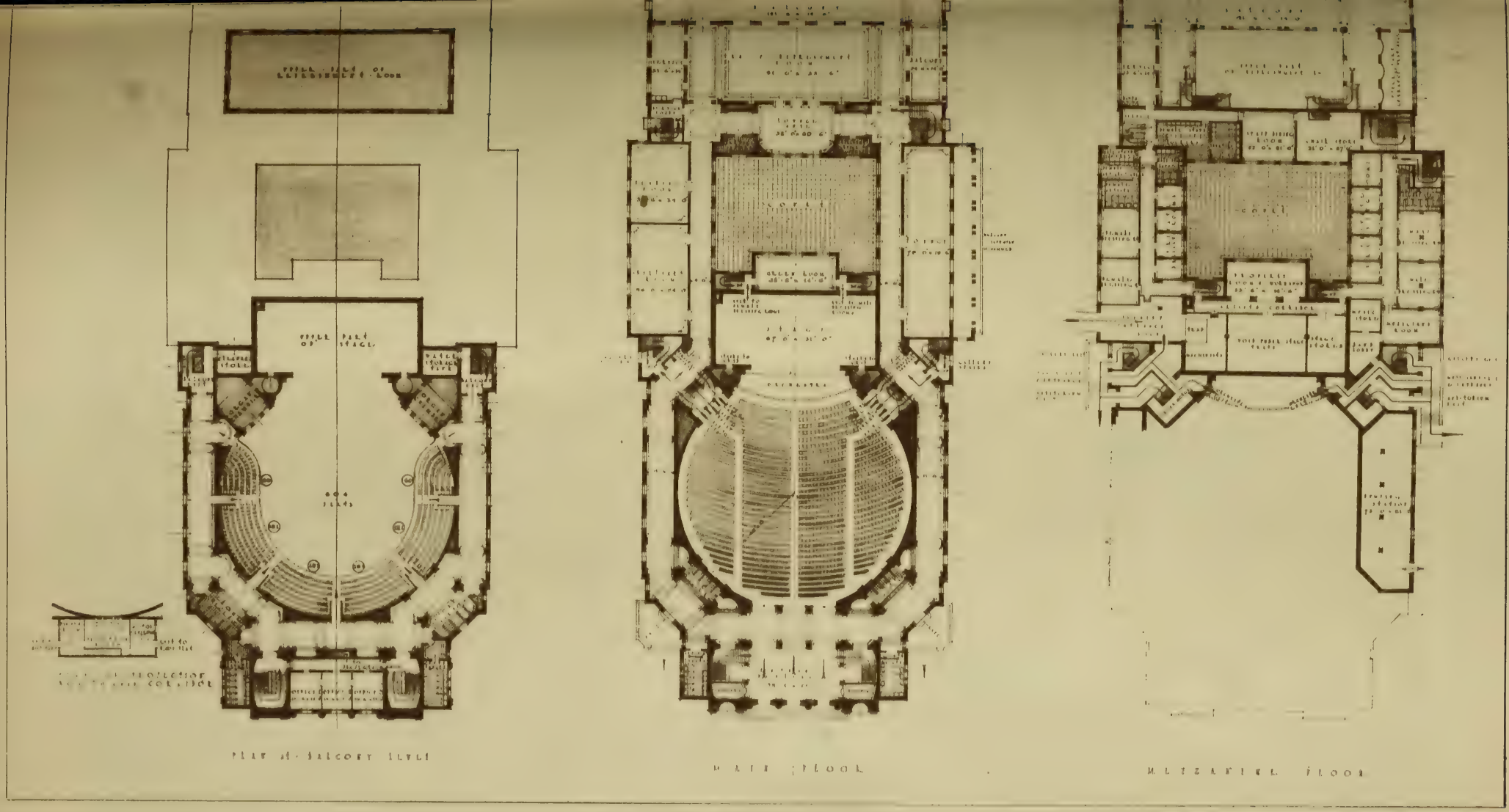




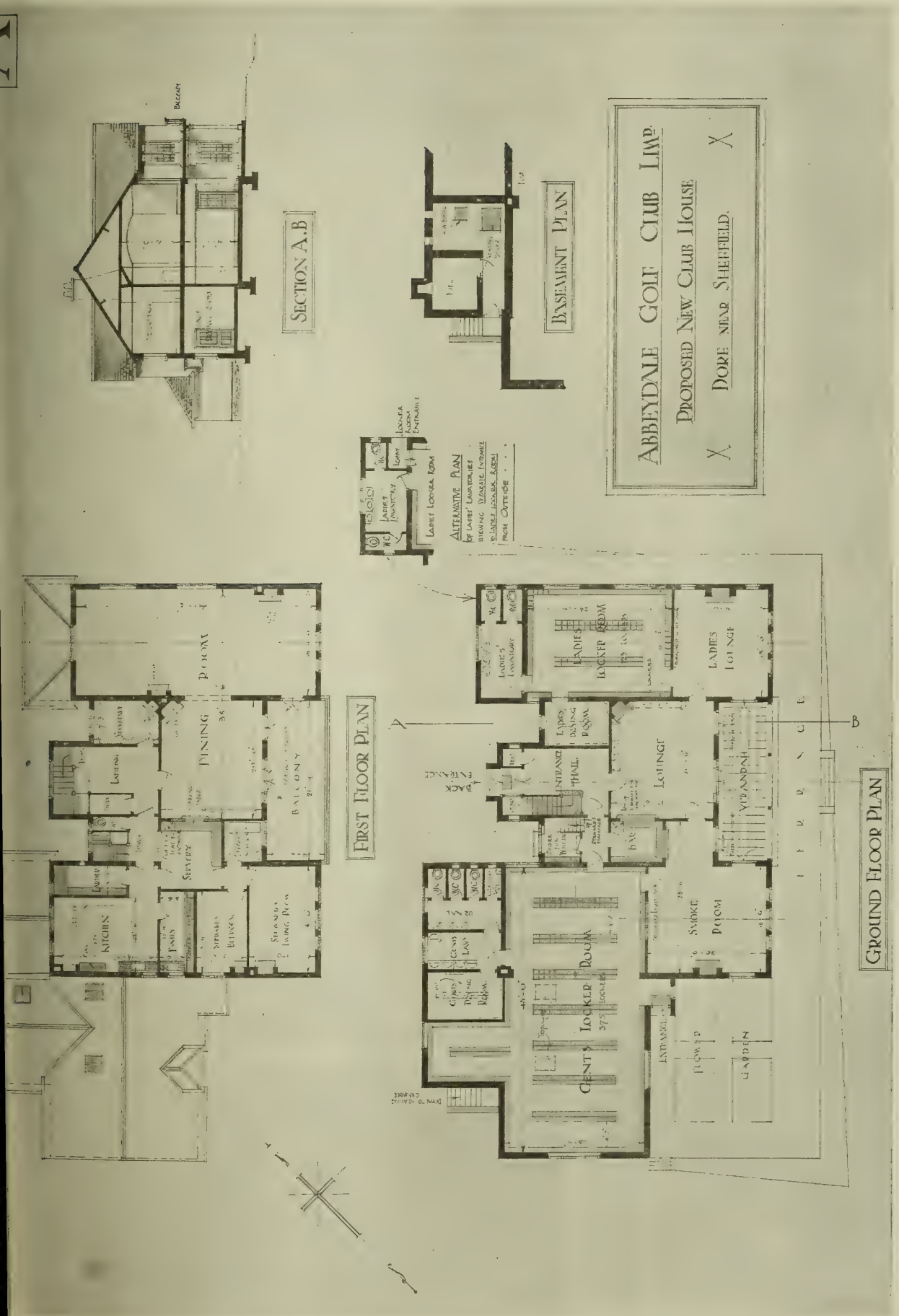








DESIGN FOR PAVILION, BOURNEMOUTH. MESSRS. G. MURRAY EASTON & HOWARD ROBERTSON, ARCHITECTS.



Abbeydale Golf Club House. Messrs. Chapman & Jenkinson, Architects. (*See p.* 524.)

THE BUILDING ART: THEORIES AND DISCUSSIONS.—X.

By W. R. LETHABY.

LATER BUILDING MASTERS AT WESTMINSTER ABBEY.

When Henry III died in 1272 the old Norman nave remained attached to the new choir (west of the crossing), transepts, and eastern limb. He must have had the intention of rebuilding the whole church, for in the bay of the cloister, just west of the general termination of his work, may be seen (although I do not think its evidence has been considered) the beginning of another bay of the wall tracery of the cloister. This tracery was afterwards cut away, but it shows that it had been intended to continue the thirteenth-century work. Almost certainly plans of the completed church had been made by the first master mason. The work executed before 1272 had been done in two separate portions, and King Henry would not have been content with an incomplete scheme. When in the second half of the fourteenth century the rebuilding of the nave was undertaken, the general design of the thirteenth-century portion already built was maintained, and I have little doubt that the intention was to complete King Henry's plan. It is even probable that foundations had been put in for some distance beyond the point just mentioned, for when the cloister was rebuilt (earlier than the nave) it was very accurately planned in regard to the work which was to follow. The flank walls of the Norman nave were, I believe, far enough within the line of the new walls to allow of this; in any case, the piers of the flying buttresses were entirely free. In the interior the thirteenth century work terminates with ordinary piers and responds; there is nothing like a linking up with earlier work to the west. It was Scott's view that the Norman church consisted of two parts, the Confessor's work to the east and a late Norman continuation to the west, and that Henry III rebuilt the Confessor's part. Dean Robinson has shown that there is reason to believe that the Confessor built the entire church, and the building itself is evidence that it was King Henry's intention to rebuild the whole.

After the King's death, however, the royal work ceased, and minor works and repairs, except royal tombs, were done by men on the Abbey staff. When the completion of the church was undertaken I have little doubt that it was on the general lines of the plan of the thirteenth-century master.

In 1342 Walter Le Bole was Abbey mason, receiving dress and food. In 1349 his will was proved; this was the year of the plague, when the abbot and about half of the monks died. To Walter Le Bole we doubtless owe the beautiful eastern bays of the cloister. It was found by the late Mr. Rackham in his examination of the fabric rolls at the Abbey that John Palterton was master-mason from 1349 to 1373–4. The south and west walks of the great cloister, begun about 1352, would thus appear to have been his work. In some special way it was undertaken by Litlyngton while prior, for his initials are known to have been on the boss of the third bay from the entry, and in "Neale" it is said that the abbot's arms were also on a boss at the east end of the cloister. Here there is still trace of an armorial boss. In 1352 stone was bought "for the work of the Prior in the cloister." The entry was built in 1362, and in this year a new cymbal for the cloister was made; this is now in the Museum. The cloister was finished in 1365.

From 1364 the Infirmary buildings were rebuilt by Palterton. While engaged on this work he was paid two shillings a week, with his daily commons of bread and beer, and received a fee of forty shillings in addition. The most significant part of the Infirmary building which remains is the doorway in the little cloister. It is a good deal like a door once in St. Stephen's Chapel, and is a very graceful work, having a row of quatrefoil up the jambs and around the arch. The capitals have little tufts of foliage set against the bells rather than springing from them. The drip-mould terminations are angels' heads—very pretty (Fig. 1). Mr. Westlake



Fig. 1.

says: "In the roll for the year 1371–2 there is the record of taking down the older stone doorway and making the present beautiful entrance." This precise record is valuable, for the character of the work seems earlier than the great cloister, and I am drawn to think that Henry Yevele, who is named as one of six chief masons of London in 1356, may have been concerned with the design of the cloister. In any case, Yevele was the master of the work in building the new nave, and the cloister may well have been planned in connection with that. The south-east angle bay of the cloister and the vaults of the two compartments north of it in the east walk might be by a different master than the rest.

In 1375 the wall of the Norman nave next the cloister was destroyed. Palterton's name does not appear after 1373–4, and from about this time Yevele is likely to have been engaged in the important new work. He is known to have made the tomb of Cardinal Langham, who died in 1376. It is not improbable, indeed, that he was chief adviser at the church from the time of his appointment as King's mason in 1360 or even earlier. Dean Robinson thinks that it may not be doubted that Langham (abbot from 1349) determined to rebuild the Norman nave and he left the Abbey in 1362. Now the western walk of the cloister, which was finished in 1365, is so accurately adjusted to one of the nave buttresses that its position must have been accurately known at that time; moreover, the west and south walks of the cloister seem to be in the style of the nave. Compare especially the doorway from the west walk to the nave with the arch over the recess in the same west walk. Close scrutiny of the work has convinced me that when in the Roll it was stated that the cloister was "finished" in 1365 it was indeed *complete*, including the three bays against the nave. The design of the west and south walks follows from the north-west pier and that must have existed before they were undertaken. The vaulting of the bays is also of an early character, yet it has been supposed that this work followed on the taking down of the Norman wall of the nave in 1375.

Five windows of the new nave were ready for the ironwork in 1388–9. The earlier accounts of the work are missing, but that of the year before includes the "Fee of Master Yevele, chief mason, 100s. per annum, and for his and furs, 15s.; Do. of Robert Ken 13s. 4d.; tunic of Thomas Padington, In 1375 Kentbury had a tenement in minster, and he was probably already Y lieutenant. The account of 1388 inclu small item for breaking down the walls old church, and this appears, as Mr. Rac remarks, to have been the last entry for down the old walls. All or most of the piers of the nave were built by 1400 (Rack The nave, except for the west front, is tinuation of the thirteenth-century bui but the west front was newly designe has been so much injured by Hawks changes and hidden in the interior by masonry that it has not been recognised fine fourteenth-century work which it esse is. The window at the west end of the aisle is still *original work*, although the windows along the flanks have been re on the exterior at least. This precious w is of fourteenth-century form, and the quatrefoil has the upper lobe larger tha rest, which gives it a touch of energy. narrow limits it must be as early as any new work. The porch with the niche either hand are still largely original. niches have delicate "vaultings" to canopies. The niches of the upper tier dealt with by Hawksmoor, but they represent what was there. They pro contained statues of kings; over them shields of arms. The porch and surrou work is closely like Yevele's porch at minster Hall.

The great west window, as may still be on the interior, must have followed the design of the front, although its executio delayed; the mullions and transomes with the lines of the wall-panelling, and scheme of wall-panelling starts from the level. The window closely resembles th windows of Westminster Hall and, like must have been designed by Yevele; i not finished until Abbot Esteney's time 1474). There is a record however that was obtained for the chamber over the porch in 1442 (Rackham), and the ma must have been carried well above its when this chamber was roofed.*

The exterior also has tiers of wall-panelling following from the tracery of the west window, and I reach the conclusion that the whole front was carried on according to the design of Henry Yevele.

On examining the indications on the interior of the front it will appear that it was conceived as panelled throughout with strong vertical strips rising from the plinth level, crossed by horizontal bands, knitting door, window and wall together (Fig. 2). The inner arch over the door has the same moulding as the greater mullion strips which are continued below the west window. These greater mullion strips indeed framed in the doorway, which formed one large panel in the general "all-over" sche the interior. Above, on either side of th dow, the heads of the wall tracery show what the transomes of the lights were.

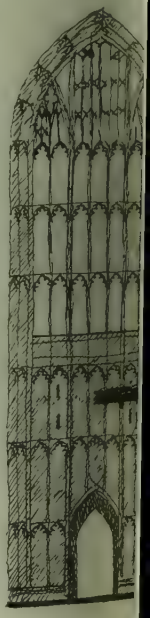


Fig. 2.

* John Pache was Abbey carpenter at thi and he was followed by Robert Pache. Th "Pache's house" lasted till the Dissolution (Rac

erted tracery arch directly over the ch of the doorway. The lower part of rior is represented by an engraving in s "Gothic Architecture," and the old is shown from within in Sandford's ation of James II," while the exterior in Hollar's view. Now the west front hester Cathedral is conceived in the ay, inside and out, and its west porch very similar to that at Westminster. t of Winchester appears to be the work William Wynford who, as said below, rking with Yevele in 1370, and we see Yevele's influence throughout the the Cathedral.

est front at Winchester was built by Edington in the last quarter of the four- entury. Willis says: "The design of window is singularly simple, reducing the merest stone grating. Divided into principal monials, each of these is o three by secondary monials. The n scarcely be said to be filled with so completely does the grating-like r pervade it; in the central group of ne grating extends to the very top." k of the nave was continued from the by Wykeham, who, in his will, dated rote: "I will and ordain that the ment and conduct of the new work entrusted to Master William Winford others, discreet, sufficient and approved art, as may be chosen if necessary." ription of the window might stand for Westminster Hall, and for that of the xcept that it had seven lights. At Win- have the front was built first and the eeded eastward; to some extent this ve been the procedure at Westminster Bond's "Westminster Abbey").

. 2 I give a rough diagram of the f the interior of the west front, from will be seen at once that it must have mpleted from the scheme begun in the urses. (The upper sill of the windows robably be omitted as having been Hawksmoor.) Fig. 3 shows more or

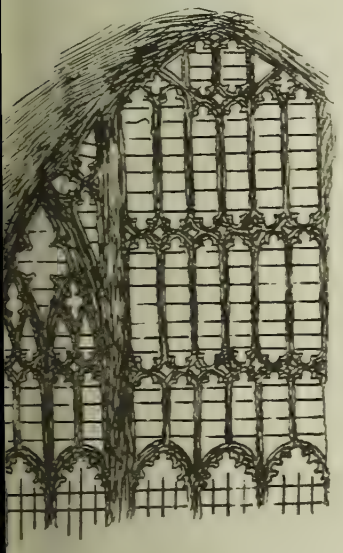


FIG. 3.

the window was like. Besides the s and parallels just mentioned, the the porch, which is "Perpendicular" ter notwithstanding earlier survivals, in reconstructing the window. For the transome bands in the tracery window were similar to those in the tcery. Another piece of evidence for y carrying out of the one scheme in front is to be found in the tower win- ich answer in position to those of the and the clerestory. On the interior clerestory window in the wall of each l the original intention was doubtless that these should receive light from the tower windows as in foreign cathedrals and at York.

Besides the advanced "Perpendicular" character of Yevele's work, an interesting technical point must be mentioned. He had a liking for big facing-stones, 16, 18, or even 24 ins. high and 3 ft. and more long. These stones are set with fine flush joints of white lime. Workmen never raked out joints to prepare them for stone-rot until they were instructed by architects of the sham Gothic "style." Some of the original Purbeck paving of the nave may be traced here and there, and the arrangement in strips is clearly indicated on the lithographed plans of the graves made about 1860.

. . . . . .

Considering the importance of the Abbot's House, the date at which it was built, and the way in which its plan interlocks with the west end of the church, so that the house could not have been set out before the nave, we may hardly doubt that Yevele was the architect of both. In Dean Robinson's account of "The Abbot's House" (1911) he has a section entitled "An earlier building on the site of Jerusalem chamber." Of this conjectured building, he thought, a part had to be pulled down in order to make room for the south-west tower; but the western half was saved and renamed as the "*nova camera* of the Abbot." I cannot agree with this view, for the adjustment of the walls of the chamber with the west end of the nave and its right-hand buttress is so accurate that the chamber could only have been built with or later than the foundation of the west front. Moreover, the foundation of the south-west tower must spread far under the chamber wall. I will now quote from Dean Robinson the historical facts regarding the building of the chamber. "From 1362 to 1365 work is going on above the entrance to the cloister; . . . the cloister was finished in 1365. The roll for 1369 is missing, but for nine years after that payments are made for what is called *novem edificium*. In 1371–2 canvas is bought for the windows of my lord's new camera and there is no doubt that Jerusalem chamber is here referred to. After this the Abbot's hall was built, and in 1375–6 it was so far finished that John Payable was putting in the glass, of which a fragment bearing the initials N. L. still remains. This work of reconstruction was completed some three years before the old [Norman] nave was pulled down; and we may perhaps assume that the extent of the new nave and its western towers had already been carefully calculated."

The traceried windows of the Abbot's hall and chamber are still original within, although they were completely refaced some thirty years ago. The roof corbels of the hall are very fine indeed. They are of angels holding shields, two of which have the Despencer arms, two others have the same with the "difference" of a bordure set with mitres for Litlyngton, and the fifth and sixth bear the arms of the Confessor and the Abbey. (There are similar large corbels in the ruined Refectory, and the alteration of this great chamber may also be Yevele's work.) The Abbot's hall has a fine roof and screen, and these I would assign to Master Hugh Herland, who later made the roof of Westminster Hall. Some spandrel fillings in both are alike. Those of the tomb tester of Queen Philippa (1369) are also similar, and this being a Royal work was doubtless done by the King's carpenter. The central trusses of the hall roof have been injured by having the arch and spandrel pieces removed (about Wren's time), but they remain against the walls and the roof is original except for wall pieces and struts put in place of the removed tracery. In the combination of moulded arches and tracery spandrels the roof is the prototype of that of Westminster Hall, and it may be that the great shield-carrying angels of the latter were suggested by the carved corbels of the Abbot's hall.

Of the glazing by John Payable four or five fragments remain. Two windows have the initials N.L. with a coronet above in the upper quatrefoils of the tracery. A third window retains the head of a little saint's figure in one of the other quatrefoils, and it is evident that initials and saints were in all the windows (Fig. 4). Payable must have been the best known glazier of his time, for in 1362 he had

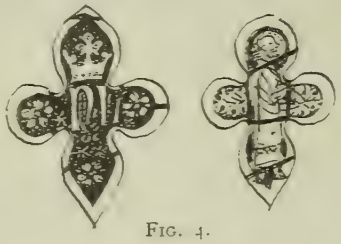


FIG. 4.

reglazed the great South Rose of the church. Litlyngton liked to sign his good works. The first boss of the vault of the cloister entry also has coroneted initials within a collar surrounded by a hunting scene (Fig. 5). The abbot had much pleasure with his falcons and his harriers,

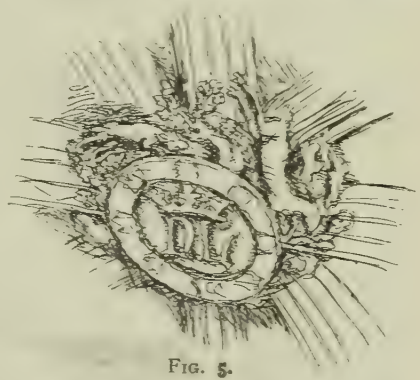


FIG. 5.

one of which had the nice name of "Sturdy." The second boss has the Despencer arms; another has four lions' heads, and the minor intersections have roses—the lions and roses of England.

I call attention to the "topical interest" of the details as leading up to the identification of several carved heads of label terminations of the doorways. Two (Figs. 6 and 7) are a king and queen. These should be Edward III and Philippa, as the cloister entry was built in 1362–4. Two other heads are of younger



FIG. 6.



FIG. 7.



Fig. 8.

royalties, doubtless the Black Prince and Joan, to whom he was married in 1361; the prince's head is well preserved, and one might think interesting (Fig. 8). A third pair of heads is of an abbot—obviously Litlyngton (Fig. 9)—and apparently a layman who might be the mason.

The custom of carving portrait heads of kings and craftsmen has never been worked out. In the north transept of the church there is a perfectly preserved marble head of a king, which must be Henry III, while higher up is a head which, I believe, is that of his master-mason. Outside the door from the church to the cloister are two crowned heads, and there are several other portraits. At St. Albans are a king (Edward III?) and queen, an abbot and a master-mason.*

In the Angel Choir at Lincoln is a series of fine portrait heads. At Exeter Cathedral there is an important mason's head, and there are several more in other places. At Southwark Cathedral are some important heads at the crossing which, if they are authentic, should be recorded; the king looks like Edward I. In certain Continental churches heads of the craftsman type have long been identified as master-masons and crowned heads as definite portraits. Such heads, when found in significant positions,

* I find that Mr. Page in his "Guide to St. Albans' Cathedral," says that the part of the nave where the heads are was begun by Abbot Hugh after 1323, and was completed by Abbot Mentmore (1335–49). "The easternmost is the head of a bishop or abbot (probably Hugh), next is a queen (probably Isabella), thirdly a king (Edward), and the last is probably Master Geoffrey, master-mason and surveyor of the works to Master Hugh."



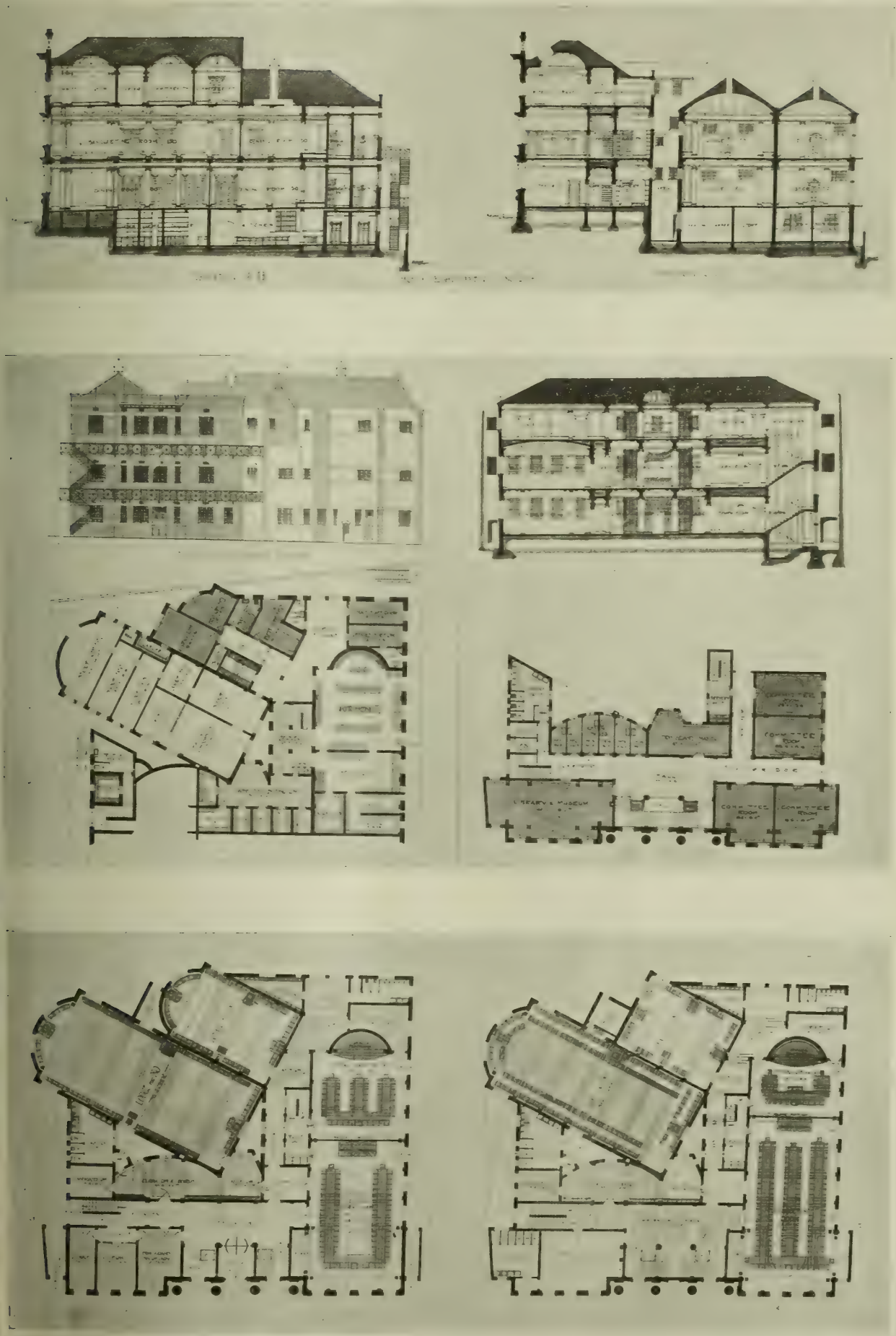
Fig. 9.

must represent particular persons, and i latter part of the fourteenth century portr was a special interest.

(To be concluded.)



Memorial Screen, St. Mary's Church, Barnard Castle. Mr. Richard Wylie, A.R.I.B.A., Architect. (*See p.* 536.)



Birmingham Masonic Temple Competition. Third Premiated Design: By Mr. Hurley Robinson, F.R.I.B.A. (*See p.* 536.)

The first premiated design in this competition, by Mr. Rupert Savage, F.R.I.B.A., and the assessors' award, were given in our last issue.]

HOUSING AND THE RENT ACTS.

At a recent meeting of the Property Owners' Protection Association, Sir Kingsley Wood is reported as having said that the Rent Acts could only be ended if there were vastly increased housing accommodation, and the meeting seems to have assumed that this was a fact, and to have discussed the means of increasing housing accommodation with a view to removing the need of further rent restriction. We venture to suggest that there is a fallacy in this somewhat dangerous argument.

That it is desirable by every possible means to increase the number of houses as quickly as possible no one will deny, but that the sufficient provision of accommodation must be a condition precedent to the repeal of the Rent Acts is a proposition we cannot accede to. The Rent Acts have created a privileged class. When rent restriction was first inaugurated this was comparatively a small class, which has been somewhat increased by the subsequent Rent Acts, but since the Acts were extended to more numerous houses there has been one element which has operated steadily to lessen the number of protected persons, for every new house erected since April 2, 1919, and every house converted into two or more separate and self-contained flats, has been outside the Rent Restriction Acts. Thus the protected class has steadily diminished ever since the last extension of the Acts, whilst the number of persons who have to face taking a house on unrestricted terms has steadily increased.

Is this process to be continued until every person is housed, and if so on what logical basis can this continued protection of an annually decreasing number of persons be justified, and what is the connection between the protection of this diminishing class and the provision of houses? Since April, 1919, an enormous number of houses have been built, and the successive Ministers have dwelt upon this fact with satisfaction. According to Sir Kingsley Wood, the rate at which houses can be erected has been accelerated so that now 100,000 houses can be erected where three years ago only 40,000 could be put up in the same time. How long is it going to be considered reasonable to offer those houses on unrestricted terms, whilst an arbitrary restriction on houses erected before April 2, 1919, is continued? Is it not obvious that in the protection of an ever decreasing class of persons the building of new houses and their occupation on sound economical terms is being seriously checked and hindered?

The Rent Acts not only favour one class but the restriction must be based on a stationary population, for the younger members of the community must seek new houses, although they can less afford the unrestricted rents than the older generation which has made its way, but the Acts also interfere with the market in house property and the well-established relationship of landlord and tenant. In all but very small properties that relationship has, in fact, been put an end to, for houses are not offered on lease and those who cannot become owners can have no home.

We trust we have shown that the argument that rent restriction must continue until the population can be housed, when pushed to its logical conclusion, is an absurdity. The only practical method of proceeding is to bring the diminishing protected class up to the same level, as quickly as may be reasonable, as the ever-increasing unprotected class. The Acts have now been prolonged until June 24, 1925, and we submit that period should not be further extended on any consideration. Already the protected tenants are practically claiming vested interests.

WAR MEMORIAL SCREEN, ST. MARY'S CHURCH, BARNARD CASTLE.

The screen illustrated on p. 534 is constructed of oak, lightly fumed, and is in the Decorated style of Gothic architecture to harmonise with its surroundings. It is fixed between the baptistry and the nave of the church, screening the congregation from the present outer doors at the west end.

It is constructed in four bays, each bay being mullioned with rich tracery in the heads, with solid oak panelling to dado height and leaded glass above, and finished with canopied cornice with carved cresting and deeply-recessed carving on the principal members. The centre of the canopy has a carved panel with inscription. Side wings of plain panel work and attached to the face of the piers to the existing archway have the names of those who fell inscribed thereon. The four panels in stained glass have embodied in their design a laurel wreath of Victory, a round sword, and a shield of St. George with Sunrise, symbolising the dawn of a new day; the other panels have a crown of glory surrounded by a circle representing unity, also a shield of St. Andrew and Shamrock with Cross of Suffering.

The screen itself has been constructed Messrs. S. Elliott & Sons, Ltd., of Reading, glass panels by Messrs. G. J. Baguley & So Newcastle, and the lettering by Mr. J. Dent of Gateshead, from the designs and under supervision of the architect, Mr. Richard Wy A.R.I.B.A., of Newcastle.

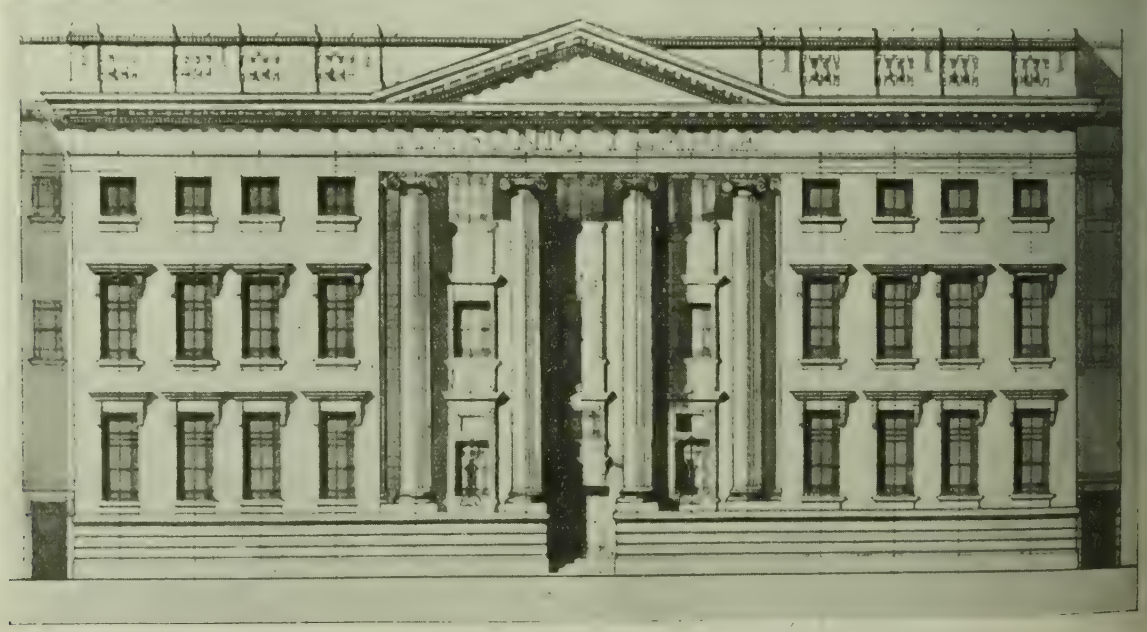
ANCIENT ARCHITECTURE.

On Wednesday, Sir Banister Fletch F.R.I.B.A., gave the first of twenty-four wee University Extension Lectures on "Anci Architecture," to be delivered at 6 p.m. ev Wednesday at the Central School of Arts a Crafts, Southampton-row.

During the session the lecturer will trace evolution of architecture in ancient Egy Babylonia, Assyria, Persia, Greece, Rome a Byzantium, with special emphasis on the fluence of ancient art on all subsequent sty down to its adaptation to modern needs in own day. In his first address the lectu pointed out that architecture was in all ages visible exponent of civilisation, and that study of architecture was necessary not o for architects, craftsmen and students, b also for authors, journalists, photographe and antiquaries, and the interest of hist was increased by a knowledge of the dw lings and temples erected by different nati for their social, religious and politi requirements, while for the general pub the ability to appreciate the monume of the past added to the enjoyment of travel a the understanding of our own surroundin The lectures will be illustrated by some twe hundred lantern slides, as well as by photograp and models.

Sir Banister gave an illustrated sketch ancient architecture, referring first to t different influences—geographical, geologic religious, climatic, social and historical—whi aided in the evolution of the building a Starting from the world-famous Sphinx—senti of the mysterious past—he reviewed by wo and picture the massive temples, and pyrami and other tombs of the Egyptians, the pala of the Assyrians and Persians, the temples a theatres of the Greeks, and the monumen buildings of the Romans, such as the Baths Caracalla, the stupendous Colosseum, t triumphal arches and the dwellings at Pomp as well as the churches of the early Christians a the peculiar work of the Byzantines.

The next lecture, on October 10, will be t first of three lectures on Egyptian architect



Birmingham Masonic Temple Competition, Third Premiated Design: By Mr. Hurley Robinson, F.R.I.B.A. (*See p. 535.*)

BOOK REVIEWS.

lish Interiors in Smaller Houses: From the Restoration to the Regency, 1660–1830. By M. Jourdain. (London: B. T. Batsford, Ltd.) 1923. Price 24s.

erfection of style commands attention even n, to certain individuals, its effects are llent rather than attractive. In the eyes of Gothic Revivalists and of that great critic rchitecture, John Ruskin, work such as is ribed in Miss Jourdain's book, "English riors in Smaller Houses from the Restoration ne Regency," seemed "wholly valueless and icable." They could not, however, ignore ppeal, and by their over-violent denuncia- may even have brought it before the public have hastened its return to fashion. If the strous attempt to revive Gothic style in ern times had no other good result, it at demonstrated beyond question that sham iæval architecture is altogether unsuited to requirements of the present day.

ne architecture of the later Renaissance is ittedly somewhat deficient in its recognition ructural interest, but in several important iculars it deserves careful study, more cially as it is exemplified in the smaller es built between 1660 and 1830. In these dings architecture came to recognise once e, after the fret and fuss of late Gothic ressing and pseudo-constructional rib-work oduced as ornament, the fundamental fact buildings should be made with walls whose surfaces need not necessarily be subdivided the semblance of a wire birdcage. Lines of lding and ornament were still applied, but directed towards the emphasis of shapes surfaces, of breadth and expansiveness as as height, instead of striking only an tent note of verticality. The rediscovery of value of breadth and space was perhaps the st result of classical study and in this field brothers Adam deserve credit for their onal investigations at Spalatro and their dance of the Palladian error of applying rs and pilasters as if classic architecture isted of nothing else. Even in the hands of adian architects the smaller houses escaped e of the excessive pilasters simply because s were not available for them and the many tiful chambers illustrated in Miss Jourdain's are quite as much examples of convenience f architectural style. They were, in the rity of cases, designed to be furnished and in, and the elements of their composition passed into the general custom of house truction.

n English builder includes a plastered ceiling plastered walls with a certain minimum of ldings almost as a matter of course, and it is by a purposeful effort that the tradition can hrown aside. What is now lacking is the combination of common sense and artistic etion which illuminates the old work. A disposition of the masses of light and shade d to make many a simple interior charm- The orderly placing of windows, preferably e broad side of a room, and the disposition of ooms in the plan to permit of this, made he utmost cheerfulness of effect.

is was a well-understood principle which t be studied again with advantage now that d, century-old, tradition of narrow-fronted and suburban houses has taught us fami- y with the wrong way of lighting rooms gh their ends. A glance over the illus- ons will show the reader what pains the rchitects took to avoid, or at the worst to ise, this unpleasant and dismal effect of ng. Where circumstances dictated that g room had to be provided with windows at one end, the other end wall was some- given a rounded form to increase light by tion from the curving surface as at 20, Cavendish-street (Fig. 66). Another ex- nt was to introduce columns and an lature to reduce the excessive length of oom and contrast the darkness of its end te from the windows with the light picked n the rounded shafts, as at the Ante-room. ood, by Robert Adam (Fig. 64).

Colour effects were generally managed cleverly in these interiors whether by the introduction of materials of different hue or by the employment of pigment. The use of wainscot at the beginning of the period under examination involved the placing of panels and styles in such positions as would admit of sound construction, and the instinct for bordering a mass of one colour with a suitable band of another colour was seldom completely lost. A great deal of freedom was permitted and exact symmetry not always sought, but the tradition in favour of allowing space for the two adjoining styles at the corners of rooms persisted after the substitution of stucco or wall-paper for the panelling, and generally prevented doors or other features being crowded awkwardly into the angle. Materials of different colour were arranged to admit of pleasing masses being composed with reference to the pattern likely to be produced by the interpenetration of one tone or colour upon another. That this effect was far from being the result of mere good luck is clearly shown by the original drawings by George Richardson, reproduced in Figs. 51 and 52, where the effect of the colour masses is rendered with the greatest care.

Walls, ceilings, windows and doors are illustrated in detail, and the evolution of the staircase from the heavy baluster type executed in oak in proportions almost suitable for stone to the dainty spiral "open well" is set forth in a series of excellent photographs. Of this kind of stair, with hanging stone steps corbelled out from the walls and provided with delicate wrought or cast-metal supports for the wreathed mahogany handrail, Miss Jourdain writes: "The clean lines of the spiral curve, the exposure of constructional feature, the economy of space effected, are all in its favour."

The book is well produced in every respect, and should prove of great practical value.

English Furniture: Its Essentials and Characteristics. By J. C. Rogers, A.R.I.B.A. (London: 20, Tavistock-street, W.C.2.) 21s. net.

This volume has an interesting foreword by H. Avery Tipping, M.A., F.S.A., who undoubtedly writes from much experience and study. The volume deals with the period of oak, walnut and mahogany, in addition to useful information on lacquer furniture. Each section is dealt with ably, and the historical notes add considerably to the interest. Many fine pieces are illustrated, some well known and typical, others, uncommon or unusual, of examples of the different periods, some from our National collections, others, examples from private collections accessible only to the favoured few. Three half-tone illustrations are supplemented by clear working drawings, as dear to the amateur as to the professional, by Mr. Rogers, showing the old methods of construction, examples of cornice profiles, arrangements of folding frames, gates and brackets on eighteenth-century tables, and other details too numerous to mention. It is here that the book shows an advance on the usual handbook. There comes a time when the collector, after his early stages, desires fuller information in a handy form; this the author has given him.





Cricket Pavilion, Uppingham.

This building, recently erected to the design of Mr. Michael Tapper, of 10, Melina-place, London, N.W., consists of two dressing-rooms with suitable sanitary accommodation and fittings, servery, scoring box and a main hall, 40 ft. by 20 ft., the walls of which are being lined with English oak panelling inscribed with the names of the cricket elevens for many years past. The feature of this hall is a refectory table, 26 ft. long, made of English oak, the top being in one length, with forms to match. The whole of the internal and external doors and half-timbering, verandah, balcony, and seats are also constructed of English oak with Weldon stone dressings to windows and steel casements. The roof is covered with Norfolk reed thatch. Messrs. J. Jarvis & Sons, Ltd., 8, Wormwood-street, London, E.C., carried out the whole of the works and joinery. The steel casements and glazing were supplied by Messrs. R. E. Pearse & Co. Messrs. William Oliver & Sons, Ltd., supplied all the oak. Messrs. Gillett & Johnson, Croydon, renovated the clock and supplied a new face.

The volume is an encyclopædia of information, and sound information, too. As an example, anyone becoming possessed of a mutilated piece could, from the details given, faithfully and sympathetically restore it to its original state.

The Stones of London. By J. Vincent Elsden, D.Sc., F.G.S., and J. Allen Howe, O.B.E., B.Sc., F.G.S., &c. A descriptive guide to the principal stones used in London, with a brief non-technical account of their characteristic features. (London: 30 and 31, Furnival-street.) Price 6s. net.

This book deals literally with the varieties of stone to be found in London, and covers a wide field, from the Egyptian Hornblendic granite of Cleopatra's Needle to the purple slates of Wales. The authors warn us against what they describe as "prejudice," pointing out that certain stones, such as Caen, Bath and York, have acquired definite associations, and that it is too often forgotten that stone from the same bed in adjacent quarries may vary widely in properties. The behaviour of a stone in a particular instance must not be taken as necessarily applying universally. Lists of buildings are included showing where the different stones can be seen, and the material is illustrated, in magnified photographs to demonstrate the structure, at the quarry, and in the completed building. The volume is well indexed, and includes descriptions of marbles from all parts of the world, artificial stones, and terra-cotta, faience, pavements, and roofing materials.

There are few errors more difficult and expensive to rectify than the wrong choice of a building stone, and the subject of selection is not one that lends itself to rule of thumb methods. This book should therefore fill a distinct place in disseminating a general knowledge of the properties and durability of different kinds of stone, and is one to which reference may be made with confidence.

History of Textile Fabrics. By Richard Glazier. (London: B. T. Batsford.) Price 21s. net.

The purpose of this manual is to give a history of figured weaving, tracing its development through what is termed the characteristics or styles of certain periods, communities or countries, and thus enabling those readers who are interested in woven or printed patterned fabrics to understand readily and appreciate the magnificent inheritance of beautiful and useful examples of the weaver's craft that now lie available to those who desire to know what has been done in the past and what may be accomplished in the future. Mr. Glazier deals with the technical basis of the art, and gives illustrations of various historic types of looms; materials used by the weavers are referred to, and the practical conditions and technical considerations in the printing of fabrics are explained. The history of weaving and printing is indicated, and the author also deals with such special work as damasks, Javanese Batiks, Japanese stencil cutting, church vestments, &c. The survey of the book commences with the earliest known woven fabrics, and carries the story to the commencement of the nineteenth century; after illustrating grave textiles from Egypt, and Peruvian weaving, it traces the evolution of pattern design through the Sassanian and Byzantine periods, touching on Indian, Chinese and Japanese textiles, and the productions of Islamic art in Persian, Turkish and Hispano-Mooresque weavings. After dealing with the styles of mediæval Italy, and other countries, the author sets forth the characteristic patterns of later design in France, Italy, Spain, Germany, Flanders and England. The illustrations consist of over 100 plates, in addition to a large number of diagrams, patterns and sketches in the text.

Lunch-time Rambles in Old London. (London: The Homeland Association, Ltd.) Price 6d. each net.

In these hurrying days, when few Londoners know their London well, and little time can be spared for the reading of larger volumes, these little lunch-time ramble books, suitable for carrying in the pocket, will be helpful to all who are interested in the historic streets and buildings in which the city abounds. Each book contains a street plan and a number of useful illustrations. Number 1 (by W. H. Fairbairns) takes the rambler Around Fleet-street; No. 2, Lambeth (Prescott Row); No. 3, Smithfield (H. M. Buckingham); No. 4, From Clement Danes to Lincoln's Inn (Elmand Emneth); No. 5, The Adelphi (W. G. Morris); and No. 6, By London's City Walls (W. E. Gawthorp). Other volumes are in course of preparation.

Sir Christopher Wren, 1632-1723. (London: 27, Tothill-street.) Price 7s. 6d. net.

This small folio on Sir Christopher Wren is a welcome addition to Wren literature, for it contains material which does not appear elsewhere, both in illustrations and letterpress, and is well produced. The authors of the eight articles cover fairly completely the various interesting and admirable aspects of Wren's genius.

Historical Notes on Lincoln's Inn Fields. By A. H. Marks, B.A. (London: Technical Records, Ltd.)

Mr. Marks' admiration for Lincoln's Inn seems almost to have blinded his judgment as to the merits of the other London squares. Few architects—indeed, few people of discernment—will endorse the statement that "the character of the buildings surrounding the square (Lincoln's Inn) is in pleasant contrast to the hideous boarding houses of Bloomsbury, and other squares in the neighbourhood." A comparison there certainly is, but few would call the squares of Bloomsbury, which contain some of the choicest examples of London eighteenth-century architecture, the work of Adam, Ware, Leverton, and others, hideous. The fact that they may be boarding houses is an utterly irrelevant consideration.

However, when Mr. Marks deals with facts, rather than opinions, his little book is full of interest. Indeed, Lincoln's Inn square is characterised by interest rather than beauty; its buildings form a heterogeneous collection far less complete in itself than many a Bloomsbury square of boarding houses, although some of the houses, such as Nos. 57 to 60—the latter two comprising Lindsey House—presumed to be the work of Inigo Jones—and the former two being unified by Sir John Soane's semi-circular porch, are of great beauty.

Lincoln's Inn, of course, is redolent of historical interest, and intimately connected with monastic organisations, notably the Black Friars, who subsequently moved to that part of the city now bearing their name. The dedication of the district to the legal profession dates from the Earl of Lincoln, who bought the property in 1286 for 550 marks, and, being a patron of lawyers, installed law students in his inn. Many are the vicissitudes through which the open spaces have passed, and Charles I's financial embarrassments were such as to lead him to sacrifice Purse and Cup Fields for building purposes; and all through the centuries, the ground has been threatened.

In 1842 it was proposed that the Royal Courts of Justice should occupy the site. However, in 1894, the Fields passed to the L.C.C., and the square was thrown open to the public.

On the Margin. By Aldous Huxley. (London: Chatto & Windus.) Pp. 229. 6s. net.

Mr. Huxley has collected twenty-seven of his short papers which were originally published in various weekly reviews. The dual rôle of critic and essayist is much more difficult to maintain than many people imagine, yet Mr. Huxley has given us some excellent examples of both. In his work there is much of that "sharp illuminating wit" which, he says, is a characteristic of Mr. Strachey, and if he appreciates excellence in whatever form it takes, he is merciless in his mockery towards shams. He seems to find the state of the world depressing, though he is obviously fond of life itself. He tells us that in this dim land of ours we are accustomed to pay too much respect to fictitious values, that we think too much of the past and too little of moment, as contrasted with the realism of Italians in their love of life for its own sa On the other hand, he has a horror of what terms organised activities or organised distr tions "which demand from pleasure-seekers personal participation and no intellectual ef of any sort." In the essay on Accumulati he suggests a world overwhelmed by an accu lation of antique objects which will end burying us "unless we set about methodic to get rid of the nuisance." The essay upon Christopher Wren (which is one of the best in book) is based upon a quotation from Rus Mr. Huxley considers that the architect qualities which most obviously disting Wren's work are precisely those which Ru so contemptuously disparages, and he expl the contradiction thus: "In all matters nected with art Ruskin is to be interpreted a interpret dreams—that is to say, as signif precisely the opposite of what he says." Huxley considers that everything Wren did the work of a gentleman, and he sees in his " a faultless proportion, a felicitous massing contrasting of forms." He points out that man who built the City churches was a prac genius of no common order, and that "no a tect has known how to make so much of a cult site and cheap materials." We ar sympathy with his comments upon the naus affectation at the end of the century which us the big houses "built with all the irregula and more than the 'quaintness' of cottag It is encouraging to hear him say that "t are signs that architecture is coming back to sane and dignified tradition of which Wren the great exponent," and that "architects building houses for gentlemen to live Clearly, he blames architects for having gotten, in their architecture, the art of gentlemen, but we would suggest as a sul for Mr. Huxley that he should investigate much of the client is to be seen in the desig his house, how far architecture should indicative of the people, and whether mistaking the gentleman. We recommend essays and criticisms; and those who lik touch life at all points, and who believe tha realities of life are based upon our little w nesses and fallacies, will find Mr. Huxley entertaining.

BOOKS RECEIVED.

The House You Want. By R. R Phillips. (London: 20, Tavistock Street, Price 2s. 6d. net.

Impervious Concrete. By H. C. Ba (London: The Educational Publishing Ltd.) Price 12s. 6d. net.

The Builders' History. By R. W. Post (London: The Labour Publishing Co., Price 12s. 6d.

The Church and Parish of St. Dunst the East. By Arthur G. B. West. (Lon Simpkin, Marshall, Hamilton, Kent & Co., Price 2s. 6d. net.

English Cathedrals. By T. Perkins. don: G. Bell & Sons, Ltd.) Price 2s. net

The Modern Signwriter. (Manch The Decorative Art Journal Co., Ltd.) 12s. 6d. net.

House and Home. By Greta Gray. (Lon J. B. Lippincott Co.) Price 10s. 6d. net.

The Law of Property Act, 1922 Eustace J. Harvey. (London: Sweet & well, Ltd.) Price 7s. 6d. net.

The Builders' Calculator. By Smith. (London: Crosby Lockwood & Price 2s. 6d. net.

A Fair Wage. By Edward Batten. don: Sir Isaac Pitman & Sons, Ltd.) 2s. 6d. net.

Dear Old London. (St. Albans: Campfield Press.) Price 1s. net.

Greek Art and Architecture. By Gardner and Reginald Blomfield. (Lo Oxford University Press.) Price 2s. 6d.

Applied Sanitary Science. By Keeley. (London: The Sanitary Pub Co., Ltd.) Price 5s.

NCRETE CHURCH AT ASHFORD.

s church has been built for the Convent Good Shepherd, Ashford, Middlesex, on te of a wood-and-iron church, completely yed by fire last year. The building has rected with rock-face concrete blocks with al piers at roof truss centres. The plinth iers were built with plain concrete blocks red with cement and finished with a mixture shed sand, stone dust and cement, so rtioned to give an imitation of stone which reduces the monotony of the rock-walls.

church is roughly cruciform in plan, the chapel being 30 ft. wide by 100 ft. long k of altar. Beyond, forming the head of oss, is the sacristy, 30 ft. by 10 ft., with r above for storage purposes. Water is n to the sacristy. On the right of the altar nuns' choir, 30 ft. by 35 ft. long; and on ft of the altar a small secular chapel, d off with a screen having vertical louvres give a full view of the altar and obstruct iew of the nuns, who are members of an ed order. The main chapel is also divided lly and longitudinally by a solid screen in. high throughout the whole length of apel up to the altar rails. The whole of inery for doors, windows, screens, and ails, is of Oregon pine timber.

roof construction is quite different from was originally intended for the church. first place, "scissor beam" roof trusses ntended. After the walls were well under it was required to build a roof which be more in keeping with the general , and also to get much more height to the n as the wall-plate was only 14 ft. high. resented an interesting problem, in that ers already built were not designed to take rust from roof trusses, and, moreover, r for the first roof had already been d.

ammer-beam roof was decided upon and esigned to give vertical reactions without upon the walls.

r the sanctuary (*i.e.*, the intersection of ms of the cross in plan), are two trusses g diagonally from corner to corner and cting each other at the centre king post. ad in this king post was so great as to 2 in. diameter steel rod, which is boxed has a 10 in. by 10 in. oak block at the here the four rafters are framed in. At the n is an 8 in. by 8 in. oak block for the oping braces. The curved wooden braces nforced top and bottom with steel plates bolted together, and to reduce the eccentricity of the loads in this member steel rods were inserted on a radius line running through to the point where the collar beam meets the rafter. These diagonal trusses are 41 ft. clear span, and form a striking feature of the interior to those interested in structural matters. Mr. J. Weston, M.Inst.Struct.E., was consulted regarding this new construction and supervised the erection.



Concrete Church at Ashford, Middlesex: Exterior.

The trusses in the main chapel are 11 ft. 6 in. on centre with 6 in. by 2½ in. purlins, spaced 2 ft. 9 in. on centres. The roof covering is 1¼ in. tongued and grooved boarding, "V" jointed, felting and grey asbestos tiling. Five-pound lead valleys and flashings and soakers against gable walls were used. Grey concrete ridge tiles were used on the asbestos tiling.

Outside the church a plant house was built, comprising boiler-house, engine and battery rooms.

The heating arrangements, which were installed by Messrs. Ewart's, consist of "Ideal" radiators driven by an "Ideal" sectional boiler, which has to drive the water across the church roof above the curved braces of the roof trusses down to the radiators. The heating space is approximately 100,000 cub. ft. The electric light is obtained by a 2 K.W. petrol electric plant supplied by Messrs. A. Lyons, of Victoria-street. There are thirty-six points in and around the church.

The whole of the building work was carried out by Messrs. R. Murray & Sons, of Shepherd's Bush.



Concrete Church at Ashford, Middlesex: Interior.

MEMOIRS OF THE GEOLOGICAL SURVEY.*

THE GEOLOGY OF THE LONDON DISTRICT.

This pamphlet is a history of the London district, as revealed by a study of surface formations, outcrops, and the strata brought to light by borings. Covering, as it does, an immensely extended period of time, it takes us through epochs when London's foundations were laid under the sea, through sub-tropical and glacial periods, and eventually lands us into the comparatively genial period in which (but for the smoke) we live. London clay is the best-known of the strata underlying the area, a medium through which most of the tubes run, and admirably suited for boring purposes. In this clay remains have been found of crustaceans, fish, crocodiles, birds, mammals, and such plants as magnolias and the Ginkgo tree, and it is strange that, after so vast a lapse of time, the two latter should once more be flourishing in Hyde Park, having been re-introduced into London by man's agency. The thickness of clay under central London is not so great as might be expected, it having undergone a process of erosion. The boring at Meux's Brewery in Tottenham Court-road showed a depth of only 63 ft.; at Pall Mall, 120 ft.; and in the City from 85 to 130 ft. The fossils found in the higher beds of London clay indicate a climate somewhat similar to that now prevailing at the mouth of the Ganges.

Turning to modern times, we find an interesting account of London's smaller rivers. The West Bourne, which crossed the site of the Great Western Railway line near Royal Oak, was dammed in 1730 to form the Serpentine, a lake now supplied from a well sunk at its northern end in 1861. The West Bourne itself supplied the Bayswater district with water till 1844, but now runs into the sewers, the storm-relief sewer being visible where it crosses over the underground railway at Sloane-square Station. The Ty Bourne passed through part of the Regent's Park lake area, and through the Green Park. The Fleet River, or "Holebourne," starting at Hampstead and from Ken (Caen) Wood, ran down Farringdon-street, and was shown as an open river on Wren's rejected plan for the new London. The Wall Brook, flowing past the sites of the Bank and Mansion House, is the last of the principal "buried rivers" in London north of the Thames.

Enough has been said to indicate that these memoirs are of interest not only to the student of geology but to the architect, the engineer, and to any citizen who is interested in the development and history of London.

* "Memoirs of the Geological Survey: The Geology of the London District." By Horace B. Woodward, F.R.S. Second edition by C. E. N. Bromhead, B.A.; with notes on the palæontology by C. P. Chatwin. (Southampton: Ordnance Survey Office. Price 1s. 6d. net.).

THE BUILDING TRADE.

THE INCIDENCE OF INSURANCE.—I.

By A SPECIAL CORRESPONDENT.

"Renewal notices" for fire insurances are at the moment being issued broadcast, and between now and Christmas a far larger number of these yearly reminders will be posted before the 1923 policies expire. No comment upon such usual autumnal business would be needed but for the palpable fact that so many properties still remain insufficiently covered by insurance. This more particularly is the case with the lesser kinds of business premises, farm buildings, and houses generally, also ecclesiastical property and churches, some of which are of much architectural and antiquarian importance, far exceeding mere money value. Before the war, owing to the rise in prices, the Houses of Laymen and Convocation appointed a joint Committee of Inquiry into this matter, and in 1913 unanimously adopted its report recommending the formation of endowment funds towards obtaining more adequate parochial insurances. The Council of the Royal Institute of British Architects supported the project, urging its importance by issuing a special pamphlet and posting copies to all the diocesan and parish authorities in the United Kingdom.

Very little, it is to be feared, has since been accomplished, mainly owing to the straightened circumstances of all religious organisations throughout the land. The depressed state of agriculture, and the diminished incomes of middle-class owners of property; the difficulty of coping with the maintenance of business and of the family, besides meeting the demands of local rating and Imperial taxation—has doubtless induced many to run the risk of loss by fire, disregarding the importance of the average clause on which all such policies are based. Others, perhaps reckoning themselves immune by the consoling assurance that the actual risk of fire is very remote and negligible, or in other words tantamount to a bet made by the insurance companies with their policy-holder of one shilling and sixpence against a liability of £100. It is only when a fire occurs that the futility of such an argument is bitterly understood.

Meanwhile the increasing cost of building materials and labour, not to mention the interference with business by organised strikes, first in one direction and then in another, have combined to bring about serious liabilities inseparable from insufficient insurances. The great companies engaged in insurance business have repeatedly warned their policy-holders and by facts and figures demonstrated the actual state of affairs. These powerful combines are well able, of course, to look after their own interests without any special pleading on their behalf, and it need scarcely be said that what is here written is intended to prevent, if possible, further disasters taking place owing to the lack of forethought on the part of the insurer who for various reasons fails to protect himself in a reasonably proportionate manner against fire. During the present year several bad cases of this kind have happened, including an important and beautiful church which, if report can be relied on, was practically a total loss without any corresponding insurance provision for reinstatement of either the building or its valuable contents.

An example may be mentioned illustrating how risks inadvertently arise. The case is one with which the writer was professionally engaged not very long ago, situated in a most select residential square in London. Three houses, forming part of a row erected possibly by Thomas Leverton, were in course of remodelling by being newly refitted throughout in an up-to-date manner with new woodwork and stoves. Under professional supervision the work was being done by two first-class builders. No. A, adjoining Nos. B and C, belonged to a different owner from the others. The work at this first house had almost been completed when the fire broke out in No. B. The cause was due to a well fire having been installed in the ground floor front room of No. A. The party wall between the premises varied considerably in thickness. The architectural contrivance of the entrance hall in No. B had been managed by erecting piers of considerable projection, and the interspace in the vestibule, exactly behind the chimney breast of No. A, was filled in by a 9-in. wall. No measurements appear to have been taken, and the relative positions of the projections in No. B were not considered important as they certainly ought to have been. In order to obtain the required depth for the new well fire the fitter, regardless of consequences, cut away half the thickness of this 9-in. wall, a very risky thing, of course, to do in any event. No one appears to have known, or if they did know, to have remembered, that in most London residences of that period it was the traditional custom to build in wooden bricks to form fixing blocks for the joinery. The heat of well fires, as everyone knows, is considerable. In this case the half brick backing (more or less shattered by cutting away) was insufficient, hence the ignition of the nearest wood brick behind the skirting in No. B. The fire rapidly spread behind the boxing, and naturally the adjacent staircase in the inner hall was speedily in flames. Had this happened the day before, the whole place must have been burnt out because the hall then packed with the new joinery intended the principal rooms of No. B. The builde that house did not know what had been in No. A, so was free from blame. Fo nately the mishap took place in the day when the men were at work and gave alarm without delay.

The following incident differs entirely the one above described. A very large ing business in East Anglia was carried successfully for many years with isolated ber and thatched or timber and tiled maltings. A special rate of insurance been charged in consequence. The proprie were of undoubted repute, but the Insur Company at last refused to continue the at any price. Thereupon a big brick cement malting, constructed of concrete iron, exceptionally solid and strong, built. Shortly after completion this ca fire-resisting structure was ruined by The 18-in. walls were thrust out of upright, and the glazed brickwork throu out was considerably damaged. machinery became a wreck. The old tim maltings meanwhile remained unharmed, l ing still as fresh as paint after the fire. writer was consulted as to whether the spreading walls could be righted or not. were drawn up to the vertical and reinsta The heat from the malt having no means escape, as happened in the old woo shanties, set the brick-built malting on by spontaneous combustion. This case dem strates the uncertainty of fire risk and ju fies the common-sense advice not longer neglect a readjustment of fire insura premiums.

COMPARISON OF PRICES OF BUILDING MATERIAL BETWEEN AUGUST 4, 1914, AND SEPTEMBER 30, 19

Material.	Aug. 4, 1914. £ s. d.	Nov. 11, 1918. £ s. d.	Aug. 31, 192[illegible]. £ s. d.	Sept. 30, 1923. £ s. d.	Rise or [illegible] durin Month (Per ce
Bricks—					
Best Stocks	1 16 6	3 3 6	4 2 0	4 2 0	—
Flettons	1 14 0	2 7 8	2 13 3	2 13 3	—
Glazed	13 0 0	17 17 6	22 0 0	22 0 0	—
Thames Ballast	5 9	17 0	10 6	10 6	—
Thames Sand	7 3	17 0	15 6	15 6	—
Shingle (¾ in.)	—	15 0	14 0	14 0	—
Portland Cement	1 17 0	3 8 0	2 18 0	2 18 0	—
Ground Blue Lias Lime	1 0 0	2 2 6	2 13 6	2 13 6	—
Grey Stone Lime	1 8 0	2 7 0	2 10 9	2 10 9	—
Bath Stone	1 7½	1 7	2 9½	2 9½	—
Portland Stone	2 4½	2 10½	4 4	4 4	—
Good Sound Building Timber—					
4 in. × 11 in.	16 10 0	53 0 0	34 0 0	34 0 0	—
3 in. × 7 in.	13 0 0	46 0 0	26 0 0	26 0 0	—
3 in. × 11 in.	15 0 0	50 0 0	34 0 0	34 0 0	—
2 in. × 11 in.	—	51 0 0	34 0 0	34 0 0	—
2 in. × 7 in.	—	46 0 0	26 0 0	26 0 0	—
3 in. × 4 in.	—	—	24 0 0	24 0 0	—
Slates—					
24 in. × 12 in.	—	—	37 12 6	37 12 6	—
22 in. × 12 in.	—	—	34 0 0	34 0 0	—
R. S. Joists	9 10 0	—	13 10 0	13 10 0	—
Iron—					
Common Bars	9 0 0	16 10 0	14 0 0	14 0 0	—
Mild Steel Bars	9 5 0	21 0 0	13 10 0	13 10 0	—
Steel Bars	9 5 0	19 10 0	13 10 0	13 10 0	—
Cut Nails	11 10 0	29 0 0	21 10 0	21 10 0	—
Sheet Lead	22 15 0	40 0 0	34 0 0	35 0 0	+
Glass—					
15 oz. Sheet	2	7	3⅜	3⅜	—
21 oz. „	3	8	5	5	—
26 oz. „	3¾	9	6	6	—
Raw Linseed Oil	2 4	8 4	3 8	3 9	+
Turpentine	2 6	11 0	6 6	6 9	+
Ground English White Lead	30 5 0	60 10 0	55 10 0	56 5 0	+
White Lead Paint	—	83 10 0	77 0 0	77 0 0	—
Red Lead	28 10 0	47 0 0	42 0 0	42 0 0	—

ESTIMATING FOR SMALL BUILDERS.—VII.

By J. H. BARNS, F.I.O.B.

SMITH AND FOUNDER.

One can readily imagine that constructional steelwork of a steel-framed building is something in the nature of a sealed book to the small builder, and it is hardly likely that he will be required to deal with such a structure, and if he were he could place himself in communication with one of the well-known constructional firms, who would be pleased to give all particulars, designs and estimates. No attempt will, therefore, be made to deal with this subject; but, as the small builder is often required to fix constructional steelwork in the form of steel joists, girders and stanchions, a little information on this subject may be useful.

The sizes, weights and strengths and a whole wealth of information concerning the required material will be found by consulting some of the section sheets and books issued by the various steel constructors, and these, with a little common sense, will enable the small builder to find out exactly what he requires. At any rate, he can err on the side of safety and no constructional expert can do more.

The first price given will be for plain steel joists in stock lengths. The basis price is charged for ordinary sections of steel joists, and some of the smaller and larger joists are charged at a higher rate. Joists are supplied in inch over or under the length stated without extra charge; or, to put the matter another way, if a 20 ft. stock length of steel joist were ordered it may measure anything between 19 ft. 11 in. and 20 ft. 1 in. If steel joists are cut to exact lengths, the cutting and waste would be charged for, or an all-round price would be charged for the steel joists cut to exact lengths. Steel stanchions which consist of the usual rolled steel joist section with a cap and base plate and the usual bracketed connections, are sold at a covering price for the completed article, say, £17 10s., although any extra labours or cleats for further attachments would be charged separately. If the stanchion is a compound one, which would mean a steel joist as shaft with plate on each side riveted on to afford greater strength, it would be charged for at a higher rate than the plain stanchion, say, £18 10s.

Compound girders being a compound of rolled steel joist with plates top and bottom, are charged for at an inclusive rate, approximately £15 10s. per ton for the beam, the extra angles and attachments being charged in addition. The price per hole is charged for each thickness of metal, so that, if a ¾ in. hole were drilled through four thicknesses of metal, the price would be equal to four holes in a single thickness. If steel joists have to be fixed and attached to the side of another joist, the connection would be charged separately. Rolled steel joists to British standard sections, loaded in vans at merchant's yard, for sections from 3 in. by 3 in. to 16 in. by 6 in., the basis price to-day is about £12 per ton. Except that 9 in. by 7 in. section costs 5s. per ton over basis price, and the 10 in. by 8 in. section 10s. per ton over basis price,

6″ ×1½″ 7″ ×3″ 7″ ×1¾″	Over basis price. sections would be.... 20/– per ton
6″×1¾″ 7″ ×3″	..... 10/– per ton
7″ ×7″ 7″ ×7½″	..... 10/– per ton
7″ ×7½″	..... 20/– per ton

The approximate price charged for cutting to exact lengths is about 10s. per ton, but, should only a single joist be required to be cut to a odd length the stock length would be charged, and the builder would have to pay in addition for the cutting, probably 1s. or 2s., and the portion wasted.

The price of rolled steel channels is about 10s. per ton, on the basis price for joists.

Steel tees would cost about .. (On basis price for joists)	25/– per ton
Angle cleats riveted on to joists	24/– per cwt.
Single notches to 5″×3″ steel joists	1/– each.
Single notches to 6″×3″ steel joists	1/– „
Single notches to 8″×4″ steel joists	1/6 „
Single notches to 10″×5″ steel joists	1/9 „

Double notches twice the price of single notches. Joggles cost about one and-a-half times the price of the notch. The cost of delivery of steel joists will depend upon the district, probably 10s. to 20s. per ton. Unloading, hoisting, and fixing steelwork, including for use of tackle, would cost from £2 10s. to £4 per ton, exclusive of any bricklayers' work. Holes drilled in web or flanges at works, 3d. each. Holes drilled in position on site about 1s. 6d. each.

The prices quoted are for steelwork in London stock. Cheaper rates can be obtained if the material is bought direct from the works and in fairly large quantities, but this may necessitate waiting for some time until the particular sections required are rolled. This information can be obtained from the "rolling programme" of the mills, which is issued periodically. The safer plan for the small builder is to buy his steelwork from London stock. The ordinary builder's smith's work, including roof straps, bolts, ties, &c., can be bought for about 36s. per cwt., and the fixing will be worth about 7s. 6d. per cwt. Wrot iron balustrades to staircase would cost 48s. per cwt. fixed complete, including running in ends of balusters with lead

Example :—

1 ft. run wrot iron balustrade with 2 / ¾ in. by ¾ in. square bars to each step, the ends to be run in lead to stone steps, and 1½ in. half round rail at top screwed or riveted through

	s.	d.
1 ft. run 1½″ H.R. rail (14 lbs. at) 2 / 3 ft. ¾ in. ×¾ in. balusters (48/– cwt.)	6	0
Add profit and oncosts, 15 per cent. ..		11
	6	11

The mortices in steps to receive balusters would be charged for in addition, probably 2d. to 4d. each.

STEEL REINFORCEMENT FOR CONCRETE.

The rods are usually kept in London stock in about 16 to 18 ft. lengths; longer lengths can be obtained from works without extra cost.

¼″ Round mild steel joists ..	15/6 per cwt.
⅜″ „ „ „ „ ..	14/9 „ „
½″ „ „ „ „ ..	13/– „ „
⅝″ „ „ „ „ ..	12/6 „ „
¾″ „ „ „ „ ..	12/6 „ „
1″ „ „ „ „ ..	12/6 „ „

If obtained direct from works would cost about 20s. per ton less. The cost of bending the rods as may be required for reinforcement of floor slabs, beams, or stanchions, will depend in a measure upon the number of rods required to be bent or cranked to each pattern. Each bend would need to be drawn out full size for the guidance of the bender, and if a large quantity is required to one drawing it would reduce cost of setting out. This would apply more particularly to the reinforcement to beams. Some of the rods used in reinforced concrete work for beams and stanchions will need little or no bending. The small rods or stirrups required for tying the main rods together will need to be wired at required position with fine annealed wire. The cost of labour bending steel for reinforcement for slab floor would cost about 6s. per cwt. Ditto bending and cranking rods for beams and columns and lacing together with stirrups and placing in position in wood casing to receive concrete, 8s. to 12s. per cwt.

Example :—

Cwts.

— Wt. mild steel rod reinforcement for slab.

1 cwt. steel rods, say	£0	15	0
Labour as above		6	0
	£1	1	0
Add 5 per cent. for waste and use of tools		1	0
	£1	2	0
Add profit and oncosts, 15 per cent.		3	3
Per cwt.	£1	5	3

RAINWATER PIPES.

Cast iron rainwater pipes, either round or square, are usually sold in 6 ft. lengths at list of prices fixed by the trade association. Shorter lengths are sold at higher prices, the difference apparently being due to the shorter lengths which include the same socket, weighing more per ft. than the longer lengths. The diameter of a rainwater pipe is measured from inside to outside. Rainwater pipes are sometimes specified to be a certain size "internal diameter" which necessitates the pipe being fractionally larger than the ordinary sizes, and, as there is no great demand for them, the prices are considerably higher than for the ordinary pipes. No difference is made if the pipes have or have not ears cast on. The merchants will supply the pipes painted with one coat of paint for about 5 per cent. extra on cost of pipes. This saves labour on the job, as it prevents them from becoming rusty, thus keeping the pipes in a better condition ready for painters. Painting to rainwater pipes is usually done on the outside only. They can be had painted on the inside at a small increased cost.

There are many methods of fixing rainwater pipes. The ordinary method is to nail the pipe to the wall through the ears provided. Most other methods are attachments to keep the pipes away from the wall, and to allow room for painting behind the pipe. The cost of such fittings is usually small, according to the pattern selected, but as they need the positions to be carefully set out and holes cut by bricklayer, and something or other built into the wall the labour for fixing (say 1s. 6d. per clip for each socket) is usually an expensive part of the cost of the contrivance. The disadvantage of using some unusual fitting for fixing rainwater pipes is that, when repairs accrue, it may be difficult to replace the broken parts.

Example :—

Ft. run 3″ diameter C.I. rainwater pipes with ears cast on and fixing with galvanised nails to brickwork.

	s.	d.
6 ft. run 3″ dia. rainwater pipe	4	4
2 nails		1
Red lead putty for joints, say		2
Fixing, 8d. yd.	1	4
	5	11
Add for cutting, 10 per cent.		7
Cost of 6 ft. length	6	6
Cost of 1 ft. length	1	1
Add scaffolding, say ½d. per ft.		½
	1	1½
Add profit and oncosts		1½
	1	3

When an estimate is prepared it is not usually known where the joints will occur in the rainwater pipes, or the lengths in which they will be required. The 10 per cent. included for cutting is a provision either for the labour and waste consequent upon cutting, or the enhanced price of pipes is in short lengths. The item of 1d. per yard, included for scaffolding is a contribution towards the scaffolding, which is presumably already in position. If special ladders or scaffolding have to be provided and erected the cost must be added to the above.

Round Cast-Iron Rainwater Pipes.

	Per Yard				
Diameter	2″	2½″	3″	3½″	4″
6 ft. lengths ..	1/7½	1/10	2/2	2/6½	2/11
2, 3, or 4 ft. lengths	1/10	2/0½	2/4½	2/9	3/2
Fixing	7d.	7½d.	8d.	8½d.	9d.
	Each				
Shoes	1/1	1/2½	1/5	1/11	2/2
Offsets, 4½″ to 6″ projection	1/7	1/11	2/2	2/5	3/1
Single branches	1/10	2/2	2/8	3/1	3/8
Heads, flat or angle.	1/9	2/–	2/4	3/–	3/3

For a fair quantity slightly lower prices would be quoted. The labour fixing shoes can be taken as about equal to half-yard of pipe of similar diameter. Ditto: Fixing to offsets (commonly known as "swannecks") as one yard of pipe. Ditto: Fixing branches (junctions) as two yards of pipe.

GUTTERS.

Gutters may be roughly divided into two classes—the half-round and the moulded sections. There are about three kinds of half-round gutters, the ordinary half-round, the deep, and the deeper sections, and of three different thicknesses of metal, about $\frac{1}{16}$ in., $\frac{3}{16}$ in., and $\frac{1}{4}$ in. Of the moulded gutters there are the ordinary "O.G." section, which is classed according to the width only (say 5 in.), no depth being stated, and the moulded gutters, which have width and depth mentioned as 5 in. by 4 in., &c. Half-round gutters will require some kind of wrot-iron bracket, of which there are many patterns, for fixing gutter. It is safer to use a bracket with a clip at the back to prevent the gutter tilting over when a ladder is placed against it. The O.G. or moulded sections are usually screwed to a wood fascia. The screws may be the ordinary iron, brass, or copper ones; but they are not very satisfactory as the heads are small. The best method is to use (say) 1½ in. galvanised mushroom-headed screws, costing about ½d. each, which give a much better fixing.

Ordinary C.I. Half-Round Gutters.

	Per Yard			
Width	3″	4″	5″	6″
6 ft. length	1 2	1/4	1/8	2/4
Short lengths	1/3½	1/5½	1/10½	2/6½
Fixing	9d.	9d.	10d.	10d.
	Each			
Angles and nozzles ..	1/–	1/3	1/7	2/3
Stop ends	3½d.	4d.	7d.	8d.

Example:—

— ft. run 4″ C.I. H.R. gutter, including brackets and fixing.

	s.	d.
6′ run 4″ gutter	2	8
Gutter bolts and red lead..		2
2 gutter brackets, say 4d. each		8
Fixing, say	1	6
Cost of 6′ length	5	0
Cost of 1′ length		10
Add cutting, 10 per cent.		1
Add scaffolding, say ½d. per ft.		½
		11½
Add profit and oncosts, say 15 per cent.		1½
Per ft.	1	1

Cast-Iron O.G. Gutters.

	Per Yard			
Width.....	3″	4″	5″	6″
6 ft. lengths	1/6	1/8	2/1	2/8
Short lengths	1/8	1/9½	2/4	2/10½
Fixing	10d.	10d.	11d.	1/–
	Each			
Angles and nozzles..	1/5	1/6	1/8	2/5
Stop ends	3½d.	3½d.	6d.	6d.

Ordinary O.G. gutters have the backs slightly sloping. If supplied with straight back cost about 2d. yard additional.

Example:—

— ft. run 4″ C.I. O.G. gutter with socketed joints and fixing.

	s.	d.
6′ run 4″ O.G. gutter	3	4
Gutter bolts and red lead..		2
Screws		1
Fixing	1	8
Cost of 6′ length	5	3
Cost of 1′ length		10½
Add cutting, say 10 per cent.		1
Scaffolding, say		½
	1	0
Profit and oncosts, say 15 per cent. ..		1½
Per ft.	1	1½

C.I. Moulded Gutters, Ordinary Sections.

	Per Yard.		
	4″×3″ ..	5″×4″ ..	6″×4″
6 ft. lengths	4/– ..	4/6 ..	5/2

Cost of short lengths up to 2′—equal to 1 yard.
Above 2′ and up to 4′—equal to 1½ yards.
Above 4′ and up to 6′—equal to 2 yards.
Angles and nozzle outlets—equal to 1 yard.
Angle stop ends—equal to ⅓ yard.

Example:—

— ft. run 4 in. by 3 in. C.I. moulded gutter with socketed joints, and fixing to wood fascia.

	s.	d.
6 ft. run 4″ × 3″ gutter	8	0
Gutter bolts and red lead		2
Screws		1
Fixing	1	9
Cost of 6 ft. length..	10	0
Cost of 1 ft. length..	1	8
Add cutting, 10 per cent.		2
Scaffolding, say ½d. ft.		½
	1	10½
Add Profit and Oncosts, say 15 per cent.		3½
Per ft.	2	2

PAVEMENT LIGHTS.

There are two kinds of pavement lights, those finished with the glass dropped straight into the pockets in the iron frame so that the iron surface is seen at the top, &c., are described as pavement lights with iron surfaces, and those in which the ironwork is sunken and filled in to form a cement surface. The kind of glass will considerably affect the cost of the lights. There are large prisms with serrated edges to catch the light; there are the semi-prisms, the convex lens, and a glass which is prism and convex lens combined. The beaded, button, checkered, or convex lenses go into the next category, and the rough plate glass lights are the cheapest of all. To determine the question as to which is the most suitable pavement light, one must inspect the place to see if there is a beam going right at the back of the light, as it would be useless to put a prism to reflect the light if the light when deflected could not enter the premises. In this case it is usual to put a few rows of convex lens near the building, and those farther away in the same frame where they will get a larger amount of light to be glazed with the prisms.

The frames can either be glazed with prisms throughout, or prisms and another kind of glass, say, convex, alternately. There is no doubt that a very good light can be obtained by using the best prism pavement lights, but it has hitherto been a disadvantage that the large prisms have an unfortunate habit of breaking off or flaking at the top, probably due to some fault in annealing the glass. In many places in the City you will find wirework fixed under the pavement lights to catch the pieces of glass if they fall. Recently some of the makers have been putting on the market a pavement light glazed with a prism which they will guarantee for five years against flaking.

The approximate prices for pavement lights for ordinary sizes made to reasonable dimensions and delivered in London, are:—

	Per ft. sup.
Iron faced pavement lights with large prisms	13/–
Ditto, semi-prisms and convex	10/6
Ditto, small prisms	10/–
Ditto, small prisms and convex.. ..	9/6
Ditto, beaded, button, checkered and convex	9/–
Ditto, rough plate glass as lens	8/6
Pavement lights with cement surface and glazed with large prisms	19/6

And other prices in proportion.

The cost to fix pavement lights is about 1/– to 1/6 per ft. super. The common method is to fix them in a rebated stone curb, and fill in the joints with Portland cement. These invariably leak sooner or later, and the more satisfactory way is to bed them in some mastic cement, of which there are many kinds on the market (such as "farotex"), so as to allow for expansion, &c. Iron stallboard lights fitted with some kind of reflecting lens would cost about 10/6 per ft. super, and with a plain kind of lens about 10/– per ft. super, and fixing about 1/– per ft. super additional.

Glazed cellar flaps would need to be counterbalanced by means of springs, and should be fitted with a gutter on all four sides and a movable bearing bar provided for the back. Such flaps fitted with a small convex or similar kind of lens would cost about 21s. per ft. super. and fixing about 1/6 per ft. super additional. It is not advisable to fix large prisms in a cellar flap, as they are very apt to get broken.

Southampton Harbour Scheme.

A scheme of dredging, estimated to cost £38,000, is to be undertaken by the Southampton Harbour Board if an agreement made with the British representatives of the United States Shipping Board is ratified in Washington.

Another important Southampton scheme is that of reclaiming 200 acres of land on the Marchwood site of the River Test, opposite the site of Southampton's proposed new docks. The land would form a suitable site for several industrial enterprises, and the scheme would provide work for one thousand men for three years.

Wages on Public Works.

The Public Works Conciliation Board has fixed the following rates of pay to apply to the City and County of London within the Metropolitan Police area, for the three months ended December, 1923. For the City and County of London the labourers rate is 1s. 3½d. per hour; blacksmith, 1s. 8d.; concrete leveller, 1s. 3½d.; duct or earthenware drain layer, 1s. 4½d.; fitter, 1s. 8d.; granite mason kerb, &c., 1s. 9d.; granite sett dresser, 1s. 8d.; jointer, 1s. 4½d.; kerb fixer, 1s. 8d.; pavior, 1s. 8d.; petrol locomotive or roller driver, 1s. 5½d.; pipe jointer (iron up to 6 in.) earthenware or concrete pipes and conduits, 1s. 4½d. to 1s. 5½d.; pipe jointer (iron) above 6 in. diam, 1s. 5½d.; platelayer, 1s. 4½d. to 1s. 5½d.; platelayer's labourer, 1s. 3½d.; pneumatic pick operator, 1s. 4½d.; rammerman, 1s. 4½d.; scaffolder, 1s. 6½d.; screeder, 1s. 4½d.; steam roller driver, 1s. 7½d.; street mason and flag dresser, 1s. 7½d.; tarpot man, 1s. 3½d.; timberman, 1s. 4½d.; wood-block layer, 1s. 4½d.; men working in "boots," 1d. per hour extra; watchman, 7s. 6d. per shift minimum day or night. Hours of labour and overtime rates as agreed on March 11, 1920.

New Tube Stations.

Several Tube Stations in London are to be reconstructed. Piccadilly Circus Station is to be rebuilt on a plan devised to cope with the extraordinary growth in passenger traffic in recent years, and will be 15 ft. immediately beneath the Circus. The station will have seven entrances. Oxford Circus, the Bank, Westminster and other tube stations are also being reconstructed to cope with modern requirements.

E MASONS' DISPUTE: AND THE CAUSE.

By S STRANKS (*Organiser of A.U.B.T.W.*)

are glad to give Mr. Stranks the oppor- of stating his views in this article, we do not agree with all his observa- and we invite his consideration of our article this week. But we do most associate ourselves with the sugges- which he refers of a general conference irects builders, operatives, and others, he object of arriving at an under- g which will secure satisfactory and able and, it is to be hoped, a lasting n the industry.—ED.]

unconstitutional action of London in striking against certain London as attracted public attention, especially art directly interested in the building y. This dispute calls for special con- ion because the masons' action only d the widespread and deep-rooted un- prevalent among building operatives lly, but for the moment it is my in- to confine my observations to the n situation as affected by the dispute s settlement.

officials of the operatives' union are ware of the unrest existing, and I am he London employers appreciate the n: in fact, I am inclined to the view e significance of the masons' action has en overlooked by the members of the .A. In putting the reasons for the s' action before the National Joint Con- . I drew their attention to the fact n the building trades the masons had putation of being one of the best dis- d forces, and during my whole ex- e they had conformed to constitutional : hence their recent departure from this should stimulate serious thought as to plications.

reasons for the unrest among the Lon- eratives can be given under the follow- eads:—(1) Deep resentment at drastic ons in wages; (2) resentment at the tion award of Sir Hugh Fraser; (3) e of settlement of the working hours n; (4) the violation of overtime rules ployers; (5) the tendency of employers k the whole spirit and letter of agree- regarding mess-rooms on jobs.

st be excused for repeating that the g trade employers did by profuse pro- create a feeling of expectation in the ves' ranks of better things; the Wages nditions Council scheme was to stabilise ject better conditions; but on the first f the economic power of the worker g through slackness of trade, the em- Federation pressed their power for ons of wages again and again until f we take the respective earnings per of the journeyman and labourer in , we find the former earns £3 11s. 6d. labourer £2 14s. 1d. This is without ons for insurance, and these earnings the assumption that the operatives ll time throughout the year. Taking s, inclement weather, unemployment, er losses, it will be found that the net s per man are much below the figures Is there anyone prepared to say such allow a man and wife to do justice to mily? If so, all I can retort is let y it, and see what it means in practice. rer's position is especially bad; the working day after day sore at heart ages made in their standard of life. hen the reasons for these low wages that the bitterness of heart is shown stified.

building worker is asked to look at the low wages of other workers as com- th his; there is too much generalising regard. Some workers are receiving as much or more than building opera- nd certainly it cannot be said their occupation is of more valuable service. But let us assume the building trade worker is slightly better off—what an insult for this to be pressed! "Yes," it is said, "you are not receiving a wage sufficient to live, but look around and console yourself with the fact that others are more reduced in circumstances!"

One of the arguments for reduction in wages was the desirability of reducing the high costs of building operations. We agreed this problem had to be met. The worker is of opinion that his contribution in this connection is greater than that of any other interest engaged in the industry; further, he insists that cheaper production is not to be achieved at the expense of his and family's comfort. He looks around at the building he is working on, and while he is not opposed to seeing the best it is only natural when he is engaged daily, as he has been the last two or three years in London, assisting in the erection of costly and luxurious buildings, continually to ask whether there is not something wrong which condemns him to starvation wages on the erection of buildings of which the owners appear to have unlimited means. Certainly let us erect handsome buildings, but in doing so do not insult the worker by utilising his labour at starvation rates. It is no secret that some of the firms for whom these magnificent buildings are being erected have made enormous profits during the last few years.

There is a rather important phase in relation to costs of buildings to which I must refer at this juncture, viz., output. The main thing we have to bear in mind is that output varies according to the amount of trade. This has been stressed by me in previous articles, but I am of the opinion that builders in London could table some interesting figures on the relation of output to wages. If we dismiss the war period we find that soon after the introduction of the 44-hour working week a marked increase in output was gradually manifest, but since the reduction of wages there has been a reaction, and output has diminished. Is there any wonder? Do we expect the best service when a bitter feeling exists because the worker is conscious that justice is not done to him? I venture to assert there is not one general foreman who will not agree that, taking the sociology of the worker of the present day, the low wages complained of produce an atmosphere on jobs which conduces to anything but high output. The late John Ruskin's expression, "Cheap and nasty," can very well be applied to present conditions in the building industry.

On two occasions the operatives were balloted on the question of wages and hours, and in each case a big majority was cast against terms submitted. Their complaint is that the national representatives ignored these votes; more especially on the last occasion resentment was displayed, and now exists, but the feeling of resentment was coupled with a feeling of amazement when Sir Hugh Fraser gave his award. The view held is that the arbitrator had ignored one of the main terms of reference, *i.e.*, the question of the legality of the employers' action in pressing for another reduction without complying with the machinery of the Wages and Conditions Council scheme, in view of the evidence that legal and other well-informed authorities held that the employers' attitude was a breach of the document; and then, in addition, we find that although this point was not dealt with in the award reductions were imposed. Is it any wonder the operative was indignant at the whole proceedings?

The arbitrator also struck out of the award a clause of which the employers made free use when the operatives' power of resistance was weak in consequence of unemployment. I refer to the clause which gave either side the option to give notice for a reduction or increase of wages on the grounds of the state of trade or other circumstances. The workman points to the fact that while the employers had the full benefit of this provision he is denied such freedom now economic power is with the employers.

The question of the 44-hour working week has been a disturbing feature in the industry practically the whole time it has been in operation. The operative has been suspicious of the employers' attitude on this question. He formed the opinion that the only particle of concession accruing as a result of all the employers' profession of a shorter working week was to be taken from him! The attitude of the employers on this question has been a source of keen irritation, to say the least. It was held that the terms of settlement referred the 44-hour week or otherwise to each region to arrange; instead of this being conformed to we found when the Regional Councils met that employers took up a stonewall attitude, and the inference we drew was that there was a desire to keep it still in the negotiating arena in the hope of destroying the 44-hour week. The good will at the back of the original settlement was lacking. There was no intention on the part of builders to judge each region on its merits; but, on the other hand, every attempt was made to prejudice the progressive districts by putting up the reactionary regions against them. The operatives were resigned to the regional arrangements on hours; in the London region we are anxious for a settlement. It is a source of a great deal of unrest. The builders are absolutely standing in their own light by allowing the hours' question to be kept dangling over the heads of the operatives.

Regarding overtime, there have been flagrant abrogations of the working rule agreement. Here, again, is a prime cause of suspicion of the *bona fides* of employers. It is held, right or wrong, that the employers have done their best to depress the workers' wages; they are doing everything possible to encourage overtime, and thus be able to defeat the 44-hour week.

I have had about 38 years' experience of the building industry, and in the whole of that period I have never seen such bad conditions obtaining on jobs in respect of mess-rooms as during the last two or three years. The working rule agreement, again, has been ignored. It has been a wonder to me that in some cases the men have put up with the conditions for one moment. The conditions have become so bad, and the disregard of employers so glaring, that faith in them honouring this rule is gone. As a result the operatives' Federation Council has unanimously decided to promote a movement for statutory powers to compel attention to be given to one of the most elementary rights for each human being, *i.e.*, light, air, and cleanliness, for the purpose of spending the only relief from working hours for their meals. Talk about efficiency and output, but how in the name of common sense can any employer expect these things when he ignores the elementary rudiments of health?

In presenting a case such as the one in question, there is always the risk of misunderstanding by being too general and sweeping. In any statement made I want (and feel a pleasure in doing so) to state that there are builders in London who do not come under the strictures I have made; they do their best on hours, mess-rooms, and other matters to honour the spirit and letter of working agreement. Again, I believe there are firms in London who take a more enlightened view on wages than unfortunately has been seen in the wages controversy recently.

The masons have returned to work as a result of official efforts to find some avenue for them and other sections of their fellow-workers to present the grievances indicated, but do not let any interested in the industry imagine the action of the masons was the outcome of a few disgruntled persons. I think

through my daily contact with the men I am able to speak with some authority on the present position. It cannot be allowed to develop. The risks of a big dispute are great, and it is up to both sides to centre on the problems with the object of a peaceful solution being found. This, I feel, can be done by a frank attitude being adopted. With good will the difficult position now confronting the London region can be negotiated.

The national joint body, which composed the masons' difference for the time being, in the terms of settlement advised the L.M.B.A. and the operatives' side to take steps to call the Regional Council together and to receive representatives of the operatives to place their views regarding wages, hours, overtime, and conditions on jobs. This meeting will be held on October 8, and I sincerely trust that as a result at least one or two questions will be settled at once. Mess-rooms ought to be an easy matter to decide; the rule is in existence, but it is the duty of the L.M.B.A. to take immediate steps definitely to send representations to their members. The question of the number of working hours ought to be settled once for all. Overtime and wages present more difficulties; but they must be dealt with on broad lines, with due appreciation of facts. Regarding the grave tendency for insane time limits in contracts, and the nerve racking pressure which is inflicted on contractors to complete a building in an unreasonable period, this is a problem which must be faced by all interests concerned. I hope the suggestion thrown out for a general conference representative of architects, builders, operatives (and it appears to me also that foremen and clerks of works should take part) will be called at the earliest opportunity. Mutual confidence is essential, and this can only be achieved by an interchange of views so that some mutual agreement can be arrived at. On the part of the operatives' union, there is a definite stand being made against the overtime prevalent, most of which is illegal. It is claimed that rules and regulations are worthless if present conditions continue. On the other hand, builders must know that the mad rush for overtime is only demoralising the industry; good management has no chance under it, more especially as overtime of the character complained of is costly and produces inefficiency.

I cannot close without extending my thanks to the Editor of *The Builder* for giving space for the operatives' point of view. It shows a sense of fairness which is not always a feature in journalistic circles, but giving all sides a chance to ventilate opinion and grievances must produce good results.

Saturday Half-Holiday.

Mr. E. Walter writes:—

Sir,—With reference to your correspondent's question last week, I once saw a similar one in a Labour paper, but do not remember seeing an answer. So far as one can learn, the Saturday half-holiday originated with the Church. The word holiday is really "holy day." There were many holy days recognised by the Church, and in olden times there was strict prohibition of work on these days and Sundays. It was a custom to solemnise the eve of such days by religious services, so work was stopped on Saturday after the noon bell was rung. This Saturday half-day was lost at the Reformation, and only of late years has it been regained.

This may be of sufficient interest and help to your correspondent and others to seek further confirmation of a fact—that many who enjoy the Saturday half-holiday may not realise it has any connection with religion.

Kingswood School, Bath.

The Governors of Kingswood School, Bath, have accepted an offer from the Right Hon. T. R. Ferrens, of £15,000, to defray the cost of erecting new buildings, including laboratories, lecture-rooms, &c.

RATES OF WAGES IN THE BUILDING TRAD

The following are the rates of wages in the building trade in England and Wales. E endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-Masons' layers' t Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bedford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chelmsford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Colchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Great Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ipswich	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Luton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Norwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	1/2½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	0/11½
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/0½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1
York	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	

(For rates of wages in the Building Trade in Scotland, see page 545.)

CONTRACTS, COMPETITIONS, &c.

or some contracts still open, but not included in this List, see previous issues. Those with an asterisk advertised in this number. Certain conditions beyond those given in the following information imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any ler; that a fair wages clause shall be observed; that no allowance will be made for tenders; and deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

he date given at the commencement of each paragraph is the latest date when the tender, or the names ose willing to submit tenders, may be sent in; the name and address at the end is the person from whom lace where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

TOBER 6.—**Haverfordwest.**—NEW PREMISES.—For on of proposed new premises at Quay-street, riordwest, for the Agricultural Co-operative y. Architect's Department, Co-operative Wholeociety, Ltd., St. Mary's-street, Cardiff.

TOBER 7.—**Edinburgh.**—HOUSES.—Erection of two s of buildings (composing nine houses in all,, two s in height, at Bangholm, for the T.C. Mr. e Simpson, architect, 14, Hill-street, Edinburgh.

TOBER 7.—**Greenwich.**—REPAIRS.—Execution of s, on a schedule of prices, to property on the Roan es during the period ending March 31, 1924. . B. Dannatt, Surveyor to the Foundation, 18, n-street, Greenwich, S.E. 10.

TOBER 8.—**Edinburgh.**—PAINTING.—For the painork required in the reconstruction of tenement at Port, for the T.C. Director of Housing, City bers, 329, High-street, Edinburgh.

TOBER 8.—**Enfield.**—HOUSES.—Erection of 34 s in Nag's Head and Scotland Green-roads, r's End, Middlesex, for the Enfield U.D.C. The il's Surveyor, Public Offices, Enfield, Middlesex. it £2 2s.

TOBER 8 AND 13.—**Glamorganshire.**—VARIOUS S.—For carrying out, for the Glamorgan County ation Committee, the following works: (1) Conn of Clemenston House, Southerndown-road, Bridgend, into a school for blind children; (2) ng new playsheds and retaining walls and levelling ygrounds at Rhiwfawr Council Schools, Swansea ; (3) painting externally the following schools: regan Mixed (railings excluded), Gowerton Boys', rton Girls' and Infants', Penclyn, Cilfrew and dulais Infants'; (4) provision of wrought-iron g at Beddau Council School; (5) ditto at Gwyndy il School; (6) remodelling w.c.'s at Bedlinog Council School; (7) partitions and other minor at Gellygaer Girls' County School; (8) repair ndows, floors, roofs, and new bath at Pengam County School; (9) taking down temporary ngs at Hengoed Girls' County School and removme and re-adapting and re-erecting same at m Boys' County School; (10) erection of a d way at Pontypridd Girls' Intermediate School. ntract No. 3 last date October 8, and all othe October 13). Sir T. Mansel Franklyn, Secretary ucation Committee, County Hall, Cardiff, or for 2) (3) and (4) at Bridgend Police Station, and (2) to (10) at respective schools named.

OBER 8.—**Huddersfield.**—PAINTING.—Exterior ng of the whole of the premises on the estate at rosland Moor Institution, for the Board of ians. Mr. Thos. W. Armitage, Clerk, Union , Ramsden-street, Huddersfield.

OBER 8.—**Kingsbridge.**—MARKET EXTENSIONS.—ditions to the Cattle Market, for the U.D.C. Mr. e, Surveyor. Deposit £1.

OBER 8.—**Pontypool.**—ADDITIONS, &C.—For alns and additions to the Old Penygarn Baptist . Pontypool, for the Trustees. Mr. A. Langley, nbury-road, Pontnewynydd, Pontypool.

OBER 8.—**Rhondda.**—REPAIRS AND PAINTING.—rrying out, for the Rhondda U.D.C., repairs and g at the Tyntyla Isolation Hospital, Ystrad lda). Mr. J. Rees, architect, Hillside, Pentre. t £2 2s.

OBER 8.—**Warrington.**—GARAGE.—Erection of garage at the Highway Stores Yard, for the T.C. drew M. Ker, Borough Engineer, Warrington.

OBER 9.—**Basingstoke.**—POST OFFICE.—Erec- a new Post Office at Basingstoke for the Comers of His Majesty's Office of Works. Contracts , H.M.O.W., King Charles-street, London, S.W.1. t £1 1s. (payable to the Secretary).

OBER 9.—**Buxton.**—LAVATORIES.—Erection of underground lavatories in the Market-place, e T.C. Mr. F. Langley, Borough Engineer, dall, Buxton. Deposit £2 2s.

OBER 9.—**Cardiff.**—LIFTING SHOP.—Construction ting shop at the engine shed at Cardiff, for the . Co. Engineer at Cardiff, Queen street Station.

TOBER 9.—**Macclesfield.**—HOUSES.—Erection of ses at Township of Poynton-with-Worth, near rt, for the R.D.C. Mr. Frank Harrison, Deputy Union Offices, Macclesfield.

BER 9.—**Northfleet.**—COURT HOUSE.—Erection urt House and other works at Northfleet Police . for the Kent C.C. Mr. F. W. Ruck, County ct, 86, Week-street, Maidstone. Deposit £2 2s.

BER 9.—**Perran.**—VIADUCT.—Reconstruction of Viaduct, near Perranwell Station, Falmouth for the Great Western Railway Co. Chief er, Paddington Station, W.

BER 9.—**St. Faith's.**—BRIDGE.—Erection of a ed concrete bridge over the Ford at Ringland, R.D.C. Mr. Charles Row, Clerk, 1 Redwell-Bank Plain Norwich.

BER 9.—**Swansea.**—WALLS.—For the con- on of retaining walls, bridges, and other works. -street Station, Swansea, for the Great Western Co. Chief Engineer, Paddington Station, W.

BER 9.—**Yorkshire.**—REPAIRS.—Adaptation and to four farmsteads on the Gargrave Estate, for st Riding C.C. County Land Agent, County Wakefield. Deposit £1.

OCTOBER 10.—**Darton.**—SCREEN.—Erection of a folding screen at Darton Infants' Council School. Education Department, County Hall, Wakefield.

OCTOBER 10.—**Edinburgh.**—HOUSES.—Reconstruction of shops into dwelling-houses at (1) Nos. 30 and 32, Cowgate (Alison's Close) (2) Nos. 38, 40, and 42, Cowgate, for the T.C. Director of Housing, City Chambers, 329, High-street, Edinburgh.

OCTOBER 10.—**Leeds.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange, &c., at Headingley, Leeds, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

OCTOBER 10.—**London.**—ALTERATIONS.—Alterations for the provision of washing and changing rooms for outdoor female staff at the Eastern Fever Hospital, Homerton-grove, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

OCTOBER 0.—**Marton.**—REPAIRS.—For repairs to two cottages and outbuildings at Marton, near Boroughbridge, for the West Riding Small Holdings Committee. County Land Agent, County Hall, Wakefield.

OCTOBER 10.—**Seven Sisters (Neath).**—BURIAL GROUND.—For construction of roadway paths, palisading walls, unclimbable iron railings, and other works, for the Dylais Higher Parish Council, in connection with the new burial ground at Seven Sisters. Mr. J. Cook Rees, F.S.A., Parade Chambers, Neath.

OCTOBER 10.—**Swansea.**—HOUSES.—Erection of 18 parlour-type houses on the Maesteg Estate, for the T.C. Mr. Ernest E. Morgan, Borough Architect, 3, Prospect-place, Swansea. Deposit £3 3s.

OCTOBER 11.—**Llandudno.**—LAVATORIES.—Construction of underground lavatories with reinforced concrete roof in Lower Mostyn-street, for the U.D.C. Mr. W. T. Ward, Surveyor, Town Hall, Llandudno.

OCTOBER 12.—**Coventry.**—DEMOLITION WORK.—For demolition work at the head Post Office, Coventry, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

OCTOBER 13.—**Leeds.**—EXTENSIONS.—Additions to the dining hall at the Imbecile Wards, and extensions to the Imbecile Wards at the Township Infirmary, for the Board of Guardians. Messrs. Chorley & Gribbon, 3, Park-place, Leeds.

OCTOBER 13.—**Porth (Rhondda).**—LIBRARY, &C.—For erection of, for the Committee of the Institute of Lewis-Merthyr Colliery workmen, a library and institute at Pontypridd-road, Porth. Mr. A. E. Trotman, architect, South Lea, Mount Pleasant, Porth (Rhondda). Deposit £3 3s.

OCTOBER 13.—**Tilbury, Essex.**—HOUSES.—Erection of a further 125 houses in Tilbury, for the U.D.C. Mr. A. W. Buckner, Clerk to the Council, Council Offices, Tilbury.

OCTOBER 13.—**Wycombe.**—BATHROOM.—For building a bathroom at Children's Home at Bledlow, for the Board of Guardians. Mr. B. L. Reynolds, Clerk, 12, Easton-street, High Wycombe.

OCTOBER 15.—**Carlisle.**—DOORS.—For making and erecting swing doors, &c., at entrance to covered market from Scotch-street, for the T.C. Mr. Henry C. Marks, City Engineer, 18, Fisher street, Carlisle.

✱OCTOBER 15.—**Charlton.**—HOUSES.—For the erection of 50 houses in two sections on the Charlton Housing Estate, for the Metropolitan Borough of Greenwich. Town Clerk's Department, Town Hall, Greenwich. Deposit £2 2s.

OCTOBER 15.—**Fermoy.**—HOUSES.—Erection and completion of eight five-roomed dwellings, construction of water mains, main sewer extension and manholes, &c., for the U.D.C. Mr. Wm. Sheehan, Clerk, Offices, Fermoy.

OCTOBER 15.—**Liverpool.**—SCHOOL.—Erection of the new Alsop High School, in Queen's-drive, Walton, for the T.C. Land Steward and Surveyor (Architectural Dept.), Municipal Buildings, Liverpool. Deposit £3 3s.

OCTOBER 15.—**Salford.**—GARAGE.—For building a motor garage adjoining the Central Fire Station, for the T.C. Borough Engineer, Town Hall, Salford. Deposit £2 2s.

✱OCTOBER 15.—**Wolverhampton.**—COLLEGE.—For the erection and completion of a new Technical College, for the C.B. Mr. S. A. Warren, Direction of Education, Education Offices, North-street, Wolverhampton. Deposit £3 3s. to Borough Treasurer, Town Hall.

OCTOBER 16.—**Liverpool.**—EXTENSION.—Extension to Nurses' Home at Alder Hey Hospital, for the West Derby B.G. Mr. Ernest B. Bailey, F.S.I., 9, Cook-street, Liverpool. Deposit £2 2s.

OCTOBER 16.—**Liverpool.**—PAINTING.—For external painting, &c., at Mill-road Infirmary, Liverpool, for the West Derby B.G. Works Department, Belmont-road Institution, Liverpool.

OCTOBER 16.—**London, W.**—EMPLOYMENT EXCHANGE.—Erection of Edgware-road Employment Exchange, W., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

OCTOBER 16.—**Margate.**—PAVILION.—Erection of a steel and timber bathing pavilion, for the T.C. Mr. E. A. Borg, Borough Engineer, 13, Grosvenor-place, Margate. Deposit £5.

✱OCTOBER 16.—**Neath (Glam).**—THIRTY HOUSES.—For erecting for the Neath Borough Council. 30 houses (parlour type) in blocks of two and four, at the Westernmoor Site. Mr. H. Alexander Clarke, Borough Engineer, Gwyn Hall, Neath. Deposit £3 3s.

OCTOBER 17.—**Gosforth.**—POST OFFICE AND TELEPHONE EXCHANGE.—For the erection of a Post Office and Telephone Exchange, for H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit, £1 1s. (payable to the Secretary).

OCTOBER 17.—**Manchester.**—SUB-STATION.—Erection of the new Hulme Sub-Station, for the T.C. Mr. F. E. Hughes, Secretary, Electricity Department, Town Hall, Manchester. Deposit £2 2s.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Plasterers' Labourers.
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/-	
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 544.

OCTOBER 18.—**London, E.C.**—TELEPHONE EXCHANGE.—Erection of Bishopsgate Telephone Exchange, E.C., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s.

OCTOBER 19.—**Downham Market.**—BRIDGE AND ADAPTATIONS.—For erection of a road bridge (over Common Lode Drain from Barroway Drove) and the adaptations and additions to farm premises at Hill Farm and Newbridge Farm, Stow Bardolph Fen, near Downham Market, for the Norfolk C.C. Mr. Victor Playle, County Land Agent, Shirehouse, Norwich. Deposit £1 1s.

OCTOBER 19.—**London, N.W.**—GARAGE AND STORE.—Erection of a garage and store at Dollis Hill Research Station, N.W., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

★OCTOBER 20.—**Hurst.**—HOUSES.—For the erection of 50 houses in Limes-avenue, for the Borough of Swindon. Mr. S. C. Baggott, Borough Engineer, 34, Regent-circus, Swindon.

OCTOBER 20.—**Leckaun.**—RESIDENCE.—Erection of a parochial residence at Leckaun, Co. Leitrim, for Rev. Francis Prior, C.C. Mr. P. J. Brady, architect, Broomfield House, Ballyhaise, Co. Cavan.

OCTOBER 20.—**Near Abergavenny (Mon).**—HALL, &c.—For erecting a parish hall at Llanvihangel Crucorney (near Abergavenny), with submission of alternative estimate for same, if erected of timber framing and galvanised corrugated sheeting. Mr. B. J. Francis, architect, Abergavenny. Names of intending tenders must be sent to Mr. W. H. Wood, Clerk to Parish Council, 1, Pant Glas, Pandy, near Abergavenny.

OCTOBER 22.—**Barnsley.**—For the erection of house, Bond-road, Barnsley. Messrs. Dyson, Cawthorne & Coles, 10, Regent-street, Barnsley.

★OCTOBER 22.—**Croydon.**—FLATS.—For the erection and completion of a block of flats at the rear of Nos. 8, 10 and 12, Cherry Orchard-road, for Croydon C.B. Borough Engineer, Town Hall, Croydon. Deposit £3 3s.

★OCTOBER 22.—**Farnborough, Kent.**—HOME.—For work required to be done in the erection of an additional Nurses' Home at the Infirmary for Bromley Union. Mr. F. Danby Smith F.R.I.B.A. Parliament Mansions, Victoria-street, Westminster, S.W.1. Deposit £5.

OCTOBER 22.—**Hemsworth.**—LAUNDRY.—Erection of a new laundry at the Poor Law Institution, for the Board of Guardians. Mr. W. T. Lynam, Engineer, Union Offices, Hemsworth near Pontefract. Deposit £2 2s.

★OCTOBER 22.—**King's Langley.**—COTTAGES.—Erection of 12 cottages on the Housing Site at King's Langley, Herts, for the Hemel Hempstead R.D.C. Mr. T. H. Lighbody, M.S.A., Council's Architect, 16, Alexandra-road, Hemel Hempstead, Herts. Deposit £1 1s.

★OCTOBER 23.—**Braintree.**—HOUSES.—Erection of following houses for the R.D.C.:—Parish of Rivenhall 12, Parish of Terling 8, Parish of Great Coggeshall 6, Parish of Little Coggeshall 4. Mr. E. O. Wheeler, 71, Rayne-road, Braintree.

★OCTOBER 24.—**Oxford.**—GARAGE.—Erection of a motor 'bus garage at Cowley-road, in the City of Oxford, for the Directors of the City of Oxford Motor Services, Ltd. Company's Office, Leopold-street, Oxford.

OCTOBER 25.—**Settle.**—HOUSES.—Erection of one block of four and one pair of houses, for the R.D.C. Mr. T. E. Pearson, Clerk, Town Hall, Settle. Deposit £1 1s.

OCTOBER 29.—**Durham.**—SCHOOL.—Erection of Kirk Merrington New School, for the C.C. Mr. F. Willey, F.R.I.B.A., 34, Old Elvet, Durham.

NOVEMBER 2.—**London, N.9.**—EXTENSIONS.—Extensions to the Edmonton United Services Club, Ltd. Registered Office, 99, Hertford-road, Edmonton, N.9. Plans and specifications may be seen at the office on Wednesday, Thursday and Friday, October 17, 18, and 19, between the hours of 11 a.m. and 3 p.m. Mr. J. W. Shaw, Secretary, 99, Hertford-road, Edmonton, N.9.

NOVEMBER 30.—**Singapore.**—POST OFFICE.—Erection of new general post office, Singapore. Crown Agents for the Colonies, 4, Millbank, S.W.1. Deposit £10.

NO DATE.—**Coatbridge.**—HOUSES.—Erection of 50 houses for the T.C. Mr. William Ward, F.F.S., 180, West Regent-street, Glasgow.

NO DATE.—**Leeds.**—VARIOUS WORKS.—Additions to Bramley Liberal Club, additions to Burmantofts Liberal Club, new bungalow at Farnley, and boundary wall to Armley Cemetery. Messrs. Fredk. W. Rhodes & Son, architects, 131, Upper Wortley-road, Leeds.

NO DATE.—**Llanfoist (near Abergavenny).**—HOUSE.—For erection of small house, with every modern convenience, in Llanfoist Village. Mr. Edward Morris, Dan-y-Blorenge, Llanfoist, Abergavenny.

NO DATE.—**Middleton.**—HOUSE, &c.—Erection of house and shop at Middleton, near Leeds. Messrs. Fred. Mitchell & Sons, architects, 9, Upper Fountaine-street, Albion-street, Leeds.

★NO DATE.—**Wembley.**—SHOPS.—Erection of six shops at Wembley. D. Morris & Sons, 91, Moorgate, E.C. 2.

FURNITURE, MATERIALS, etc.

OCTOBER 8.—**Bedlington.**—MATERIALS.—Supply of dry and tarred whinstone, slag or limestone to the U.D.C. Mr. J. W. Pooley, Surveyor, Bedlington.

OCTOBER 9.—**Islington.**—MATERIALS.—Supply of salt-glazed ware pipes and gullies, river ballast, hoggin, hardcore or clinker, bricks and Portland cement to the B.C. Borough Engineer, Municipal Offices, Islington, N.1.

OCTOBER 12.—**Edinburgh.**—MATERIALS.—Supply of general stores to Gas Dept. for six or twelve months. Mr. H. H. Gracie, Manager, 15, Calton Hill, Edinburgh.

OCTOBER 13.—**Edinburgh.**—MATERIALS.—Supply of cement, bricks and fireclay goods to the Burgh Engineer's Dept. Burgh Engineer, City Chambers, Edinburgh.

OCTOBER 13.—**Edinburgh.**—MATERIALS.—For stores for the Fire Engines' Dept., of the T.C. Central Fire Station, Lauriston-place, Edinburgh.

OCTOBER 13.—**Glasgow.**—MATERIALS.—For supply of general stores to the Gas Department. General Manager, 30, John-street, Glasgow.

ENGINEERING IRON AND STEEL.

OCTOBER 6.—**Kirkby Stephen.**—BOILER.—Provision and setting to work of a Cornish boiler, together with work in connection with heating, domestic hot water, laundry, and kitchen apparatus, at the Poor Law Institution, for the B.G. Mr. G. J. Gibbs, 7, Lunestreet, Preston. Deposit £2 2s.

OCTOBER 8.—**Glasgow.**—HEATING.—For the heating work proposed to be done at Dixon Halls, Cathcart-road, for the T.C. Office of Public Works, 64, Cochrane-street, Glasgow.

OCTOBER 8.—**Harrogate.**—DEPOT.—For roadworks, sewering, construction of siding, retaining walls, bridge, &c., in connection with the Central Depot, Dragon Junction, for the T.C. Mr. C. E. Rivers, Borough Engineer, Municipal Offices, Harrogate.

OCTOBER 9.—**London.**—RAILWAY MATERIAL.—Supply to the Great Indian Peninsula Railway Co. of (1) pressed steel sleepers (2) wrought iron tie bars. Secretary, 48, Copthall-avenue, E.C. Charge £1 for 1, and 10s. for 2.

OCTOBER 9.—**Neath.**—BRIDGE.—Construction of a bridge over the River Neath and other works near Glyn Neath Station, for the Great Western Railway Co. Chief Engineer, Paddington Station, W.

OCTOBER 9.—**Toronto.**—Alternating current generator, for T.C. Department of Overseas Trade, 5, Old Queen-street, S.W.1. 3

OCTOBER 10.—**Ardsley Hill.**—HEATING.—Installation of low pressure hot-water heating apparatus at Ardsley-hill-top Council School. Education Department, County Hall, Wakefield.

OCTOBER 10.—**Ely.**—WATER WORKS.—(1) Supplying and installing three-throw ram pumps, capacity 9,000 galls. each per hour, and semi-Diesel crude oil engines; (1a) Sinking two 20 in. boreholes, 60 ft. deep; (2) Laying about 35 miles of 7 in., 3 in., and 2 in. mains; (3) Construction of two reinforced concrete water towers, capacity 100,000 galls. each; (4) Supplying approximately 2,000 tons of cast-iron pipes and specials; (5) Supplying cast-iron valves and fittings, for the R.D.C. Mr. F. W. Green, Clerk, Council Offices, 11, Lynn-road, Ely, Cambs. Deposit of £5 for 2 and 3.

OCTOBER 11.—**Bushey.**—ELECTRIC INSTALLATION.—For wiring and supplying fittings for electric lighting at offices of the U.D.C. Mr. E. E. Ryder, Surveyor, Bushey, Herts.

OCTOBER 12.—**London.**—MATERIALS.—Supply to the South Indian Railway Company of (1) copper rods, (2) miscellaneous articles. Offices, 91 Petty France, Westminster, S.W.1. Charges, 5s. and 2s. 6d. respectively.

OCTOBER 15.—**Carmarthen.**—GAS PLANT.—New plant, &c., for gas works, for the Joint Counties' Mental Hospital, Carmarthen. Mr. W. J. Wallis-Jones, Clerk to the Visitors, 34, Quay-street, Carmarthen.

OCTOBER 15.—**Falmouth.**—ELECTRIC INSTALLATION.—For the installation of electric light at the Poor Law Institution of the B.G. Mr. E. P. Skinner, Clerk, Town Hall, Falmouth.

OCTOBER 15.—**Gravesend.**—AIR COMPRESSORS.—Supply and erection of two electrically-driven air compressors at sewage works, for the T.C. Mr. F. T. Grant, engineer, Woodville-terrace, Gravesend.

OCTOBER 15.—**Manchester.**—STEELWORK.—Supply and erection of steelwork required in the bridge carrying the new road from Moston-lane to Bower-lane over the Rochdale Canal, for the T.C. City Engineer, Town Hall, Manchester. Deposit £2 2s.

OCTOBER 15.—**Newcastle-on-Tyne.**—HEATING, &c.—For the remodelling of the heating and lighting installation at the City Hospital, Walker, for the T.C. Mr. Ernest Hatton, General Manager, Transport and Electricity Undertaking, Newcastle-on-Tyne.

OCTOBER 15.—**St. Pancras.**—BOILER.—For a Cornish boiler, for the B.C. Mr. C. H. F. Barrett, Town Clerk, Town Hall, Pancras-road, N.W. 1.

OCTOBER 15.—**Sunderland.**—ELECTRICAL INSTALLATION.—For installation of electric power and light at the Institution and Cottage Homes of the B.G. Mr. W. P. Brantingham, Clerk, Offices, 17, John-street, Sunderland. Deposit £1.

OCTOBER 16.—**Liverpool.**—REFRIGERATING CHAMBER.—Installation of a small refrigerating chamber and ice tank, &c., at the Infirmary of the West Derby B.G. Mr. G. W. Coster, Clerk, Union Offices, Broughamterrace, Liverpool.

OCTOBER 16.—**London.**—BRIDGES.—Supply to the Madras and Southern Mahratta Railway Company of girder bridges, comprising deck spans of from 6 ft. to 67 ft., total approximate tonnage 1,008 tons. Secretary, 25, Buckingham Palace-road, Westminster, S.W.1. Charge £1 1s.

OCTOBER 17.—**Eye.**—ELECTRICAL INSTALLATION.—Installation of electric light at Infirmary, for the Hartismere B.G. Mr. H. Warnes, Clerk, Union Offices, Victoria-road, Eye, Suffolk.

OCTOBER 22.—**London.**—TUNNEL.—Construction of a tunnel under the River Thames at Barking, for the County of London Electric Supply Co., Ltd. Sir Alexander Gibb & Partners, Queen Anne's Lodge, S.W.1. Deposit £15 15s.

OCTOBER 24.—**Australia.**—BRIDGE.—Construction of bridge for Country Roads Board, Victoria. Agent-General for Victoria (Australia), Melbourne-place, Strand, W.C.2. Preliminary deposit £500.

OCTOBER 31.—**Australia.**—ELECTRIC CRA Supply and erection at Port Adelaide of four electric coal-handling cranes, for the South Aus Harbours Board. Agent-General for South Aus Australia House, Strand, W.C.2.

NOVEMBER 1.—**Siam.**—BRIDGES.—Supply of structures of steel railway bridges to Siam State ways. Messrs. C. P. Sandberg, 40, Grosvenor-ga S.W. 1. Charge 28s.

NOVEMBER 3.—**Reading.**—COMPRESSD AIR PL Supply of complete equipment of air compr station at Manor Farm, for the T.C. Mr. G. M Taylor, 36–38 Victoria-street, S.W. Deposit £

NOVEMBER 9.—**India.**—STEELWORK.—Supp structural steelwork for wagon repair shop, Tr poly workshops scheme, for the South Indian R Co. Company's Offices, 91, Petty France, Westm S.W. 1. Charge £1.

NOVEMBER 30.—**Sydney.**—BRIDGE.—Constr of the superstructure and substructure of a can bridge across Sydney Harbour; also an alte tender for the construction of the superstructu substructure of an arch bridge across Sydney Ha Agent-General for New South Wales, Australia H Strand, W.C.

DECEMBER 3.—**Sydney.**—High tension switc for Municipal Council. Department of Overseas (Room 52), 35, Old Queen-street, S.W.1.

NO DATE.—**Pentre (Rhondda).**—DRIVAGE. driving a hard heading from upper 7 ft. to lowe seam; distance approximately 60 yards. The ger, Pentre Colliery, Pentre, Rhondda.

ROAD, SANITARY, AND WAT WORKS.

OCTOBER 6.—**Birmingham.**—ROAD.—Construc new road, 10 miles in length, between Birmingha Wolverhampton, for the Joint Committee. Mr. Humphries, City Surveyor, Birmingham. D £10 10s.

OCTOBER 6.—**Chester.**—ROADS.—For road sewage works on Heath-lane Housing Site, for th Mr. Charles Greenwood, City Engineer, Town Chester. Deposit £1 1s.

OCTOBER 6.—**Ilford.**—ROADS.—Extension of man's Farm-road to Horns-road, Barkingside, f U.D.C. Surveyor, Town Hall, Ilford. Deposit

OCTOBER 8.—**Caldy.**—SEWER.—For laying a distance 988 yards. Caldy Manor Estate, Ltd., Caldy, Cheshire.

OCTOBER 8.—**Lanark.**—ROADS.—Improveme Rhindmuir Highway, Baillieston, for the Lanar Mr. W. A. Chapman, Road Surveyor, Airdrie.

OCTOBER 8.—**Morley.**—ROADS.—For the pav a portion of Churwell-hill with Elland Edge set the T.C. Mr. F. Turner, Borough Engineer, Town Morley. Deposit 10s.

OCTOBER 8.—**Penistone.**—For the laying of a iron water main through the village of Oxs Clerk, Union Offices, Penistone, near Barnsley.

OCTOBER 8.—**Southampton.**—ROADS.—For as ing part of Romsey-road, for the T.C. B Engineer, Southampton. Deposit £1 1s.

OCTOBER 8.—**Torquay.**—ROADS.—For a rein concrete road (approximate area 4,000 sup. y Sea-road, for the T.C. Mr. H. A. Garrett, B Engineer, Torquay. Deposit £2 2s.

OCTOBER 9.—**Doncaster.**—ROADS.—Construct 72 ft. and 60 ft. roads, and 9 in. surface water for the T.C. Mr. F. Oscar Kirby, Borough En 2 Priory-place, Doncaster. Deposit £5 5s.

OCTOBER 9.—**Leeds.**—ROADS.—For flagging, k &c., works in Beckett-street, for the T.C. Mr Hamilton, Commercial Manager, 1, Swinegate, Deposit £1 1s.

OCTOBER 10.—**Batley.**—PLUMBING.—For plu work at the Corporation Baths. Mr. H. L. Borough Engineer, Town Hall, Batley.

OCTOBER 11.—**Kingston-on-Thames.**—ROADS making up portion of Oil Mill-lane, for the Borough Surveyor, Kingston-on-Thames. D £1 1s.

OCTOBER 12.—**Lancaster.**—SEWER.—Extensi sewer at Slyne-with-Hest, for the R.D.C. M Dixon, surveyor, 5, Dalton-square, Lancaster.

OCTOBER 13.—**Newport (Mon).**—NEW ROAD construction of a new road from St. Julian-r Christchurch-road, approximately 270 yards in connection with relief of unemployment sch Newport Borough Council. Unskilled labour Employment Exchanges and Ministry of Tra and labour wage rates to be paid. Borough En Town Hall, Newport. Deposit £1 1s.

OCTOBER 13.—**Penge.**—ROADS.—For 700 yard Durax paving with 8 to 10 centimetres Scandi granite setts on Anerley-hill, for the U.D.C. W. Longdin, Surveyor, Town Hall, Anerley.

OCTOBER 13.—**Stretford.**—ROADS.—For se paving in rock asphalte, &c., St. John's-roa passage, for the U.D.C. Mr. Ernest Worrall, Su Council Offices, Old Trafford. Deposit £2 2s.

OCTOBER 15.—**Edmonton.**—ROADS.—For mak part of Constance road, for the U.D.C. Mr. C Brown, Surveyor, Town Hall, Edmonton. D £2 2s.

OCTOBER 15.—**London.**—SCAVENGING.—Remo disposal of slop and refuse from, and the supp delivery of hoggin and sand to, Blackwall and I hithe Tunnels, during 12 months, for the L.C.C. Engineer, Old County Hall, Spring-gardens, S.

OCTOBER 15.—**Salcombe.**—ROADS.—For mak Devon-road, for the U.D.C. Mr. J. G. H Surveyor, Salcombe. Deposit £2 2s.

OCTOBER 16.—**Glasgow.**—ROADS, &c.—Const of roads and sewers at Newbank, Parkhead, for t Mr. J. Lindsay, Town Clerk, City Chambers, G

October 16.—**Shepshed.**—Sewage Works.—Exten on of the sewage outfall works, Sheps ed, Leicester- ire, for the U.D.C. Messrs. McCarthy, Collinge & Co., ntral Chambers, Coalville, near Leicester. Deposit 5s.

October 23.—**Deptford.**—Paving.—For wood- ving the carriageways on either side of the tramway acks, in Lewisham High-road, with creosoted deal ocks on prepared foundations, for the B.C. Mr. H. orley Lawson, Borough Surveyor, Town Hall, New oss-road, S.E.14.

✱ October 24.—**Chiswick.**—Sewers.—For the con- ruction of about 5,200 ft. of 9 in., 12 in., and 15 in. riage water sewers in the Chiswick High-road, and her works incidental thereto, for the U.D.C. Mr. E. illis, M.I.C.E., Engineer and Surveyor, Town Hall, iswick. Deposit £2 2s.

October 27.—**Dolgelley.**—Roads.—For strengthen- g and resurfacing about three-and-a-half miles of road ar Maerdy, for the Merioneth C.C. Mr. W. D. Jones, unty Surveyor, County Offices, Dolgelley.

No Date.—**Burnham-on-Crouch.**—Roads.—For the aking-up of four roads, for the U.D.C. Mr. J. Cook, rveyor, 10, High-street, Burnham-on-Crouch.

Competitions.

(*See Competition News, page* 518.)

Auction Sales, Tenders, etc.

October 9.—**London, W.**—Messrs. J. T. Skelding Co. will sell, at 22, Gray's Buildings, Duke-street, W., thout reserve, by order of Mr. C. W. French, in conse- ence of expiration of lease and his relinquishing the siness, Manchester-square, W., the stock and plant a builder and decorator. Auctioneers, 48, Gresham- eet, Guildhall, E.C.2.

October 9.—**Middlesex.**—Messrs. Allsop & Co. ll sell, by direction of the George Cohen & Armstrong sposal Corporation, at R.A.F. Depot, West Drayton, ddlesex (G.W.R.), timber, glass and other building terials. Auctioneers, 141, Park-road, N.W. 8, and Soho-square, W. 1.

October 9 and 10.—**Poole, Dorset.**—Messrs. rtis & Son have been instructed by the Senior Official ceiver in Companies Liquidation, to sell, without serve at the Company's Depot, Stanley Green, ole, Dorset, in the matter of the Waller Housing rporation (in liquidation), wooden buildings, electric nerating station, machinery, tools and plant of the ncrete housing works, power and lighting plant, chinery and tools, cranes, permanent-way rails. ctioneers, The Poole Auction Rooms, 42, Station- d, Poole, Dorset.

✱ October 16.—**London, S.W.**—Messrs Veryard & tes will sell without reserve at 255, Clapham-road, ber, fittings and building materials. Auctioneers, , Norwood-road, S.E. 27.

✱ October 17.—**Bromley, Kent.**—Messrs. Veryard Yates will sell without reserve at Hayes-lane, lding plant and materials. Auctioneers, 365, rwood-road, S.E.27.

October 23.—**London, S.W.**—Messrs. Bradshaw, wn & Co. have received instructions from Messrs. G. Tarrant, Ltd., to sell, owing to the completion of tracts, Wandle Valley Relief Sewer, L.C.C., con- tors' plant and material, laying at the following ots, viz., 536, Garrett-lane, Tooting, S.W., close to lsfield Station, and Church-lane, Tooting, S.W. r by). Auctioneers, Billiter-square Buildings, don, E.C. 3.

October 23 and 24.—**London, E.C.**—Messrs. ler, Horsey, Sons & Cassell will sell at the Com- cial Sale Rooms, Mincing-lane, contractors' plant material, at 11 o'clock. Auctioneers, 11, Billiter- are, E.C. 3.

October 24.—**London, N.W.1.**—Messrs. Parsons, k & Bodin will sell at a low reserve, on the premises, Diana-place, Euston-road, the beneficial lease of nsive workshops, stores and yard, known as 9A, a-place, with immediate possession. Auctioneers, Hanover-square, London, W.

October 25.—**Essex.**—Messrs. Knight, Frank utley will offer for sale as a going concern the able freehold Portland cement, lime and whiting s, Saffron Walden, Essex. Auctioneers, 20, over-square, W.1.

October 30.—**London, W.1.**—Messrs. Henry nes & Co. will sell, at Mortimer Hall, 93, Mortimer- t. Oxford Circus, W. 1, important building site, 6 and 18, Great Titchfield-street, and 9A, Mar- -street, Oxford Circus, W. Auctioneers, 82, imer-street, W. 1.

Public Appointments.

October 6.—**London, S.W. 1.**—Assistant Civil neers required in Civil Engineer-in-Chief's De- ment, Admiralty, at H.M. Naval Establishments me and Abroad; also Temporary Engineering ants required in London Office of Civil Engineer ief's Department, Admiralty, and at Outports. Engineer-in-Chief's Department, Admiralty on, S.W. 1, on recognised form.

October 12.—**Liverpool.**—Three Temporary tectural Assistants required in the Land Steward urveyor's Department. Mr. Walter Moon, Town , Municipal Buildings, Liverpool.

October 12.—**Truro.**—Architect's Assistant re- d by Cornwall C.C., in the Small Holdings Dept., orarily. The County Land Agent, County Hall,

RATES AND RATING *

This appears to us an excellent little treatise, containing a clear exposition of the law and practice of rating in a comparatively small space. The actual text comprises 196 pages, but the appendices form an important part of the work, which, including the appendices, comprises 310 pages. The first appendix contains some practical notes for rate collectors and overseers, by Mr. Arthur Hunnings, who has been rating surveyor to the Metropolitan Borough of Hackney and a lecturer on rating for the County Council; and in the second appendix he has also contributed some notes on valuation. The third appendix contains some leading cases, and a fourth notes on inhabited house duty. The author in his preface acknowledges the assistance he has received from both Mr. Creswell and Mr. Hunnings, with their very special experience in the law and practice of rating, and, so far as we have examined this work, we find the subject treated with remarkable clearness and accuracy. We may specially note that one of the chapters is devoted to the "Blue Form" in connection with the new assessment under schedule A, and another chapter deals with inhabited house duty. Public attention will be called to the subject of rating and valuation in connection with the draft Bill, which has just been issued by the Government for the consideration of those authorities who are concerned with these questions, and the consideration of that Bill will necessitate an accurate knowledge of the existing law and practice, and it therefore appears to us that this little volume, offered at a most moderate price, has appeared at a most opportune moment, containing as it does an easily understood exposition of the subject. On one very small matter we venture to make a suggestion for a future edition. It is of assistance to practitioners if in the table of cases the references are given to where the cases appear in the reports. In the present volume these references are given where the cases are referred to in the text, but they are not brought out in the table of cases.

* "Rates and Rating: The Law and Practice of Rating for the Ratepayer and Rating Official." By Albert Crew, Barrister-at-Law, assisted by W. T. Creswell, Barrister-at-Law, Associate (late Fellow) of the Surveyors' Institution, and Arthur Hunnings, F.S.A. (London: Sir Isaac Pitman & Sons.) 1923. 7s. 6d. net.

ASSOCIATION OF BRITISH EXHIBITORS.

RAILWAY RATES.

Mr. A. T. B. Kell, of Messrs. Plaster Paint, Ltd., of 17, Percy-street, Tottenham Court-road, London, W.1, writes:—

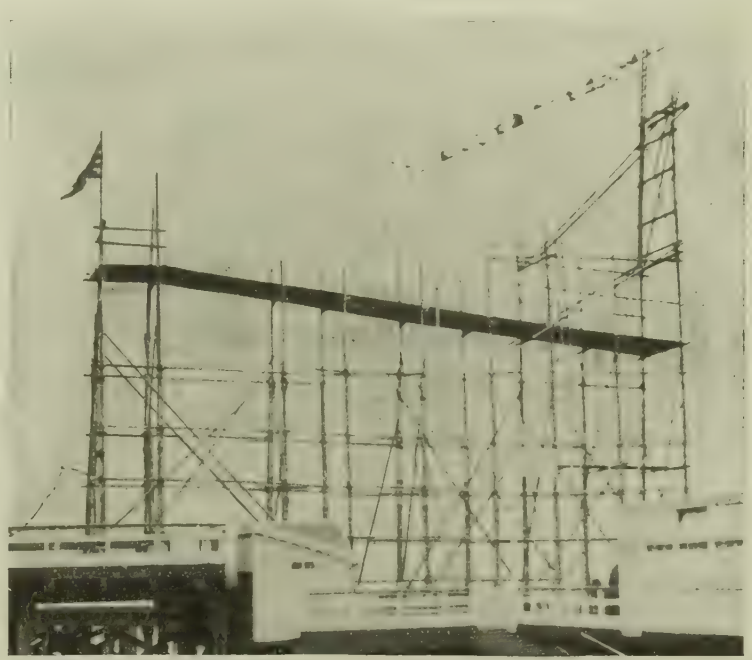
Sir,—Before we can function properly as an Association, our Articles of Association must be approved by the Board of Trade, and their approval is shortly anticipated. In the meantime, we have in several directions already commenced our activities, and one in particular is of interest to many of your readers. In this direction we intend to tackle the question of carriage on goods in transit solely for exhibition purposes. With the exception of the annual shows of Agricultural Societies, the Smithfield Club Cattle Show and the British Dairy Farmers' Show who receive preferential treatment, the goods of the bulk of British exhibitors are rated to and from the various exhibitions as ordinary merchandise.

The preferential treatment referred to and received from the various railway groups is that the goods forming their exhibit are returned at half rates.

We think that this should apply to all exhibitors, and it is our aim to obtain this concession, both for the members of our Association and British exhibitors in general. It is essential that we have every possible backing in our efforts, and we hope it will be possible for such of your readers who are interested as exhibitors to lend their support and to signify their approval of our action by allowing us to add their names to our list of applicants for this privilege. In the event of their approving of our action, would they please send their names either to the Secretary of the Association at 69, Victoria-street, London, S.W.1, or to myself."

L.C.C. Central School of Arts and Crafts.

A course of lectures on "The History of Architecture" is being given on Wednesdays at 6 p.m. during the session just started at this school by Sir Banister Fletcher, F.R.I.B.A.



Scaffolding at Lowestoft Pier.

[This photograph shows scaffolding recently erected by Messrs. D. Leighton & Son, of Lowestoft. The diving platform is 67 ft. from the pier floor, the cycle track is 30 ft. high at one end and 40 ft. high at the other. This track is 68 ft. long. The base of the scaffolding is only 7 ft. 6 in. wide, owing to the difficulty of landing for the "Belle" steamers if it had been wider.]

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

AYR.—Plans passed by the Dean of Guild Court:—Double cottage, Ashgrove-street, Messrs. Wm. Govan & Sons, builders, Prestwick, £1,400; house, Somerset-road, Mr. Jas. Dickie, Victoria Stamping Works, £650; four double cottages, Lansdowne-road, Mr. R. W. Hutchison, builder, £4,800; four double cottages, Springbank-road, Messrs. Hart & Cumming, £5,000; seven dwelling-houses, Springbank-road, Messrs. Wm. Paton & Sons, £5,150; six dwelling-houses, Whitletts-road, Mr. Wm. Drinnan; six houses, Bellesleyhill-avenue, Mr. Robt. Stewart, joiner, Craigie-avenue, £4,300; six dwelling-houses, Springvale-road, Messrs. Wm. Paton & Sons, £4,800.

BATH.—The Governors of Kingswood School, Bath, have accepted an offer of £15,000 from the Right Hon. T. R. Ferens to defray the cost of erecting new buildings.

BEDLINGTON.—A site has been acquired by the local Education Authorities, at a cost of £1,500, for a new Secondary School at Bedlington.

BEDWELLTY.—The Cefn Forest Institute and Library Committee is to erect a new building and negotiations with U.D.C. anent plans have nearly been concluded. The Secretary is Mr. Charles Nightingale.

BERWICK.—At a recent conference between representatives of the Berwick T.C., Northumberland C.C., and the Ministry of Transport, it was decided to construct a new bridge over the Tweed, to replace that built in the reign of James I, which is now totally inadequate for modern traffic. The estimated cost is £200,000, and this will be borne by the above-mentioned bodies. An early start is to be made.

BINGLEY.—Plans passed: Bungalow in Main-street, Cottingley, for Mr. A. C. Holstock; cottage at Springlane, Eldwick, for Mr. W. S. Steele; three bungalows in Bradford-road, Bingley, for Mr. Albert House; four pairs of semi-detached houses in Keighley-road, Cross Flatts for Mr. C. Noble; alterations and additions to Corn Hill Farm, Eldwick, for Mr. Lancaster.

BIRKENSHAW.—Plans passed: Three pairs of semi-detached houses in Whitehall-road, for Mr. Foster.

BLACKBURN.—Plans were passed by Blackburn R.C. for a pair of semi-detached houses in Preston Old-road, a house in Vicarage-lane, and two bungalows in Ramsgreave-road. The B.G. are to erect a nurses' home, south of the Guardians' Institute, to the designs of Mr. J. H. Wilson, F.S.I., the Board's architect.

BOURNEMOUTH.—Plans passed by T.C.: Motor-house, "Hope Lodge," Wentworth-avenue, Mr. E. G. Evans; motor-house, "Lal Koti," Solent-road, Mr. H. T. Gilling; additions to house, Glenmore-road, Mr. G. Dolman; motor-house, Penrith-road,, Mr. J. Newbury; workshops, Avon-road, Mr. W. Hoare; motor-house, Portland-road East, Mr. W. W. Baker; motor-house, Charminster-avenue, Mr. C. Newton; store room, Penrith-road, Messrs. J. W. Raines & Son; motor house, Belle Vue-road, Mrs. A. R. Parker; motor house, Alyth-road Mr. A. Barnes; motor-house, College-road, Mr. J. Drewitt; motor-house, Chigwell-road, Mr. S. Walker; additions, corner Frederica and Firs Glen-roads, Mr. R. W. Hayhow; house, Naseby-road, Mr. H. Mitchell; additions, Wadham-road, Mr. E. D. Duss; house, Gresham-road, Mr. H. Osmond; bungalow, Lascelles-road, Messrs. Midgley & Hardy; house Beaufort-road. Miss A. Lloyd; house and shop, Kimberley-road, Mr. W. Annereau; house, Droxford-road, Mr. A. H. Elcock; bungalow, Sutton-road, Mr. C. Newton; house, Southern-road, Messrs. Bunning & Patrick; bungalow, Lascelles-road, Messrs. Midgley & Hardy; house, Iddesleigh-road, Mr. J. W. Davis; bungalow, corner of Bushey & Mortimer-roads, Mrs. M. Wragg; house, Queen Mary-avenue, Mr. L. Gardiner; two houses, Chigwell-road, Mr. W. Moore; house, King George-avenue, Mr. W. Gillam; house, corner of Queen's Park-gardens and Cromer-road, Mr. C. V. Miller; two houses, St. Luke's-road, Mr. A. Barnes; house, Wentworth-avenue, Mr. J. Drewett; alterations and additions, 8, Withermoor-road, Mr. W. E. Tett; house, Browning-avenue, Mr. R. J. M. Nabney; house, Inverleigh-road, Mr. J. Scott; house and garage, Wentworth-avenue, Mr. E. J. Mitchell; two motor garages, St. Alban's-road, Mr. G. F. Jordan; house, Shelton-road, Mr. T. G. Hayden; house, Little Forest-road, Mr. Clement Brown; house, Kinross-road, Mr. A. Barnes; pair of houses and garages, Harewood-avenue, Mr. G. F. Hirst; house, Stamford-road, Mr. F. E. Pond; house, corner Coronation-avenue and Endfield-road, Mr. A. Harris; house, Droxford-road, Mr. G. B. Barnes; bungalow, Sutton-road, Mr. C. Newton; garage, 36, Queen's Park-avenue, Mr. J. P. Scott; house, Portland-road East, Mr. W. W. Baker; house, shop and garage, corner Kimberley and Arnewood-roads, Mr. A. Cleaves; flats, Chigwell-road, Mrs. D. L. Wilkinson; motor-house, adjoining "Winsley," Wimborne-road, Mr. W. Fox; three houses, Elden-road and Victoria-avenue, Mr. I. Cohen; three houses, King Edward-avenue, Mr. F. Richards; house, Bloomfield-avenue, Mr. T. H. Wrixon; house, Norwich-avenue, the St. Michael's Church Building Committee; 18 houses, Pine-road, Mr. Webber; house, 74, Beaufort-road, Mr. H. D. Cook; four houses, Oakwood-road, Mr. W. H. Peaty; house, Oswald-road, Mr. W. Cooke; house, Talbot-avenue, Messrs. H. Ellison, Son & Dale; house, Delhi-road, Mr. A. Dodsley; house, Ravine-road, Messrs. E. M. Drewitt & Co.; house, Irving-road, Mr. Bley; house, De Lisle-road, Messrs. G. S. Brown & Co.; alterations and additions, 72, Holdenhurst-road, the British Broadcasting Co.; two houses, Danesbury-avenue, Mr. W. Annereau; house and garage, Seafield-road, Mr. Nichol; house, Withermoor-road, Mr. A. E. Hoare; house, Albemarle-road, Mr. J. A. Nethercoate; two houses, Eldon-road, Mr. J. A. Nethercoate; two houses, Eldon-road, Mr. F. W. Hallett; house, adjoining No. 50, Sedgeley-road, Mr. A. E. Hoare; house, Albemarle-road, Mr. A. Cherrett; garage, Queen's-road, Southbourne, Mrs. M. B. Christie; house, corner Dingle and Rotherfield-roads, Mr. F. H. Beaumont; four houses, Belle Vue-road, Mr. Peters; house and garage, Stirling-road, Mr. H. Moores; house, Irving-road, Mr. G. H. Cooper; bungalow. Delhi-road, Mr. Tribe; three houses, Albemarle-road, Mr. C. H. Belbin; house, flat and garage, corner Southbourne Overcliffe drive and Grange road, Mr. F. Streeter; bungalow, Bloomfield-avenue, Mr. H. C. Barnes; bungalow, Bloomfield-avenue, Mr. H. C. Barnes; house, Albemarle-road, Mr. F. W. Newey; house Albemarle-road, Mr. W. Edes Everett; house and garage, corner Keswick-road and Beechwood-avenue, Mr. H. R. Kennedy; house, corner East-avenue and Dunbar-road, Messrs. G. E. & W. R. J. Lambert; house, Lonsdale-road, Mr. A. D. Lambert; three semi-bungalows, Mavis-road, Mr. S. G. Ward; house, Coronation-avenue, Mr. H. Hawkins; house, Southwood-avenue, Mr. J. Masters; house and garage, Southbourne Overcliffe-drive, Messrs. Bunning & Patrick; two houses, Southbourne and Danesbury-avenues, Messrs. C. Day & Sons; house, 8, Castle-road, Mr. Bowering; pair bungalows, corner Arnewood and Heytesbury-roads, Mrs. R. Fennell & Mr. G. Fennell; additions, 249, Christchurch-road, Mr. C. H. Bray; Joinery Works, Heytesbury-road, The Hampshire Shop Fitting Co., Ltd.; conversion into flats, "Trelawney," Talbot-road, Mrs. Aptommas; alterations and additions, "The Priory," Exeter-road, Mrs. McDermott; motor-house, "Stoneycroft," Howard-road, Mr. Newcourt; conversion into flats, "Lydford," St. Alban's-avenue, Mr. A. Ellison; additions, 24, Denmark-road, Mr. Bessant; house, 37, Highfield-road, Mr. T. Eyles; motor-house, 94, Richmond Wood-road Mr. R. Osgood; bungalow, rear of 3, Ridley-road, Mr. J. G. Jackman; house and garage, corner Boscombe Overcliffe-drive and Ravine-road, Mr. F. S. Wilson; house, corner Hillbrow and Droxford-roads, Mr. A. H. Elcock; house, Tennyson-road, Mr. S. Way; four houses, Danesbury-avenue, Mr. G. H. Cox; additions, 2, Surrey-road South, Mr. H. E. Reynolds; house, Norwich-avenue, Miss Ainsley; house, Ravine-road, Mr. H. Solomon; house, corner Fenton-road and Castlemain-avenue, Messrs. H. Small & Sons; alterations and additions, 129, Markham-road, Mr. W. J Rose; two houses, Cranleigh-road, Mr. T. Millson-house, Warren Edge-road, Capt. A. W. Phillips' garage, "Mulgrave," Meyrick Park-crescent, Mr. H. Robson; pair houses, Balfour-road, Messrs. J. Masters & Son; house, Methuen-road, Messrs. H. Ellison, Son & Dale; alterations and additions, 7, Portarlington-road, Mrs. W. H. Thomson; house, Richmond Park-road, Mr. W. J. T. Stacey; house, Queen's Park South-drive, Mr. W. Hoare; house, Holdenhurst-road, Mr. J. J. Elkins; two houses Somerley-road, Mr. F. Vail; pair of houses, Christchurch-road, Mr. E. R. Saunders; house, Arnewood-road, Mr. J. Pople; house, Benmore-road, Mr. F. Love; house, Clarkson-road, Miss Skinner; house, Oswald-road, Mr. F. Watson; house, Victoria-avenue, Mr. R. Singleton; house, Easter-road, Mr. S. Loader; two houses, Vicarage and Ensbury Park-roads, Mr. W. Wallis; house, Highfield-road, Mr. Stokes; house, Kimberley-road, Mr. G. Hiscock; house, Charminster-avenue, Mr. A. Moody; house, Eldon-road, Mr. J. V. Lee; two houses, Southbourne-avenue, Mr. J. V. Lee; house, Wentworth avenue, Dr. Heygate Vernon; house, Browning-avenue, Mr. G. Hallas; house, Eldon-road, Mr. J. F. Giles; house, King George-avenue, Mr. H. Perry; two houses, Croft-road, Mr. A. E. Fletcher; 40 houses, South Hill Estate, the Committee of the British Legion; motor-house, 20, Iddesleigh road, Mr. A. Miller; conversion of stables into offices, Southcote road, Messrs. Roberts, Adlard (Bournemouth), Ltd.; four houses, King George-avenue, Mr. H. Barnes.

BRIDLINGTON.—The T.C. is applying for sanction to erect 100 houses.

BRIGHTON.—Plans passed by T.C.:—Two houses, Tivoli-crescent North, A 37, for G. W. Ashdown; garage, 37, Springfield-road, for Mr. Cooke; alterations, Preston Brewery Tap, 197, Preston-road, for Smithers & Son, Ltd.; two houses, Sandown-road, for W. J. Burstow; house, Goldsmid-road, for G. A. Smith; house, East-drive, for Mr. Longhurst; house, Beaconsfield Villas, for B. W. Nunn; five houses, Bristol-street, for W. Benham; bungalow, Chatsworth-road, for Miss M. G. Figgis; house, Stanford-road, for C. Milledge; Church Hall, St. Martin's Church, Lewes-road, for Rev. Canon H. D. Burton.

BRISTOL.—Dock extension works, estimated to cost £1,000,000, are to be submitted to the I.C.

BROMLEY.—Plans passed by R.D.C.:—Mr. R. J. Griffin, house, Holmwood Park-avenue, Farnborough; Mr. F. E. Herrin, house, at Grand View-road, off Green-street Green, Chelsfield; Mr. H. A. Benham, house, Woodland-road, Green-street Green, Chelsfield; Mr. F. Longstaff, pair of semi-detached villas, Crown-road, off Warren-road, Chelsfield; Mr. J. C. Lewis, bungalow, Longdon Wood-avenue, Keston; Mr. E. H. Mitchell, bungalow, Longdon Wood-avenue, Keston; Mr. A. B. Gee, two bungalows, Jail-lane, Cudham; Mrs. E. A. Lake, bungalow Highfield-road, Cudham; Mr. C. F. Slatter, house, Hayes-lane, Hayes; Mrs. Smith and Miss Benson, bungalow, Aperfield-road, Westerham-hill, Cudham; Mr. E. Chilmaid, bungalow, Sunningvale-avenue, Cudham; Miss E. E. Elliot, bungalow between Highfield-road and Grand View-avenue, Cudham; Mr. A. Lowson, house, Station-road, Orpington; Mr. C. R. Moreton, bungalow. Crofton-road Orpington; Mr. W. A. Cope, house, Crofton-road, Orpington; Mr. G. F. Rowe, bungalow, Cray-lane, Orpington; Mr. F. J. Rouse, bungalow, Cockshott's Field, Orpington; Mr. E. Luckhurst, house, Hayes-lane, Hayes; Mr. J. Watson, bungalow, Brasted Hill, Knockholt; Mr. Prichard, bungalow, Pound-lane, Knockholt.—Plans passed by T.C.:—Mr. F. G. Crickett, bungalow, Sunningdale-road; Messrs. Levens & Son's shop, Chatterton-road; Messrs. J. Kemp & Co.'s two semi-detached houses, Bromley Common.

BURNLEY.—The T.C. Consultative and Co-ordination Committee recommend the approval of certain relief schemes subject to grants being obtained from the Unemployment Grants Committee. Amongst the proposals are the erection of a new central library, 50 more houses, and construction of roads on the Palace House site, excavations for the new plant proposed to be erected at Altham sewage works, construction of mains by the Electricity Committee, construction of a new road, and the installation of plant at Old Hall, the laying-out of the new portion of the cemetery and the asphalting of the roads in the old portion of the cemetery, the levelling and channelling of Stoneyholme. Hargher Clough, and Lowerhouse recreation grounds, the construction of a residuum lodge at Cant Clough and the Lowerhouse recreation grounds, the construction of four tennis-courts on Barden recreation ground, the construction of a bridge in Todmorden-road. The total estimated cost of the projects is about £250,000, and the T.C. is recommended to approve of the schemes. Several other schemes are also recommended.

BURRY PORT.—The U.D.C. proposes to erect new Central School at Pembrey, and Gorden Suburb inhabitants have petitioned Board of Education to also erect a school there.

CHELMSFORD.—Messrs. F. W. Gibbons & H. Davis, of Chelmsford, have in contemplation a scheme for the erection of 150 self-contained flats in the borough.

CRAMLINGTON.—The U.D.C., with Westslade U.D.C., has decided to bear an equal share of the cost of constructing a new bridge at Sandy Petch, total cost estimated at £1,000.

EDINBURGH.—The Burgh Engineer has been called upon to prepare a report for the consideration of the Corporation on the cost of a new pier at Portobello and of the extension of the promenade east and west.

ERPINGHAM.—The R.D.C. has received permission from the Ministry of Health to borrow £5,340 for the protection of the sewer outfall pipe and other coast protection work at Overstrand.

FALMOUTH.—Plans have been passed by the T.C. for a cinema to be erected in Market-street, next to the Royal Hotel, by Messrs. Harris Bros., the owners of two other picture theatres in the town. The new building, work on which is to be commenced at once, has been designed to seat 750 people and will be equipped in the most up-to-date manner. It is to cost £15,000.

FLEETWOOD.—Plans passed: Shop, corner of Poulton-road and Agnew-road, for W. C. Roskell; nine houses, The Esplanade, Roger Eaves; 12 houses, Agnew-road. Warren-avenue North and Warren-avenue South (subject to "B" type being amended so as not to exceed 950 square feet per house); two houses Dronsfield-road, for J. Walmsley.

HASLINGDEN.—The T.C. has approved plans for laying out pleasure grounds at Greenfields, at an estimated cost of £4,000. Application is to be made to the Unemployment Grants Committee for a grant equal to 65 per cent. of the interest and sinking fund charges for one-half the period of the loan.

HORSFORTH.—The U.D.C. is considering the erection of new baths.

HULL.—The T.C. has approved a scheme for the erection of a new central fire station in Worship-street at an estimated cost of £17,350. Tenders are to be invited.

KEIGHLEY.—The R.D.C. has decided to apply to the Ministry of Health for sanction to borrow £9,400 in connection with the proposed construction of a new reservoir at Lane Top, Sutton-in-Craven.

KIDWELLY.—The Council is to spend £1,000 in widening Station-road.

LANCASTER.—Plans passed by T.C.: Five lock-up garages in Scotforth-road, for Mr. J. Walker; warehouse in Spring Garden-street, for Mr. Luke Parkinson; house in Westbourne-road, for Madame Mensforth; four houses, Westfield Memorial Village, per Messrs. T. H. Mawson & Sons; motor garage in Britannia-street, for Mr. Barton Townley.

LEEDS.—The Education Committee has submitted plans to the Board of Education for new schools at Middleton, Crossgates, and Hawkesworth Estate.

LEVENSHULME.—The Church Council of St. Andrews, South Levenshulme, has decided to erect a social centre.

LEYTON.—Plans passed by U.D.C.: T. E. Hardy, office and works at Burwell-road; E. B. Holmes & Co., store room and engine room, at 662, High-road, Leyton; W. H. T. Pearce, houses at Goldsmith-road; W. F. Lovett, two houses at Colchester-road; Davies Bros., boiler house at 225, Lea Bridge-road.

LIVERPOOL.—The Merseyside Co-ordination Committee at Liverpool has considered the report of the engineers, Sir Maurice Fitzmaurice and Mr. Basil Mott, of London, on the scheme either for a bridge over the Mersey or a tunnel to improve cross-river traffic. A bridge would cost £10,550,000, and a tunnel £6,400,000, and the engineers say that a tunnel would best meet the requirements. A small special committee representing Liverpool, Birkenhead, Wallasey, and Bootle, has been appointed to approach the Government for financial assistance. —— The Housing Committee is inviting approval by the T.C. of a scheme proposing the payment to house-builders of a maximum subsidy of £75 per house. Two types of houses are recommended, one a two-storied dwelling with a minimum of 620 and a maximum of 850 superficial feet, and the other a structurally separate and self-contained flat or a one-storied house with a minimum of 550 and a maximum

* See also our List of Contracts, Competitions, etc.

0 superficial feet. More than twenty houses per will not be approved except in special circumes, and every house must be provided with a bath and must be completed and ready for ation before October 1, 1925. Plans for these ings will have to be approved by the Corporation. rants recommended are subject to the approval Ministry of Health.

ANDUDNO.—The construction of open air baths e north side of the pier is being considered by ouncil.

ANDYSSUL.—Plan passed by Council: Proposed icarage at Llandyfriog.——The Surveyor has subd his estimates for the road schemes to be carried by Council as follows: Llandyssul–Tregroe . ; Alltycafen, £2,290; Prengwyn–Pontsarn, ; Pontsarn–Cribbur, £750; Castell Hywel, .

NELLY.—Negotiations are proceeding for acquisiy Town Council's Estates Committee of Trostre 64 acres), on which it is proposed to erect new slaughterhouse and build new arterial road to t districts.——A large extension scheme is reto have been decided upon at Llanelly by Messrs. rd Thomas & Co., Ltd., the well-known steel n-plate manufacturers. Six new tin-plate mills be erected at a cost of £50,000, estimated. The vill be of latest type like the Burry Port Extension nelly, which they will adjoin. The Town Council en approached to divert the public highway at f present works, which cuts in two the land of m. The road diversion would simplify the firm's ng scheme and permit a compact block of works ngs. The negotiations are proceeding satisfac-

NTRISANT.—A Welfare Scheme has been formufor the Ely Valley, to include the townships of isant, Pontyclun, Coedely and Tonrefail, that nvolve considerable expenditure of Miners' re Fund grant and voluntarily raised sums. Llewellin Jacob, J.P., is Hon. Secretary.——The ition of fire-engine and equipment is being ered by Council.

DON (POPLAR).—Plans passed by B.C.: Andrews cod, factory for Messrs. J. Manger & Sons, Ltd., in ank-road.

CHESTER.—Mr. E. Taylor, architect, 25, Longad, Choriton-cum-Hardy, has prepared plans dwelling houses to be erected in Regent and ve-roads, Choriton, for Mr. J. Scott; Mr. C. architect, 12, Exchange-street, has prepared for two houses to be erected in Maine-road, Side, for the Manchester City F.C.; Mr. F. worth, builder, Warren Brow, Blackley, is g two houses in Polefield road, Blackley; . H. Hallsall is erecting a house and and seven dwelling-houses in Alms Hill-Cheetham Hill; Messrs. J. H. Maybury n, architects, Chapel-walks, Manchester, repared plans for the erection of 62 houses in m-avenue, Burnham-drive, Paignton-avenue, e Hall-road, Burnage-drive, and Lindsay-road, e: Mr. A. Macdonald, architect, 71, Meadowfoss Side, has prepared plans for alterations to es at 29–31, Stockport-road and Brompton-Ardwick, for Mr. A. H. Hughes.——The Iments and Buildings Committee propose to spend to complete the improvement of Delaunays-t Crumpsall. This work includes a new bridge e River Irk.

KET HARBOROUGH.—The R.D.C. are applying ction for a loan for the purpose of granting a of £75 each on six houses.

HYR TYDFIL.—The Town Council has decided ow £8,750 for the following works: Completion Waterloo Bridge Culvert, Penyard (estimate , laying Froedvraiw Recreation Ground . culverting of Morlais Brook (£500) and addiwork (£1,500), repairs at Gellifaelog conseq ent ds (£1,750) and £750 for Gellyfaelog Recreation

KSEATON.—Plans passed by U.D.C. include 24 uses and seven shops, for Mr. W. H. Taylor.

NTAIN ASH.—The U.D.C. has given formal to acquire land for erection of schools.

HOLMROYD.—In order to encourage the building es in the local area, by private enterprise, the has decided to add £24 to the Government's of £76 per house, for the first twenty houses It is also proposed to sell the Council's building prospective builders.

ERTH.—The Council has received plans for d new bridges at Vicar's Mill, Maenclochog lwen. Plans for the proposed bridge at Felins already been forwarded for sanction.——Plans by R.D.C.: House adjoining Kilketty P.O.. R.C. Thomas; two cottages at Lordis Mounor Lord Merthyr. The Surveyor is to submit Council a list of persons intending to build under the assisted scheme.

PORT (MON).—A Ministry of Health inquiry n held on the proposed linking-up of the drainage rea of the St. Mellon's R.D.C. with that in wport Borough. No opposition was offered, s anticipated the scheme will be sanctioned.

THAMPTON.—Plans passed by T.C.: Pair semild houses, Delapre-crescent, for Mrs. C. A. ; house, Thursby-road, for Mr. S. Walker; houses, Crescent-avenue, Delapre, for Mr. E. bs; five new houses, Birchfield-road, for Mr. Welch: new house, Lime-avenue, for Mr. A. sub-station, Oakwood-road, for Northampton Light and Power Co., Ltd.; Primitive Methodrch Schools, Park-avenue and Abington-avenue, stees, Primitive Methodist Church: four houses, dward-road, for Mr. W. C. Throssell.——The w of Transport have approved a scheme for the g and reconstruction of the Bedford-road to a of 60 ft. between Nunn Mills and the borough ry, and are prepared to make a grant of 50 t. of the cost. The T.C. are proposing to raise of £3,000 in respect of the Northampton river ade scheme.

OGMORE.—The Ogmore and Garw U.D.C. has received sanction to borrow £6,467 toward cost of new recreation grounds to be laid out at Pontycymmer and Blaengarw. In addition, Miners' Welfare Fund grants will be expended.

PEMBROKE.—Plans passed by R.D.C.: Bungalow at Benton Farm, for Mr. W. Scale; alterations to bridge at Quoit's Mill, for Mr. James Williams.

PENARTH.—The U.D.C. is to invite tenders for taking down and refitting of cricket pavilion and will shortly embark on unemployment relief road works.

PORT TALBOT.—Plans passed by B.C.: New Sunday school ' building, for Trustees of Saron C.M. Church: proposed alteration to shops and café on site of old Victoria Hotel.—— The Electricity Commissioners have notified Council that they propose to grant for Port Talbot the electricity order applied for.——The B.C. proposes to acquire tar-macadam making plant.

RAWMARSH.—The U.D.C. is approaching the Minister of Health with a view to obtaining sanction to borrow £14,000 for the erection of public baths. The whole scheme is estimated to cost £22,000.

ROWLEY-REGIS.—The U.D.C. is proceeding with a road improvement scheme at Cradley Heath and Black Heath, at an estimated cost of £11,588.

RUGBY.—Plans passed by U.D.C.: Mr. W. H. Taplin, house, Cromwell-road; Trustees Wesleyan Church, Cambridge-street, new institute at rear of church: Mr. W. Howe, conversion of stables into dwelling-house in Victoria-street.

SKEGNESS.—The Council has decided to adopt a new water scheme which includes new boring at pumping station at Welton, with duplication of plant and engines, estimated cost, £3,300; new supplementary pump and oil engines in connection with borehole No. 2, estimated cost, £3,200; new storage tank at Skegness, with a capacity of 200,000 gallons, 70 ft. above ground, estimated cost, £5,000. Total cost, £11,500.

SOUTHEND-ON-SEA.—Plans passed by T.C.:—Five houses and shops, London-road, F. W. Senier; two houses, Chalkwell-avenue, and house, Southborne-grove, Roskam, Belcham & Evett; bungalow, Madeira-avenue, W. Swires; house, Cumberland-avenue, W. A. Thornton; house, Colbert-avenue, Rev. P. A. Knott; bungalow, Acacia-drive, J. W. Beere; bungalow, Glenbervie-drive, W. Dawes; conversion of house into shop, 106, Hamlet Court-road, W. F. Robinson; house and shop, Southchurch-road, A. Malton; four houses, Belle Vue-road, E. C. Haslam: two houses, Galton-road, A. G. Riley; house, Thorpe Hall-avenue, B. W. Ellis; two houses and shops, Westborough-road, M. Ulman; bungalow, Sandown-avenue, S. A. Cross; four houses, Branksome-road, H. G. Axcell: bungalow, Rochford-road, G. F. Cattell; two houses, Fillebrook-avenue, E. F. Selby; house and vestries, All Saints' Church, Sutton-road, Rev. T. J. Walton; school, Dundonald-drive, F. Naughton; bungalow, Cleveland-drive, G. Rutherford; two houses, Southview-drive, E. McCann; bungalow, Brook-road, G. B. Harrison; bungalow and garage, Eastwood-road, H. Blick; garage, 1223, London-road, W. E. Ladd; two houses, Dundonald-drive, G. J. Lee; eight bungalows, Barnstaple-close, F. W. Goldsworthy; bungalow, Cricketfield-grove, Mr. Sanders; house and shop, London-road, H. E. Harrowing; four houses, Swanage-road, A. Perry; two houses, Leigh Hall-road, Smale & Fisher; garage, 31, Dowsett-avenue, H. M. Phillips; bungalow, Nelson-road, C. W. Olley; three bungalows, Crosby-road, A. J. Cross; bungalow and garage, Station-road, Leigh, J. Brand; three houses and shop, London-road, F. C. Higgins; two houses, Marine-avenue, Allen & England; house, Colbert-avenue, A. W. Jennings; house and shop, Pall Mall, E. A. Barnacle; bungalow, Western-road, E. J. Jones; five houses, four in Rochford-avenue one in Salisbury-avenue, A. G. Smith & Co; house, Westleigh-avenue, Allen & England; six houses, The Broadway, Thorpe Bay, C. Matthews; bungalow, Leigh Gardens, F. C. Higgins; conversion of house into two shops, 96, Hamlet Court-road, W. H. O. Ainslie; new premises, Broadway, Southend, London Joint City and Midland Bank, Ltd.; two bungalows, Elmsleigh-drive, G. Wood; conversion of house into shop, 394, London-road, Madame Mere.

SOUTH SHIELDS.—Plans passed by T.C.: Mr. Howard Hill, for Messrs. J. T. Armstrong & Son, 50 semi-detached houses on east side of Ashley-road, Tyne Dock, between Harton-lane and Brinkburn Farm.

SUNDERLAND. — Upon land in Leechmere-road, Grangetown, belonging to the Corporation, the T.C. purpose building 16 houses. These will be in two blocks of eight each, and of an ordinary type, with five rooms and a bathroom. The Housing Committee will recommend the Council to grant a subsidy for 18 new houses, to be erected by private builders in the Roker district.

SUTTON-IN-ASHFIELD.—In connection with the Miners' Welfare Scheme a contract has been let for new swimming baths to cost £12,449. Operations will be commenced when the local Council has deposited their share of the cost.

TAUNTON.—Mr. F. O. Stanford, Ministry of Health Inspector, has held an inquiry respecting the application of the T.C. for the loan of £29,000 for the reconstruction of the sewage and refuse disposal works.

TENBY.—The Council is to lease old steam mill premises to Miss Noel on behalf of Girl Guides' Association for club for members, conditional to necessary repairs and alterations being carried out.

TYNEMOUTH.—The T.C. has under consideration a big scheme for the extension of the fish quay.

UXBRIDGE.—Plans passed by R.D.C.: Houses on the Hillingdon Court Estate for Messrs. A. Wheatley, A. E. Pelfreman, A. J. W. Sewyer, A. J. King, C. T. Houghton, R. Daubney, R. S. Greenwood, P. W. Smith, D. Cargill, S. Coultes, Major Holroyd, W. Baker, Captain T. V. Tanguy, E. C. Andrews, A. McKenzie Niven, W. B. Honey, W. J. Maskrey, F. J. McLean, C. H. Cheeseright, G. T. Weaving, A. E. Hilton, E. F. Ablett, H. J. R. Smythe, J. Inglis, P. C. McIntyre, D. C. Brown, and Lieut-Colonel G. S. Hutchison, and Miss H. Gibbs. Houses and bungalows on Swakeley's estate: Messrs. Wilkinson and Kelly, S. Squire, R. R. Shepherd, W. J. Swabey, G. B. Macintosh, A. E. D. White, Briggs & Co., C. Flint Pearson and E. E. Easter. Houses and bungalows on the Hillingdon Village estate: Messrs. A. P. Neal, G. Paterson, Searls, Guy, Wills, B. Long, H. Barrett, Partridge, and J. Johnson, and Mrs. Russell. A bungalow at Pole Hill-road, Hillingdon, for Mr. F. Saville, and a house at Uxbridge Common for Mr. W J. Middleton. Houses and bungalows on the Drummond estate, Ickenham: Messrs. W. Johnson, T. Dorney, C. Pearson, L. Laing, C. Johnson, Flavell, H. Brown, W. Griffin, J. R. Jenkins, A. J. Hughes, Nixon, J. D. Todd, Hasleham, C. Hinton, Drummond Estate, T. H. Vickers, J. C. Coombs, Fawley, and E. Gunn, and Mrs. Cobdon, and Mrs. K. Brown.

WAKEFIELD.—Plans passed by R.D.C.:—New offices at Crofton, for Messrs. Clarkson Bros.: two huts at Walton, for Messrs. W. G. Armstrong, Whitworth & Co., Ltd.: stable at The Cliffe, Crigglestone, for Mr. E. Mitchell; and house and shop at Kirkhamgate, for Mr. E. H. Holderness. The Education Authority has received sanction to borrow £8,000 for the completion of the Thornes House for secondary school purposes.

WESTBURY (WILTS).—The Westbury and Dilton Marsh Joint Water Committee is proceeding with an increased water supply scheme for the district. Messrs. W. H. Radford & Son, civil engineers, of Nottingham, are the Council's consulting engineers, and they have been instructed to prepare plans and estimates for submission to the Ministry of Health.

WHITLEY BAY AND MONKSEATON.—The U.D.C. is to erect 200 working-class houses.

WITHERNSEA.—Plans have been passed for six houses off South Cliff-road, for Mr. A. Ware; five houses in Lee-avenue. North Side, for Mr. W. Watt; and two bungalows in the new street off Hollym-road, for Mr. Williamson.

WORCESTER.—The C.C. has sanctioned the erection of a house for the Senior Assistant Medical Officer at Powick Mental Hospital, at an estimated cost of £1,250.

FIRES

NEATH.—Damage of £500 extent was done by fire at shop of Mr. D. J. Davies, furniture dealer, Parade, Neath.

WATFORD.—A fire outbreak has destroyed the premises of the Marsh Chemical Plumbing Works, the Textile Flexible Tube Company, and the Van Kannel Revolving Door Company.

Drury Lane Theatre.

Judging from the reception with which "Good Luck," the new sporting drama by Seymour Hicks and Ian Hay, was received on Thursday, last week, it would appear that Mr. Arthur Collins has backed a winner, to express oneself in a racing term, which is perhaps not inappropriate on this occasion. The whole play is well staged, but when is a play not well staged at the historic Lane? It sparkles with witty racing expressions, all apparently well understood by the audience, judging from the merriment with which they were received. The sensations of the play, which are always looked for and marvelled at, are the accident to the motor car of Lord Trenton, the race for the Hunt Cup, in which racehorses take part, and the success of Eleventh Hour, the favourite, furnish exciting scenes. In addition, the breaking-up and sinking of the yacht on which the villain, D'Arcy Bristowe, and the heroine, Lady Angela Vale, are aboard, is a thrilling moment, and one wonders how it is done. This realistic scene is a marvel of stagecraft, and the players—to quote an expression in common use amongst our readers—are "all the best of their respective kinds," and it would be unjust to mention individuals.

Town Planning.

The Bournville Village Trust Lectures in Civic Design and Town Planning during the 1923-24 session, in connection with the University of Birmingham, will commence on October 16 with a series of ten lectures by Mr. William Haywood, F.R.I.B.A., M.T.P.I. The second series will be given by Mr. H. H. Humphries, M.Inst.C.E.; Mr. John Robertson, C.B.E., M.D., B.Sc., and Mr. Francis C. Minshull, LL.M., Chief Assistant Solicitor, City of Birmingham. The third series, numbering 20 lectures, will be given by Mr. Wm. Haywood. The first and second series of lectures will be given at Edmund-street at 6 p.m. on Tuesdays, and the third series at the University, Edgbaston, on Mondays, at 11.30 a.m. The public will be admitted, without fee, to any of the series of lectures, and those attending the third series can take, if they so desire, the class work courses or either of them. A fee of £1 1s. is charged for the class work courses.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	2 15 3	Do. Bullnose ..	10 1 6
Do. Bullnose ..	3 8 3	Blue Wire Cuts	7 11 6
Best Stourbridge Fire brick :— 2½ in.	11 3 0	3 in.	13 2 0
Glazed Bricks— Best White Ivory, and Salt Glazed Stretchers ..	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends ..	31 10 0
		Two Sides and one End	32 10 0
		Splays and Squints	30 0 0
Headers	21 10 0		
Quoins, Bullnose and 4½in. Flats	28 10 0		

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. „	2 5	4 in. „	3 7

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand	15 6	„ „
¾ in. Shingle for Ferro-Concrete	14 0	„ „
¼ in. „ „	15 0	„ „
½ in. Broken Brick	10 6	„ „
Pan Breeze	5 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

	£ s. d.
Best Portland Cement, British Standard Specification Test £2 18 0 to 51/– alongside at Vauxhall in 80-ton lots.	£3 3 6
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 13 0
Keene's Cement, White	5 8 0
„ „ Pink	5 3 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 6
„ Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

Note.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
Bath Stone—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
Portland Stone— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	

Note.—½d. ft. cube extra for every foot over 20 ft. *average*, and ¼d. beyond 30 ft.

Hopton-Wood Stone.

Delivered at any Goods Station, London.

	s. d.
Small random blocks, up to 10 ft. cube. Per ft. cube	7/–
Random blocks from 10 ft. and over „	17/–
Sawn two sides „	27/–
Sawn three or four sides „	32/–

York Stone, Blue—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 5½
1½ in. to 2 in. ditto, ditto „	1 3

Hard York—

Delivered at any Goods Station London.

	s. d.
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto. ditto „	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.

	s. d.
Plain per ft. cube	6 6
Moulded „ „	7 9
Cills „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅞	21/–	1¼	33/6
⅞	23/–	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	22/–
1	26/–

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

	£ s. d.
Per bundle	0 2 10
Dry Wainscot Oak, per ft. super, as inch	0 2 0 to 0 2 6
¾ in. do. do.	0 1 6 to 0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9 to 0 2 6
Cuba Mahogany	0 3 0 to 0 3 6
Teak (Rangoon, Moulmein or Java), per load	45 0 0 to 50 0 0
American Whitewood planks, per ft. cube	0 14 0 to 0 16 0
Best Scotch Glue, per cwt.	4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 0

METALS.

Joists, Girders, &c., to London Station per ton—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
„ Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	5/16 in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

Wrought-Iron Tubes and Fittings—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. Half-Round Gutters—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¾	3½d.
4 in.	1/4	1/1¼	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7⅝	1/5½	5d.

O.G. Gutters.

3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5¾
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. Coated Soil Pipes—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5½	3 3½
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3½	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. Coated Drain Pipes—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	10 6	18 2
6 in. „ „	8 10	14 4	23 5

Per ton in London.

Iron—	£ s. d.		£ s. d.
Common Bars	14 0 0	to	15 0 0
Staffordshire Crown Bars—good merchant quality	14 10 0	..	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	13 10 0	..	14 10 0

METALS (*Continued*).

	£ s. d.		£
Steel Bars, Ferro-Concrete quality, basis price	13 10 0	..	14
Hoop iron, basis price	16 10 0	..	17
„ Galvanised	31 0 0	..	32
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	15 10 0	..	16
„ „ „ 24 g.	16 10 0	..	17
„ „ „ 26 g.	18 10 0	..	19
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26
Best Soft Steel Sheets, 26 g.	26 0 0	..	27
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	21 10 0	..	23

Metal Windows—Standard sizes suitable for plete houses, including all fittings, paintin coats, and delivery to job, average price abo to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
Lead—Sheet, English, 4 lb. and up	35 10 0 ..
Pipe in coils	36 0 0 ..
Soil Pipe	39 0 0 ..
Compo pipe	41 10 0 ..

Note—Country delivery, 30s. per ton extra; lots 3 cwt., 2s. per cwt. extra and over 3cwt. and u cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt.

Old lead, ex London area, at Mills ..... per ton	23 10 0 ..
Do., ex country, carriage forward ..... per ton	24 10 0 ..

PLUMBERS' BRASS WORK.

Delivered in London.

New River Pattern Screw Down Bib Cock

Iron.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/–	45/–	76/–	153/–	246/–	510/– pe

New River Pattern Screw Down Stop Cock

Unions.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/–	92/–	174/–	300/–	588/– pe

New River Pattern Screw Down Main Fer

½ in.	¾ in.	1 in.
39/6	60/–	116/6 per doz

Caps and Screws.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/–	14/–	23/–	30/–	42/– per d

Double Nut Boiler Screws.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/–	29/–	36/–	63/– per d

Brass Sleeves.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/–	12/–	20/–	24/–	31/– per doz

New River Pattern Croydon Ball Valves.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/–	56/–	98/–	162/–	228/– pe

Drawn Lead P. & S. Traps with Brass Cli Screw.

	1¼ in.	1½ in.	2 in.	3 in
8 lbs. P. traps	33/–	41/–	56/–	101/– p
8 lbs. S. traps	35/–	45/–	06/–	120/–

Copper—	£ s. d.	
Strong Sheet ....per lb.	0 2 3	..
Thin „ .... „	0 2 4	..
Copper nails .... „	0 2 3	..
Copper wire .... „	0 2 4	..
Tin—English Ingots „	0 2 0	..
Solder—Plumbers' „	0 0 11	..
Tinmen's .... „	0 1 1	..
Blowpipe .... „	0 1 3	..

PAINTS, &c.

	£
Raw Linseed Oil, in pipes .....per gallon	0
„ „ „ in barrels .... „	0
„ „ „ in drums .... „	0
Boiled „ „ in barrels .... „	0
„ „ „ in drums .... „	0
Turpentine in barrels .... „	0
„ in drums (10 gall.) .. „	0
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	56

Genuine White Lead Paint—

"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots ..... per ton delivered 77

Red Lead, Dry (packages extra) ....per ton	42
Best Linseed Oil Putty .....per cwt.	0
Filocol .....per cwt.	0
Size, XD Quality .....fkn.	0

[Concluded on next page.]

* The information given on this page has specially compiled for The Builder and is cop Our aim in this list is to give, as far as possib *average* prices of materials, not necessarily the l or lowest. Quality and quantity obviously prices—a fact which should be remembered by who make use of this information.

ES CURRENT OF MATERIALS (*contd.*)

GLASS.

ISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
fourths....	3½d.	32 oz. fourths	8½d.
thirds	4½d.	32 ,, thirds	10½d.
fourths....	5d.	Obscured Sheet, 15 oz.	4d.
thirds	6½d.	21 ,,	5½d.
fourths....	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
thirds	7½d.	En'lled 15 ,, 5½d., 21 ,,	7½d.

price according to size and substance for squares m stock.

ISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
led plate	4½d.
gh rolled	5½d.
gh rolled	5½d.
ired Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
itto, tinted	9d.
led sheet	6d.
ite Rolled Cathedral	5½d.
ted do.	7½d.

ast. Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon £ s. d.
rnish	Outside	0 14 0
tto	ditto	0 16 0
pal	ditto	0 18 0
pal	ditto	1 0 0
pal Carriage	ditto	1 4 0
itto	ditto	1 12 0
arnish	Inside	0 18 0
le Paper	ditto	0 18 0
pal Cabinet	ditto	1 2 6
pal flatting	ditto	1 0 6
ying Oak	ditto	0 18 0
rd drying Oak	ditto	0 19 0
pal Varnish	ditto	1 0 0
ditto	ditto	1 2 0
ditto	ditto	1 12 0
pan Gold Size		0 12 0
ack Japan		0 12 0
d Mahogany Stain (water)		0 12 0
ick Black		0 9 0
Black		0 14 0
g (patent)		1 5 0
and Brush Polish		0 17 6
Dryers in Terebine		0 9 0
Black Enamel		0 7 0

PATENTS.*

APPLICATIONS PUBLISHED.

033.—E. C. R. Marks (Dura Co.): Win- ontrol mechanism.

045.—M. V. Luchich and L. Osterman: -blocks.

074.—A. Hamel and A. Kornfeld: Wood al-fired heating apparatus, with tipping

623.—A. Bonig: Suspension for electric

812.—K. Esperstedt: Pipe joint for closets.

998.—A Henderson: Concrete building-

604.—F. Haywood, G. D. McLeod, and aywood: Polishing machines suitable for nd floor coverings.

628.—W. Taylor: Combined water- and flushing apparatus.

741.—Ateliers de Constructions et Fond- Rasquin et F. L. Jooris: Brick-making es.

761.—T. J. Bell: Water-closet flushing-

807. — Siemens - Schuckertwerke Ges.: es for boring holes in stones or rocks.

900.—L. G. Summers: Domestic fire-

902.—J. Redmond and J. Redmond: nt and door stays.

926.—Radiation, Ltd., and F. Harvey: nd chimneys.

939.—B. H. Fitter: Swing seats.

943.—S. Rangeley: Building-block.

913.—C. J. Cruijff: Method and material structing or repairing dust-free roads.

978.—N. Magelssen: Fireproof building

936.—Metzke & Greim Tief-und Hochbau: tion plate for the connection of building s in wood constructions.

951.—F. J. Brougham (Perfect Window or Co.): Window regulators.

*These applications are now in the stage in opposition to the grant of Patents upon them made.

NEW COMPANIES.

The particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C. 2, from the documents available at the Companies' Registry.

Blatchford, Ash & Co., Ltd. (192,036). Registered August 22. East Bridge House, Okehampton, Devon. Builders, contractors, builders' merchants and house furnishers, now carried on by George Kerslake Blatchford at Okehampton, Devon, under the style of Blatchford & Co. Nominal capital, £10,000.

Norfolk Archæological Trust. (191,668). Registered July 31. To maintain and manage buildings and places of historical or archæological interest. Every member to contribute a sum not exceeding £1.

E. B. J. Gould, Ltd. (191,730). Registered August 3. Builders and contractors, carried on by Ernest Benjamin Josiah Gould at Cromwell-road, Ellesmere Port. Nominal capital, £2,000.

Riverbank Estates, Ltd. (191,705). Registered August 2. 24, North John-street, Liverpool. Builders and contractors at Liverpool and elsewhere. Nominal capital, £1,000.

W. & J. Cooper, Ltd. (191,747). Registered August 3. Builders, plumbers, decorators, cabinet makers and general engineers, carried on by Ewen Ross-Smith, at 14, Newington Causeway, S.E.1. Nominal capital, £3,000.

Cropley Bros., Ltd. (191,717). Registered August 2. Builders and contractors, decorators, electrical and sanitary engineers, carried on at Imperial Works, Church-road, Epsom. Nominal capital, £15,000.

Hydra Lime Products, Ltd. (191,598). Registered July 28. 25, Cross-street, Manchester. Manufacturers or merchants of lime, mortar, cement, timber, chemicals, minerals, and all other mineral articles or things relative to the trades of builders, contractors, plasterers, constructional or civil engineers. Nominal capital, £3,000.

W. Bradshaw & Son, Ltd. (192,235). Registered August 31. 28, Prudential Buildings, North-street, Brighton. Builders and decorators carried on by William Bradshaw at 1A, Elder-place, Brighton. Nominal capital, £3,000.

Potts & Sinclair, Ltd. (192,192). Registered August 29. 20, Broom-lane, Broughton Park, Manchester. Builders and contractors, &c. Nominal capital, £1,100.

Park Estate, Ltd. (192,188). Registered August 29. 91, High-street, Poole, Dorset. Land developers, builders' contractors and engineers, &c. Nominal capital, £6,000.

Automatic Company (Bristol), Ltd. (192,119). Registered August 25. Builders, decorators and general contractors, and also as general publicity, electrical, and advertising agents, including the manufacture and maintenance of electrical and other appliances for advertising, burglar and other alarms. Nominal capital, £3,000.

Smith & Hunter (Scunthorpe), Ltd. (192,169). Registered August 28. Building contractors and general contractors, now carried on by Smith & Hunter at Dawes-lane, Scunthorpe, Lincoln, under the style of Smith & Hunter. Nominal capital, £2,000.

P. W. Spencer, Ltd. (192,187). Registered August 29. 1, Cavendish-street, Skipton, Yorkshire. Quarry owners and master lime burners and dealers, and limestone dealers and merchants, now carried on at Tothersdale, Giggleswick and Swinden in the county of York under the style of P. W. Spencer. Nominal capital £100,000.

Stanton Housing Co., Ltd. (192,350). Registered September 6. To construct, improve or to facilitate or encourage the construction or improvement of dwellings for the working classes. Nominal capital, £60,000.

W. Austin Elkington, Ltd. (192,309). Registered September 4. 16, High-street, Haverfordwest, Pembroke. Decorator, builder and contractor. Nominal capital, £500.

NEW BUILDINGS IN SCOTLAND.

Elgin.—Houses.—At the last meeting of the Moray County Council at Elgin it was intimated that the Board of Health have granted permission to the Council to erect four more houses.

Paisley.—Houses.—The T.C. has authorised the Housing Sub-Committee to obtain tenders for the erection of 100 houses at Whitehaugh. Plans have been approved for a villa at Southfield-avenue, Potterhill, Paisley, for Mr. James Adie, Ayr.

Glasgow.—Housing.—The Corporation has been recommended to enlarge and complete the housing scheme at Knightswood by the purchase of land at Bankhead for building purposes at a cost of over £50,000.

Croydon.—Houses.—The T.C. recently passed a scheme for the erection of 182 houses on three sites. The National Executive to the Labour Party is promoting a deputation to the Ministry to urge the need for 5,000 houses.

Paisley.—Tenements.—The T.C. is negotiating for sites for the erection of tenements in connection with the insanitary, areas scheme

Dalkeith.—Houses.—A start has been made on the site at Elmfield Park, where the T.C. propose to erect a tenement of 24 working-class dwellings.

Bonnybridge.—Cottages.—The Eastern District Committee of Stirlingshire County Council has passed plans for 12 cottages at Allandale, Bonnybridge.

Greenock.—Slaughter-house.—The Corporation Law and Finance Committee propose to reconstruct the slaughter-house or erect a new one at a cost of £11,500.

Kirkcaldy.—At a meeting of Fife Education Authority it was decided to remit to a special committee for report on the provision of education buildings in the area.

Larbert.—Dwellings.—At a meeting of the Eastern District Committee of Stirlingshire County Council plans were passed for two dwellings at Newhall-road, and a bungalow at South Broomage, Larbert.

Gourock.—Bungalows.—Mr. W. Steele, of Tarbet, has started building four bungalows on the Cloch-road. These are the first instalment of a scheme of houses leading down to McInroy's Point.

Dunfermline.—Villa.—The Dean of Guild Court has passed plans submitted by Mr. T. Millar, 61, Broad-street, Cowdenbeath, for a large villa at Garvock-hill, and by Mr. P. MacDonald for a house of the bungalow type at Touch.

Grangemouth.—Houses.—The T.C. has approved plans submitted by Messrs. Wilson & Tair, architects, on behalf of the Grangemouth Co-operative Building and Investment Society, Ltd., for two blocks of houses.

Stonehaven.—Houses.—The T.C. has passed plans submitted by Mr. J. Ellis, architect, Stonehaven, for eight villas on the Westfield-road; Messrs. D. & J. R. McMillan, Aberdeen, for 12 houses in Victoria-street; and Mr. R. Dunbar, for a cottage at the Mill of Cowie.

Stenhousemuir.—Church Hall, &c.—The Eastern District Committee of Stirlingshire County Council has passed plans for a committee room, recreation room, and church hall at Main-street, Stenhousemuir.

Edinburgh.—Creamery.—Plans prepared by Mr. M. Purdon Smith, architect and surveyor, Tower-buildings, High-street, Lockerbie, were passed by the Edinburgh Dean of Guild Court for a new creamery at West Bryson-road, for the Edinburgh and Dumfriesshire Dairy Co., Ltd.

Factory Extensions.

Messrs. E. A. Boome & Co., Ltd., of Hackney, are carrying out extensive alterations and additions to a large furniture factory at Nos. 56-58, Kay-street, Shoreditch, under the supervision of Messrs. Lovegrove & Papworth, architects, of Town Hall Chambers, 374-8, Old-street, E.C.2.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		1"	1¼"
Deal wrot moulded and rebated	per foot cube		
Plain deal jamb linings framed	per ft. sup.	1/8	1/9
Deal shelves and bearers	"	1/5	1/7
Add if cross tongued	"	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8

Housings for steps and risers		each
Deal balusters, 1 in. × 1¼ in.		per ft. run.
Mahogany handrail; average 3 in. × 3 in.		" "
Add if ramped		" "
Add if wreathed		" "

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	
Sash fasteners	11½d.	Mortice locks	
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

Rolled steel joists	per cwt.
Plain compound girders	"
Do. stanchions	"
In roof work	"

RAIN-WATER GOODS.

		3"	4"	5"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7
Ogee Do. Do.	"	2/4½	3/1	3/10
Rain-water pipes with ears	"	2/9	3/7	
Extra for shoes and bends	each	4/4	5/11	
Do. stopped ends	"	1/11	2/4½	3/7
Do. nozzles for inlets	"	2/2	2/7	3/10

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	5	
Do. Do. in flats	"	4	
Extra labour and solder in coated cesspools	each		
Welt joint	per ft. run.		
Soldered seam	" "		
Copper nailing	"		

		½"	¾"	1"	1½"	2"
Drawn lead waste	per ft. run	10d.	1/6	1/9	3/1	3/10
Do. service	"	1/5	1/11	2/3	3/6	
Do. soil	"					
Bends in lead pipe	each					3/3
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6
Red lead joints	"	11d.	1/-	1/3	1/11	2/4
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6
Lead traps and cleaning screws	"				14/7	19/6
Bib cocks and joints	"	6/4	9/7	15/4	41/-	
Stop cocks and joints	"	15/4	17/2	25/8	64/-	

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.		
Do. Do. Sirapite	"		
Do. Do. Keen's	"		
Add sawn lathing	"		
Add metal lathing	"		
Portland cement screed	"		
Do. plain face	"		
Mouldings in plaster	per 1 girth		
One-and-a-half granolithic pavings	per yard sup.		

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.		
26 oz. Do.	"		
Obscured sheet	"		
⅛ in. rolled plate	"		
¼ in. rough rolled or cast plate	"		
¼ in. wired cast plate	"		

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.		
Knotting and priming	"		
Plain painting 1 coat	"		
Do. 2 coats	"		
Do. 3 coats	"		
Do. 4 coats	"		
Graining	"		
Varnishing twice	"		
Sizing	"		
Flatting	"		
Enamel	"		
Wax polishing	per foot sup.		
French polishing	"		
Preparing for and hanging paper	per piece	2/- to	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges, percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of information given on this page is copyright.

TRADE NEWS.

ew catalogue issued by Messrs. A. Emanuel ns, Ltd., of 7–13, George-street, Manchester-re, W. 1, entitled "Some Up-to-date ary Fittings for Modern Houses," contains ection of baths, lavatory basins, mirrors of ent shapes, medicine cabinets, w.c. pedes- and cisterns, chairs, sinks for many pur-, urinals, taps, and bathroom accessories. of the designs, especially of the baths avatories, are of an attractive appearance, embody several new features. Practically whole of the earthenware and fittings are ed in white porcelain enamel, and will have an added appeal to those concerned labour-saving in the home. All the items l are illustrated and useful details are in connection with the articles to assist ection without unnecessary trouble. Messrs. nuel have an extensive showroom at George-t, to which architects and others interested nitary fittings are invited.

those who appreciate the appearance of rquet or hardwood-block floor, a pamphlet d by Messrs. H. G. Morner & Co., of 54A, ament-street, S.W. 1, will be of interest. pamphlet describes and illustrates a patent parquet floor covering which is only ¼ in. , and when laid gives a hardwood surface considerably lower cost than a solid hard-l floor. The "P.P.P." flooring, as it is d, is supplied in sheets 1 ft. 11 in. by 11 in., and is composed of best oak, three-enths of an inch thick, glued to a wood er. The jointing of the sheets is un-eable, and the material is easy to lay. material is made in three standard patterns, can be supplied in any desired pattern.

complete and well-produced catalogue of surveying and drawing instruments and iances has been issued by Messrs. C. F. lla & Co., Ltd., of 49 and 50, Parliament-t, London, S.W.1.

uthgate U.D.C. (Surveyor, Mr. R. R. Phillips) ndertaking extensive roadway surfacing s with "Asphaltic Slag for Roads," the ed tarmacadam manufactured and supplied essrs. William Shepherd & Sons, Ltd., Milk-, Rochdale.

ssrs. Munro, builders and decorative con-ors, have transferred their head offices 8, Thayer-street, Manchester-square, W.1, 3, Baker-street, Portman-square, W.1, hone number remaining as before—ham 2998.

e Directors of Bell's United Asbestos Co., have declared an interim dividend on the ary shares of sixpence per share, less income or the current year. The dividend will be on the 22nd inst. to shareholders on the er on October 6, and the ordinary share fer books will be closed from the 6th to the inst., both dates inclusive.

are informed by Messrs. Petters, Ltd., l, that at the Mandalay Agricultural ition and Conference (the most important ition of its kind in Burma), which closed on st 25, they were awarded a silver medal ertificate (highest award) for the exhibit eir oil engines. The exhibit included a of engines of the medium compression the first medium compression engines to instantly from cold without pre-heating he usual starting-lamp and without cal equipment of any kind. The Governor rma visited the exhibition, and the Com-s representatives, Messrs. A. Scott & Co., he pleasure of escorting him round their This device was awarded the silver (highest award) of the R.A.S.E. at New-in July of the present year.

Silver Wedding.

ncillor F. W. Goodyear, builder and con-r, and Mrs. Goodyear, of The Gables, m, have just celebrated their silver ng. Councillor Goodyear has been asso-with the Durham City Council for fifteen and is Mayor of that city.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.
*** Denotes *accepted*. † Denotes *provisionally accepted*.**
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

BARKING.—For erection of power station for the County of London Electric Supply Co. :—
*Consolidated Construction Co., London.

BIDDENHAM (BEDS).—For the erection of a bungalow, for Mr. A. Scott-Cooper. Mr. G. P. Allen, F.R.I.B.A., architect, 79, High-street, Bedford. In reporting the tenders for this work in our last issue, Mr. S. Foster's was given as £688, whereas it was £731 6s.

BOURNEMOUTH.—For making-up Soberton-road, for the T.C. :—
*Grounds & Newton..... £516

BOURNEMOUTH.—Supply of five dozen motor signs and posts, for the T.C. :—
*Ham Baker & Co..... £141

BOURNEMOUTH.—For repairs at Bournemouth School, for the T.C. :—
*J. McWilliam & Son £149

BRIGHTON.—For alterations, &c., at swimming bath, for the T.C. :—

Bostel Bros., Ltd.	£498 14
T. D. L. Piper & Sons	460 0
Field & Cox	457 0
Gates & Sons	447 10
Saunders's	439 0
J. Barnes & Sons	429 0
*W. & A. Elliott, Ltd.	385 0

All of Brighton.

BRIGHTON.—For supply of 192 single hydrants with surface boxes and three double hydrants :—
*J. Blakeborough & Sons—£3 14s. each and £7 10s. each respectively.

BROMLEY.—For external painting of Municipal buildings, for the T.C. :—

F. P. Duthoit, Bromley	£213 0 0
W. Russell, Bromley	198 12 6
W. D. H rwood, Borough, S.E.	195 0 0
W. Hill, Bromley	194 0 0
J. H. Bloomfield & Son, Bromley	192 0 0
H. Crossley, Bromley	182 10 0
Woodham & Tyler, Bromley	180 0 0
T. H. Webb, romley	147 12 0
Marryat & Co., Baker-street	146 0 0
W. H. Austin & Sons, Bromley	145 0 0
E. A. Vickers & Son, Bromley	119 19 0
W. H. Willson & Co., Bromley	119 10 0
*J. Elliman & Son, Ltd., Beckenham	93 0 0

BURNHAM-ON-CROUCH.—For plant in connection with water scheme, for the U.D.C. :—

‡ Bilbie, Hobson & Co., gas-engine and plant	£621 0 0
‡ Broom & Wade, air compressor	207 7 6

CALDICOT (MON.).—For completion of Caldicot sewerage scheme, for Chepstow R.D.C. :—

Thomas Walker, Clydach-on-Tawe	£5,110 1 9
H. Middleton, Newnham	4,227 5 6
Standard Construction Co., Swansea	3,965 11 9
H. Smith, Newport	3,616 6 6
A. Redding, Chepstow	3,567 0 0
G. F. Leadbetter, Newport	3,368 18 3
Dawkins, Harris & Weaver, Chepstow	3,241 10 0
*James Joiner & Sons, Sudely, Newnham	3,213 13 9

ERPINGHAM.—For building sea-wall at Overstrand, for the R.D.C. :—
*J. Youngs & Son, Norwich..... £1,717

GALASHIELS.—For the reconstruction of Buckholmside Skin Works, for Messrs. Murray & Sanderson, Ltd.: Asphalte work to roofs, floors, and gutters :—
*Tunstall's Rock Asphalte Co., Ltd., Leeds £484

GLASGOW.—For the supply of two sets of turbo-alternators for the Dalmarnock Power Station, for the Corporation Electricity Committee :—
‡C. A. Parson, Ltd., Wallsend—£90 000 per set.

GLASGOW.—For the supply of a high tension switch gear at the Dalmarnock Power Station, for the Corporation Electricity Committee :—
‡Reyrolle & Co., Ltd., Gateshead..... £34,000

KIRKBURTON.—For erection of a school. Messrs J. Berry & Sons, architects, 3, Market-place, Huddersfield :—
Mason and concreter—Swift Bros.
Joiner—W. A. Jones.
Plumber—H. C. Stringer.
Plasterer and slater—T. B. Tunnacliffe.
Painter—T. W. Spivey.
Steelwork—J. Taylor & Sons.
Heating—T. H. Rayner & Son.
All of Huddersfield.

LEEDS.—For the erection of new filling station in Woodhouse-lane, for Messrs. Rowland Winn, automobile engineers :—
*Wm. Irwin & Co., Leeds.

LLAY.—For the erection of St. Martin's Church, Llay, Gresford. Mr. R. T. Beckett, architect, Tryddyn, near Mold. Quantities by Messrs. Law & Son, 51, North John-street, Liverpool :—

R. Randles, Marford—		
No. 1	£5,203 10 0	
No. 2	4,616 6 9	
Whole church		£9,819 17 5
Merritt, Willaston—		
No. 1	£5,053 0 0	
No. 2	4,398 0 0	
Whole church		£9,451 0 0
Morrison & Sons, Wavertree—		
No. 1	£4,932 0 0	
No. 2	4,278 0 0	
Whole church		£9,210 0 0
J. Thompson & Son, Peterborough—		
No. 1	£4,726 0 0	
No. 2	4,151 0 0	
Whole church		£8,877 0 0
J. T. Jones, Cefn		
No. 1	£4,742 0 0	
No. 2	4,126 0 0	
Whole church		£8,868 0 0
P. Edwards, Dodleston—		
*No. 1	£4,700 0 0*	
No. 2	3,950 0 0	
Whole church		£8,650 0 0

LONDON.—Adaptation of the Wellington-road as a tuberculosis dispensary, for the Poplar B.C. :—
*Truscott £647

LONDON.—For erection of sub-station at junction of Blythe-road, for the Hammersmith B.C. :—

G. Holland & Sons	£450
J. Mowlem & Co., Ltd.	439
J. McManus, Ltd.	322
N. Green & Co., Ltd.	300
G. W. Clarke	269
*Kinnear, Moodie & Co.	240

LONDON.—For laying condensing water discharge pipe, for the Hammersmith B.C. :—

J. Mowlem & Co., Ltd.	£3,400 0 0
J. Price	2,700 0 0
Leslie & Co., Ltd.	1,571 0 0
Kinnear, Moodie & Co.	1,490 0 0
J. Cochrane & Sons, Ltd.	1,100 0 0
*G. Webb & Co.	556 2 8

LONDON.—For resurfacing Victoria Park-road with "Duraphalt," for the Hackney B.C. :—
*Whitehall Asphalt & Engineering Co. 7s 5d. per sq. yard, with free maintenance for five years.

LONDON.—For repairs, &c., at Kensal-road baths, for the Paddington B.C. :—
*W. Giles..... £242 6 9

MARLBOROUGH.—For the erection of seven cottages, for the T.C. :—

Minty & Swatton	£4,256
A. Martin	3,892
C. Simons & Son, Calne	3,591
Hillier & Sons	3,450
W. E. Piper & Son,	3,348
Saunders, Cirencester	3,143

NORTHAMPTON.—For the T.C. :—
22 "B3" and 64 "A3" houses, Far Cotton site—*A. L. & H. W. Chown, Northampton—£37,932.
Eight "B3" and eight "A3" houses, Far Cotton site—*A. Glen & Son, Northampton—£7,415.
Total: 102 houses. Cost: £44,347.

NORTHAMPTON.—Relaying electric tram-track Kettering-road and Gold-street, for the T.C. :—
*G. F. Hartigan, Marlborough—£6,469 19s. 7d.

PRESTON.—For the erection of a sub-station at Ribbleton, for the T.C. :—
*J. Turner £871 12 9

PRESTON.—Erection of extension to Deepdale Council School, for the T.C. :—
*G. Hill & Sons £2,551 19

SALFORD.—For supply of various materials to the Highway and Paving Committee of the T.C. :—

*John Crankshaw Co., Ltd., Horwich—Earthenware pipes	£180 3 0
*B. Carrington Sellars, Manchester—200 tons Portland cement	575 0 0
*James Schofield & Sons (Mossley), Ltd., Mossley—Castings	80 16 6
*The Buxton Lime Firms Co., Ltd., Buxton—Limestone chippings	183 15 0
*Rudman & Phillipson, Entwistle—Best Barns flags	140 0 0
*Thomas Ratcliffe, Bacup—Rochdale curbs	291 5 0
*Isaac Law, Shawforth, near Rochdale—Rochdale curb edging	30 15 0
*Charles H. Phillips, Manchester—200 tons stone chippings	125 0 0
*John J. Lee, Manchester—Tarred slag	664 5 0
*Partington Steel & Iron Co., Ltd., Irlam—Tarred slag	584 10 0
*Penmaenmawr & Welsh Granite Co., Ltd., Liverpool—2,500 tons granite setts, at 59s. 9d. per ton, and 75 tons ¼ in. granite chippings, at 17s. per ton	7,532 10 0

SALFORD.—For widening of Stott-lane, including erection of girder bridge over railway, &c., for the T.C. :—

*T. Wrigley, Manchester..... £20,923 8 10

SOUTH SHIELDS.—For erection of 50 bungalow-type houses, for the T.C. :—

*Wholesale Co-operative Society.... £22,000

TILBURY.—For repairs and redecoration to the Station Restaurant, Tilbury Docks. Mr. William Gilbert, M.S.A., architect, 74, Broad-street-avenue, E.C.2 :—

Johnson Bros.	£1,128
Dearing & Co.	1,100
Schooley & Son	990
Snewin Bros.	970
*Vigor & Co.	925

TILBURY.—For repairs and redecoration to the Basin Tavern, Tilbury Docks, Mr. William Gilbert, M.S.A., architect, 74, Broad-street-avenue, E.C.2 :—

Dearing & Co.	£655
Johnson Bros.	640
Vigor & Co.	535
Schooley & Son	485
*Snewin Bros.	447

WHARFEDALE (YORKS).—For new roadway leading from main road to the Small-Pox Hospital, for the Hospital Committee :—

*John Parker, Horsforth..... £709

WILLESDEN.—For (1) tar macadam works at Tubbs-road and Neasden-lane, (2) paving works, Acton-lane, (3) renewal of wood paving, Canterbury-road, for the B.C. :—

*(1) T. W. Heath (Public Works), Ltd., 7s. 3d. per yd., super.
*(2) C. V. Buchan & Co., granite setts, at 22s. per yd., super.
*(3) Acme Flooring & Paving Co. (1904), Ltd., at 16s. per yd., super.

WORCESTER.—For the reconstruction of Bransford Bridge (new ferro-concrete structure), for the Corporation :—

*T. Vale & Sons, Ltd., Stourport.. £9,255 9 6

St. Catherine's Church, Hammersmith.

With reference to the description of the above in *The Builder* of August 14, we are asked to state that the material for the acoustical treatment of the building was furnished by Building Products, Ltd., of Columbia House, 44–46, King's-road, Sloane-square, S.W. 3.

"Electric Cranes."

"Electric Cranes," a neatly bound book issued at 2s. 6d. by Sir Isaac Pitman, Ltd., describes the construction and operation of modern cranes, transporters, capstans, winches, haulages, winding gear, &c. The author is F. E. Chilton, and the information given should be of use to works and railway officials, engineers, operators and students.

Building Materials for Japan.

A report has been prepared in the Department of Overseas Trade on the market in Osaka, Japan, for building materials, based on information furnished by the Acting British Consul at Osaka, before the recent earthquake in Japan. A copy of this report, together with the names of importers of building materials in Osaka, may be obtained by interested British firms on application to the Department of Overseas Trade, 35, Old Queen-street, London, S.W.1.

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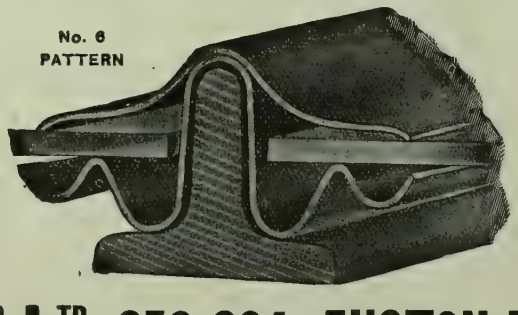
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THE BUILDER

JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

L. CXXV.—No. 4210. OCTOBER 12, 1923

TOWN PLANNING.

"THE old order changeth, giving place to the new." Such indeed should be the guiding thought of the days in which we live—in this strange, kaleidoscopic period, when in every art, science, trade or conditions are gradually changing—sometimes imptibly, sometimes with a rapidity which savours of a tion. And in no direction is this metamorphosis more kable than in the demand for better planning of our and industrial areas; widespread, insistent, there is this (not only in our own land, but universally) for something than the bare necessities of shelter and protection from ements—for the amenities of life, for beauty, for order, bove all, for a plan: the logical disposition of a town or to the best advantage of its inhabitants. It is a call, er cry of the worker, for something which has hitherto acking, something which will give him beauty. A call, , to the imagination of those who have studied the vital t of town planning.

e recent successful meeting of the Town-Planning Institute rk, which gives rise to these remarks, inspires both con- and some misgivings. Confidence, because most of who have made a study of the art or science of town- ng are inspired by high ideals, or fully appreciate the lities of improving the appalling conditions of industrial as these exist to-day. Misgivings, because, in practice, lisation of the ideal falls far short of the original inspira- because, too often, moral courage is lacking in the facing culties resolutely and squarely; because again (in some the development of important and historic cities is left who lack imagination and vision and who, in conse- neglect great opportunities and lightly undertake the anning of a city without preliminary investigation of estions, such as traffic surveys, the delimitation of un- areas, the consideration of site and contours, the gations necessary to deal with the problem of "zoning," ion but a few of the questions which must be thoroughly curately appreciated before a town-planning scheme of the name can be prepared.

perly understood, town planning should improve not e health of the community, but should greatly increase mant faculties of the appreciation of beauty, the civic nd the general well-being of the citizens of England. -product it should, necessarily, develop the efficiency of ker, whether intellectual or manual, by increasing his ect, by the provision of healthy and beautiful sur- gs, sunlight and fresh air. Therefore—as many wise rs now realise—town planning is a paying proposition. it is not always appreciated is the difference between a assable" scheme, which satisfies the minimum require- nd a really imaginative plan.

Town planning is, perhaps, a science in so far as it is the logical solution of a definite set of problems. But it is also an art, and, like all creative works, must—to attain its highest form—be based not only on precise and accurate data, but must also be inspired by the imagination of the artist. It is not sufficient to trace certain lines on an ordnance map which will provide routes for motor traffic, to devise a system of tramways and to plan a sewage system. In addition to these requirements what is necessary is to create an atmosphere, to give a personality to the town, such as will encourage the growth of civic pride, focus the interests of the inhabitants on their town or city, and foster the development of that appreciation of beauty and fitness which has, in too many cases, become atrophied in the denizens of our industrial centres.

One could wish that the Town-Planning Institute would adopt a most definite propaganda in favour of these essential ideals. The decision taken some years ago to hold annual conferences in various provincial towns has been of great value in assisting the cause of town planning in this country, and, in particular, the meeting held in Manchester last year stimulated a great public interest in the subject which had previously remained latent and, for the most part, unsuspected in the great industrial community of South-East Lancashire; the exhibition (which was held at the same time) greatly assisted in this successful stirring of the popular interest, and we could wish that at future meetings of the Institute an exhibition of this kind should always be arranged, even if many of the exhibits had previously been seen either in London or elsewhere, because plans and diagrams (even when imperfectly understood) make an instantaneous appeal to the popular mind, and, if carefully studied, illustrate the principles of town planning far better than lectures and papers on this subject. The graphic presentation of civic centres, agricultural belts, or even traffic and "time" diagrams, appeal to the imagination—which, after all, is the essential aim in propaganda—whereas the paper read in the lecture room is often either too concise to be readily understood by the layman or so lengthy that it wearies him.

In conclusion, and from the point of view of the technician who requires definite guidance, it might be advisable to prepare, for such annual conferences, definite pronouncements on questions of difficulty, such, for example, as the constantly recurring questions of the maintenance of grass margins to roads where the whole width is not macadamised, the best position for tramways on main arteries, the planting of trees and avenues, the planning of busy road junctions, or the factors to be considered in "zoning." In fact a preliminary study of the local difficulties of the centre selected for the annual conference would probably be expedient and would add considerably to the value of the subsequent meeting as propaganda, which is the most important and valuable function of such gatherings.

NOTES.

Crowland Bridge. The appeal which has been made for the preservation of this triangular fourteenth-century bridge near Peterborough, which is of a specially interesting character, will, we trust, lead to funds being quickly forthcoming to execute the necessary repairs. It is difficult to understand why so fine a bridge should have been allowed to fall into such disrepair, and it is satisfactory to know that the present direction is towards a more reverent care of such landmarks, as forming part of an ancient patrimony of which we are trustees. An earlier authority however (about 1800), to which we have had access, gives a different appellation to the large stone figure, which, in the appeal to which we have referred, is described as a figure of Christ. In this account of the streets of Crowland we are told "they are connected by means of a curious triangular bridge formed of three segments of a circle, meeting at a point in the centre, but so steep that only foot passengers can pass over. . . . On the south-west wing, which faces the London road, is a stately image of King Ethelbald, supposed to have been erected about the year 860." From this it would appear that the statue is not that of Christ, and the figure itself rather suggests that of a Saxon king. We should be interested to know the source of the present attribution.

The Local Industry. We have not the particulars enabling us to form an estimate of the extent to which the small workshop on handcraft lines is multiplying itself locally, but that there is a tendency for these local industries to increase is all to the good, and disputes the view that craftsmanship of this traditional kind is ceasing to exist. Every encouragement should be given to such activities, because of their advantage to use, health, economy and beauty—to use, because the thing made is better; to health, because the conditions of such labour are so improved; to economy, because not only is the work more lasting, but it includes the far larger and fundamental economy of using 100 per cent. of the craftsman, instead of the 20 per cent. or even less which is used of him in the factory. The contentment arising out of this makes of him also a better citizen, while labour carried out on such lines should not deface the countryside. It is difficult at present for a craftsman single-handed to carry on in such a way, but by combining together they should be able to do so, while this more corporate aim is all to the strengthening of their work and to the consolidation of country life. So we wish success to the small industry with its more humane standards for labour, which give freedom to the craftsman to use the whole of himself intelligently. There is nothing that demonstrates more that our values are wrong than that it should appear to be an economic law which permits of this loss, and that we can find it accepted that this is necessary to it is surely in itself a great condemnation.

Decorative Textiles. The best criterion of the condition of public taste can be found in the windows of the provincial shopping town; and it is therefore gratifying to note the great improvement in the design and ran colour of materials now being exhi for curtains and upholstery. A few ago the conventional flowered and J ean wall-papers and cretonnes supplanted by the stereotyped pa indefinite pinks, greys, and ma often contrasted with black cush There is now visible a refreshing tend to revert to simple stripes in brave co reminiscent of Arab work. A good of the value of the colour and desig such accessories can be found by s whether they are in harmony with oriental carpets. The latter prese vigour and strength in design that d harmonise with "sloppy" work or aff and unwholesome "moods." No can better enliven a dull street than bright curtains, even if they err o side of gawdiness. We hope that tendency to an emphasis of colou spread from the interior to the ex of the house.

The Passing of the Country Roads. We should hardly have so far as a leader-wri *The Times* who, in writ the destruction of the co roads through motor traffic, says, process can hardly be stopped. A d or two more and we must search the of distant countries for a truly co road." We do not take the view because our country districts are in and injured that they will always Abuses do tend to cure themselves so much through legislation as a c of mind—and we do not believe th shall continue to care quite for the things. No doubt the beauties th defaced are little missed by the mo because he does not see them. The thing which drives him ever farth farther in the endless pursuit of som which never satisfies because he possesses it, the victim of his own ometer, will be replaced by values o reality. With the commercial traffic it is no doubt different, and w have to be content to yield our roads to its requirements. But present time the motor-car in people flee to enjoy a couple of run in the quiet of the country is far changing the character of the c roads that the object can hard secured, for, in consequence immense traffic, roads have to be w grassy verges cut away, hedges an cut down, and corners extended, a uncommonly a hard stone verge r the pleasant grass of the path's ed borders the road. It is, howeve that more organised protection wer coming for pedestrians and other the country roads, including th inhabitants; and it is surely poss announce in a less strident and becoming way that motor spirit is able, for at present nothing co uglier or more offensive.



Spandrel for the Exterior Arches of the Palace of Machinery, Panama Pacific International Exposition. Mr. Haig Patigian, Sculptor. (*See p.* 561.)



'rogress." Detail of Bronze Shaft. Haig Patigian, Sculptor. (*See p.* 561.)

ectures n Recent cavations

The series of lectures by Miss Claire Gaudet, the first of which was given last Thursday in the Lecture Room at British Museum, opens out a subject m which recent excavations enable us learn not only so much more about ient civilisations, but of the evolution he past which is seen to be continuous. Sir Arthur Evans tells us, all civilisas were interwoven. The radiate or e arch is contemporaneous with the t cuneiform, about 4000 B.C. We see growth of construction from the iest times, so extending our concepas as to the origins of architectural n. This continuous evolution reminds hat the dark places between identify nselves with those periods when the ages of war reduced humanity to the est struggle for existence, reminding of some recent words of Sir Edward y as to the effects of war on Euron civilisation. Recent discoveries in ylonia and Mesopotamia have filled in ain gaps and show us that Sumerian lisation spread from the former to pt. These recent discoveries alter our vs as to the Egyptian being a detached lisation, and show the interdependence ll civilisations. These most interestlectures are to be continued every rsday afternoon at 4.30.

Restoration of "Old Masters."

It may be pointed out here that, in the view of any really able practising artist, pictures which have been entirely overpainted in oil, as described in an account of some newly discovered "old masters," are very much reduced from their original quality, and that the loss entailed by such overpainting is not to be recovered by restoration, for the freshness and charm of the original treatment will have been much vitiated in the process. We do not undervalue such pictures in saying that they should be valuable to us for intrinsic reasons and not for their names, through which they are so much exploited. We think the time has come to look a little askance at "old masters" unless they include the rare and unmistakable greatness which belongs to the best of them. We remember years ago hearing of a man whose entire occupation was that of painting spurious Morland's, and we should tread our way most carefully in a market which includes more commercial initiative than art.

The "Wonky" Cottage.

If the old-time ruler required his court jester, democracy to-day likewise demands its humorous commentary of life. Mr. Punch always admirably reflects the club Englishman, and the illustrations of a "wonky" cottage and the trials entailed in living therein that appeared in a recent issue must have gone home to many readers. The charm of the old cottage, with its low doorways, inadequate windows, and leaning chimneys cannot be denied, and we cannot attribute the present-day craze for such dwellings either to affectation or entirely to the pressure of necessity. Despite its inconveniences the old cottage has an important part to play and a lesson to teach in solidity of construction and simplicity of design. It is easy to ride "modern amenities" to death, and the love of the old cottage should act as a steadying influence to a generation whose traditions have, for the most part, been rudely shattered. But the love of the antique has its dangerous side, and we must beware of building sham antiquities. Our restorations should be in keeping with the original work, but our new houses should be frankly new and good at the same time.

Current Information on Town-Planning.

It has always been a difficulty with town-planning officials to obtain authentic information on current problems, but we understand that the North of England Division of the Town-Planning Institute is making an effort to provide this by obtaining a record of activities in their area with such information as to cost and peculiar difficulties which might be of assistance to authorities preparing schemes. No doubt we shall see what form this will take in the course of the next few weeks, but if town-planning officers will co-operate it seems possible that the result might be most useful to themselves and the profession at large.



Spandrel for the Exterior Arches of the Palace of Machinery, Panama Pacific International Exposition. Mr. Haig Patigian, Sculptor. (*See p.* 561.)

GENERAL NEWS.

Professional Announcements.

The offices of Messrs. Percy Tubbs, Son & Duncan, architects and surveyors, are now at No. 30, John-street, Bedford-row, W.C.1, and their new telephone number is Museum 5809.

The address of Messrs. J. Murray Easton and Howard Robertson, architects, is now 36, Bedford-square, London, W.C.1. Telephone Museum 6424.

Mr. Harold Burleigh, A.R.I.B.A., architect and surveyor, has taken an office at 81, London-road, St. Leonards-on-Sea (Telephone : Hastings 1234), and will be pleased to receive manufacturers' catalogues.

Mr. W. Hamilton Fearnley, architect and surveyor, of Featherstone, who closed his office in 1916 for war service, has now resumed his practice in Station-lane, Featherstone.

Change of Address.

The address of the Edinburgh Architectural Association is now 15, Rutland-square, Edinburgh.

J.P. for Devon.

Mr. Thomas Abell, of 8, Rolle-street, Exmouth, who has been appointed a J.P. for Devon, is a member of a well-known firm of builders and contractors, has lived at Exmouth nearly half a century, and for over 34 years has been a member of the Urban District Council.

Water Fittings.

A meeting is to be held at Connaught Rooms, Great Queen-street, W.C., on October 17, at 2.15 p.m., for the purpose of considering proposals for the formation of an association to protect the interests of manufacturers of water fittings. Several influential bodies, representing builders and property owners, have signified their intention of being represented at the meeting.

Ancient Kentish Manor House.

A fourteenth century manor house has been discovered at Sundridge, Kent, during the restoration of three cottages between Riverhead and Brasted. At the request of Mr. C. P. Munn, a Hampstead builder, who bought them to convert into one house, Professor Beresford Pite has prepared plans for the restoration of the premises. Already many of the original features of the building have been exposed on the removal of the outer plaster and brickwork.

Chester Cathedral.

During excavations in the eastern cloister at Chester Cathedral, for laying an electricity cable, a floor laid with Roman tiles was unearthed about 9 in. below the existing level. About eight tiles of the Roman type, 8 in. square and 2 in. deep, made of plain rough clay, were found. In 1915 Mr. Geo. W. Haswell, F.S.A., read a paper before the Chester and North Wales Archæological Society on the subject of the Abbey Church of St. Werburgh in pre-Norman times. In this he put forward the suggestion that two built-up arch openings in the eastern wall above the pavement formed the entrance to the early Christian Church of St. Peter and St. Paul, into which the remains of St. Werburgh were brought in 875.

Reading College Library.

A new library, presented to University College, Reading, by the Palmer family, was formally opened on Saturday by the Earl of Crawford, Chancellor of Manchester University. It has been erected as a memorial to the late Right Hon. George William Palmer, a former vice-president of the college, and one of its principal benefactors. The library, which was designed by the late Mr. C. Steward Smith and Mr. Harry Hutt, is planned with an entrance hall, paved with black and white squares, out of which open the Overstone Library of 7,500 volumes, bequeathed by the late Lady Wantage ; a room for future extension, with shelving for 6,500 volumes, and a smaller room, with shelving capacity for 3,500 volumes. The upper floor is approached by a broad stone staircase, with bronze and marble hand-rails.

Galashiels War Memorial.

At a meeting of Galashiels War Memorial Committee the sub-committee's report showed that the estimates were considerably in excess of the funds at the Committee's disposal, and Sir Robert Lorimer was asked to go over the schedules in order that, while still maintaining the same effect, but without too much elaboration, the memorial might be modified. This had been done, and the lowest estimates now gave a total of £19,933. The sub-committee also submitted photographs of an equestrian group designed by Mr. Clapperton, sculptor, which they thought should be included in the scheme. The additional cost of this group was estimated at £1,500, bringing the grand total up to £21,433. The amount available if all outstanding subscriptions promised are paid is £17,429 1s. 8d., leaving a deficiency of £4,003 18s. 4d. The sub-committee recommended that the scheme be proceeded with, that the equestrian group be included, and that the Town Council be asked for their approval. The General Committee approved, and delegated full powers to the sub-committee.

Egyptian Architecture.

Sir Banister Fletcher, F.R.I.B.A., gave an interesting lecture on Egyptian architecture at the Central School of Arts and Crafts on Wednesday last week. He outlined the influences which controlled the architecture, to understand which, he said, one must enter into the spirit of their religious beliefs, and appreciate their social conditions, besides giving due importance to the unusual geographical, geological, and climatic conditions of that strange land. The pyramids, the greatest monuments of antiquity that had come down to us, were the result of the Egyptian belief in immortality, for in them they sought to preserve the body for the return of the soul. Then, too, the powerful priesthood upheld the traditional, mysterious and unchangeable religious rites, reflected in the planning of the temples. A sketch of the life of Egypt in early days was followed by a review of its history from the time of the first dynastic king, 6,000 years ago, to the present day.

Sir Banister then described the features which characterise the buildings of the Nile, referring in turn to the planning of the temples, sloping walls (giving an appearance of strength) often incised with sculptured scenes, the imposing colonnades with their wonderful variety of sculptured capitals, and finally a sketch of Egyptian ornament, from the pa[in]tings, scenes and symbols down to the treatment of domestic furniture. This study of the life of the Egyptians will be continued in Wednesday's lecture, when the Sphinx, the pyramid and other tombs will be described in detail, including some reference to the discovery of the Tomb of Tutankhamen.



(See Paper by Mr. F. C. Mears on page 577.)

A "Chequer" Town in the Seventeenth Century : Showing Detached Cottages and Gardens.

COMPETITION NE[WS]

Greenwich Baths Competition.

As briefly announced in a portion o[f the] edition last week, Mr. Ashley, the assesso[r] made the following awards in the above [com]petition :—1, Messrs. F. J. Horth an[d] Andrew, Custom House Buildings, White[hall] gate, Hull ; 2, Messrs. H. Field and [J.] Pearson, 5, Gower-street, W.C.1 ; 3, [Mr.] F. B. Mennie and C. D. Smith, 11, New[Sq.] Lincoln's Inn, W.C.2. The designs placed [first] and second are illustrated in this issue.

Newtown War Memorial.

The Newtown War Memorial Comm[ittee] invite designs and estimates for the erection [of a] suitable memorial. Full particulars may be obtained from the Secretaries, Council C[hamber], Newtown, and all designs, &c., must be in [the] hands on or before October 29.

Holmside.

The President of the R.I.B.A. has nomi[nated] Mr. T. R. Milburn, F.R.I.B.A., as assess[or] the Holmside and South Moor Collieries C[ottage] Hospital Competition.

Cost of Building Competition.—No. I[I].

Owing to the indisposition of the assess[or] regret that delay has occurred in coming [to a] decision in this competition.

Other Competitions.

Other competitions still open includ[e the] following (the dates given are, first the se[t] in date, and second the issue of *The Build[er]* which full particulars were given) :—Sing[ing] College (Jan. 1, 1924 ; March 30). Hul[l] Gallery (Nov. 5 ; May 4). D.I.C. E[xt.] Manchester (Oct. 15 ; Sept. 7). Chiswick [Em]bankment—*Banned by R.I.B.A.* (Oct. 15 ; [Nov.] 7). Dudley Memorial (Jan. 5, 1924 ; Sept[.] Eastleigh and Bishopstoke Assembly H[alls] *Banned by R.I.B.A.* (Dec. 3 ; August[.] Taunton War Memorial (Nov. 30 ; Oc[t.] Memorials to the Missing (Jan. 1, 1924 ; Au[g.] Southsea Lay-out (Oct. 20 ; Oct. 5)—*B[anned] by R.I.B.A.* Limehurst Bridge (Oct. [20] Oct. 5).

MEETINGS.

Friday, *October* 12.

National Federation of House Builders.—[An]yearly Meeting. At Municipal Offices, H[ig]gate. 11 a.m.

Royal Sanitary Institute.—Mr. Percy D[ar]on "Some Aspects of Housing in Carlisle." [At] the Town Hall, Carlisle. 7.30 p.m.

Saturday, *October* 13.

Institution of Structural Engineers.—Vi[sit] view progress of works at the British E[m]pire Exhibition, Wembley. At 2.15 p.m.

Wednesday, *October* 17.

L.C.C. Central School of Arts and Crafts.—[Sir] Banister Fletcher on "The Sphinx : [Its] Pyramids and Other Tombs." At South[am]pton-row, W.C. 6 p.m.

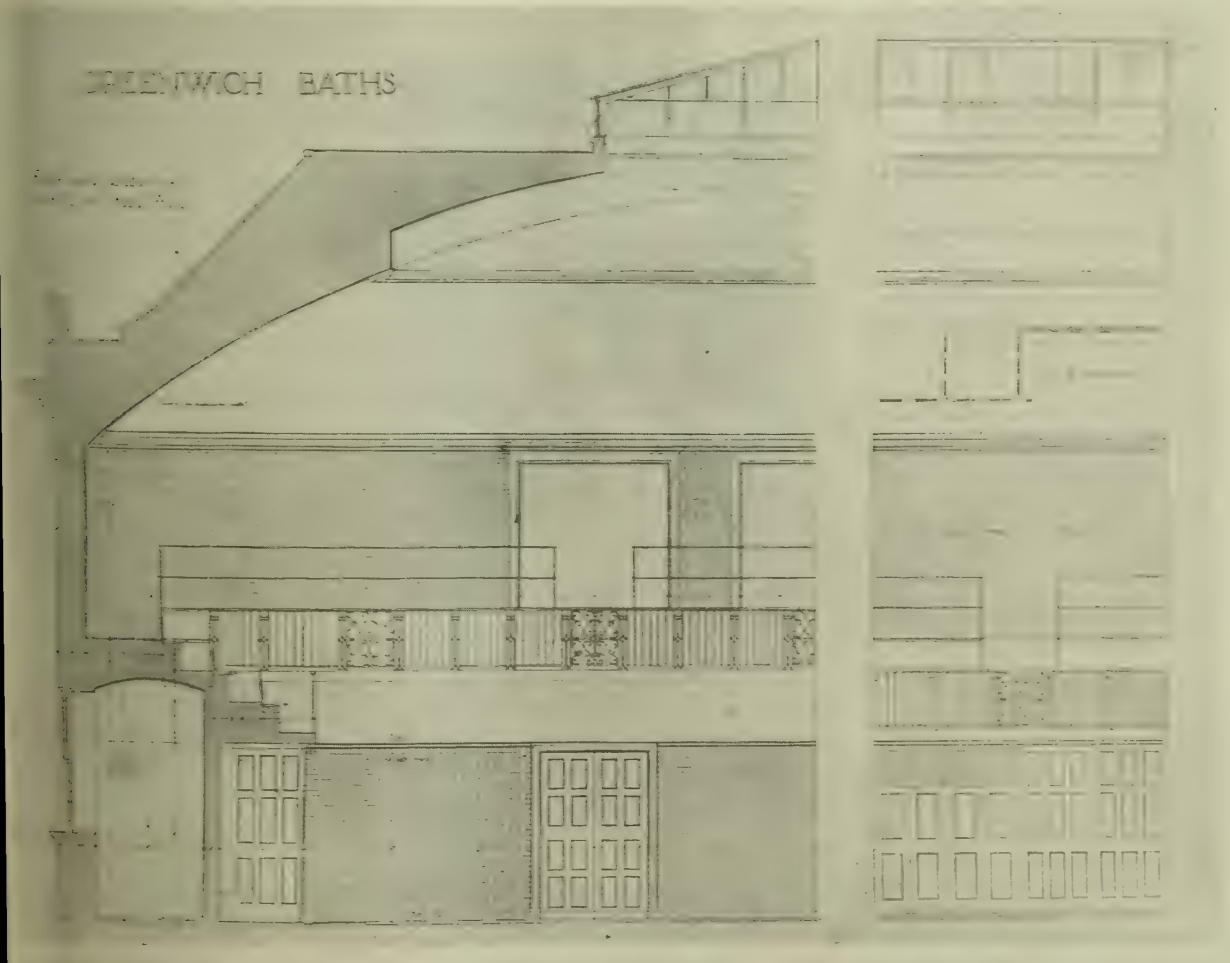
THS AND WASHHOUSES COMPETITION, GREENWICH.

Borough Council and the ratepayers of h generally have every reason to be with the result of their baths com- reckoned as a business proposition. ellent site in Trafalgar-road roughly s in rectangular form about 256 ft. ft., having the advantage of being open sides. The main frontage faces nearly ith Creed-place on the left and Park- the right. Thirty sets of drawings en on view during the week in the Town The majority are above the average in ugh perhaps not one design can rightly rited as being of outstanding merit, levational treatment into account as the contrivance of planning. Being of inion we appreciate the difficulties el to the assessor. Mr. H. V. Ashley own practical judgment, and in the of his choice we fully concur. The oints of not a few approximately equal ultimately to be adjudicated, had to pared very carefully, and even so the es remain, perhaps, only matters of e. Certainly, the selected design solves blem, presenting a well-considered plan cost has not escaped attention.

esign by Messrs. F. J. Horth and H. (Hull), which is placed first, has three trances with capital crush halls near el and would be readily cleared. he first and second-class swimming- r men have direct exits either into the west thoroughfares, furnished with orways to each exit hall—an important to split up the throng when concerts and public meetings are held in these bath halls. The women's bath is in the centre. Round about it are top-lit slipper baths. Each section of them is furnished with open areas to light and ventilate their respective waiting-rooms and water-closets. Six feet wide corridors give access and allow of secondary entrances. The first-class men's bath is 110 ft. long by 55 ft. wide; second ditto 90 ft. by 54 ft.; and the ladies' bath hall measures 75 ft. by 36 ft. The larger ones have clerestory windows, as well as lantern lights, plain and practical places, as they should be. In front of the premises the committee and refreshment rooms occur. There are four good exit stairs from the galleries with outgoes well apart from other traffic. Douche rooms and sanitary provisions are attached to their respective bath halls. A Russian bath is situate in the rear of the larger swimming-bath and faces Woodland-place. The entrance vestibule, off the main corridor, is along the end of a waiting-room opening into the vapour, shampoo and cooling apartments, all economically contrived and capable of enlargement. Ample storage space is ingeniously contrived in various parts of the premises. The boiler-house and establishment laundry stand at the back of the central bath with an open area and a yard off Creed-place. This ultimately can be used for an extension. The top corner of the site in Park-street is devoted to the washhouse with an ample entrance quite distinct, of course, from the baths. There is a nice room for children with closets *en suite*. The washing place and ironing room are separated from the vestibule by a waiting-hall well planned. The elevations of this design are simple and dignified in a modest manner. The manager's rooms are located on the first floor in the middle of the façade. The big baths are fronted by a pair of flanking pavilions treated with hipped roofs. The main portals have double doorways set within big semi-circular arches which adds a sense of scale. In the drawing, the chimney shaft looks over-assertive, but it is set at the back of the baths and will not really be seen from Trafalgar-road. The drawings leave nothing to be desired.

In all likelihood the referee shared our preference for the very refined architectural character of the design by Messrs. Horace Field and H. D. Pearson, FF.R.I.B.A., placed second. This design, with elevations conceived in a modified manner influenced by Christopher Wren's taste so famously represented by Greenwich Hospital, Mr. Ashley nevertheless placed second, perhaps with regret not to be free to further the materialisation of these façades. The crush halls assume too much the form of verandahs with three bay arcades opening into the forecourt in each case. As crush halls, so called, they are separated from their adjacent bath halls by a cross corridor, and in the event of the alternative use for entertainments these overflow passage-ways right and left might cause confusion. The introduction of doors for occasional use in corridors is, of course, undesirable.

The stairways to the galleries are not quite so efficient because their exits open into the connecting colonnade or cloister in front of the courtyard, thus concentrating the public needlessly in the central way leading from the court into Trafalgar-road. The women's bath is relegated to the back part of the site in the middle, the central frontage being recessed and screened with the colonnade of Doric coupled columns and surmounted by a balustrade set between the wings flanking the court. The



reenwich Baths Competition. Second Premiated Design, by Messrs. HORACE FIELD and H. DIGHTON PEARSON, FF.R.I.B.A

building along Trafalgar-road has a forecourt 28 ft. deep and areas also are allowed about 10 ft. deep to the side elevations. The men's slipper baths are placed in the first floor on three sides of the quad. Below them are arranged the refreshment rooms, cloak rooms, and offices. The establishment laundry is at the far end of men's first-class bath. The wash-house position corresponds with the selected plan and is equally well contrived, though the room for children is less important. Capital details to big scale are presented. The pediment towards Trafalgar-road makes a handsome central feature and this frontispiece is more monumental in strict accord with the end pavilions, designed throughout with brick and stone, after the manner of Sir Christopher Wren. The side elevations are admirable, broadly disposed and picturesque.

The lay-out of the scheme of Messrs. P. B. Mennie & L. D. Smith, Lincoln's-inn (placed third) is more like the first prize one and covers about the same area of buildings. The crush halls are not equal and the two long transverse corridors do not improve the working arrangements. The exit stairs for galleries in the big bath halls do not discharge direct into the streets, neither have these assembly rooms immediate exits provided in the selected plans. The slipper baths are contrived round the central position of the ladies' bath hall; the boiler house is at its rear. A cooling room for the Russian bath, which is situate at the back of the men's first-class bath, adjoins the steaming room furnished with gallery seats like a school class-room. There are three waiting rooms for the wash-house, approached by a narrow long passage with a poor entrance lobby. The wash-house itself is spacious. Roadways flank the boiler house at the back of the premises. The design has a cupola rising over an open-sided lantern of masonry placed above the women's crush hall and behind a pedimented portico. There are secondary pediments and pilastered pavilion fronts to the big side baths designed for execution in stone, rather tame in detail, but not badly proportioned or lacking in interest.

No. 4 in the list of designs is by Mr. Stephen Ayling, F.R.I.B.A., who allocates positions to his second-class swimming bath and women's bath in the flanks of the site, and places the first-class men's bath transversely at the rear, giving it a crush hall entered from Creed-place. His wash-house extends along Park-street and he puts the slipper baths along the Trafalgar-road frontage. This dwarfs the main elevation and the mass of the swimming bath rising behind on the left gives a lopsided appearance to the whole. The centre-piece has a loggia in front of both the men and women's entrance halls. The gallery exits fail to discharge into the open, so far as we could see, but we regard his design among the best submitted.

No. 14 shows many good arrangements arrived at by long experience, and the exteriors are appropriate. The placing of the slipper baths facing the main street in a "lower ground floor," under the regular one, is a variation not exactly suggested by the site. The design is submitted by Messrs. Alfred W. S. Cross and Kenneth Cross.

No. 22, sent in by Mr. W. Allison, A.R.I.B.A., locates the slipper baths on the first floor, ranging them in triple order. He introduces a mezzanine and makes much of his entrance pavilion.

No. 7, the scheme of Messrs. Boddy & Dempster, presents a monumental centre-piece fit for a palace with very plain wings. The purpose of the premises is not satisfactorily expressed by the exteriors.

No. 9 is similarly contrived by Mr. Geo. E. Williams. The crush room, 24 ft. square, leads to nowhere in particular, and the plan is too cut up. Messrs. Burgess & Church, in No. 12. put the first-class bath along the back and allow it a "foyer" all on its own. Generally, this plan is not economic. Mr. Thomas Spencer, A.R.I.B.A. (No. 25) is represented by ten sheets, including a plan showing the halls arranged for concerts. The largest one can only be cleared by traversing long corridors, and the crush rooms are too much inside the premises.

The exhibition closes at noon on Saturday.

CORRESPONDENCE.

Competitions.

Sir,—I feel very strongly in view of the unsatisfactory results of some recent competitions (in which I was not a competitor), that the jury system should be insisted on, and that ordinary pencil drawings should be considered sufficient for a competent jury. Architects do not seem to realise that without competitors there can be no competition.

Further, there is now an added horror. I recently sent for the conditions of the Coatbridge War Memorial Competition. This is for a memorial to cost £3,000, a lay-out in a public park and design for new entrance gates. The drawings have to be rendered, an inked-in perspective prepared, and the drawings mounted on strainers. The large sum of £75 as first premium is offered with no guarantee that the winner will be appointed to carry out the work. I returned the conditions at once, and was informed by the Town Clerk that my deposit would not be returned unless I sent in a design. I may point out that an F.R.I.B.A. is the Assessor.

When I wish to help lower the rates of the Parks Department of a little Scotch burgh I will do so voluntarily if I so desire, but object to forceful measures. This method is not in accordance with the etiquette of architectural competitions. Being a mere Southerner, I did not give up all hope, but immediately 'phoned my bank, as it occurred to me that the letter I received might have outstripped my cheque, which was the case, so I took the liberty of stopping the payment of the cheque. I suggest a "Golden Ballot" to the notice of the burghers of Coatbridge. I am desolated if the said gentlemen have to sing of the scarcity of the season's crop of guineas from the South.

J. A. Hallam,
Member Town-Planning Institute,
Fellow South Wales Inst. Architects.

Cardiff.



Milkmaid Wager Cup.

(See Letter on this page.)

Milkmaid Cups.

Sir,—I was much interested in the illustra published in your issue of the 5th inst., of "Milkmaid Wager Cup" (1787), exhibite the Church Congress, recently held at Plym I have among my collection a somewhat sir cup, undated but evidently of the same type period, and enclose you herewith a photog of it. I should be greatly obliged if you w kindly inform me of the origin of the "Milkmaid Wager Cup." As you will see one in my possession is very delicately ch and both the inner portion of the dress an suspended cup are gilt inside, and I have wondering if such is the case in the one trated. My cup is about 8 in. high.

R. Stephen Aylin

London.

Alabaster Panels.

Sir,—In the "Records of the Borough Nottingham there are numerous entries w go to show that an extensive business carried on there in alabaster panels, as illust in your last issue in the fourteenth and fifte century. They were used as retables, embraced a variety of scriptural subjects. haps the most popular being the "St. Baptist heads." The names of about a d "alablastermen" are mentioned, and it s clear that the material was chiefly obta from the village of Chellaston in Derbyshir wrought in the workshops at Nottingham; further, that the Burgesses of Nottingham a prescriptive right to the trade, for in Nicholas Godeman, "not being a Burgess," displaying images for sale, "made fine licence to traffick, 8d."

It would be interesting to know how ma these panels are still extant.

Harry Gil

Nottingham.

Parallel or Tapered Baths

Sir,—Who is responsible for the pr ridiculous craze for parallel baths? Is absurd æsthetic affectation of the new sch architects, or is it the outcome of lazine the part of the draughtsman, or is there profit for manufacturers? For there w appear to be no practical advantage wha of the parallel over the taper bath. No adv of the parallel bath has been able to give m more convincing reason for the preference "It looks so nice in the bathroom." Its advantages are numerous and manifest. heavier and more costly and takes up room, which is a very important point in houses; it takes more water to supply a d bath, and most of that is only of advanta anyone with excessively large feet; and water means more fuel to heat it.

Let anyone run a small quantity of water a parallel bath and into a taper bath and how the side lines of the water surface comp in one case rapidly converging to the wrong in the other almost parallel. Moreove parallel bath is so clumsy an affair that former 2 ft. of width inside at the shoulder been reduced to 1 ft. 10½ in., at a considera loss of comfort, and this has given a disast precedent to the manufacturers for the re tion of the taper bath also to 1 ft. 10½ in that it is now difficult to obtain a bath rational type.

And the only excuse for suffering these advantages: "Oh! it looks so nice and h some in the bathroom." What rot! Why agitate for parallel coffins to spare the æsthetic undertaker the agony of having to a tapered coffin on the parallel shelf of a va It would be just as sensible.

If, however, any of your readers can forward a convincing reason for using par baths in preference to tapered I shall be delig to hear it, for it would save me much trou hunting up tapered baths of the old type fo clients.

Frank Gray Wall

Eastham, Cheshire.



Group on the Pediment of the Metropolitan Life Insurance Building, San Francisco.
Mr. Haig Patigian, Sculptor.

HAIG PATIGIAN:
AN ARCHITECTURAL SCULPTOR OF SAN FRANCISCO.

By KINETON PARKES.

A good deal of excellent painting, decoration, sculpture, and architecture has been designed and destroyed on behalf of the great exhibitions that have been held from time to time in Europe and America. A signal example was the Panama-Pacific International, of which the most noteworthy architectural feature was the fine modelling of Mr. Haig Patigian, the San Francisco sculptor.

This artist is an Armenian, born in 1876, whose self-education in the arts until he was forty years old was only modified by a period under Marquet in Paris. It was then he went to the United States, and at once began his career as a monumental and architectural sculptor with a memorial to McKinley. His composition, "Ancient History," after being shown at the *Salon des Artistes Français*, and to the Pennsylvania Academy in 1907, was a member *hors concours* of the International Jury of the Panama Exposition, and it was the extensive work he did for this that firmly established his reputation in America. In San Francisco he is well known and his work greatly appreciated.



"Genii of Machinery." Detail: "Blind Force."
Mr. Haig Patigian, Sculptor.

Patigian's work was on the Palace of Machinery, and he worked in collaboration with the architects Ward and Blohm. The main entrance was approached by four free Corinthian columns, each surmounted by a modelled figure 16 ft. high. These statues, representing Steam Power, Invention, Electricity, and Imagination, were all male nude figures with appropriate emblems. The entrance itself was in the form of a tall decorative arch, enclosing four more Corinthian columns supporting an entablature, on the cornice of which two spread eagles were placed. The bases of these columns were decorated by eight figures in bas-relief, the cylindrical contour being successfully retained. Wing *motifs* were largely used, the anatomical attachment of birds' wings and human arms being similar, and the massive wings in the conception of the Genii of Machinery are made to convey the idea of motive power, and decoratively the feather structure spreading backwards over the cylindrical surface and welding the design. The wing structure also served for a decorative background for the mechanical "Disciples," powerful male figures engaged in mechanical occupations. The figure "Blind Force," with sightless eyes, powerful torso, and its attendant pieces of machinery, explains itself All the figures, however engaged, were designed to give the idea of support to the massive columns, and were placed in relation to the whole architectural scheme of the entrance, and were about 7½ ft. in height.

The four columns framed two passages and thus formed a lobby. To the right and left the hallways were large, and prefaced by decorated arches with modelled spandrels of nude male figures engaged in mechanical operations, and these arches were repeated on the walls at the end of the passages. The whole structure of the entrance was massive and imposing, and the generous use of Patigian's sculpture was more than justified.

The Memorial Museum at San Francisco bears important permanent work by this sculptor, also used architecturally. The tympanum group over the entrance contains five figures: in the centre a draped female representing Life, holding the book of life, but also a skull, a reminder of Death, supported by two boys, "Hope" and "Aspiration," holding respectively a torch and a roll of parchment, while on either side are kneeling male figures, slightly draped, of a young man, "Industry," and an old one, "Wisdom and Knowledge."

Above this tympanum group is a huge moulding in the arch, which carries four winged female figures, each supported by a Moorish-Gothic bracket, of "Sculpture," "Architecture," "Painting," and "Music," very finely conceived and freely modelled.

Another piece of good modelling is the figure of the "Angel of Death," called "The Guardian," treated by the sculptor as a sexless being, whose mission is no more than that of bearing sorrow and supporting it. The figure forms the principal feature of the massive bronze door of the mausoleum of Miss Dolbur. of San Francisco. The hands bar the entrance to the tomb with a tender touch, and the lines of the wings and drapery are treated with severity and in a way to conform to the simple dignity of the Doric character of the architecture of the work.

The Metropolitan Life Insurance Building in San Francisco is a notable piece of modern architecture, and its wide, flat pediment contains Patigian's most ornamental work, partly floral in character. with reminiscences of the Italian manner. A central winged, half-draped female figure holds a coat of arms and a ball: on her left is a figure similarly treated of a woman and babe. and on her



"Architecture": Detail of Arch.
Mr. Haig Patigian, Sculptor.

right a nude female figure holds another child. Balancing the motherhood group is an old man with the scroll of life spread before him, from which he reads to a younger man listening attentively. Another nude male figure holds a cornucopia, with the flowers and fruits of the earth as symbols.

An "Allegory of Achievement" is a striking work of an architectural character in the form of a bronze shaft presented to Mr. Charles M. Schwab by the shipbuilders of the Pacific Coast in recognition of his services during the war. Its cylindrical base is simply treated, and is divided into four panels, bearing reliefs of "Progress," "Industry," "Commerce," and "Patriotism." This is surmounted by a simple sphere, supported by ships with Pegasus as figurehead, that sail the four quarters, the design held together by conventional waves. The figure of "Progress" holds a winged globe and the torch, and is that of a female, as is also "Commerce"; "Patriotism" and "Indust being men.

Other forms allied to architecture whicl artist projects are figures for fountains swimming-pools; and a "Nymph at Play a charming example of the latter. Patigi a member of the American Federation of and the National Sculpture Society, organisations which have greatly helped otherwise vigorous activity of architectu the United States.



Lobby of the Palace of Machinery, the Panama, Pacific and International Exposition, San Francisco. Spandrels and bas-reliefs at base of columns. By Mr. Haig Patigian, Sculptor.

THE DOME IN INDIA.

By V. B. METTA.

he dome was used in Indian architecture
re the birth of Buddha, which was twenty-
centuries ago. There are three stages in
evolution—the bamboo stage, the timber
e, and the brick and mortar or the stone
e. Examples of very ancient domes do
survive in the country, because they were
e of such perishable material as bamboo
mber, but examples of the third class of
e are to be found in the architecture and
pture of the Buddhist Period. The Indian
e is divided into three parts—the Griva,
he neck; the Sikhara, or the main body;
the Mahapadma (the eight-petalled
s, the symbol of God), or the crown.
Kalasha—that is, the water-pot, the
bol of the creative element—is placed over
lotus crown. If one looks at this dome
the inside it will be found that it is
e to represent an open lotus. The interior
ration of the dome is horizontal, and
efore it is much more varied than the
ical decoration, which one sees in Euro-
domes.

he Mahomedan conquest brought some
ideas into the country, but, at the same
e, it should be remembered that the
dus gave more to their conquerors than
received from them. The Islamic archi-
ure of India is really more Hindu than
acenic. The Mahomedan invaders very
ly brought architects with them, and so
had to employ Hindu designers and
kmen to build buildings for them. The
dings of the early Mahomedan period
etimes have conical-shaped domes, because
r builders unconsciously reproduced either
conical sikharas of their temples, or the
le of their domes, which look conical.
n came what Fergusson calls the
athan " dome—a radiating and not a
zontal type of dome, with a flattened top
strongly pronounced haunches.

ow, really speaking, there was nothing
athan " about this dome, because it was
l in the country long before the Mahome-
s came. According to Mr. Havell there
e two kinds of domes used in ancient
a—the ribbed dome and the horizontal
e. In the former kind of dome eight stone
resting upon the base formed the struc-
, and the space between these ribs was
l up with bricks or stone laid horizontally.
the purely horizontal type of dome the
ard thrust hardly existed, on account of
very nature of its construction, while in
ribbed type the eight-petalled lotus at the
was used to prevent the dome from
roying itself. The Buddhist domes, used
er decoratively or constructively in the
dhist stupas and caves, are of the ribbed
. These ribs were gradually reduced in
ber until they became merely ornamental
disappeared altogether. The Jain domes
be seen on the porches or the shrines
he temples on Mount Abu are the lineal
endants of the Buddhist domes. The
h domes are supported on pillars, ranging
eight to as many as fifty-six in number.
gusson was so struck with the beauty of
e porch domes that he wrote about them
ollows:—" The Hindus obtained singu-
varied outline in plan, producing the
iest results of light and shade with every
ge in the sun's position."

e praises this Jain arrangement of the
e and pillars used accidentally by Wren
St. Stephen's Church at Walbrook, but
: " It would have been greatly improved
its resemblance to a Hindu porch been
e complete." After the so-called
athan " dome appears the bulbous dome,
hich Mr. Havell holds the opinion that it
olved from the bent bamboo arch used in
gali huts.

he Hindu domes were small, and so the
thing which the Hindu builders had to
nder their Moslem rulers was to enlarge
size of their domes. This they succeeded in doing wonderfully well, as the results show. This was what they did: They built two domes—an outer and an inner one. Of these, the outer one was " false "—that is, it was merely a shell of concrete and plaster—while the inner dome was the real one. They also began to use pendentives, or corner brackets at the angles, whenever stone beams at the base of the dome required this kind of support. The Persians knew the use of these pendentives, but their pendentives were much lighter than those of the Hindus. The dome in India was now quite safe, because its lateral thrust was counteracted from the inside. Fergusson goes almost into raptures over the Hindu workmen's skill in constructing domes, and compares it with that of Europeans, very much to the disadvantage of the latter. He thinks that the European builders were most timid and unskilful in their work, because they had not been able to find out how to counteract the lateral thrust of the dome from the inside. They built external buttresses, and piled great masses of masonry on the haunches of the dome to prevent it from destroying itself. This was a clumsy device, as it spoiled the exterior appearance of the dome.

The Hindu influence both in the construction and decoration of almost all Mahomedan domes in India cannot be disputed. Their shapes are of Hindu origin, as already pointed out. Internally, also, they are constructed in such a way as to represent the omnipresent lotus of the Hindus. In the early days of Mahomedan rule the builders put only the Hindu metal finial on the domes. Later on they feebly carved the lotus leaves at the base and crown of the dome, and finally these lotus leaves were strongly marked. Let us look at the dome of the Taj Mahal to see how much Hindu influence there is in it. It is not Saracenic, because its curve is not a single unbroken one as in the purely Saracenic domes of the mosques and tombs of Cairo. It curves at the base, which the real Saracenic dome does not do. Its bulbous shape is also of Hindu origin.

It has the typical lotus leaves of the Hindu dome at the base as well. Its pinnacle does not rise abruptly from the crown, but is connected with the centre of the dome by the Mahapadma, the eight-petalled lotus. I may also mention that the great dome * on the tomb of Sultan Mohammed at Bijapur is also the product of Hindu architectural genius.

The Indian dome, like the rest of Indian civilisation, has influenced all neighbouring countries. The bell-shaped dome to be seen in some of the Buddhist stupas of India was adopted in Burma and Siam along with Buddhism. M. Saladin points out that the dome of the tomb of Tamerlane at Samarcand is of Hindu type, because it was built by Indian workmen whom the conqueror had taken with him there. Finally, it has been noticed that the domes of some of the mosques in Persia and Mesopotamia have as finials not the Crescent of Islam, but the Chakra, the Buddhist Wheel of the Law, which is to be found in the Buddhist art of India.

* It is larger than that of the Pantheon at Rome, as Fergusson points out.

EXHIBITION NOTES.

AUSTRALIAN ART.

The Exhibition of Australian Art at the Royal Academy will be welcome to many even if it contains little that can be called distinguished. It may be objected that it is not up to the latest date in glaring departures from the well-worn paths, and that there is too placid an air about it all. But we may surely hope that artists who can paint so well will some day throw off the well-worn clothes and essay a more arresting dress. Still, we have in this exhibition a high average of sound work, and many fine expressions of Australian scenery with its vast distances and striking features. Over two hundred exhibits are very well displayed in the five galleries allotted them.

THE GIEVES GALLERY.

Stimulating and delightful are the vivid paintings of the mountains of Switzerland by Prof. H. B. Wieland at the Gieves Gallery. These pictures bear the impress of direct and sympathetic vision. Some of them have a rugged force which illustrates the tremendous natural upheaval which originated the scenes, but others have a quiet breadth and beauty of singular charm like Nos. 13, 18 or 30. The professor's energy is perhaps over-much emphasised in his work, but the pictures are welcome and stimulating.

THE ARLINGTON GALLERY.

If the public bought pictures on their merits one would expect to see several of those in the Campden Hill Club Exhibition at the Arlington Gallery starred before the closing days. To be able to buy such excellent water colours as Nos. 36, 10, or 41 at the prices marked is surely a chance for those whose love for art is not to be measured by the price affixed to it. We shall look with pleasure for the next exhibition of this Club after the memory of sincere and pleasing work by M. F. Montmorency, S. Blunt, S. M. Fisher, A. M. Burton and others. The collection was not free of eccentricities, and one may perhaps be forgiven a sadness over " The Birth of Eve."

DEVON ARCHITECTURAL SOCIETY.

EXHIBITION OF DRAWINGS.

An exhibition of the current year's prize drawings in connection with the Royal Institute of British Architects, organised by Mr. J. L. Fouracre, chairman of the committee of the Plymouth branch of the Devon and Exeter Architectural Society, was opened by the Mayor of Plymouth at the Public Library at Plymouth, on Tuesday last week. Mr. Fouracre, who presided, remarked that though the exhibition was not perhaps so attractive as a show of oil paintings and water colour drawings, the exhibits were beautiful and very skilful scientific documents, some executed with the object of showing from the bed rock how very fine buildings were evolved. The students who had gained the prizes were young men who would be the great architects of the future, and if the exhibition had the effect of inducing some of the younger generation of architects to compete in future competitions it would not have been held in vain.

The Mayor congratulated the chairman and committee of the Plymouth branch of the Architectural Society on the work they were doing, and expressed the hope that a study of the beautiful architectural drawings and designs on view would encourage young men to take full advantage of the educational system, and then, perhaps, one day a young man from one of the Plymouth schools or offices might be among the leading architects of the country. When they regarded the wonderful buildings of Inigo Jones and Wren it was difficult to realise that they existed in the minds of those great architects before the foundation stone was placed in position. Commenting upon some of the important buildings recently erected in London, the Mayor alluded to Messrs. Selfridge's premises in Oxford-street as a thing of beauty and commercial practicability combined. He emphasised the importance of great care being taken in the designing of factories, so that they might be bright, cheerful, and convenient for the people who worked in them and make their lives happier. He expressed a fear that the character of the buildings erected during the present time would suffer to some extent through lack of money.

Mr. Frederick Shelly, in thanking the Mayor, alluded to the flourishing condition of the architectural students' classes in Plymouth, and the great benefit which students derived from travelling and inspecting the fine buildings on the Continent.

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ILLUSTRATIONS.

Messrs. Holt's New Offices, Liverpool.

We give this week the winning design in the limited competition for the Holt Shipping Co.'s offices by Mr. Arnold Thornely, F.R.I.B.A., and Mr. Herbert J. Rowse, A.R.I.B.A. In the *Liverpool Post* of Wednesday is a descriptive article on the design from which we take the following:—

"Costing about a million sterling, the building is to be erected on the 'island' site, bounded by Water-street, Brunswick-street, Fenwick-street, and Drury-lane, with an approximate frontage of 220 ft. to Water-street, and of 257 ft. to Fenwick-street. Along the Water-street frontage of the building the thoroughfare will gain in width to the extent of 18 ft., and Fenwick-street and Drury-lane also will be widened, thus gaining very much in importance with regard to traffic, while affording the new block a much improved setting.

"Problems of lighting in respect of surrounding buildings were involved, and in order to solve these the architects propose the double set-back of the two top stories. They have dealt with these after the style of the big New York buildings, which come within the operations of the 'zoning law.'

"The building will be of Portland stone, and the lower stories, which come within the view of passers-by, are to be richly treated, while the space between these and the order crowning the building will be treated simply in refined ashlar, the reason being that a scheme of ornamentation from top to bottom would be wholly unsuited to a building of this magnitude. The crown order at the top was suggested to the architects by the open loggia used in the Italian palaces, and the effect of this richness will have its chief value when the building is seen from a distance.

"At the Water-street front, the block will have a basement, ground floor, and eight stories above, the last two being set back. From the ground to the main cornice the height wil 120 ft. and to the top of the set-back sto approximately 150 ft. Owing to the eleva of this part of the city the building will st higher than the Liver Building, though not i a loftier erection, and it will be a landmark f the river.

"As to the plan of the building, one of great features of the ground floor will be a banking hall occupying that half bounded Water-street, Fenwick-street, and Brunsw street, the main public space being about 13 long, with very richly coffered ceiling, and te nated at either end by two octagonal halls. complete vista of the whole length of the will be obtained by the public.

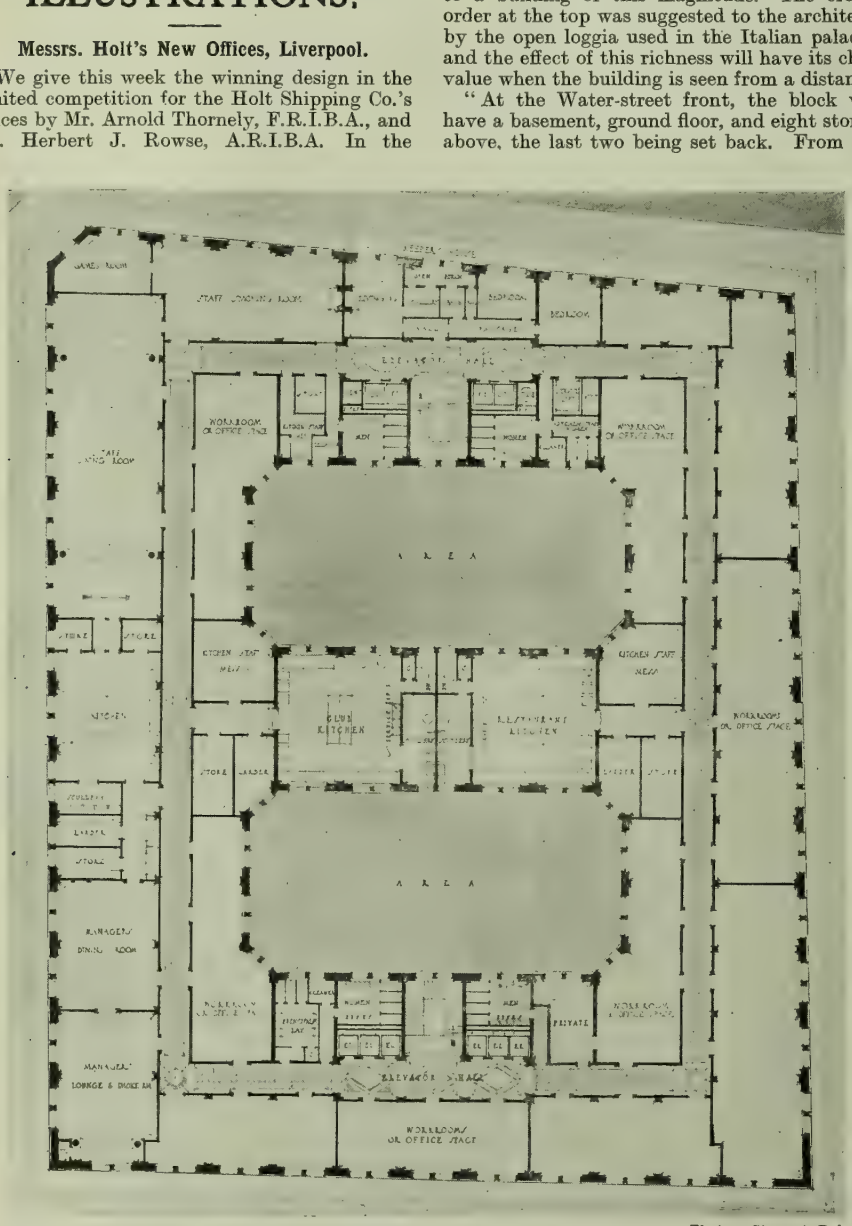
"Another feature, of importance to ten and others using the building, will be the elevator halls situated on the Water-street Brunswick-street sides. These halls will be fa in Roman travatine marble, a very plea cream colour, and will be crowned with t saucer domes, also in travatine marble enriched with coffering. Six fast elevators to be placed in the main hall near Water-str and four near Brunswick-street, and there wi spacious lavatory accommodation grouped r the elevators on each of the main office floor

"Each of the typical office floors will h a continuous circulating traffic corridor. vision has been made for an important clu the seventh floor, the apartments for wh should form one of the finest suites in Engl Entrance to this club will be obtained from t Brunswick-street and Water-street, and on its features is to be a fine dining-room 8 long; it will also have a billiard-room, c reading, and writing rooms, and a gallery lou

In the same issue of our contemporary is article by Professor C. H. Reilly, who says

"Those who know New York will be fami with the great rectangular blocks of build that are rising in the upper portion of Fi avenue and in Park-avenue. They will kn their clear surfaces and clean-cut lines, t even distribution of windows and freedom fr all excrescences, such as domes, turrets, or o windows. They are buildings which rely their effect on the impressiveness of their ma with which nothing is allowed to interfere. S ornament as they have is delicate surface or ment with no great columns or pediments give the pretence of palatialness. They achi grandeur rather than assume it as a garme Such a building is the new Holt Building. one looks at the great office blocks of Liverp since the Dock Board building, which belo to a previous era, one sees how the same ide have gradually grown here. The West Afri Bank, the Cunard Building, the Adelphi Ho are all buildings of simple rectangular sh relying for effect not on an array of columns other trappings, but on the fine articulation the strength their mass gives them. S buildings can, of course, only come about on rectangular sites, and it is one of the hope signs for our town that for economic reasons development of building sites tends in t direction.

"One may say that with the Holt Build the American orientation of Liverpool archit tural thought reaches its climax. The build Messrs. Thornely and Rowse have design would not disgrace Fifth-avenue; indeed, would sit there very happily, and those w know most of modern architecture will kn this is very high praise. No one must th from this comparison that the new Holt Build will be a tall building or skyscraper in American sense. The best American buildi are not, nor is this. From the published ill trations it will be seen that it has a very ratio and normal relation of height to width and ma It is lofty—120 ft. to the main cornice—beca it is big, but not unduly so."



EIGHTH-FLOOR PLAN. Photo: Stewart Bale.

New Offices for the Holt Line, Liverpool.

Winning Design: Submitted by Mr. Arnold Thornely, F.R.I.B.A., and Mr. Herbert J. Rowse, A.R.I.B.A., in collaboration.

Greenwich Baths Competition.

We illustrate this week the first and sec premiated designs, by Messrs. F. J. Ho & H. Andrew and Messrs. H. Field & Pearson respectively, in the Greenwich Ba Competition. Some notes on the designs s mitted are given on page 559.

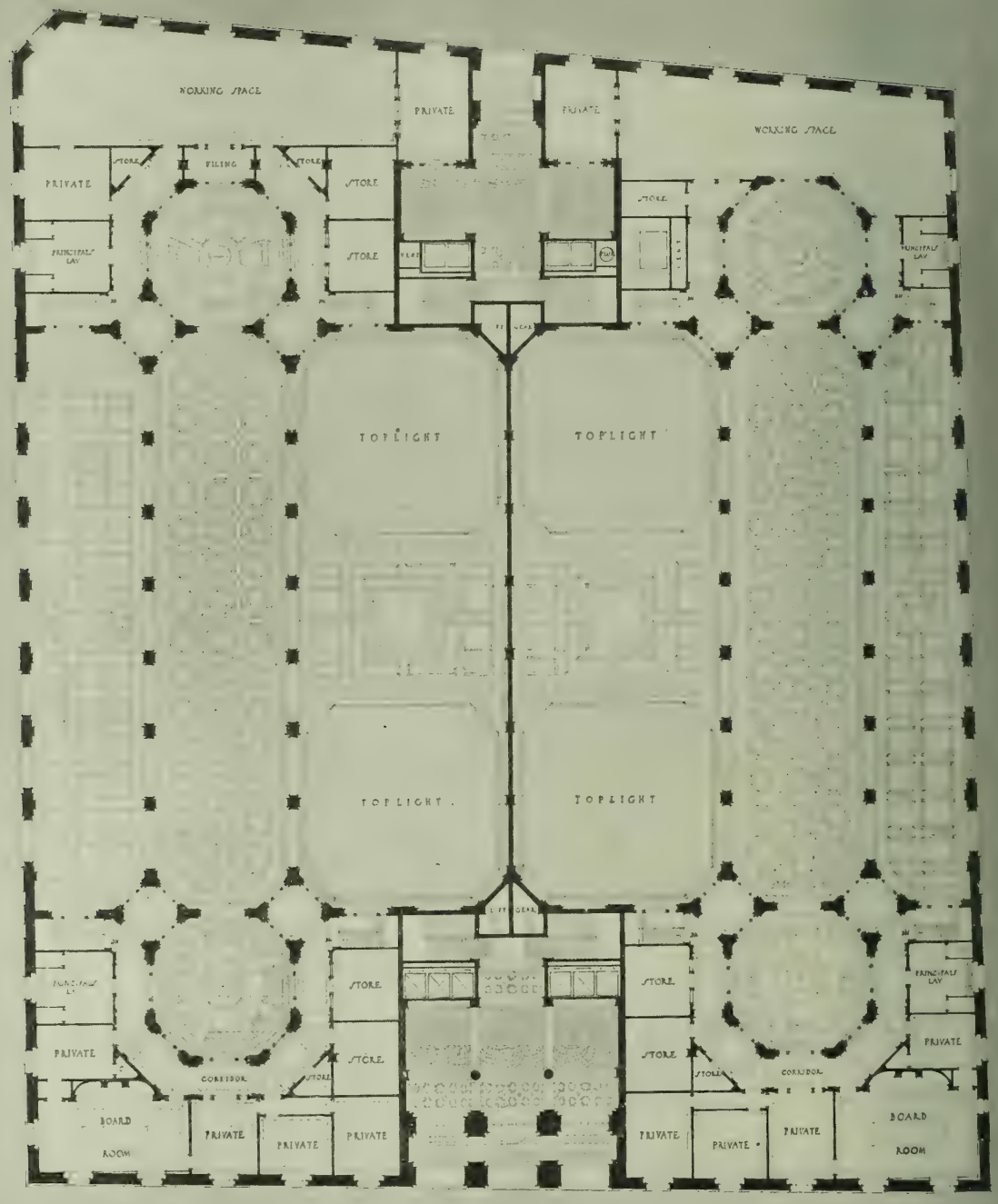




Photo: Stewart Bale.

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MEZZANINE FLOOR PLAN
& CEILING PLAN OF BANKING, INSURANCE & ENTRANCE HALLS
Scale 1/16 Inch Equals One Foot

PROPOSED OFFICE BUILDING LIVERPOOL

Photo: Stewart Bale.

New Offices for the Holt Line, Liverpool.

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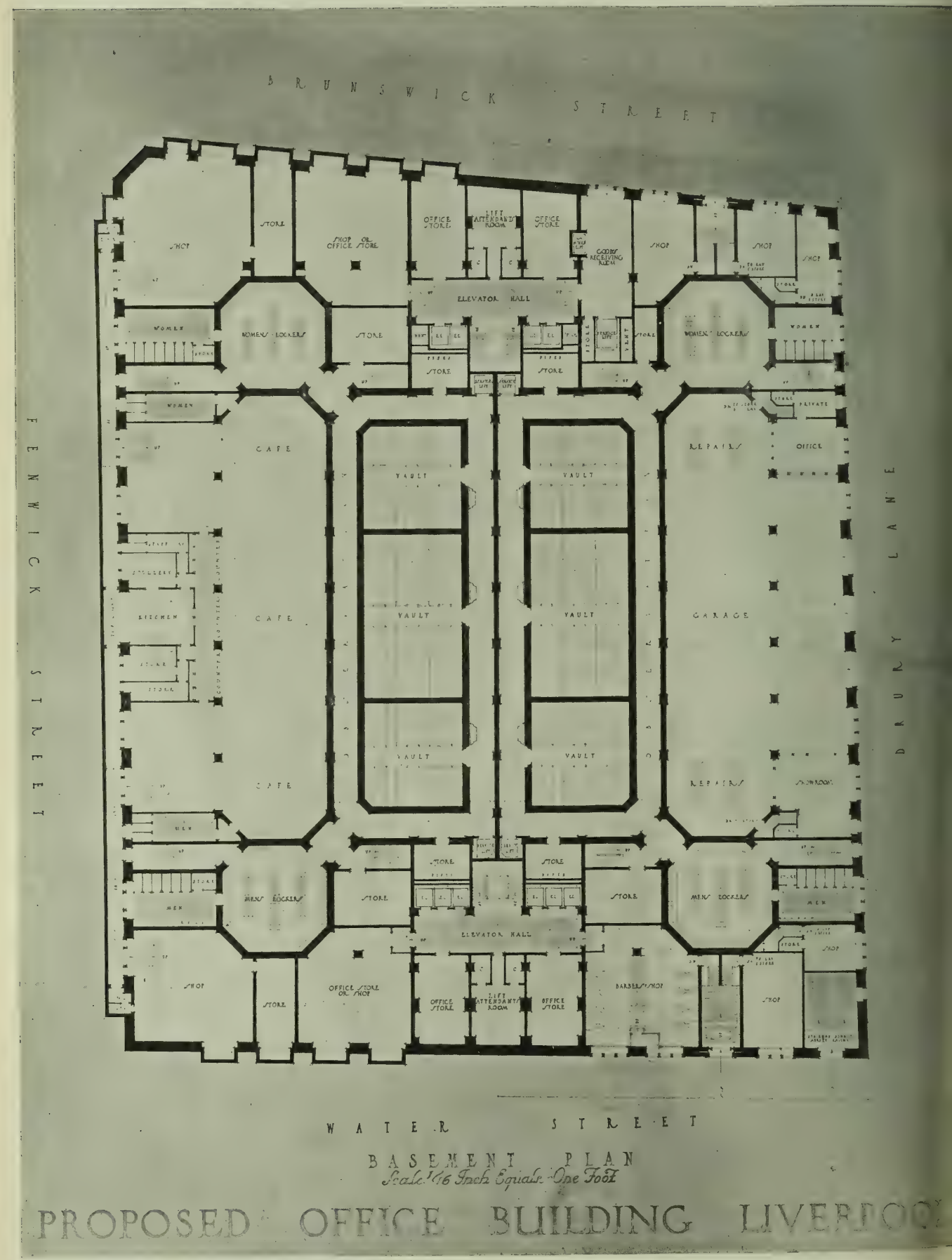


Photo: Stewart Bale.

NEW OFFICES FOR THE HOLT LINE, LIVERPOOL.

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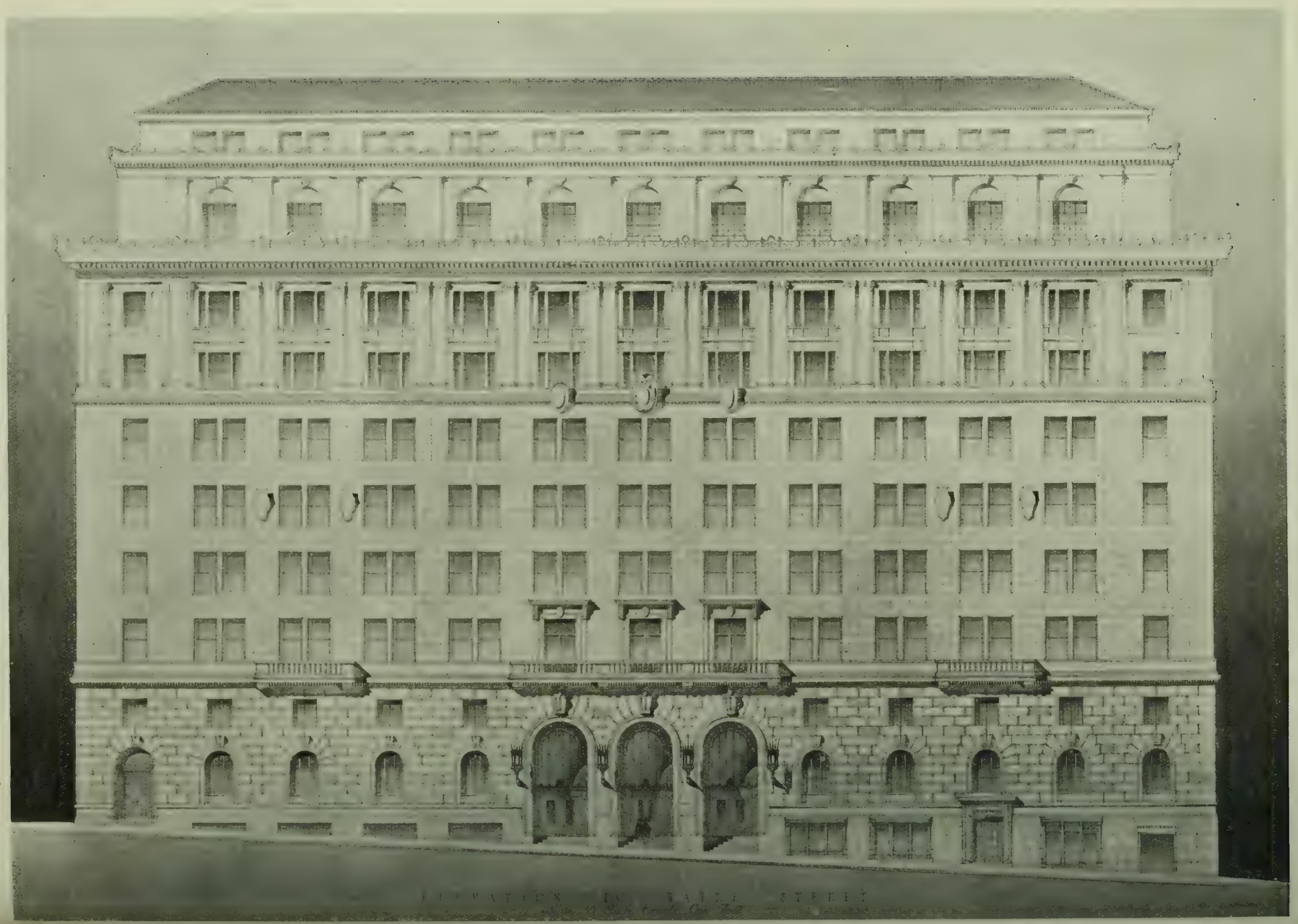


Photo: Stewart Bale.

NEW OFFICES FOR THE HOLT LINE, LIVERPOOL.



Photo: Stewart Bale.

NEW OFFICES FOR THE HOLT LINE, LIVERPOOL.

WINNING DESIGN: SUBMITTED BY MR. ARNOLD THORNELY, F.R.I.B.A., AND MR. HERBERT J. ROWSE, A.R.I.B.A., IN COLLABORATION.

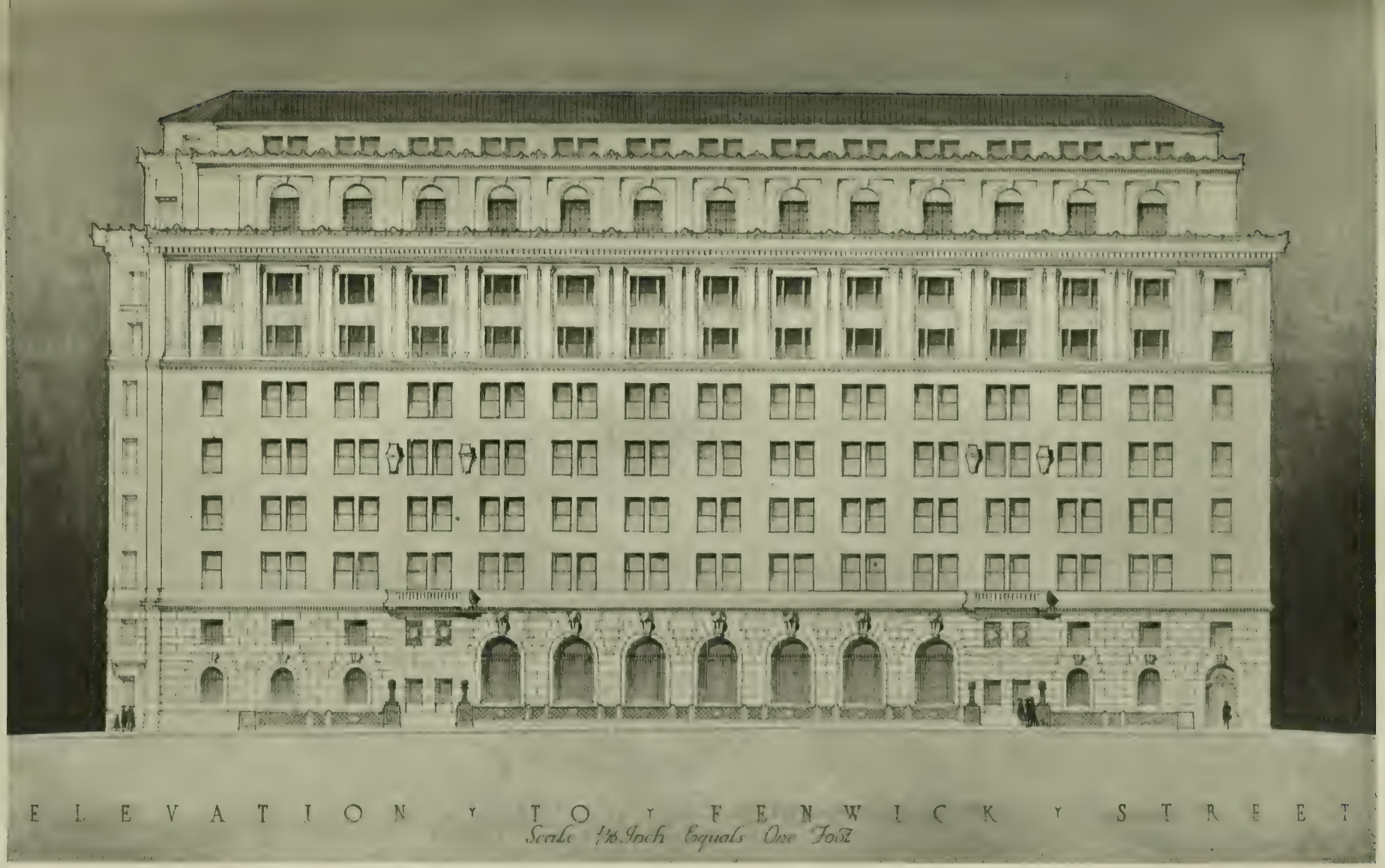
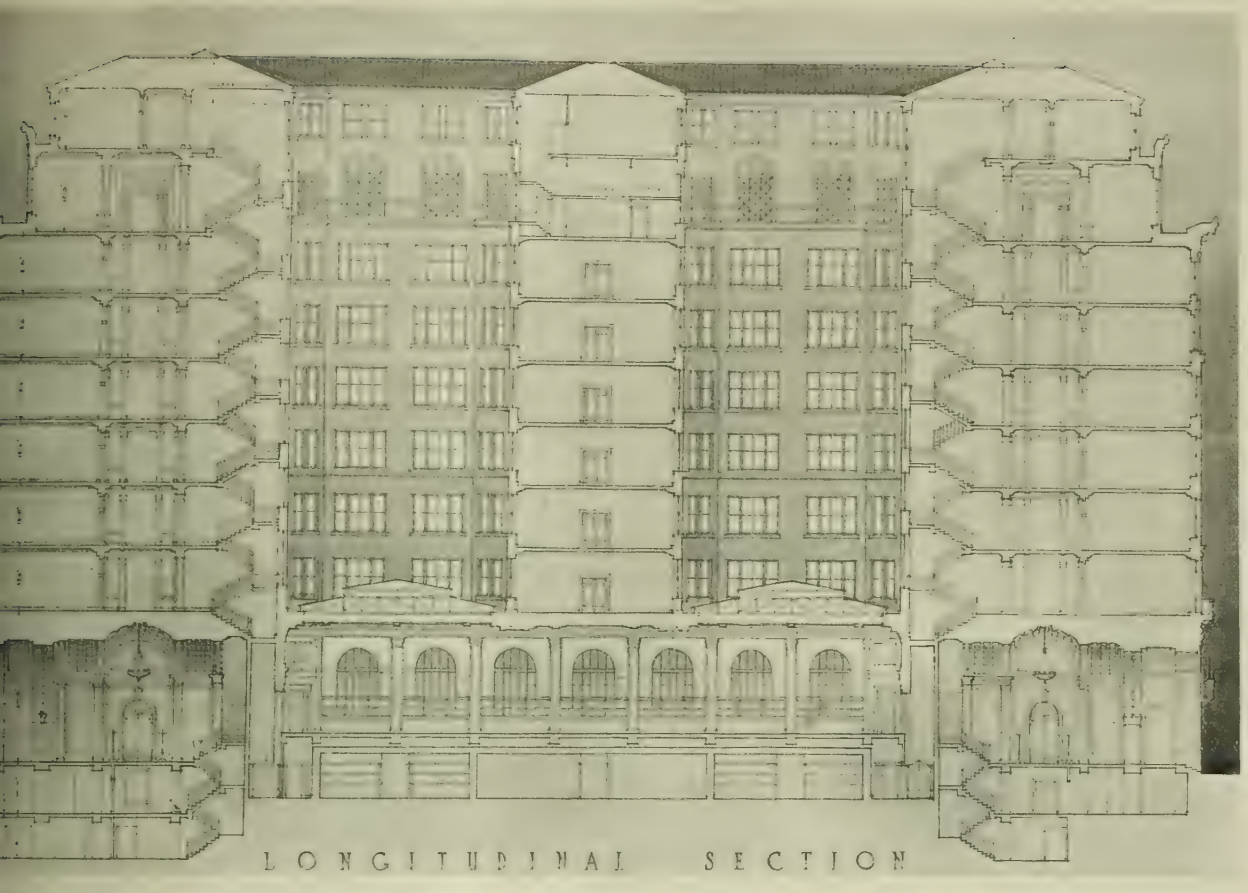


Photo: Stewart Bale.

NEW OFFICES FOR THE HOLT LINE, LIVERPOOL.

WINNING DESIGN: SUBMITTED BY MR. ARNOLD THORNELY, F.R.I.B.A., AND MR. HERBERT J. ROWSE, A.R.I.B.A., IN COLLABORATION.



LONGITUDINAL SECTION

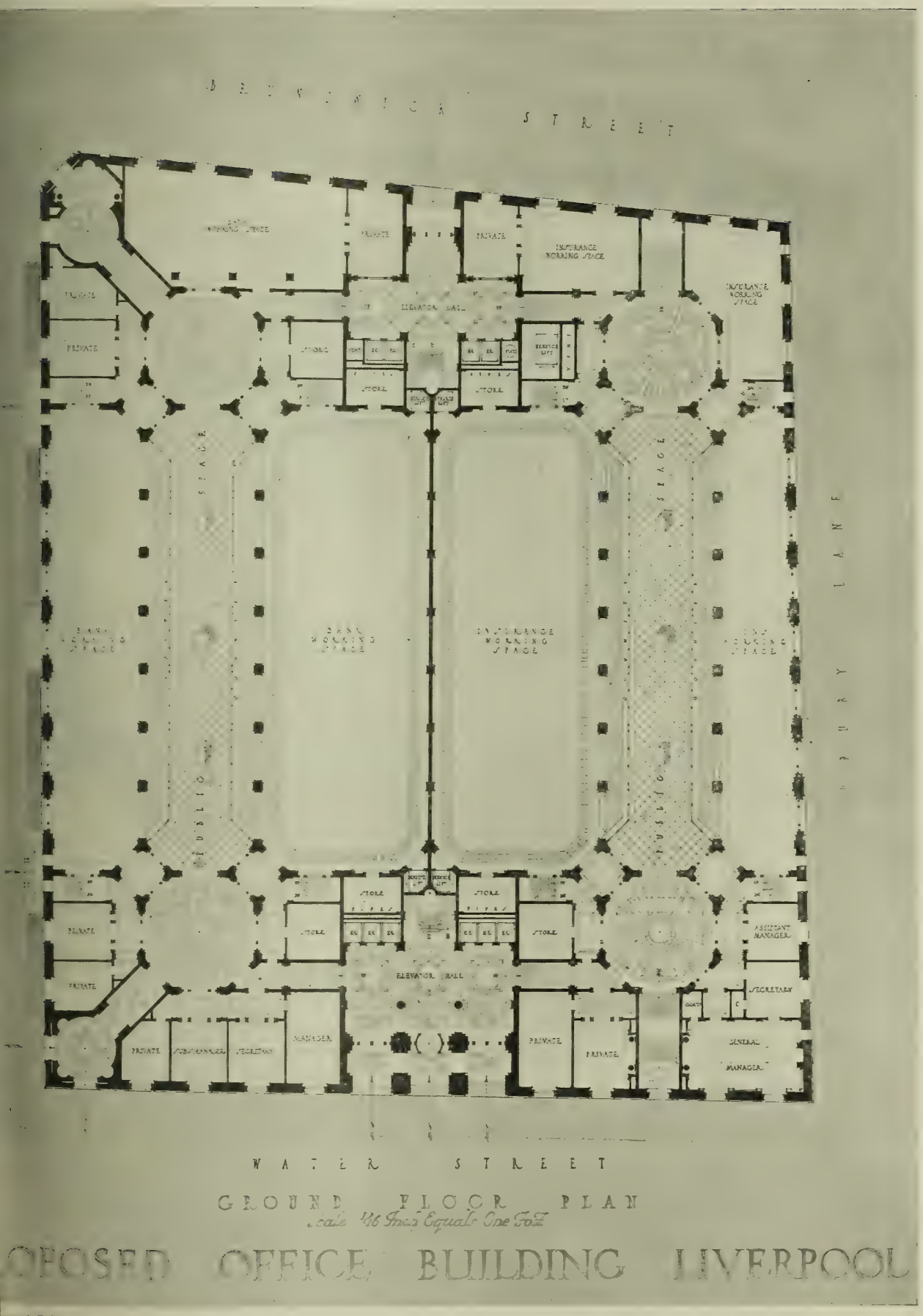


S^r wart Bale.

ELEVATION TO BRUNSWICK STREET.

NEW OFFICES FOR THE HOLT LINE, LIVERPOOL.

NING DESIGN: SUBMITTED BY MR. ARNOLD THORNELY, F.R.I.B.A., AND MR. HERBERT J. ROWSE, A.R.I.B.A., IN COLLABORATION.



ewart Bale.

NEW OFFICES FOR THE HOLT LINE, LIVERPOOL.

NNING DESIGN: SUBMITTED BY MR. ARNOLD THORNELY, F.R.I.B.A., AND MR. HERBERT J. ROWSE, A.R.I.B.A., IN COLLABORATION.

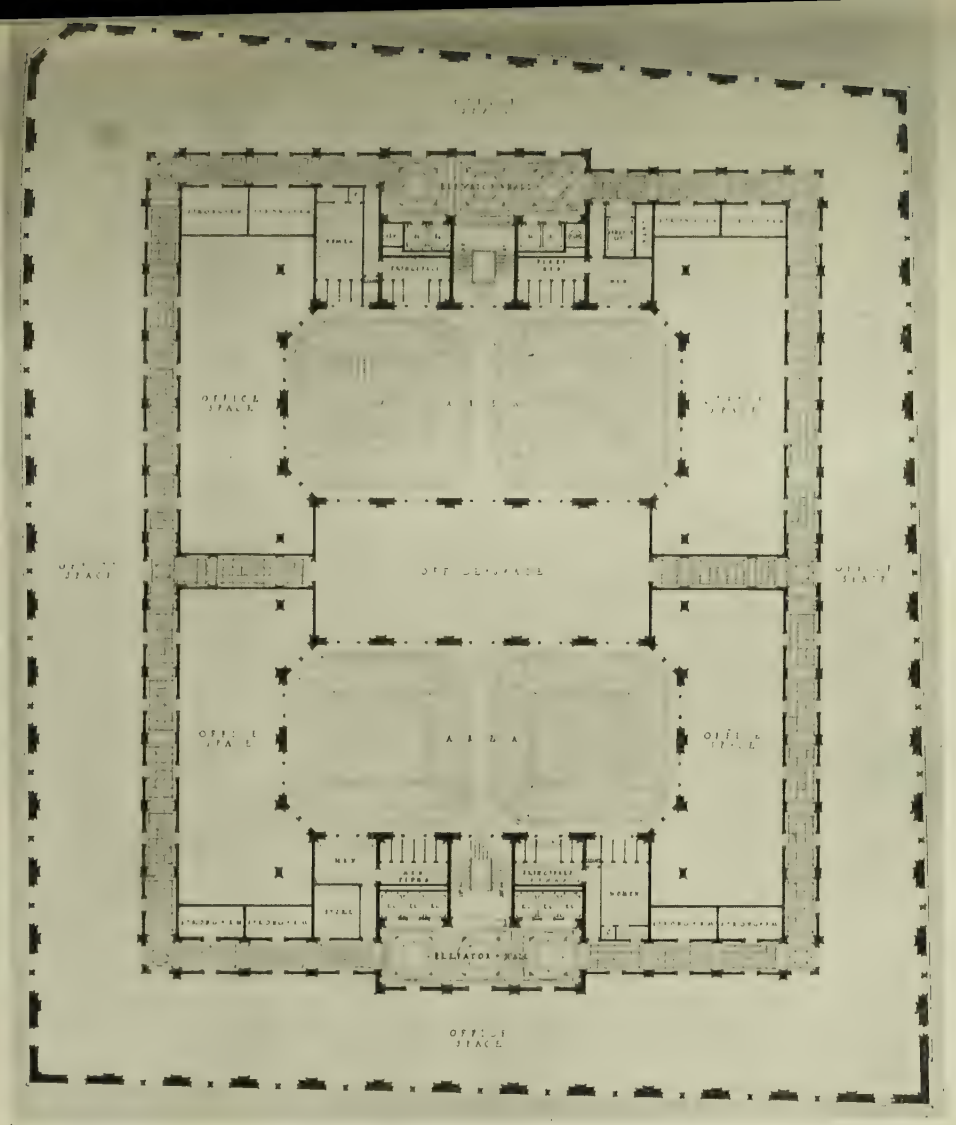
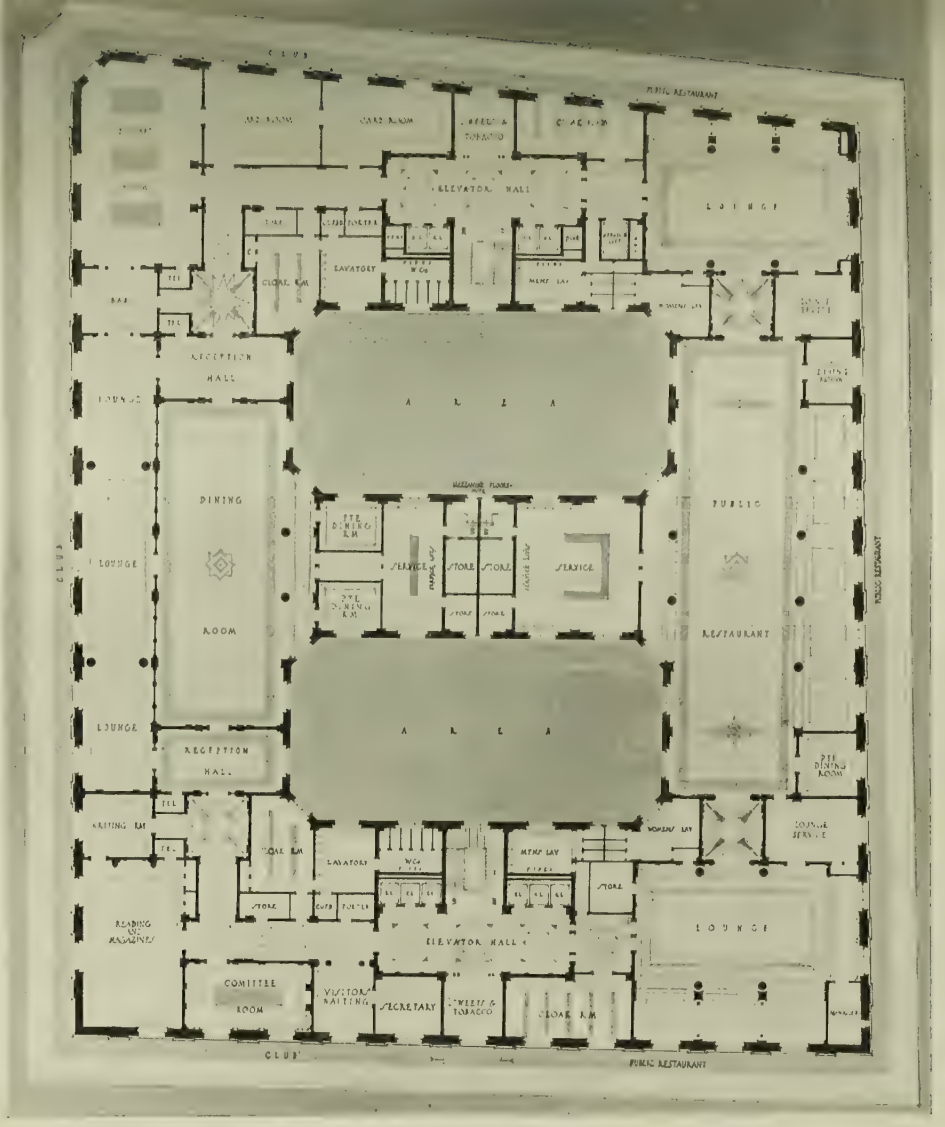


Photo: Stewart Bale.

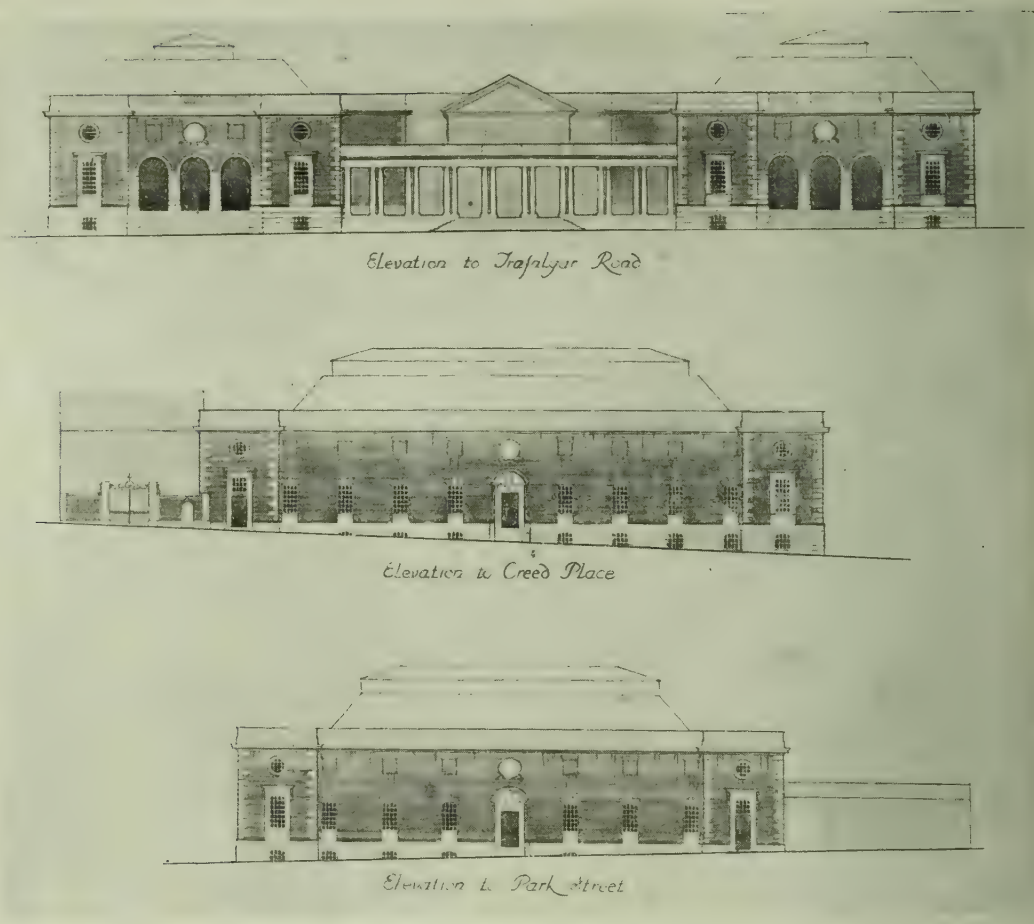
TYPICAL PLAN, FIRST TO SIXTH FLOORS.



SEVENTH-FLOOR PLAN

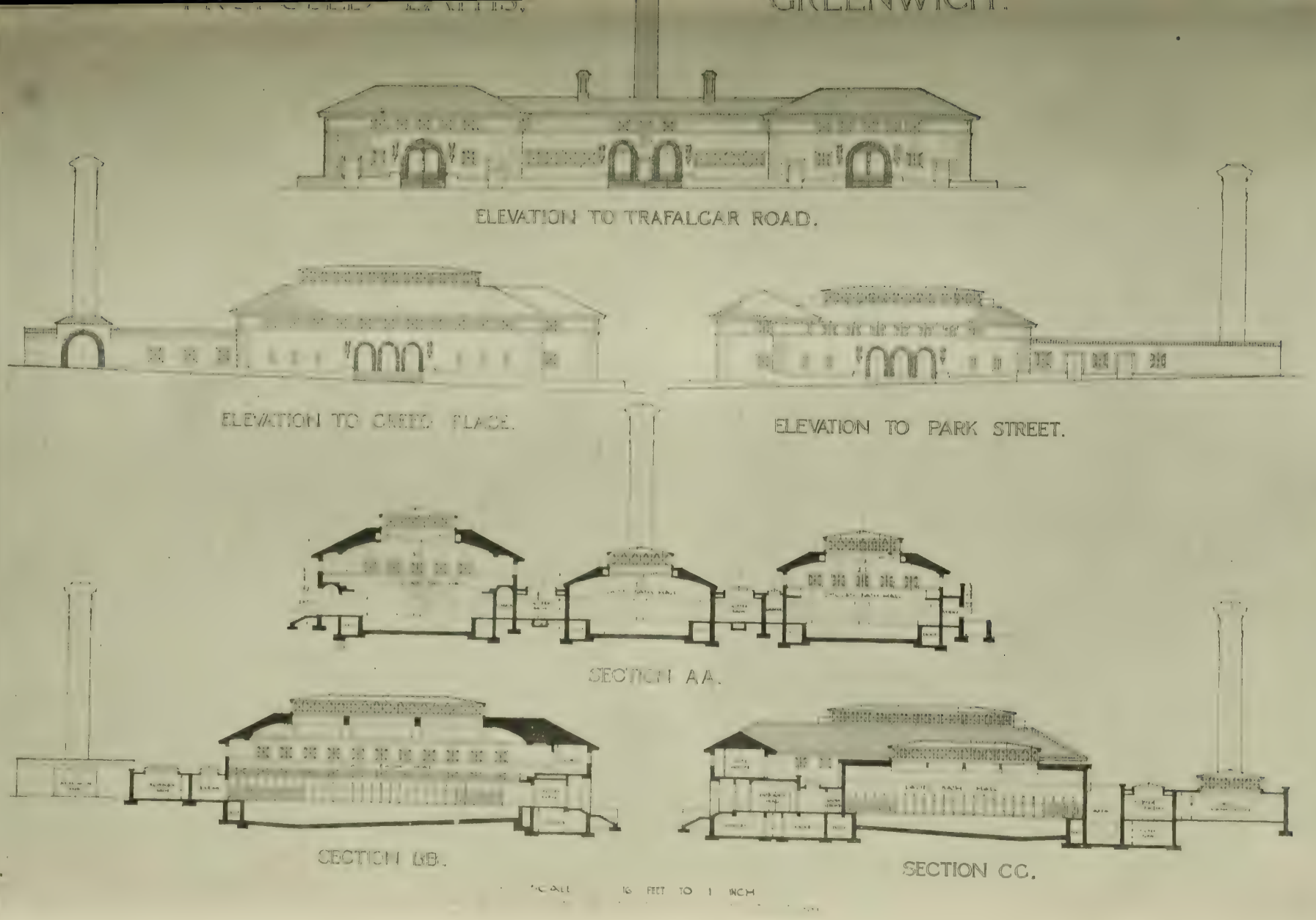
New Offices for the Holt Line, Liverpool.

Winning Design: Submitted by Mr. Arnold Thornely, F.R.I.B.A., and Mr. Herbert J. Rowse, A.R.I.B.A., in Collaboration.

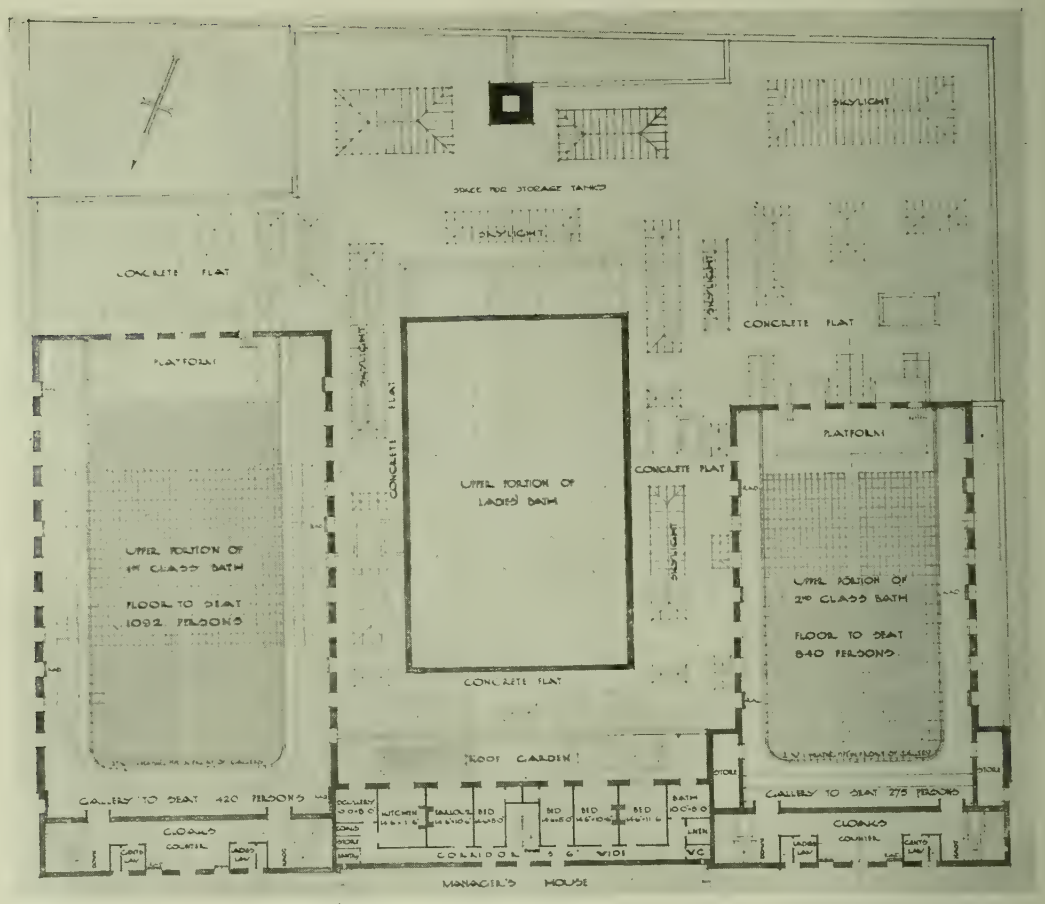


Greenwich Baths Competition.

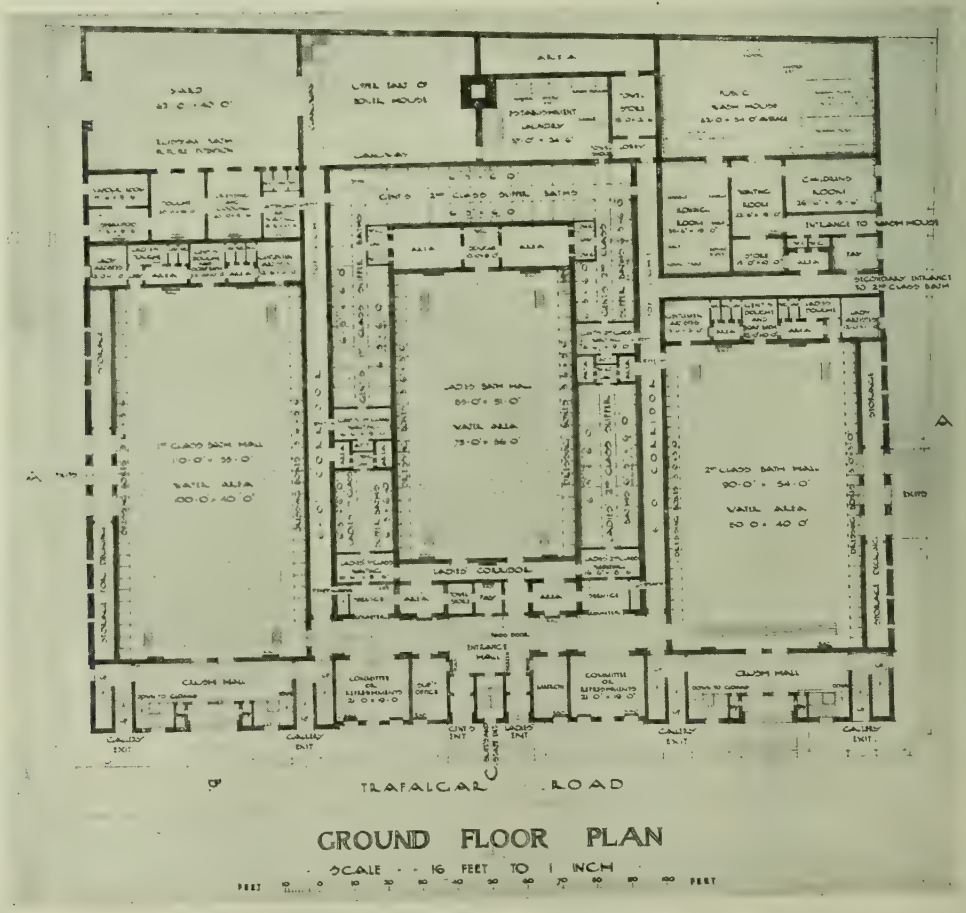
Second Premiated Design, by Messrs. Horace Field and Dighton Pearson, FF.R.I.B.A. (*See p.* 559.)



Greenwich Baths Competition. First Premiated Design, by Messrs. F. J. Horth & H. Andrew. (*See p. 559.*)



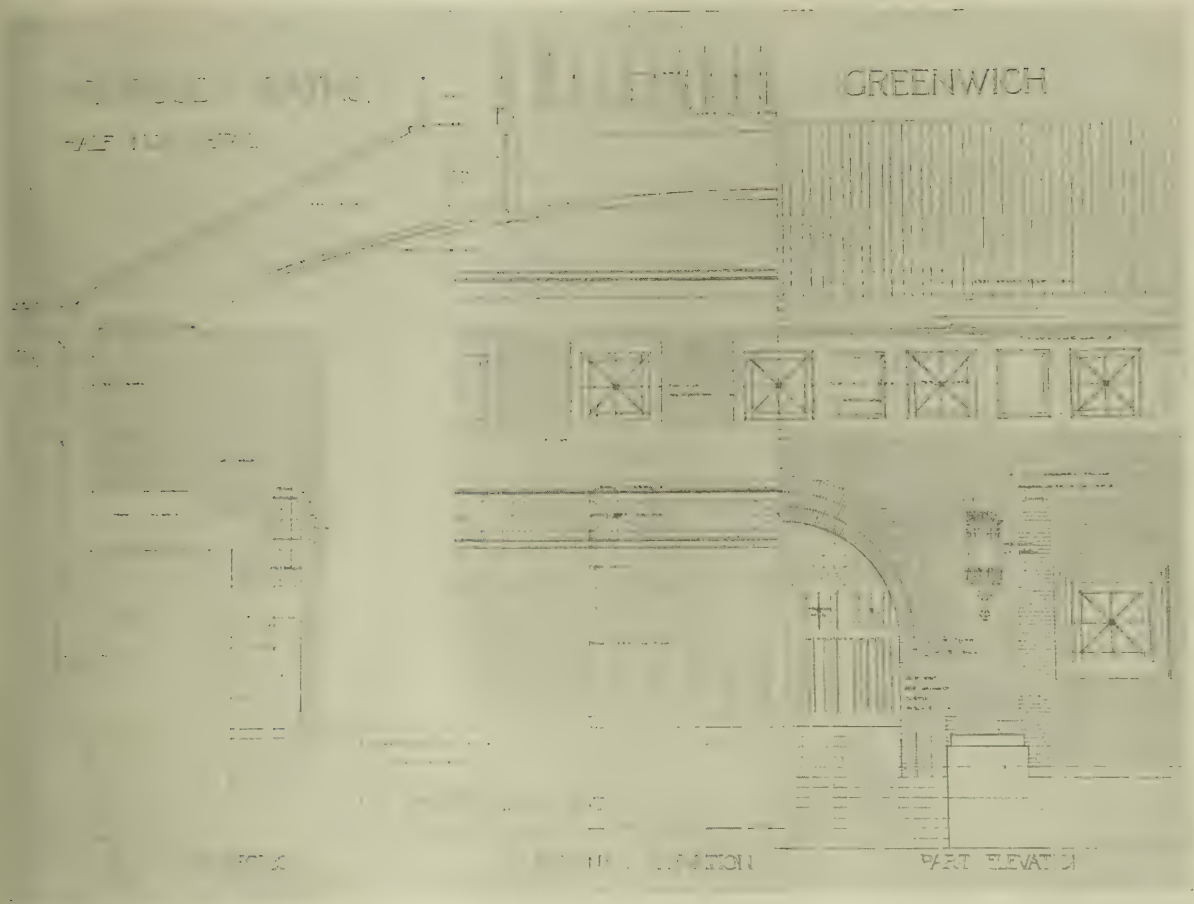
FIRST FLOOR PLAN.

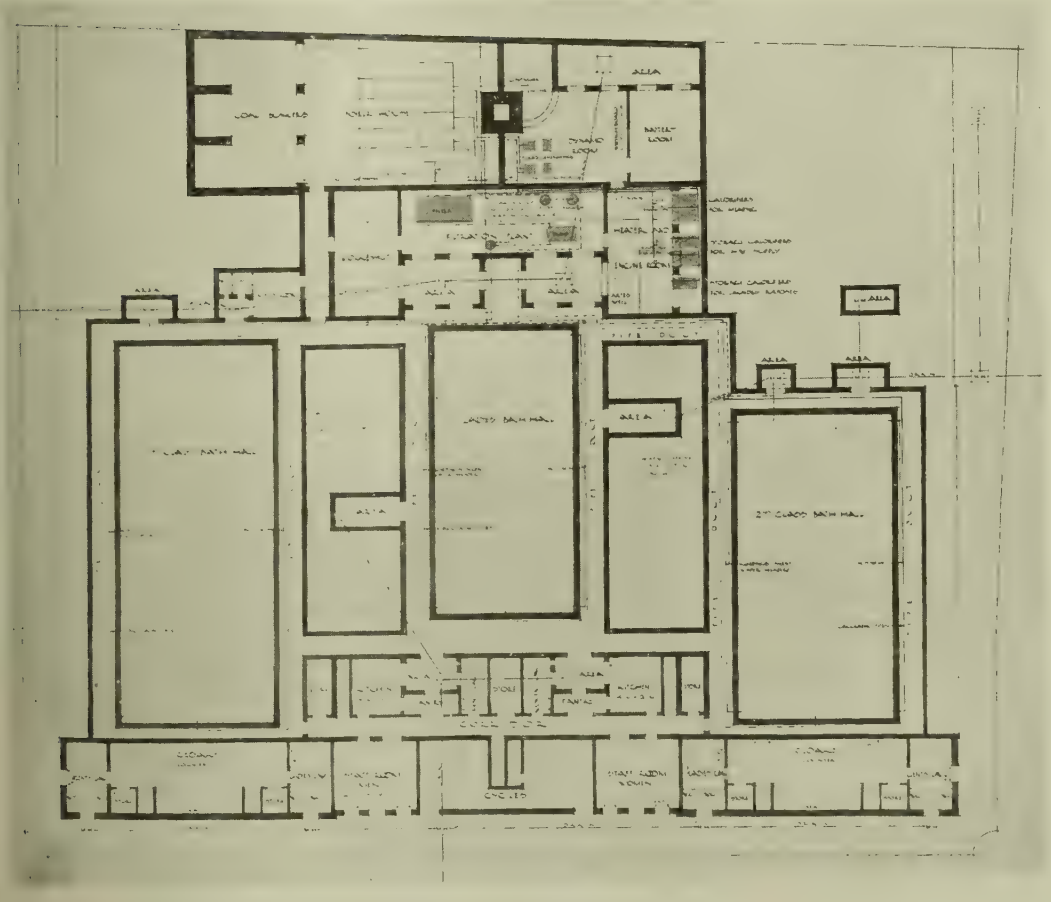


GROUND FLOOR PLAN

SCALE - - 16 FEET TO 1 INCH

Greenwich Baths Competition. First Premiated Design, by Messrs. F. J. Horth & H. Andrew. (*See p.* 559)





DETAIL AND BASEMENT PLAN.

Greenwich Baths Competition.

First Premiated Design, by MESSRS. F. J. HORTH & H. ANDREW. (*See p.* 559)

THE BUILDING ART: THEORIES AND DISCUSSIONS.—X.

By W. R. LETHABY.

LATER BUILDING MASTERS AT WESTMINSTER ABBEY.

(*Concluded from last week.*)

Now I turn back from the building to a fuller account of the building masters. In 1360 Henry Yevele had succeeded Thomas of Gloucester as King's mason. In the Patent Roll for that year is entered the "appointment of Henry de Yevele to be disposer of the King's works pertaining to the art of masonry in the Palace of Westminster and the Tower of London, taking in the office 12d. a day." He was also directed to take (press) masons for the works and put them on the King's wages, and to commit to prison all contrariants. In accounts of 1365, when the old clock tower of the Palace (the prototype of the present clock tower) was erected he is called director of the work at the Palace.*

Again in 1366 Yevele appears as master-mason of the King's works, with William Winchester acting as *apparitor*, or second in command; Master William Herland being master of carpenter's work and Hugh Herland his *apparitor*. This Hugh, thirty years later, was to be the great architect of that supreme work of carpentry the roof of Westminster Hall. He was doubtless the son of Master William, and born to timber traditions. (For Master Hugh, see Sir F. Baines' "Westminster Hall," Report, 1914, and "Westminster Abbey and the Kings' Craftsmen," 1906.)

In 1368 Yevele was one of the Keepers of the Works of London Bridge; and in 1383 he was repairing Rochester Bridge. A grant was made in 1369 "to Henry de Yevele, that whereas by Patent 34 E. III the King appointed him disposer of Masonry in the Palace of Westminster and the Tower with 12d. a day, he shall take the 12d. a day for life as well as a winter robe yearly at the Great Wardrobe, of the suit of esquires of the Household, or the allowance in place of it." In 1370 he and Master William de Wynford were each ordered to press 50 hewers of stone for the King's service. Wynford was to be the architect of the nave of Winchester Cathedral and the College. In 1371 Yevele contracted for beginning to build the London Charterhouse. "Lord de Manny and the Prior made an agreement with Henry Yevele for building the first cell and beginning the great cloister of the fabric for which the said Lord gave 600£ and laid the foundation" (Gerald Davies' "Charterhouse")

A mandate was addressed in 1374 "To the Keepers of the Port of le Pole (Poole) by mainprise of Master Henry Yevele, Masoun, and Jordan de Bartone (a Simon de Bartone was one of the masons at the meeting in 1356), citizens of London, to de-arrest the ship *Margarete*, of Wareham, of 48 tons burden, and two high tombs of marble for the Earl of Arundel and Eleanor, his late wife, one great stone for the Bishop of Winchester, and other things of theirs. To be taken to the port of London and there unloaded" (Patent). These marble tombs in a ship at Poole were doubtless from Purbeck, and possibly they still exist. At Arundel there is a tomb of an Earl who died in 1406, and his Countess.

Master Henry Yevele was himself tenant, in 1376, "of the Manor of Langetone, in Purbike," or rather of two parts of it, at first at a rent of £8 6s. 8d., and afterwards on still more advantageous terms (Patent). In this same year the rebuilding of the nave of Westminster Abbey was begun.

In 1385 an order was issued by Richard II to pay Henry Yevele 12d. a day, and confirming the patent of 43 Edward III appointing him director (*dispositorem*) of the works of the craft of masonry with 12d. a day for life (Patent). This grant was surrendered in 1390 because he was then granted the Manors of Tremworth and Vannes in the county of Kent (Patent). Our mason was evidently become a person of much "consequence." He had now reached old age, and in this year he was granted exemption from juries, &c., in consideration of his being King's mason and surveyor of works at Westminster Palace, the Tower, and Canterbury Castle, and on account of his great age (Patent). We may suppose that he was born about 1320.

Richard II, in 1394, appointed John Godmerstone, clerk, to make provision for the repair of Westminster Hall. The next year Richard Washbourne and John Swalwe (Swallow, so spelt by Chaucer), masons, were engaged to heighten the walls of the old hall 2 ft. with Reigate and *Pierre de Marre* (Marr, Yorks) according to the purport of a *fourme e molde* made by counsel of Master Henry Yevele, and delivered to them by Watkin Waldon, his warden, with twenty-six corbels carved according to a pattern, all the materials being supplied, except the instruments used by the masons in their art.

The accounts for remodelling the hall mention Master Hugh Herland, carpenter to the King, also Robert Grasington, William Canon, and others, carving angels, &c., in wood. Even in 1383 the great carpenter was said to be verging on old age, and in 1394 N. Wilton was made master-carpenter and engineer of the King's works for the art of carpentry throughout the realm. This may have been to relieve Master Hugh. The accounts of work at the great hall are guaranteed "by the sight and testimony of Master Hugh Herland, the King's capital carpenter and controller of the works, who received 12d. a day. Thomas Wolvery, whose tomb is at St. Albans, did the masonry work of the south gable with the window.

Richard II was deposed in the autumn of 1399 and his superb hall was hurriedly prepared for the coronation of Henry IV on October 13, 1399. William Burgh, glazier, was employed filling the great window with "flourished glass"; William Chuddere executed four images, probably those for the pinnacle; and a Thomas of Gloucester did the painting, including the making and painting the stage at the south end for the coronation. John Chaundeller supplied candles for the carpenters, who, we may suppose, had to work overtime (*Accounts* 473, 11 and 13). Both Master Hugh Herland and Yevele, the mason, must now have been very old; it was the end of an era as well as of a century. Chaucer, who had been clerk of works to the King's palaces, would have known them well, and the Carpenters of the "Canterbury Tales" may suggest what the status of a well-to-do carpenter was at this time. I cannot find when Master Hugh died; but his father's will was proved in 1375. He had lived in the parish of Paul's Wharf, and Hugh probably also lived in the City. Henry Yevele died in 1400. His will was dated May 25 in that year and enrolled on October 28. In it he called himself "masoun" citizen and freeman of the City of London and parishioner of St. Magnus at London Bridge. He directed that he should be buried in the said church, in St. Mary's Chapel, where his tomb is already prepared. He left considerable property; Katherine, his wife, was to enjoy a life interest in certain tenements charged with the maintenance of two chantries. Under certain circumstances the property was to be devoted to the use of London Bridge for two chantry priests in the chapel upon the same. He also left property at Alvythele and elsewhere in Essex. Stowe saw the tomb in St. Magnus, and says it was that of "Henry Yevele, Freemason to Edward III, Richard II, and Henry IV," who deceased in 1400." Apparently inscription must have been to that effect. reference to London Bridge chapel, take connection with the fact that he had been ke of the works of the bridge, suggests tha may have been the architect of the chapel w was destroyed just a century since. On refe to illustrations I find that it was very like cloister at Westminster, which was being just at the time the master was keeper at bridge. The drawings of Cooke at the Guil may be consulted on this.

Our mason's bequest to the Chapel o Mary at St. Magnus, where his tomb was, be traced further in an account of the en ments of London Bridge, to which this had transferred. Among "the properties form belonging to the fraternity called *Le Sal* the Church of St. Magnus" was a "tene held by Henry Yevele, mason, paying 5s., sit between the King's road on the east and Oyster gate on the west." Stowe give account of the Guild or Fraternity of *Le Regina*: "The better sort of the Parish t honour of God and his glorious Mother ca to be made a chantry to sing an anthe our Lady called *Salve Regina* every eve and ordained five burning wax lights at time of the said anthem in reverence fo five principal joys of our Lady and exciting the people to devotion" ("Chron of London Bridge.") The house referre which must have been close under St. Ma was probably Yevele's own residence, an may think of our mason stepping int church to join in the anthem before the with its five twinkling candles. (I suggest the story of Yevele, including his meeting the King he served, with Chaucer and, doub with Wycliffe, and in its setting of plague, adventure and art, might make a good su for a little pageant-drama.)

Another point that arises in interpretin will is, Did not Alvythele, Essex (now Av near Purfleet), give Yevele his name? I index of the Patent Rolls it is equated Yeovil. In the D. N. B. Yeaveley in D shire is suggested, and it is said that there also a manor of Yevele in Surrey (?). But not the Essex place, where the master property, and his own name have both pronounced Yaveley? †

At the Abbey Yevele was followed by Wi Colchester, who is called chief mason in account for 1–2 Henry IV. He received the year, with dress and furs. He is menti again in 1413 and 1416. The Guildha London, which seems to have been b within a dozen years of Yevele's death, much like his strong, bare manner of bui that it must belong to his school. It may been designed by Colchester. In or before John Thirsk took the place of Colchester, a is mentioned again in 1433 and about 14 the mason of Henry the Fifth's Chapel. Smith is named in 1452 and John Readi 1460. He in turn was followed by R Stowell in 1471, and in 1488–9 he vaulted s bays of the nave. Thomas Redman succe in 1505, and he was followed by his br Henry in 1516.‡ Then John Molton William Taylor were joint masters from (Rackham). These, I suppose, were respo for Islip's Chapel. Henry Redman was master-mason at St. Margaret's, the build which was begun in 1491; the steeple and were begun *c.* 1515, and were dedicated in (Bishop Hensley Henson.) The entrance remains a pretty and authentic piece of Henry Redman was buried in Brentfor Lawrence's Church, where he was comm rated by a brass on the west wall. I

* In this year he supplied 7,000 Flande (bricks) (Britton & Brailey). The name shov the modern brick came to us from Flanders. were used for chimneys and paving. He also s stone for the repair of Rochester Castle.

† For references see D. N. B., and *The J* XXIII, p. 409. In this account I have us recently issued Calendar of Patent Rolls.

‡ Henry the Seventh's Chapel was a Royal wo is here omitted.

s' collection at the British Museum is a
ng of this, from which I am able to give
rtrait of one of the King's master masons.*
peared praying on the left (Fig. 10); on



FIG. 10.

Henry Redman, King's Mason.

ght were his wife and two daughters, and
en them was a small plate, probably of the
and Child. The inscription was: "*Py for
ule of Henry Redman sulyme chefe M Mason
Kyngs works and Joha his wyf sp'oll
ctors of this churche.*" It goes on to speak
ls and tenements, half stipend of a curate,
fficient for a perpetual obit, and ends:
sed July 10, 1528. *O' whos' soulle Jhu
'cy.*" According to Lysons he bequeathed
George" Inn and £3 6s. 8d. yearly for the
and his will and that of his wife were still
Parish chest.

BOOKS RECEIVED.

ISE EXPLANATION OF LORD BIRKEN-
ACT (LAW OF PROPERTY ACT, 1922).
Arthur Underhill. (London: Butter-
& Co.) Price 10s. 6d. net.

IERCIAL CONTRACTS. By E. J. Parry.
n: Sir Isaac Pitman & Sons, Ltd.)
s. net.

ELEMENTARY PRINCIPLES OF LIGHTING
HOTOMETRY. By John W. T. Walsh.
n: Methuen & Co., Ltd.) Price 10s. 6d.

STRIAL ORGANISATION. By John Lee.
n: Sir Isaac Pitman & Sons, Ltd.)
s. net.

JOINERY. By S. G. Duckworth. (Lon-
George Routledge & Sons, Ltd.) Price

D FLANGE BEAMS (HANDBOOK NO. 18).
n: R. A. Skelton & Co., Steel and
ring, Ltd.). Price 4s. net.

MING BUILDINGS BY HOT WATER. By
ck W. Dye. (London: E. & F. N. Spon,
Price 12s. net.

r tomb portraits of masons are those of
and Lincoln. To these I would add the
eads before mentioned, especially those of
ster, St. Albans and Exeter.

BOOK REVIEW.

West Middlesex Joint Town-Planning Committee: Preliminary Report upon the Regional Survey. By THOMAS ADAMS and LONGSTRETH THOMPSON. (London: 121, Victoria-street, S.W.1.) Price 5s. net.

The West Middlesex Joint Town-Planning Committee was formed in October, 1921, to prepare a plan, and to indicate the main outlines of development in the region which is bounded by and includes Perivale, Northolt, Northwood, and Harefield on the north; Yiewsley, Staines, and Shepperton on the west; Sunbury, Hounslow, and Chiswick on the south; and Barnes and Acton on the east. This preliminary report contains a survey of existing conditions necessary to the preparation of a 6 in. outline plan to show the main transport routes, provisions as to zoning, density, and open spaces, and to include proposals for the situation of civic and shopping centres, and suggestions, if required, for combined drainage. No less than eighteen local authorities are included in this area, which virtually comprises the whole of the western suburbs of London north of the Thames.

The region has from the earliest times been regarded as one of the chief market gardens of London, and it is rather astonishing to find that, in spite of being bisected by the Great Western main line, the area is still mostly agricultural in character. It is suggested that this character should to some extent be retained permanently by reserving a wedge of highly productive land beyond Hounslow for intensive vegetable culture. This, besides being of value as an easily available source of market produce, would help to obviate future overcrowding, but it should, of course, be supplementary to the provision of extensive public open spaces, which at present are quite inadequate.

The larger industries of the area are mainly situated on the Great Western line, and questionnaires were sent to 240 manufacturers. It is disappointing to note that of this number only 81, representing less than 34 per cent., took the trouble to reply, although the required information was supplied by all the larger firms. Probably the only way to elicit information from the smaller manufacturers would be by means of personal visits, when the object of the questions could be explained, and when it would be less trouble for the manufacturer to answer the questions than to turn his visitor away unsatisfied.

The Report includes plans showing existing conditions, the principal lines of communication, railway fare and time zones, and suburban passenger traffic. The recommendations include of course what we may call the usual suggestions as to zoning, density, preservation of amenities, and the fixing of building lines, and among the principal conclusions arrived at in respect to this particular region are: That the shortage of housing accommodation constitutes a serious handicap to its industrial development; that north to south connections both by road and rail are at present defective; that market gardening facilities should be improved, and that areas of productive parks should be reserved; that the Brent Valley and other natural features, including the low lying river land, should be preserved.

Of all the regions surrounding the metropolis West Middlesex is probably the most important. It not only contains a large area of the Thames Valley and the main line to Reading, but it is free from such "obstructions" as the Hackney Marshes, the Thames Estuary, Epping Forest and Richmond Park; and is thus more liable to be developed on short-sighted and injurious lines, if the matter of planning is not dealt with in a comprehensive and generous manner. It is gratifying to note that the problem is receiving such close and capable consideration, and we shall look forward with interest to seeing the plan to the production of which this report is a necessary preliminary.

MARY SLESSOR MEMORIAL WINDOW, DUNDEE.

THE designer of the Mary Slessor Memorial Window (illustrated on p. 574) has based his design upon her life as given by Mr. P. W. Livingstone in his book, "Mary Slessor of Calabar," and has endeavoured by the arrangement of the design to give as many incidental pictures as possible of this remarkable woman's life.

Of the two principal subjects the left-hand one illustrates her at work in the mill, whilst the right-hand one illustrates the outstanding feature of her missionary work, that of saving the children, and demonstrates her love and affection for them.

In the four smaller subjects below are shown incidents of her life as a missionary at Okoyong. From left to right:—(1) She is shown daring a horde of savage warriors to advance beyond her; (2) the chief Edem is seen kneeling at her feet thanking her; (3) on the fifteenth anniversary of her settlement she held her first communion service in the mission hall at Ekenge; (4) surrounded by native chiefs she is here shown as the acknowledged representative of the British Government acting as permanent Vice-President in the native court at Ikotobong.

The sixteen small pictures which form the border to the window illustrate in sequence outstanding incidents in her life, from girlhood to the last house she built and lived in at Odoro Ikpe, and the intention has been to show in these the gradual transition from the grey skies and colourless life of her girlhood to the gayer and brighter atmosphere of her African home.

Woven in among the ornament and to add a further interest to the window, and emblematic of her life's work and faith, there have been introduced in the centre of the left-hand light the pelican succouring her young with the blood of her own breast, whilst balancing this in the right-hand light is the Cross of Faith, surrounded by the Crown of Thorns, symbolic of earthly suffering. In the upper part of the left-hand light is a group representing Love or Charity over the text "Love suffereth long and is kind." In the right-hand light, seated upon the emerald rainbow of promise, is the figure of the risen Christ with arms raised in the attitude of blessing, while on the scroll beneath, "Between the Sower and the Reaper stands the Husbandman."

Inserted in the tracery piece at the top of the window is the Burning Bush and the Dove—as the Messenger in allusion to the Home Church and Foreign Mission of the United Free Church of Scotland, to which Mary Slessor was attached. In the centre of the base of the left-hand light is a map showing the field of Miss Slessor's activities at Calabar. Balancing this in the right-hand light is the Cross of the Order of the Hospital of St. John of Jerusalem presented to her by King George V.

As the sill of the window is only 4 ft. 6 in. from the floor, a great amount of detail could be used, since the whole of the window would be within easy focus of the eye. Further, as the other windows in the building would most likely not be filled with coloured glass, a considerable amount of face light exists, and to obtain the best result under this condition a good proportion of white or light-admitting glass has been used.

The window has been designed by Mr. William Aikman, of 7, Camden-square, N.W.7, and is to be unveiled this month.

Board of Architectural Education.

The centres for the R.I.B.A. Intermediate Examination, November, 1923, will be London and Leeds. At both centres the examination will be held from November 23 to 27, 1923, inclusive. At the London centre the oral examination will be held on November 29; at the Leeds centre on November 28.



Mary Slessor Memorial Window, Albert Instituté, Dundee.

Designed by Mr. William Aikman. (*See p.* 573.)

THE TOWN-PLANNING INSTITUTE.

ANNUAL CONFERENCE, YORK.

selection of York as the centre for this annual conference by the Town-Planning Institute was, no doubt, made in consequence of the policy of propaganda which is one of the objects of the Institute. From this point of view the selection seems a wise one. The first session of the conference (which was opened on Friday last by Mr. T. Mawson, President of the Institute) was held in the Council hall of the City Museum. In the absence of the Lord Mayor, a civic welcome was extended to the meeting by the Sheriff (Councillor J. E. Gibbs).

Acknowledging the Sheriff's welcome, the PRESIDENT said the Town-Planning Institute was one of the most vigorous of the younger professional societies. They might fairly congratulate themselves on the selection of York as the rendezvous for the conference, for York was a beautiful city, rich with architectural traditions, with a glorious history of intellectual and physical achievements, which were largely written in the wonderful Cathedral and many other buildings in the city. They, as town-planners, went to York for inspiration in their beautiful art and profession. They wanted to know how succeeding generations solved the problems with which they were confronted, and how the citizens now proposed to adapt their historic city to the needs of to-day.

The preliminary speeches papers were read by Mr. Benson, Mr. Spurr, and Mr.

The Evolution of York.

In the course of a paper on "The Evolution of York," Mr. GEORGE BENSON dealt with his subject under the following headings: (1) The Natural Factor; (2) Geographical Position; (3) Early Settlers; (4) Military Value; (5) Political Importance of York; (6) Ecclesiastical Metropolis; (7) York as a Fortress; (8) York as a Port and Commercial Centre; (9) York as a Coaching and Railway Centre; and (10) The Streets and Buildings of York.

Under the last-named heading, he said the commercial value of York was responsible for three of its greatest building eras, namely, that of the Roman Fort, the Norman Castles, and the Plantagenet embattled walls. The lay-out of the city from time to time had been influenced by its enclosing wall. The Roman Fort was rectangular, and its angles faced the cardinal points. Its streets were planned on rectilinear lines.

Subsequently the Anglians dwelt securely between the two rivers with the Roman Fort at their back. A winding trackway emerged through that suburb and crossed the Ouse south of the destroyed Roman bridge and climbed the Bishop's hill to join the old Roman road to Tadcaster at what was now Micklegate Bar. The other road from Aldborough to the Fort was continued, and crossed the new trackway and continued to the Fort. Those two were the main roads to-day. Under the Danes there arose new streets or gates winding in all directions. The Cathedral blocked the old Roman street passing through the Fort. The S.E. wall had been gradually removed and a new street arose within the line of wall from Feasegate, and cut through the N.E. wall, south of the Roman gateway, which was abandoned for the new one at Monkgate. The winding streets were also adopted by the Normans in their rebuilding of the city after the fire, and were continued to the Victorian era, when the Roman practice of rectilinear streets was revived.

The twelfth century was remarkable for the building of churches; no fewer than 26 new ones were erected, and six new chapels built. The suburb of Walngate was protected by a mound.

During the reign of Henry III a stone keep was built, and the Castle area walled in. The Minster transepts were erected and two-storied chapels attached to the Archbishop's palaces at York and Bishopthorpe. Bedem College, the four friaries, and the Gilbertine Priory were also erected.

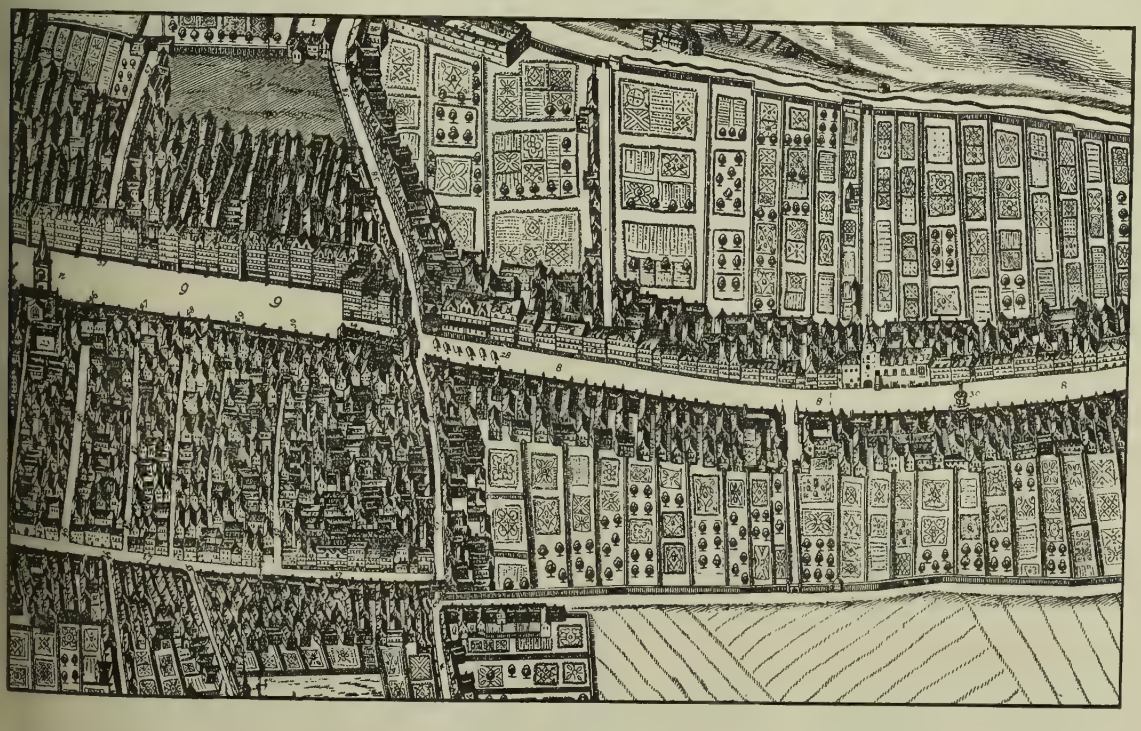
York in its main outlines was to-day still a typical Edwardian city. Its walls and gatehouses, the Minster nave and chapter house, and the Abbey Church belonged to that period. The city was intersected by narrow thoroughfares from off which were numerous courts and passages. Nearly all the street corners were terminated by a parish church with its burial ground.

In the days of Queen Anne and the Georges York was a local metropolis. The country squires built themselves town-houses and wintered there.

During the Victorian era, streets of houses to accommodate workmen engaged on the railway arose in the Clementhorpe, Nunnery-lane, South Bank, Holgate, Leenan-road, Bootham, Layerthorpe, and Groves districts. Around the cocoa works new streets had arisen, and a model village at New Earswick. Since the war the Corporation had undertaken a housing scheme on the Tang Hall estate.

York was particularly well off in open spaces. Scarcroft, Knavesmire, and Hob Moor had been transferred by the Freemen of Micklegate Ward to the Corporation. Amongst other open spaces were Bootham, Monk and Walngate Strays, which were still retained by the Freemen. The Strays occupied 778 acres. There were fine riverside walks. Rowntree's Park of 17 acres was situated between Terry-avenue and Bishopthorpe-road, and had been recently given to the city. The Corporation had provided allotment gardens, tennis courts, bowling greens, golf courses, and band stands. All these required to be included in any planned scheme of reconstruction for York.

The citizens were proud of their historic monuments, and in any future replanning of the city they should be preserved and have appropriate settings, as had just been done in the case of the Merchants' Hall. There was the danger of heavy traffic, carried along roads adjoining some of our monuments; vibration was set up, resulting in cracks and injury to the stability of edifices. Along the greater part of the south side of the enormous and magnificent pile of York Minster there was such a road. Another example was that of the church of All Saints, with its beautiful octagonal lantern. On each side of that church was a road leading to the market, and along which heavy traffic passed, while, to make matters worse, the two roads were at different levels, and an up-and-down motion was caused. No wonder there were cracks in the edifice. Those who were responsible for the upkeep of the historic monuments were constantly expending money in repairing



Part of Gordon of Rothemay's Bird's-Eye View of Edinburgh.

them. Such streets should only be used for light traffic. These problems must be solved if the monuments which are an integral part of the city are to be retained.

Town-Planning Proposals for York.

Mr. F. W. Spurr, in the course of a paper entitled "Town-Planning Proposals for York," said the York Corporation decided in 1913 to proceed with the town-planning of the areas to the north-east of the city, most of which were outside the city boundary, and within the district of the Flaxton Rural District Council. That authority was approached with a view to those areas being worked together, and representatives of the Flaxton Rural District Council sat on the Town-Planning Committee of the York Corporation, the Corporation in the first instance bearing the cost of preparing the scheme, the Rural District Council being the responsible authority for its own area after completion.

In 1914 the late Dr. Tempest Anderson suggested that competitive schemes might be obtained, and offered a first prize of £100. The Joint Committee and the Council agreed to this offer, and the York City Council also decided to provide two other premiums of £70 and £50 respectively for second and third designs.

The plan accepted (by Mr. Reginald Dann) was full of detail, which was not required to be shown to-day in connection with town-planning, and other plans would therefore have to be prepared to comply with the present requirements of the Ministry of Health. About the time the designs were obtained there was a great deal of misunderstanding, particularly amongst property owners, as to what were really the intentions of the Corporation, and with the object of giving full information it was decided to reproduce the first premiated design on a small scale, and issue a copy to each property-owner interested, and he thought they were successful in that respect.

Town-Planning Area No. 1 had a total area of 1,806 acres, of which 1,177 were in the area of the Flaxton Rural District Council, 456 in the city, and 173 in the area of the Escrick District Council. Area No. 2 had a total acreage of 543; 423 being in the Flaxton area and 120 in the city. Area No. 3 had a total acreage of 515; 506 in the Flaxton area and 9 in the city. Developments that were taking place in these areas were being arranged so as not to interfere with the proposed scheme. That was being done without any difficulty up to the present.



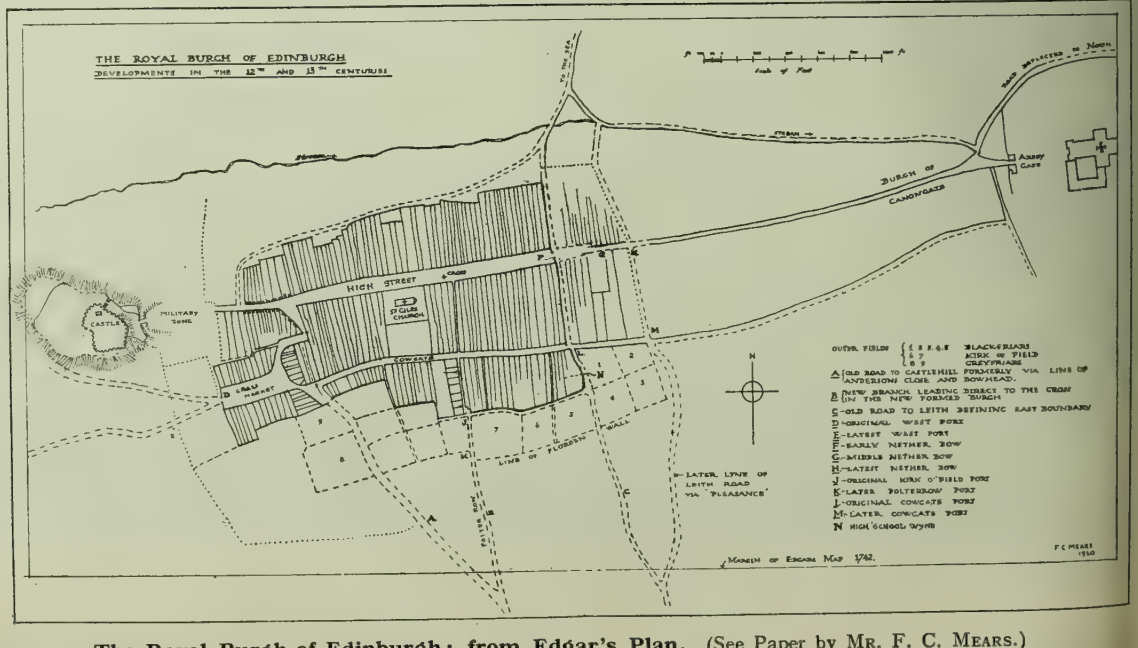
(See Paper by Mr. F. C. Mears.)

In 1920 it was decided to proceed with Area No. 4, and that scheme had proceeded as far as the first public inquiry, which was held in February last, when certain objections and proposals brought by property owners were put forward. The outstanding objections, however, had not yet been satisfactorily settled. The acreage of Area No. 4 was 109, situated wholly in the city. That area was taken in hand with the view of finishing off in the best way possible a large building area which had been left with a lot of small irregular pieces of land and unfinished street ends, and also so as to enable a new church, which was proposed to be built in the new area, to be proceeded with.

After referring to traffic routes and road development, he said York was well provided with permanent open spaces, which had a total area of 778 acres. There are also quite a number of smaller permanent open spaces, such as the moats and ramparts of the city walls, small parks and recreation grounds. The Corporation during the last few years had catered most liberally for recreation, and had provided 12 public bowling greens, 11 grass tennis courts, 6 hard tennis courts, and had also levelled very large areas on the Knavesmire for cricket, football, and l and since the commencement of the wa allotments of about 1-16th of an acr have been provided in various parts city.

The development of York from the si century was dealt with, and, in conc the lecturer said with regard to further planning areas, for the greater part th requiring to be town-planned was wit areas of the Escrick Rural District (Fulford area), the Tadcaster Rural Council (Dringhouses area), and the Ouseburn Rural District Council f Acomb area, the latter being the one perhaps required to be dealt with at a date on account of the developments were taking place there.

Mr. W. R. Davidge (London), i posing a vote of thanks to the sp pointed out that in mediæval days the cipal authorities were really regional a ties who were faced by the same probl those which troubled local authorities And the old authorities seemed to have them as well as they were being solved by the Local Government Board Ministry of Health. Many of the



The Royal Burgh of Edinburgh: from Edgar's Plan. (See Paper by Mr. F. C. Mears.)



St. Andrews, *c.* 1794 (from an old print). (See Paper by Mr. F. C. Mears.)

lems were faced in a big way. One big ulty in York, as in so many other large s, was that the local boundary was cir- scribed by those of lesser authorities, it was almost impossible to get the autho- s to see eye to eye. This made it all the necessary to get back to the regional for all the essential services which had e provided by the public. Probably in ity of the world could they get such a plete picture, and such object lessons of had been accomplished in the past, as ork.

R. L. S. Mackenzie, City Surveyor of tol, seconded the motion, which was nly accorded.

The Planning of Mediæval Cities.

R. F. C. Mears, M.T.P.I., later in the read a paper entitled "The Planning of iæval Cities." He said he had chosen subject because he believed that the acter of our modern planning, and espe- y of reconstruction schemes, necessarily nded on our interpretation of the past. In ly every case modern cities sprang from ediæval or even earlier nucleus. Small gh that might have been it had none less determined the main lines of the ent-day road system. But did not the t of the past go deeper?

uman communities were, like shellfish, ng continuously to their shells; thus n they had to carry a great unwieldy len on their backs, perhaps to become he end literally imprisoned by it. More- . such a shell recorded not only the growth habit of any given species, but in its de- ures from normal form might be found ence of influences or accidents which ted it at the very earliest stage. Thus. they were justified when they based ern theories and plannings on the past rience of civilised man. The size of munities to-day might be greater than in the past, but human needs remained the same —a house, a garden, a highway, a workshop, space for play and recreation, some shrine for the ideal, were not inventions of present-day civilisation. They had all been provided, and in various groupings, throughout the past; so to the past they looked rightly for suggestion and inspiration.

Yet, strangely enough, although the planning of Roman and Renaissance cities had been well-nigh exhaustively studied, the mediæval period, from which most towns had sprung, had received but little attention in Britain. Well-preserved examples of old cities, with their picturesque corners, were admired by all. "All very well!" said the modern practical man, "but look at their crowding and bad sanitary conditions." We used to be almost silenced by that sort of criticism, which indeed largely drove Ruskin and the Romanticists out of popular esteem. But now they learned to decipher the planning of mediæval cities, they found them far better than even Ruskin knew, for the evils with which they were so popularly credited could be shown to be of subsequent growth. They arose, first, through the new intensive warfare which accompanied the Renaissance and Reformation—wars on a scale far beyond anything the Middle Ages can show; and, second, through the corresponding ever-widening rift between country and town which culminated in the late industrial age.

Credit must be given to the initiative of certain pre-war German planners, who founded much of their work on a theory of mediæval town-planning advanced by Camillo Sitte, but it would seem that view did not meet with much acceptance in Britain, perhaps because of an instinctive feeling that it did not meet the facts. He believed the theory to be a wrong one, or, rather, an inversion of the real order of development. Its appeal doubtless arose from the desire of thoughtful people to preserve from desecration or destruction the beautiful sixteenth- and seventeenth-century streets and places of Continental cities. It might be admitted that Sitte was correct in stating that many of the characteristic irregularities in those cities arose from natural traffic lines, but the towns were not planned thus originally.

The difficulty to-day in arriving at an appreciation of mediæval planning might, then, be summed up as due to two causes—

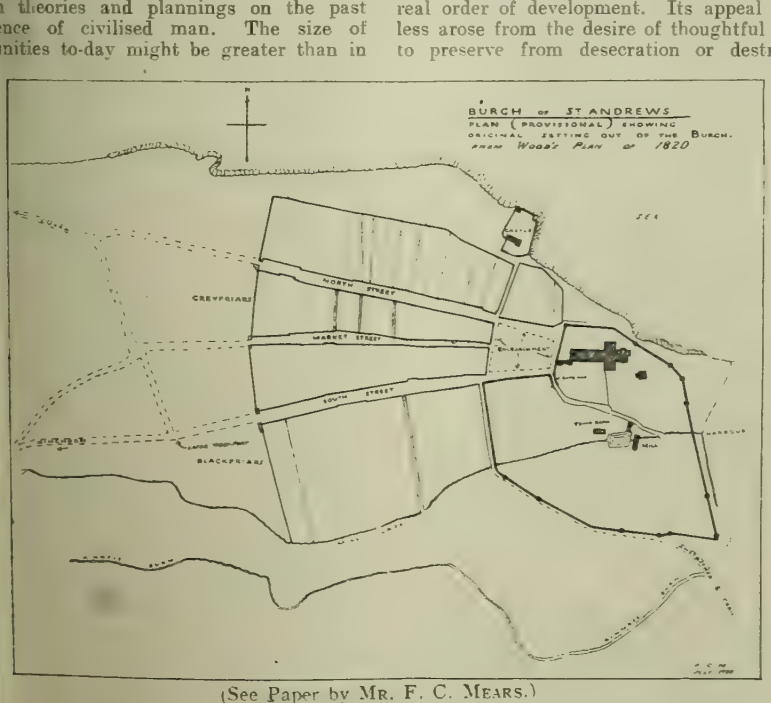
(1) The present reaction against extravagances of the Gothic revival led them to think in terms of systems of streets and squares based on Renaissance or Classical models.

(2) The romantic story writings on which they had all been brought up had made it almost an article of faith that towns of the Middle Ages were always irregular, overcrowded, packed with tall buildings, and highly insanitary. That comforting belief had helped them to justify in part the by-law suburbs of the industrial age as at least an improvement on what went before.

When they undertook a scientific study of mediæval town-planning they had to break down those barriers to understanding, and endeavour to approach the matter with an open mind. That was a matter of great difficulty, because the subjects of study have been superficially altered almost out of recognition. They had also to remember that modern towns might sometimes have grown around small straggling villages or hamlets; or an early village and Norman borough might have been so fused together and overbuilt, as at Saffron Walden, that only by the help of drain-cuttings could the original scheme be traced.

In most old towns hardly a single building, unless the church or castle, could be recognised as belonging to the original setting out, and architects had been content to enjoy the beauty or interest of such places without trying to puzzle out the tangled town plan with the aid of large-scale maps. His introduction to mediæval town-planning happened in course of a holiday in Westmorland, where he stayed at a little village which has preserved its original lay-out almost unaltered. His interest was aroused by the regularity of its plan, while the complete system of long fields surrounding it showed that the lay-out dated from perhaps the twelfth century. There was a rectangular central green, 800 ft. long by 250 ft. wide, with a very tall maypole in the centre, surrounded by a single row of farmhouses; behind these were long garden enclosures with stables and barns; then a back lane encircled the whole, and beyond that were the long strips which had clearly spread out in successive stages as the community prospered. The church, of older origin than the village, lay outside. There was a mill and, at the other end of the village, a broad way leading to the common lands, where the villagers found grazing for their stock, fuel, stone, and lime. A little way off was the small castle or manor house (with no fields), and beyond that a monastic grange, with, again, its compact cultivated area surrounding it. Thus one found in that remote village a complete association of church, government, and people—provision for a completely rounded civilisation.

Next, as one walked over the country, one



(See Paper by Mr. F. C. Mears.)

found a line of similar villages, each near the border between rough Fell and arable land, each with good water supply, and all parallel with a main road running up the Eden Valley. A set of 6-in. maps brought out a further point of interest. Those villages with their long fields showed clearly as units planted in the Waste. They belonged to some early scheme of regional development,

About that time he became associated with Professor Geddes in the preparation of the Survey of Edinburgh, which was shown in the Town-Planning Exhibition of 1910, and in carrying on the study in closer detail was surprised to find that the plan of high-built and overcrowded Edinburgh was closely comparable with that of Milburn, not only in broad outline but in every essential. For there was no doubt whatever that twelfth-century Edinburgh was a formally planned garden city with a density of rather less than four houses to the acre. That conclusion was made possible by the fact that, however much they rebuilt, they found it very difficult to get rid of old property boundaries. In an area like that of the old town of Edinburgh, which had not suffered entire reconstruction during the industrial age, that factor stood out very strongly. The old garden boundaries still existed, though scarcely a square yard remained unbuilt on. Comparison with old maps and with other towns enabled one to lay down with fair accuracy the limits of the twelfth-century plan, and, that done, they might be surprised at its regularity, spaciousness, and civic dignity. Castle, garden city, and abbey were strung out along a mile of the great ridge, on a scale which showed that twelfth-century town-builders lagged no way behind their brethren of any other age. At Edinburgh, too, as at Milburn, were the burgh and abbey mills, the common lands, with a seaport in addition.

A twelfth-century code of laws governing the setting out and civic organisation of such towns still existed in Scotland under the name of the "Laws and Customs of the Four Burghs." Those laws were a Scottish adaptation of southern codes, such as the Laws of Breteuil, and afforded a very clear insight into the burghal life of the twelfth and t teenth centuries. They showed that e burgess was half a farmer, and beyond afforded pointed lessons on how to deal profiteering and other anti-social activi The members of those Scottish commun were knit together in the closest way as brethren owning no lord but the King whose representative each burgess paid yearly rent. In England, under the mili conditions following the Norman Conq the direct relationship with the King was so common as in Scotland, burghs b founded as a rule by barons or churchme

The burghs represented a great eleve and twelfth-century movement of regional velopment. They were almost always laid on clean sites, each central in a well-def region, and formed an essential part of feudal system. They had heard too muc castle and church building and not enc about the complementary burghs. To feudal lord who was not a brigand at h that threefold scheme was a commonpl and it was in that light that they hav regard early mediæval town-planning.

Wars and the industrial age had lar swept away their social organisation buried their gardens in slums, but even the names of some civic dignitaries c them back to this period. Aldermen England, Bailies and Deans of Guild in S land, all traced their office to that great pe of reconstruction.

The threefold unit of castle, burgh and a form, then, with certain adjuncts, the h of the normal eleventh- or twelfth-cen town-plan. Leaving aside the detailed rangements of castle and abbey, and tur to the burgh, they found that it first consi of a row of houses surrounding a mar place. That market-place (commonly angular) might, however, be triangular even irregular in shape. Surrounding market-place were long plots—the Sco Code fixed their area at ¼ acre, while t width might be from 20 to 30 ft. The ho fronted on the market-place, each wit gate beside it for approach to the ga behind. Surrounding the whole was a l lane giving access to each garden from fields and pastures. In the market-p stood a cross or other emblem of civic un The position of the church varied. It m be central, or on one side or end of market-place. Permanent town halls seem have been a later invention. In early t the council met in a temporary struct hence "Tolbooth" in Scotland.

It might be difficult to find in Britain survival of the original houses. They m have been built of timber framing: might safely assume a free use of whitew and also of carving and bright colour, such had survived in gipsy-van building.

The idea of streets had not yet develo The plan was set out to provide for the n of merchants and craftsmen living in s rural conditions around their village green market-place. Those units were "plante consciously and deliberately, at likely s throughout the country, and depended in for their inhabitants on immigrants dr from older units in England or the Contin The castle and abbey stood for administra and defence, religion and culture, respectiv The burgh supplied craftsmen and merch who through their market brought about r prosperous conditions in the surrounding r area, and incidentally helped to sup Superior and Churchmen by their rents dues. The whole process was largely repe in more recent times in colonial forts towns, many of which must, in their e days, have looked strangely like their eleve century forerunners, though lacking the a tectural qualities given by mediæval castle abbey.

The early towns were small in popula but very spacious in lay-out; so spacious fact, that their plans had not been d



Encroachment of Old Gardens.

[Top: "Chequer" as originally set out and occupied; middle: the same area as covered with stables, stores, and industrial buildings; bottom: theoretical arrangement. These diagrams are based on study of the Salisbury "chequers"; they do not represent any particular place, but represent the transformation brought about by individual encroachments.]

led from the almost unbelievable en-chments which now almost always dis-ed them.

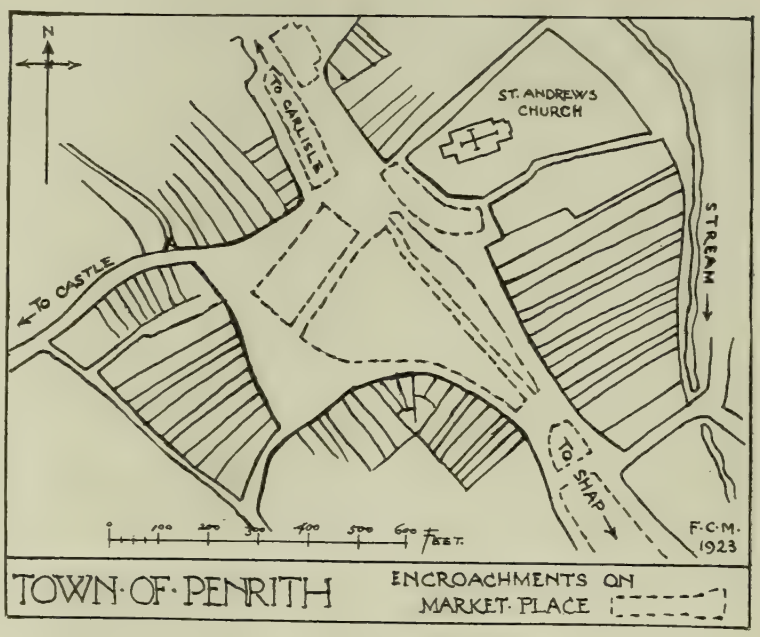
n almost unaltered example was Appleby, Westmorland, which compared very closely Edinburgh. There is a great earthwork le, with its Norman keep, next a clear ary zone, and then the town with its ft.-wide market-place. On each side were houses with their long gardens, and at lower end fronting the castle was the ch; again a plan just as dignified as any-the Renaissance had produced.

Haddington the great market-place was gular—now largely covered with encroach-ts, but still a noble space. Near the broad was the abbey—the castle had disap-ed. Elgin again compared with Edin-h, though on a more level site, but show-very clearly the threefold grouping. St. ews showed one of the finest of all æval plans. The cathedral once fronted spacious square, now built over, from h led three radiating streets focussed on great church. Castle, mills, and port closely grouped around, and the whole ed a remarkable example of planning on great scale. Aberdeen in its early form wed the same general plan as Edinburgh lgin, and countless other examples might ited, such as Beverley and Tynemouth, of which showed a great church ap-ched through a market-place of noble pro-ons.

time went on, the agricultural element in towns declined and their populations be-more urban in character; encroachment pen spaces began, and by the thirteenth ury they had the well-known types of bury, Winchelsea, the Welsh Edwardian s, and the Bastide towns of France.

ffron Walden, in Essex, the subject of of the earliest and most comprehensive surveys, was of great interest as show the earlier and later types side by side. rst was the castle, burgh, and abbey of ping Wealdon, set out according to for-in the clearest way, and with the earlier ement of Romano-British origin close by. n. between these, in days perhaps of the nning of "Saffron" Walden as a town pecialised industry, a new market and iated streets were laid out on the uer system of Salisbury and the Bastide s. The latter, from the modern charac-f their streets, had long been recognised finitely planned, and were commonly re-ed as typical examples of mediæval -planning. They really belonged to a dary stage, and their lay-out showed, gh Salisbury might be excepted, little of maginative character found in the earlier ples. Salisbury was interesting in addi-because it showed a great market-place partly, but still not seriously, encroached The original market-place extended right to the corner where now stood the beau-cross, and the parish church was formerly of the houses which now encircled it. So for the formal towns. They had then rn to the encroachments which destroyed

striking example of encroachment was th, near Milburn, where only with diffi-could one trace the original large et. Encroachment there had been car-to the point common in Continental . and they could thus see how Sitte was d. The old plan showed how over-ng of public spaces had gone on during the past 100 years, but the interesting was that here they could see clearly the led mediæval plan of narrow, twisting s and lanes fitted into the great spaces of welfth or thirteenth centuries. That s came about by degrees. Temporary s erected along the normal traffic lines gradually replaced with more enduring ial, and finally by houses. Sometimes, e town council gave plots on the market-in order to raise funds, so the great



square was covered with irregular buildings, and they got the quaint "places" and charming groupings beloved of the artist. In admiring the trees they had forgotten the wood.

That great change was, perhaps, inevitable in a growing town: the people were becoming specialist merchants and craftsmen, the old large gardens and vast market-place, which must even have afforded grazing, were becoming useless to them, hence they were built over. Town and country were drifting apart in preparation for the industrial age, when men came gradually to think of towns as necessarily slums. Yet the seventeenth-century maps of Blaeu showed great manufacturing centres, such as Mons, as still spacious garden towns. With the exception of ancient and great cities, such as London and Paris, all mediæval towns were such, and only the perverted standard of the last century could have made people think otherwise.

That tragic divorce of town and country might be due to two causes: war and industrialism. Even in the eighteenth century Salisbury was still a place of gardens, and showed running water led through every street. The original lay-out of its "chequers" was very like one of the better modern housing schemes. To-day the same chequer would look a huddled confusion of stores, stables, workshops, and slums. Yet the ordnance map showed the lines of the old garden fences still perfectly clear amid the confusion. And if, with it all, Salisbury remained one of our most charming cities, what was it like with the great new cathedral rising above a sea of cottages and orchards? They must not think of this association of cottage with cathedral as mean or petty, for directly out of that vision of civic life arose such cities as Wells, planned with equal care, but with the added dignity which came from mastery of fine stone. It could be seen how the romantic beauty of such a city as Rothenburg had grown up by the overbuilding of a plan equally regular. They might agree with Camillo Sitte that the beautiful irregularities had been in part governed by traffic needs. But behind all lay a clean-cut design, spacious and regular, healthy and efficient, if not romantically picturesque.

In conclusion, he said the cities of dust and noise and slums, if not of their own making, had largely taken on their present form within the lifetime of people whom they had known. It is up to the present generation to set them right again.

After the papers had been read, a tour of the city was made under the guidance of Messrs. Benson and Spurr, when visits were made to the ruins of the Abbey of St. Leonard, the Guildhall, and other buildings of historical and architectural interest.

Discussion.

A debate, followed by the adjourned discussion on Mr. Spurr's paper, took place at the Station Hotel in the evening, when various questions of special interest to town-planners were discussed.

Mr. Mears referred to the difficulty which might arise when (owing to increasing population, etc.) the spaces left between houses in a district laid out in accordance with garden city principles was filled up by shops. This, he pointed out, would entirely alter the scheme under which the town or garden suburb had been planned. There was also the danger of the shops gradually encroaching to the line of the roadway in cases where the space between the building line and the roadway was in private ownership. During the ensuing discussion Mr. Pepler said he thought the shops should be kept back to the original building line.

Mr. Abbott referred to the question of the ownership of such open spaces in villages as markets, and said he believed in most cases these were not owned by the public authorities, but by the lord of the manor.

Mr. Lovelock said, if an encroachment took place, it was reported to the lord of the manor and a fine had to be paid. He was under the impression that by this procedure a title was established to the encroachment, and to the new line of frontage.

Mr. Cart de Lafontaine said there appeared to be a distinct danger that districts laid out on garden city lines, with adequate width of roads and space between houses, might, in course of time, and by the pressure of the increasing value of frontage in the centre of such a town, gradually become built-up areas. It was difficult to see how this could be prevented.

Mr. Pepler agreed there was a danger of this taking place, but said the question was one with which the controlling authority had power to deal.

Mr. Spurr invited discussion of the town-planning proposals for the city of York, and explained these in some detail with the assistance of maps and diagrams. The general trend of the discussion was that the width of main roads for through traffic should not be less than 100 ft., that at least two new bridges would be required, that it was inadvisable to divert ring roads (intended to prevent through traffic from congesting the central area) too far from the normal line of such traffic, as if

this was done there was a probability that the new roads would not be used.

The question of the possibility of taking a new road across the racecourse was discussed. Mr. Spurr said this would certainly give a more direct route, but he thought it would be impossible to encroach on the racecourse. Several members pointed out that this had presented no great difficulty in other similar cases elsewhere.

Mr. Bruce, Advisory Architect, Manchester and District Joint Town-Planning Committee, referred to the advantages which resulted from co-operation between local authorities in dealing with town-planning in industrial areas on a regional basis.

Mr. Hill, Assistant Town Clerk, Manchester, also spoke on the same subject, and said their experience in Manchester showed that this method of dealing with the question was practical and economical.

Several members joined in the discussion which subsequently took place on the question of the upkeep of roads with grass margins, but no practical solution for dealing with this question on main traffic routes through undeveloped areas was discovered.

An address by the President was then read by his son, Mr. John Mawson.

Mr. Mawson said the greatest difficulty with which the town-planner was faced was that the public regarded him as a man whose business it was to pull down and rebuild a city at ruinous expense, whereas the town-planner was primarily neither house breaker nor builder. His most important function was that of an "inventor of programmes," which might take twenty, fifty, or even a hundred years for its realisation. The function of this programme should be to direct the evolution of the city towards perfect economic efficiency and beauty. With regard to the realisation of these schemes he thought that town-planners should possess their souls in patience, and remember that many of the finest plans were only realised after a long delay—such as Haussmann's great plan for Paris, evolved over seventy years ago and not yet fully realised.

The President referred to the importance of accepting the topographical conditions as a basis for their plans, and made a plea for the greater study of "landscape architecture." He thought the selection of York for their annual conference showed how deeply they were interested in this beautiful city and its unique Minster: they had listened with great interest and appreciation to the paper read by Mr. Benson dealing with the city in the past, and also to those read by Mr. Spurr and Mr. Mears. York would become an inspiration to them, but it would be in the spirit and not the letter that the city would guide their efforts. He thought the question for them, as town-planners, was not so much their ability to copy mediæval or classical models as the genius to interpret the needs and aspirations of to-day and to-morrow. From York they hoped to reap a rich harvest of mental recuperation by the study of those monuments of its aspiring greatness, which had made it one of the most dominating and yet lovable of shrines.

The proceedings terminated with a vote of thanks to the chairman and to the readers of papers, which was carried by acclamation.

Visit to New Earswick Model Village.

On Saturday morning a visit was made to New Earswick Model Village, under the guidance of Mr. Barry Parker, who gave an interesting description of the buildings.

Dinner.

In the evening the Institute entertained their local hosts to dinner at the Station Hotel.

After the loyal toasts had been duly honoured, the Chairman, Mr. Mawson, proposed the health of the guests and the Corporation.

The Sheriff of York, responding to the toast, said they had been very pleased to take part in the interesting meetings and discussions of the past two days. With regard to the replanning of their own city, he thought the most urgent requirement was the building of two new bridges to facilitate through traffic and relieve congestion. He was glad to say they had every confidence in the ability of their City Engineer, Mr. Spurr, to deal in a satisfactory manner with these difficult problems.

The late Lord Mayor of York proposed the Town-Planning Institute, and said that in the unavoidable absence of the Lord Mayor it had given him great pleasure to welcome the Institute to their ancient and historic city. He thought the Town-Planning Institute had a great mission: to ask the world to have a vision of better conditions. Any child born now should have a chance of growing up in decent conditions, such conditions as would make it possible for children to be brought up decently in healthy and beautiful surroundings, very different to the slums and overcrowding which generally existed in our industrial areas.

The President of the Institute, in a brief reply, said that he entirely supported the definition of their aims as given by the last speaker. Their mission, as town-planners, should be to save souls, not by individuals only, but by whole communities.

THE EIGHT-HOUR DAY IN FRANCE.

An interesting correspondence has appeared in the columns of the French journal *Le Bâtiment* in reference to the effect of the eight-hour day on workmen in France, especially in the building trade. M. Picquard, Director of Works, at the International Conference of Building at Prague quoted figures to prove that one result of the eight-hour day was that the workmen drank less. A correspondent contested this, stating that the decrease in drinking was due to many other causes. The Minister replied in a long letter to the editor, saying that his point was that he disagreed with the affirmation that since the application of the law *re* the eight-hour day workmen frequented drinking places more than formerly. From research made by Ministry, figures were forthcoming to s that, especially since 1919, there had been frequent visits to drinking places. This crease resulted from many causes, but ne theless one could not truthfully say, in face of these statistics, that drinking was the increase among workmen.

The Minister also objected to the st ment that the inquiry into the figures been biased. He said that every care been taken to appeal for evidence from pe who were in direct and daily contact with workmen.

In commenting on this letter of the Mini *Le Bâtiment* could not agree with him, stated that at the Prague Conference Picquenard had been asked the direct q tion as to how the workmen filled up the of the day when they ceased work at 4 p and had not replied, except by stating the men frequented drinking places less.

The journal wished that the happy res affirmed by the Minister were true in but it felt rather that the law had paral the whole production of a country which in need of work; in the social order it engendered laziness and idleness, and struck a blow at the individual liberty of worker.

At the Prague Conference M. Verney, V President of the Syndicate of Contractors Public Works in France, had shown clearly why the effect of the eight-hour had been less disastrous than it might h been—namely, that at bottom the Frenchm is, as a general rule, a hard worker and economist. The greater part of the natio composed of small rural proprietors and a culturalists working for their own profit not troubled by the law. Among the w men population many men, at the termi tion of their ordinary day's work, have fo work elsewhere.

In the building trade it has been pro that if the workman always scrupulou obeyed the law, there would be a consequ reduction of 20 per cent. in production, that at a moment when labour is badly nee for reconstruction.



Edinburgh in the 15th Century. (See Paper by Mr. F. C. Mears.)

BUILDING SOCIETIES' ASSOCIATION.

The South Western Counties' branch of the ilding Societies' Association held its annual eting at Exeter Guildhall on Wednesday t week, when Mr. Sidney Andrew was re-cted president, and Mr. A. E. Kernick retary in place of Mr. A. W. Cock.

Mr. C. F. Sanders, a member of the executive the Building Societies' Association, stated t the new Rents Restriction Act had stabilised ts for a further period, but what would affect lding societies very much was the setting free rents from control. The Housing Act of 3, he said, constituted in a sense a new rter for building societies, because it contained for the first time Government recognition of their usefulness. The Small Dwellings Acquisition Acts of the past had been a great failure. In the first twelve years loans had been made by local authorities under the Acts to the amount of £210,000, while building societies advanced in the same period one hundred millions. During the last four years building societies had advanced over eighty million pounds. Now local authorities were permitted to guarantee building societies against loss in order to encourage them to advance larger sums than they could prudently advance upon a safe valuation to-day.

Mr. Sanders observed that in the last four years the cost of building small houses had dropped from £1,000 to £315, and there might be a further decrease. He found a variation of quite fifty per cent. in the prices charged by builders during the last few months which difference might or might not be justified by the quality of the house. He emphasised that co-operation with building societies was the most likely way of encouraging private enterprise. The prevalent rate of interest would eventually fall.

Caution was necessary in borrowing or lending money for long periods on fixed rates, but the constant repayment by instalments of building society mortgages gave those societies an advantage in adaptability compared with other organisations. Nearly a quarter of a million people were purchasing houses through building societies.



No. 9, Poland-street, W.1. Messrs. R. H. Kerr & Son, Architects.

[This building has recently been completed. Messrs. Townsend & Pearson, Ltd., are the builders]

THE INFANTRY DRILL HALL, LATTA-STREET, DUMBARTON.

This building is on an open site of about 1¼ acres, and is set back to leave a parade ground in front. A new street, 40 ft. wide, is being formed, and the building centres on this new street. The entrance to the ground will be by a stone gateway with wrought-iron gates of simple design.

The drill hall is centrally placed, and rises above the surrounding administration rooms and offices, which are one story high. The walls are finished in cement roughcast with broad base and parapet and central doorway in stone-faced blocks. The drill hall roof is covered with Marseilles red tiles, and has a central pediment carrying the flagstaff.

The building is entered by a wide entrance hall finished in facing brick and separated from the drill hall by a folding glazed screen. The drill hall is 77 ft. by 33 ft., and rises to a height of 24 ft. at the apex of the open roof. The walls are finished in facing brick and the roof is of wood on steel principals. The lighting is effected by two large gable windows with segmental arched heads, and a frieze of horizontal windows along the north wall aided by a large window in the pediment already referred to.

Opening from the drill hall is a 25-yd. miniature rifle range of fireproof construction.

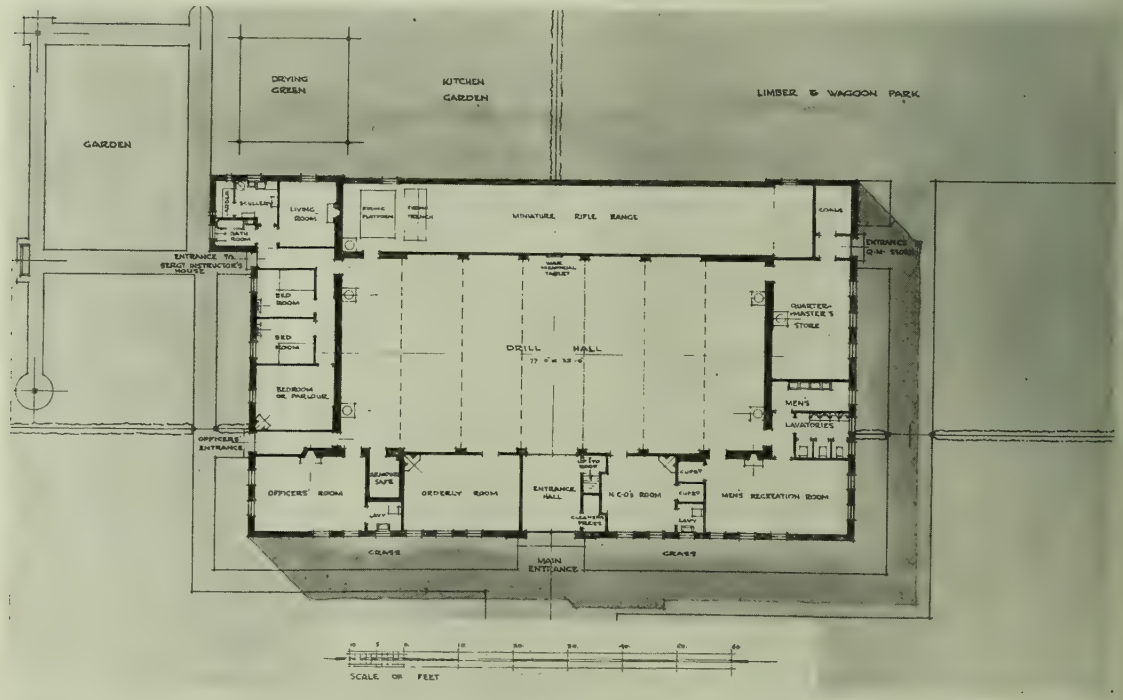
The administration rooms consist of orderly room, N.C.O.'s room, officers' room, quartermaster's store, and armoury safe, in addition to a men's recreation room. All these rooms open from the drill hall. On the west side is the sergt.-instructor's house, containing parlour, two bedrooms, bathroom, living room, scullery, larder.

The building is electrically lighted throughout. The heating of the hall, range, and quartermaster's store is by slow combustion stoves, and of the other apartments by coal fires, except the sergt.-instructor's parlour and bedrooms, which have gas fires. Natural ventilation is employed throughout, aided by direct ac extract ventilators in the drill hall.

The construction of the building (with exception of the drill hall roof) is firep throughout, the floors being of concrete fini with wood block flooring, and the roofs of crete and steel finished with asphalte extern

The building is from the design of Me Denny & Blain, of Dumbarton and Glas The schedules were prepared by Messrs. Wilkie & Son, measurers, Dumbarton Glasgow, and the contractors were :—Bu work, Messrs. Leslie Kirk, Ltd., Clydeba joiner work, Messrs. Dougall & Co., Dumbar plumber work, Messrs. Campbell & Came Dumbarton ; roof tile work, Mr. John Bea Dumbarton ; plaster and roughcast, Me Wm. Latto & Son, Clydebank ; painter w Mr. W. S. MacNicol, Dumbarton ; steel w Messrs. Jas. Allan, Senr., & Son, Glasg asphalte work, Messrs. The Scottish Speed Co., Glasgow ; electric light, Mr. Alex D Dumbarton. The clerk of works was M Gourlay, Dumbarton.





New Infantry Drill Hall, Dumbarton.

Messrs. Denny & Blain, Architects.

THE BUILDING TRADE.

THE INCIDENCE OF INSURANCE.—II.

By A SPECIAL CORRESPONDENT.

the previous article a passing remark ed as to the undoubted capability of the insurance companies for managing their ss advantageously. This observation was ced by a recognition of the extreme ance of the "Average Clause" common ordinary fire policies. It was introduced of warning to those who are apt only dily to ignore the far-reaching conse- of such a fundamental proviso. Having ngaged as a consultant and expert witness a long period of years, the writer is able rst-hand experience to testify on behalf companies with whom he was thus ted, that in no instance has any attempt his knowledge of any unfair construction ilable facts. On the contrary, all con- in the conduct of baffling cases behaved anner which justified this opinion about en-handed custom of determining claims y on their merits, and by settling losses ly. It is, however, only reasonable to er that recurring difficulties must bly crop up in dealing with contracts as these are to contingencies often antable and invariably unexpected. This o, it is manifestly an obligation on the all insurers to insist on precision, parti- about all technical matters connected eir business and premises intended to be by a policy when it is issued. If mis- andings are to be provided against, nsurer must plainly set out the exact er of his calling. A world of trouble nsequent loss in countless cases might een obviated by these elementary pre- s. That silence enshrouds such happen- ed cause no amazement, because those ffer realise that the natural comment be "What else could be expected?"

following important case supplies an tion in point. As an outstanding object it deserves to be remembered. The ok place in the old Law Courts adjacent tminster Hall, built by Sir John Soane. stice Manisty presided, and the present was one of the jury. This happened the Law Courts in the Strand were but the judgment is not merely a matter orian history, seeing that the case ranks ecedent because the ultimate settlement due course determined by the House of A paint manufacturer engaged in a ous but comparatively small way of fully insured his factory and its con- ainst fire. The insurance company did ge arson or suggest contributory negli- n the part of the insured, but objected tate. They contended he had violated tract as a manufacturer of paint by Brunswick black. The jury reduced ats to A. viz., "Is Brunswick black a or a paint?" and to B. "Is it the of the trade of a paint manufacturer of ss to make Brunswick black, or is it made by ordinary varnish makers?" y decided in favour of the insurer, Brunswick black is a varnish paint dd colour and, in any case, not a varnish rally understood. No evidence was ov either side as to the custom of the That was, after all, the chief considera- a dispute of this nature, particularly ng occurred in the policy in question ng this maker of paint from making k black. If there was at that time and fast custom as to its manufacture y the insurance company should have a clause accordingly. The insurer day before the King's Bench, also at rt of Appeal, and the House of Lords d the verdict. In the meantime, the urpose of the insurance had been frustrated, seeing that the insurer was kept out of his business meanwhile, and when he did get the policy sum the expenses and loss of trade must have spelt ruin.

Some fires are unaccountable owing to the available evidence being inconclusive and unreliable, necessitating caution on both sides. The event now to be related resulted in a total loss for the insurance company. Only one annual premium had been paid. The facts may thus be briefly enumerated. A new residence, constructed of brick, had just been completed but not occupied. Surrounded by its own grounds it occupied an isolated position, the site being on high ground in full view of the high road in a residential neighbourhood of the well-to-do in Hertfordshire. The place contained no furniture, but the owner was on the eve of moving in. Suddenly the premises were discovered to be on fire and the evening papers recorded the event under a headline about "a mansion burnt out." The building was oddly designed with unusually thick walls on all sides externally, but without any exception the internal walls throughout the premises were merely framed partitions in timber and plaster. As a result, the solid surrounding brickwork appears to have served like an enormous flue, consequently the fire rapidly extended and soon reduced the fabric to a ruin, burning out the contents in a few hours in spite of the efforts of the fire brigade. The brick walls suffered but slight damage. No question arising as to the origin of the outbreak, the insurance company's assessors, in consultation with the writer, acting on behalf of the owner, arrived at a settlement by which the sum set out in the policy was paid forthwith. The rebuilding necessarily depended upon utilising the walls left standing. In doing this, by adding here and cutting away there, the house was so altered that when completed an entirely different arrangement was obtained. Internally, the new divisional walls were carried out in brick, and various new features were introduced, so that in the end the insurer gained considerably. The building was manifestly improved and a first-rate builder was employed. The insurance company having paid on a total loss, left the writer entirely free to carry out the wishes of his client. "The subsequent proceedings interested them no more." The average clause was exempted, seeing that nothing remained to average, the loss being complete.

It is an old proverb, "let him who thinketh he standeth take heed lest he fall," and the following is apropos in this connection. The question of increasing the premium for fire insurance on a big modern church in the Western district of the Metropolis having been under consideration, the writer was consulted by the vicar as to the actual risk involved. He explained that the premises were well covered, and that being the general opinion some members of the parish council declined to agree to any increase. They thought the Belgian marble columns of the nave arcade gave the fabric ample security and minimised the chance of fire reaching the wooden roof. This plea, to that extent, seemed plausible, but actually was based upon wrong premises, inasmuch as this marble under certain conditions, not improbable, might greatly increase the risk involved. Much of the timber in the roof being of small scantlings and boarding would burn freely and fall easily when once set on fire. Should the pitch pine seating throughout the nave start burning, the lower parts of the marble piers would speedily get partially hot and split. When thoroughly heated at their base, these shafts would sever and fly like glass when the fire brigade hose suddenly spread water upon them. Not infrequently the supposed factor of immunity against wreckage by fire turns out the reverse of what was anticipated. The malting case already mentioned and this one serve more than merely professional purposes. Fortunately, so far, nothing unpleasant has actually happened, but the committee accepted the advice and increased this insurance.

A Berkshire photographer's fire was extraordinary on account of the vagaries which make it an example of special interest. The action occupied three days in the Court of King's Bench. The condition of the premises after the fire was quite exceptional, unlike anything of the sort in the writer's experience. The property in question consisted of a large shop situate in the main street of a well-known town. The insured occupied the whole building for his business. The studio was on the first floor and it extended at the rear. A wide wooden staircase formed its approach. Both suffered severely. The room behind the shop was devoted to mounting and touching up photographs. The chimney-piece was constructed of brickwork and carried a wide stone mantelshelf on which a vast collection of glass negatives, packed one upon another, extended up to the ceiling. So intense had been the action of the fire that they were more or less fused and melted into a mass, as might happen in a furnace or by volcanic action. Not an atom of plaster remained on the walls of the room or ceiling. It had come completely off the brickwork, even into the internal angles of the walls, where of course plaster is hard to hack away. About eighteen inches above the floor-level the plastering remained intact as well as the skirting boards and flooring. Over the whole of the apartment some two feet thick of debris largely composed of the fallen plaster from walls and ceiling mingled with a mass of combustible material such as a quantity of light wooden shelvings torn down with the plaster. This rubbish had scarcely burned at all, though strange to relate the brickwork over the fireplace arch had fractured badly from excessive heat. A small stove, placed out in the room, was set in an iron tray below, and an iron pipe carried above through the fire opening into the ordinary flue of the chimney. The explanation offered by the photographer as to the origin of the fire was that this independent stove, left burning when he closed the place for the evening, had set fire to the linoleum. This floor-cloth, like all else in the bottom of the room, was however unharmed. The damage done was entirely upward. The shop was not interfered with, notwithstanding the enormous heat in the adjacent room. This added to the complexity of the case and little doubt remained after a very careful examination that the damage was the result of an explosion. How otherwise could the sudden wreckage of the plastering be explained? It was urged that the neighbours heard no explosion. The room was shut in and surrounded by tall brick walls on the side and rear, screening the adjoining buildings. The street was full of traffic and a busy thoroughfare. Noiseless powders and other explosives or chemical preparations possibly might be available without necessarily audible results. Judging from the remains and ruins, a waterpot with a long spout had been seemingly tilted on the stove and slung from an easel (formerly in the shop) with the outlet of the spout fixed towards the negatives, thus accounting for the excessive heat concentrated upon them. Whatever the concoction in the pot may have been it was heated up by the stove immediately below, and the spout acted like a blow-pipe till the whole thing burst, bringing off the plaster by concussion. No amount of ordinary fire action would burn off plaster—one of the most fire-resisting materials known.

The concluding case—a costly affair—caused a trial and an arbitration before the Official Referee. Its interest consists in upholding the rights of the insurance company to reinstate.

The owner of a large steam laundry in Wales, comprising several old buildings two floors high, was the scene of an unexplainable fire, which happened a few days after the proprietor had transferred his insurance, on an increased amount, to another company, but he had only paid the deposit money. Time had not been allowed for the issue of the policy. To ascertain the damage a well-known firm of contractors acting under the direction of the writer on the spot, made an exact record of the salvage and prepared an estimate of cost for reinstatement. A firm of engineers and an expert made a schedule and prices for renewals of the machinery. The insurance company, in accordance with the terms of the policy, were ready to effect a case of *statu quo*, or, as an alternative, to pay over in cash the estimated cost. The proprietor wanted a new laundry set out with one-floor buildings, and declined the company's proposals. The referee visited the premises and an endeavour was made at the Law Courts towards a settlement. Meanwhile other matters, with which the writer was not concerned, cropped up, and it was understood the business took an entirely different turn. The only point of interest here is that the company could not be compelled to do more than reinstate or pay an equivalent lump sum in cash.

LOANS TO BUILDERS.

The Newport (Mon.) Corporation Finance Committee has decided to make something of a departure from the usual method of assisting private building. The Committee at a meeting on October 9 considered what assistance should be given to private enterprise by way of loan under the Housing Act, and decided that loans be not made under the Small Dwellings Acquisition Act, 1899, but under the following local conditions of agreement, subject to assent by the Ministry of Health :—

(a) Loans to be advanced for building of subsidy houses up to a maximum of 85 per cent. of the market value of the house as ascertained by the Borough Engineer and Borough Treasurer.

(b) In respect to houses larger than subsidy houses, but having a valuation not exceeding £1,500 loan up to a maximum of 80 per cent. of the ascertained market value.

(c) That the loan shall be made during the course of erection of the houses, provided that the total of the loan does not at any time exceed during the course of construction 50 per cent. of value of work actually done.

The Committee decided that the above detailed loans be given to builders, owner-occupiers for whom house is built, and others upon following conditions :—

(a) Insurance of house to agreed amount.

(b) Loans to be repayable in equal half-yearly amounts, principal and interest, at 5 per cent. over a period of twenty years, and

(c) Repayment of outstanding balance of loan to be accepted by Corporation at any time.

The only other conditions are payment by borrower of agreement costs and that buildings shall be erected within the borough.

The conditions of loan mark an important step in the subsidisation of building.

The decisions are subject to Corporation approval, but providing the Ministry agrees, this is purely formal in that the Finance Committee is the full Council sitting in committee.

Houses for Employees.

The Bristol Housing Committee has decided to let ten plots of land on the Fishponds housing estate to Messrs. E. S. & A. Robinson, Ltd., at an annual rent of £25 for 999 years. It is the intention of the firm to erect houses for their employees. The chairman of the Committee has expressed a hope that other large employers of labour will follow the example of Messrs. Robinson, as such schemes would go far to help solve the housing problem.

HOUSING AND HEALTH EXHIBITION, GLASGOW.

The Corporation of Glasgow has again promoted a well-organised Exhibition for the purpose of solving the numerous problems which still remain uppermost in the minds of the public in their desire to secure the "Perfect home."

The Exhibition was opened in Kelvin Hall, Glasgow, on October 1, by Sir Thomas Lipton, Bart., who said housing and health were of the greatest importance to every city, and he was glad to see that it took a prominent place in Glasgow.

The Lord Provost, Sir Thomas Paxton, presided, and during the course of his speech intimated that this was the fifth Housing and Health Exhibition that had been held in Kelvin Hall under the auspices of the Corporation, and it was because they were satisfied of the usefulness and importance of these Exhibitions that they continued to organise them. Their purpose was to instil into the minds of the public a due appreciation of the principles of health and hygiene; to show by the numerous exhibits how a man's home might be his castle; and that it was within the scope of those of moderate incomes to possess houses of their own.

The Exhibition this year is conducted on somewhat different lines from the previous ones. Considerable attention has been given to building materials, sanitary appliances, lighting, heating, labour-saving appliances, decoration and furnishing, and appliances for home nursing and welfare; but recreations, hobbies and study, photography, wireless transmission and reception, dressmaking and millinery, and literature on the exhibits and objects of the Exhibition occupy, perhaps, the largest part of the Exhibition, whilst the greatest credit is reflected on those whose strenuous efforts were exerted in producing the Exhibition, one feels inclined to state, for the benefit and greater success of future projects, that less attention should be given to many of the latter items and a greater concentration on the former.

One of the finest exhibits in the hall is that of Mr. Maxwell M. Hart, landscape architect, Glasgow, who has a decorative lay-out for a rock garden and lawn, which include a waterfall and stream. The rock garden is constructed in Westmorland stone and set with a selection of Alpine plants and conifers. The lawn is crossed by winding paths laid with random flagging; there is a bridge crossing the stream, a thatched summer house, a dovecote and an arch, all built of rustic timber; a sundial, statuettes, and other ornaments to harmonise. The scheme is equally suitable for the grounds of a country house or suburban villa. The comprehensive character of the display may be understood when it is explained that 100 tons of material have been used. It is stated that a rock garden of the size has not hitherto been seen indoors in Scotland.

Types of window blinds and fittings may be seen in great variety at the stand of Messrs. James Meighan & Son, of Glasgow. The firm's blinds are shown fitted to different types of house windows, so that visitors can see exactly the finished effect of the articles, and so that the working can be fully demonstrated.

Specimens of stair treads, floorings, and stair nosings, are shown by Messrs. Ferodo, Ltd., of Chapel-en-le-Frith, including models showing how the firm's stair treads and nosings are fitted to all types of new and worn steps in wood, stone, marble, or concrete. They are made of specially woven cotton and bonded by the "Ferodo" method, which gives great durability. They grip equally firmly when worn as when first fitted, being of the same quality throughout, while the colours are permanent. The treads are supplied in three colours: maroon, brown, and dark green.

Housewives will be interested in the full range of automatic washers and boilers shown by the South Middlesex Manufacturing Kingston-on-Thames. These applianc fitted for gas, oil, or electricity, an actual working is demonstrated. A washer of interest is the "Solos," sh Messrs. Johnston & Clark, of Whitei has no moving parts, and the articles subject to any wear and tear because and scrubbing are eliminated. The was fitted for oil, gas, or electricity, are copper or galvanised steel, and are suitable for use in housing schemes.

A special selection of heating and apparatus is shown by Messrs. Murdoc & Co., of Glasgow. One of their most int appliances is the "Eco" combined h boiler and gas or electric cooker. In boiler gives sufficient hot-water for all d purposes and also heats radiators an rails, while the heat from the boiler directed round the gas or electric oven, when the boiler is in use the "Eco" more or less like an ordinary range for c and gas or electricity is always availabl required. The apparatus is very comp requires no brickwork in fixing. A an electric "Eco" are on show. Th known "Kalor" independent boiler is the stand, as also is a steel coke bunker holds two or three days' supply. A sele copper boilers are also shown, also ta washhouse boiler, while in the section to the rapid heating of hot water th various types of geysers for household p

The Corporation of Glasgow is repr by two of its principal department Gas Department has two stands; of th is named the "Fire Station," and is de in the red and gold usually associated stations. This description is literally for on the stand there are massed 500 g It would appear from these that any fire-place can be matched, as the gas show are finished in burnished brass, oxidised copper, and black. The stand ing the "Fire Station" is also on nove being formed on three sides by gas One end is fitted as a kitchen, and a sounding board has been fixed in the s a roof, so as to enable the demonstrator easily heard when they are explaini efficiency and ease of cooking by means

On another stand the Corporation Ele Department has an interesting disp apparatus. Electrical appliances, suc example, as machinery in operation, are interesting, and are especially so wh appliances on view are not unattainab may be installed in one's own house o terms. Desirable as electric labour-sav the home undoubtedly are, the fact t till recently it has generally only been to acquire them by purchase has m against their general adoption. This has now been removed in Glasgow, as electric cookers and electric fires are con An electric cooker may now be fitted payment of a nominal rental, and the operation and the results are being strated daily at the Corporation stand. first time also it is possible to have fires fitted in bedrooms, dining-rooms, or rooms, on payment of a small annual and the various types of fires availat displayed. There is also the usual vari clothes and dish-washing machines, v cleaners, irons, &c., all shown working growing use of these will do much to m the smoke nuisance in large cities. Elec it need hardly be added, stands for a atmosphere within the home.

Another phase of the Corporation's a is illustrated by the Child Welfare which has been organised under the Health Department with the approv assistance of Baillie James H. Allan, t vener, and Dr. A. K. Chalmers, the City Officer of Health. Between the hours a.m. and 4.30 p.m. part of the daily of the crèche is demonstrated by childre the Cowcaddens Day Nursery and the Park Kindergarten.

NOTES ON CONCRETE.

By A CONCRETE SPECIALIST.

SETTING AND HARDENING.

HERE is much confusion among the users cement in the employment of the term ick-setting cement." A builder or contrac- will frequently call for a quick-setting nt, when what he is really seeking is a *k-hardening* cement. A quick-setting cement lefined by the British Standard Specifica- is one which completes its set in less than an hour; such a cement is seldom needed would be unusable under ordinary condi- of mixing and laying concrete. A quick- ng cement is, in fact, only intended for under water or between tides, and special ng arrangements are necessary so that the ar or concrete is very rapidly mixed and sited in the brief period before setting nences.

rdinary cement as defined by the British dard Specification does not commence to in less than 20 minutes and completes its n a period not exceeding ten hours; it is, ever, exceptional for cement to take more seven hours to set at ordinary tempera- s. These figures refer to neat cement n reality have little interest for the concreter requires (1) a reasonable time for mixing laying his concrete before setting com- es, and (2) that his concrete should be enough for building upon in 18 or 24 hours. initial set of the cement indicates the time lable for mixing and deposition before ng commences, but the final set of the nt is no guide at all as to whether the rete will be hard in 18 or 24 hours. Some nts of 7-hours final set will yield a harder rete at 24 hours than other cements of urs final set. A test that would be a guide howing the early hardening properties of nt is a tensile strength test at 24 hours, this is at present not generally applied. uick-hardening cement is undoubtedly of value in almost all classes of building , and those brands of cement which possess characteristic are deservedly popular.

tempts are sometimes made by men ged in certain classes of work to hasten etting of cement by adding washing soda e mortar or the gauging water. This is, ver, a dangerous measure, because the tity of soda required varies with every nt, and there is considerable risk of adding nuch soda, thus causing the cement to ne so rapid in setting that it is "killed" e, i.e., its initial set is disturbed during rocess of mixing and laying the mortar ncrete.

obtain the opposite effect, viz., to make nt unusually slow in setting, alum is onally mixed with the mortar or gauging This, again, is not desirable, because ddition of alum increases the sulphur nt in the cement and may be a cause of egration. The resources of modern cement facturers are many, and when cement of l setting properties is needed the simplest fest plan is to inform the manufacturers requirements and leave them to produce quired article by scientific means.

The Colour of Portland Cement.

colour of Portland cement is no guide quality, because good cement can range pure white to almost black in colour. hief of the factors which influence the of cement is the proportion of iron it contains. A white cement contains an one per cent. of this constituent, ry cement contains about three per f iron oxide, and the special cements, ark in colour, which have been made -water resistance, contain up to 10 per f oxide of iron. The absence or presence of iron oxide is not known to have any influence upon the quality of cement, and in the sea-water resisting cements referred to the function of the iron oxide is merely to replace alumina, which is thought to be a source of danger in cements subjected to the action of sea-water.

The colour of cement is also influenced to some extent by the class of fuel with which it is calcined or burnt in the rotary kiln. Most of the cement of to-day is calcined in long, rotating, slightly-inclined cylinders by a flame of powdered coal, and if a good bituminous coal is used the clinker (which on grinding produces cement) is almost black in colour. If, however, anthracite coal is used for the flame, then the clinker is usually brown in colour, and produces a brown cement. The colour, after mixing with water and setting, is normal, and the quality is indistinguishable from cement of the usual grey colour.

A certain amount of cement is still calcined in stationary brick kilns, known as chamber kilns and shaft kilns, where the fuel is either intimately mixed with the raw material or fed to the kiln in alternate layers with the raw material. The clinker from these kilns produces a light grey cement, but if the calcination is thorough the quality of the cement is above reproach.

There are thus three causes, viz., content of iron oxide, class of fuel used for calcination, and type of kiln employed, which may affect the colour of cement without altering its quality, so that the condemnation of a cement for its resemblance to lime or other peculiarity of colour is usually incorrect and based on false premises. It is true that incomplete calcination will cause a cement to be light-coloured, but it is only one of four factors which operate in the same direction, and hence colour alone is no guide to the degree of calcination.

White Portland cement is not made in this country, but it is imported from America, a circumstance which cannot fail to enhance the price compared with ordinary cement, so that when absolute whiteness is not essential, light-coloured cements are in demand either for use alone or mixed with white material such as powdered chalk or barytes in conjunction with white sand and aggregate to produce a concrete approaching whiteness.

Concrete of other colours, as blue, green, red, and yellow, can be obtained by mixing suitable pigments with cement, but it is important that only mineral pigments be used.

The Storage of Portland Cement.

In a climate like that of Great Britain the storage of Portland cement has never been free from difficulties, and as the cement of to-day is more finely ground than ever the difficulties of storing without damage are increasing. Portland cement has a great avidity for water and will readily absorb moisture from the atmosphere or from damp materials in contact with it. The absorption by cement of 1 per cent. or 2 per cent. of water has no appreciable effect, but further amounts of absorption retard the hardening of the cement and reduce its strength. If the absorption exceeds 5 per cent. the cement is, for all ordinary purposes, ruined. The British Standard Specification for Portland cement recognises the deleterious effect of water in cement by limiting the "loss on ignition"—an item covering water and carbonic anhydride, but principally the former—to 3 per cent. The more finely a cement is ground the more active it is, and consequently the more rapidly does it absorb moisture from damp surroundings, so that, as previously mentioned, the finely-ground modern cements are more susceptible to damage than the cements of twenty years ago. Builders and builders' merchants whose consumption or sale of cement is small, who sometimes are unable to dispose of a consignment of minimum quantity within a month, are particularly liable to loss through damage during storage.

The best method of storage is that adopted by the cement manufacturers, viz., in bulk; and bins of loose cement 6 ft. or more in depth can lie for longer than a year with no more damage than the formation of a crust on the surface about 2 in. thick, which must be removed before the cement is taken for use. It need hardly be added that the walls and floor of the cement bin must be damp-proof. Hence, if prolonged storage of cement is seen to be unavoidable, it is better to empty it from the sacks and stack it in as deep a heap as possible in a building of which the walls and floor are non-porous, the latter being preferably concrete, or of timber raised from the ground a foot or so with an air-space below.

When cement is stored in sacks absorption takes place from the air through the sack on all sides which are not in contact with other sacks. It is then only a matter of time before sufficient water is absorbed to injure the cement, and it can only be fully realised from experience in the British climate how quickly cement in sacks becomes lumpy and "air-set."

There are some who consider that they have provided perfect storage when the walls, floor and roof of the building are damp-proof, but this idea is held in ignorance of the fact that cement absorbs moisture from the air even when the latter is not perceptibly damp; nothing but an absolutely air-tight building can be classed as perfect storage.

Indications of damage by storage are given by the cement becoming lumpy, and when this happens the lumps should be screened out unless they are soft enough to be crumbled in the fingers. If cement which has become lumpy is to be used for reinforced concrete or other important work it is advisable to send a sample to the manufacturers or other expert testers to ascertain whether the strength and setting properties have been seriously affected. When cement is badly damaged it can sometimes be used in the mortar mill for "compo." without incurring the expense of screening out the lumps.

When a building of a temporary character is required for the storage of cement in sacks, the floor can be made damp-proof by constructing it with a double layer of boards with tarred paper between. The walls can also be made damp-proof with one or two layers of tarred paper applied internally, and the roof should be externally protected with tarred felt. For a permanent cement store a concrete building should be considered, but the concrete must be dense to be waterproof and should be allowed to dry out before the building is used. The cement, whether loose or in sacks, should be kept from contact with a new concrete floor by boards. When storing cement in sacks the latter should not be in contact with the outer walls of the building. When sacks of cement are stored several tiers high the pressure upon the lower sacks is sufficient to consolidate the cement, and may give the impression that the cement is air-set. The caking due to consolidation will, however, quickly disappear if the sack is rolled on the floor.

A Builder Lord Mayor of Newcastle.

Mr. Stephen Easten, of Newcastle, who has been unanimously selected Lord Mayor of Newcastle, is one of the most prominent builders and contractors in that city, and is an ex-President of the National Federation of Building Trades Employers and Chairman of the National Wages and Conditions Council. The Lady-Mayoress elect is his only daughter. Mr. Easten went to Newcastle in 1887 and entered the Council in 1906, and was Sheriff of the City in 1917.

THE LAW SOCIETY AND THE RENT ACT.

At the recent meeting of the Law Society at Plymouth, the President referred briefly to the Rent Acts, and especially pronounced the worst feature of this legislation to be the continued control of mortgages. He is reported as having said capital available for loan on mortgage was now abundant, and the continuance of control would decrease confidence and further divert capital from house building.

Mr. E. A. Alexander (London) read a paper on "Housing and Rent Control," and in the discussion which followed the members of the Society unanimously emphasised the urgent necessity for the removal of restrictions with regard to mortgages. In the course of his paper Mr. Alexander referred to the continued control of mortgages as the greatest blot on the new Rent Act, and he said another serious defect was the absence of a judicial "standard rent" for houses not actually let on August 4, 1914.

In our issue for July 20 last we drew attention to the defect in the definition of "standard rent," and we showed that that was not the only defect in the definition.

As regards Part II of the new Act, which is not to come into operation until midsummer, 1925, Mr. Alexander intimated his opinion that in this period of less than two years there would be no change in the circumstances which had rendered control necessary, and if full control were justified in 1923 it would be almost equally justified in 1925, and the Government of that day would have to decide whether it would adopt "the nebulous provisions" of Part II or whether it would adopt a new policy. He then suggested that if in 1925 trade had improved substantially there would seem no reason why further increases at the rate of ten per cent. per annum should not be allowed until the permitted rents had reached economic level.

We have recently discussed the question of housing and the Rent Acts (see *The Builder*, October 5), and we endeavoured to show that there was no reasonable connection between the production of houses and the continuance of rent restriction, for restriction only benefited an ever-increasing number of people, whilst every person occupying a house or a converted flat which was built or converted since April, 1919, had to face economic conditions. The continuance of restriction is harmful in two ways: it discourages building, for people take the protected houses and will not go into the open market for the unrestricted new houses; and it encourages overcrowding, since people press into restricted houses. We agree that a process of levelling up is necessary, but we contend this should not be deferred, but should commence from the earliest possible date.

It is not out of place in connection with rent restriction to note some general observations made by the President of the Law Society in a very excellent address on the law and modern legislation, as he pointed out that at the present time there was a great danger of the greater issues for which the law stood being compromised by unedifying disputes about legal coercion in lesser matters. At various times the State had thought fit to interfere in domestic concerns that should be left open to private choice, but the venerable position the law occupied could only be retained if it ceased to meddle in the legitimate domain of private freedom and further extreme measures of social reform. These observations are true of a great deal of modern legislation.

Whilst referring to the proceedings at this meeting we may mention that Mr. H. F. Brown (Chester) read a paper on "Easements and the Law of Property Act," in which he advocated an amendment of the law relating to the requisition of easements by prescription or by the fiction of a lost grant, especially in the case of easements of light and support.

In our Legal Section for September 28 we noted a case in which this fiction of a grant enabled the Court to get over a serious injustice and to administer the law upon a common-sense basis, but the easement in question in that case was a right of way.

RATES OF WAGES IN THE BUILDING TRADE

The following are the rates of wages in the building trade in England and Wales. Ev endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur

	Masons.	Brick-layers.	Car-penters, Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Brick-Masons' layers' Labourers.	Pl ter
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Bedford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4	
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½	
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½	
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½	
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/0½	
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½	
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½	
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½	
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½	
Cambridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0	
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	0/11½	
Chelmsford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/0	
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/2½	
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½	
Colchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½	
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½	
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½	
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½	
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½	
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	0/11½	
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/0	
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/1½	
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½	
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½	
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½	
Great Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/0½	
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½	
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½	
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/0	
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/2½	
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½	
Ipswich	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/1½	
Lancaster	1/6	1/6	1/6	1/6	1/6	1/3	1/6	1/1½	
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½	
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½	
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½	
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/4	
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/2½	
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½	
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½	
Luton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/0	
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/2½	
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½	
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/0	
Norwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/2½	
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0	
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/2½	
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½	
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/1½	
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/2½	
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½	
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½	
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½	
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½	
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0	
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/1½	
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½	
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½	
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2½	
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½	
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/0½	
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½	
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½	
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	1/2½	
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0	
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	0/11½	
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/0½	
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½	
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½	
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½	
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½	
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½	
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½	
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
York	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½	

(For rates of wages in the Building Trade in Scotland, see page 585.)

CONTRACTS, COMPETITIONS, &c.

me contracts still open, but not included in this List, see previous issues. Those with an asterisk ertised in this number. Certain conditions beyond those given in the following information osed in some cases, such as that advertisers do not bind themselves to accept the lowest or any that a fair wages clause shall be observed; that no allowance will be made for tenders; and osits are returned on receipt of a bona-fide tender unless stated to the contrary.

ate given at the commencement of each paragraph is the latest date when the tender, or the names willing to submit tenders, may be sent in; the name and address at the end is the person from whom where quantities, forms of tender, &c., may be obtained.

JILDING AND PANTING.

R 12.—**Coventry.**—DEMOLITION WORK.—lition work at the head Post Office, Coventry. mmissioners of His Majesty's Office of Works. Branch, H.M.O.W., King Charles-street, S.W.1. Deposit £1 1s. (payable to the .

R 13.—**Leeds.**—EXTENSIONS.—Additions to hall at the Imbecile Wards, and extensions becile Wards at the Township Infirmary, for of Guardians. Messrs. Chorley & Gribbon, lace, Leeds.

R 13.—**Porth (Rhondda).**—LIBRARY, &C.—on cf, for the Committee of the Institute of rthyr Colliery workmen, a library and at Pontypridd-road, Porth. Mr. A. E. architect, South Lea, Mount Pleasant, ondda). Deposit £3 3s.

R 13.—**Tilbury, Essex.**—HOUSES.—Erection r 125 houses in Tilbury, for the U.D.C. Mr. ckner, Clerk to the Council, Council Offices,

R 13.—**Wycombe.**—BATHROOM.—For build-room at Children's Home at Bledlow, for the Guardians. Mr. B. L. Reynolds, Clerk, 12, eet, High Wycombe.

R 15.—**Carlisle.**—DOORS.—For making and ving doors, &c., at entrance to covered market ch-street, for the T.C. Mr. Henry C. Marks, neer, 18, Fisher-street, Carlisle.

R 15.—**Charlton.**—HOUSES.—For the erec-0 houses in two sections on the Charlton Estate, for the Metropolitan Borough of . Town Clerk's Department, Town Hall, . Deposit £2 2s.

R 15.—**Darlington.**—ALTERATIONS.—For new alterations to bar at Conservative Club. t the Club.

R 15.—**Felixstowe.**—PAINTING.—For exterior f the Suffolk Convalescent Home, Felixstowe. the Home.

R 15.—**Fermoy.**—HOUSES.—Erection and n of eight five-roomed dwellings, construction mains, main sewer extension and manholes, ne U.D.C. Mr. Wm. Sheehan, Clerk, Offices,

R 15.—**Huddersfield.**—HOUSE.—Erection of a ouse in Luck-lane, Paddock, Huddersfield. nn & Kaye, architects, Milnsbridge.

R 15.—**Liverpool.**—SCHOOL.—Erection of the High School, in Queen's-drive, Walton, for Land Steward and Surveyor (Architectural unicipal Buildings, Liverpool. Deposit £3 3s.

R 15.—**Orpington.**—ALTERATIONS.—Addi-, to premises, for the *Kentish District Times ish Times*, Bromley.

R 15.—**Pontlottyn (Glam).**—TRANSFORMER —For erecting, for the Gellygaer U.D.C., a r station at Pontlottyn. Mr. F. Read, .E., Council Offices, Hengoed (Glam). 1s.

15.—**Risehow.**—HOUSES.—Erection of four Risehow, Maryport, for the Risehow Colliery Mr. H. Oldfield, architect, Workington.

15.—**Salford.**—GARAGE.—For building a age adjoining the Central Fire Station, for Borough Engineer, Town Hall, Salford. 2s.

15.—**Skinburness.**—HOUSE.—Erection of a t Skinburness, for Mr. W. Bradley. Mr. H. rchitect, Workington.

15.—**Steyning.**—PAINTING, &C.—(a) Paint-ning work in Nurses' Home, (b) erection of joining the Nursery, for the Board of Mr. A. Flowers, Clerk, Union Offices, by-Sea.

15.—**Trim.**—SCHOOL.—Erection of school ry Rev. T. Mulvany. Messrs. Morris & 68, Harcourt-street, Dublin. Deposit

15.—**Wolverhampton.**—COLLEGE.—For and completion of a new Technical College. Mr. S. A. Warren, Direction of Education, Offices, North-street, Wolverhampton. 3s. to Borough Treasurer, Town Hall.

16.—**Farnworth.**—HOUSES.—Erection of nd roads and sewers, for the U.D.C. Mr. T. eyor, Town Hall, Farnworth. Deposit £2.

16.—**Liverpool.**—EXTENSION.—Extension Home at Alder Hey Hospital, for the West Mr. Ernest B. Bailey, F.S.I., 9, Cook-rpool. Deposit £2 2s.

16.—**Liverpool.**—PAINTING.—For external ., at Mill-road Infirmary, Liverpool, for the B.G. Works Department, Belmont-road Liverpool.

16.—**London, W.**—EMPLOYMENT EX-rection of Edgware-road Employment W., for the Commissioners of H.M. Office Contracts Branch, H.M.O.W., King et, London, S.W.1. Deposit £1 1s. (payable ary).

16.—**Margate.**—PAVILION.—Erection of a mber bathing pavilion, for the T.C. Mr. Borough Engineer, 13, Grosvenor-place, Deposit £5.

OCTOBER 16.—**Neath.**—HOUSES.—The B.C. invite tenders for the erection of 30 houses (parlour type), in blocks of two and four, on the Westernmoor site. Mr. H. Alex. Clarke, Borough Engineer, Gwynhall, Neath. Deposit £3 3s.

OCTOBER 16.—**Plymouth.**—ALTERATIONS.—For alterations at the Central Police Court, for the T.C. Mr. J. Wibberley, Borough Engineer, Municipal Offices, Plymouth.

OCTOBER 16.—**Plymouth.**—PAVILIONS, &C.—Erection of pavilions and conveniences at Tothill Recreation Ground, for the T.C. Mr. J. Wibberley, Borough Engineer, Municipal Offices, Plymouth. Deposit £2 2s.

OCTOBER 16.—**Stocksbridge.**—HOUSES.—Erection of four houses, for the U.D.C. Mr. J. N. Singleton, Surveyor, Council Offices, Stocksbridge.

OCTOBER 16.—**Tottenham.**—DECORATION.—For the re-decoration of the ornamental fibrous plaster-covered ceiling, and other plaster work in the Council Chamber, and the Gallery of the Town Hall. Engineer, Town Hall, Tottenham, N.15.

OCTOBER 17.—**Dewsbury.**—ADAPTATION.—For plumber's and electric work in one sum, and for mason's, joiner's, painter's work, &c., in one sum, required in repairing and adapting for use of a building at the Union Offices, Dewsbury. Mr. E. T. Tunnicliffe, Clerk, Union Offices, Wellington-street, Dewsbury.

OCTOBER 17.—**Dewsbury.**—DEMOLITION.—For dismantling and pulling down the Carr House, for the T.C. Borough Engineer, Town Hall, Dewsbury.

*OCTOBER 17.—**East Ham.**—Erection of new front to club premises, East Ham. The Secretary, 54, Katherine-road, East Ham, E.6.

OCTOBER 17.—**Gosforth.**—POST OFFICE AND TELEPHONE EXCHANGE.—For the erection of a Post Office and Telephone Exchange, for H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

OCTOBER 17.—**Lanchester.**—CONVENIENCES.—Erection of conveniences at Craghead, for the R.D.C. Mr. J. R. Lupton, Surveyor, Lanchester.

OCTOBER 17.—**Manchester.**—SUB-STATION.—Erection of the new Hulme Sub-Station, for the T.C. Mr. F. E. Hughes, Secretary, Electricity Department, Town Hall, Manchester. Deposit £2 2s.

OCTOBER 17.—**Newport (Mon).**—EXTENSION.—For extending the Pilot's Room at the premises of the Newport Harbour Commissioners. Mr. W. Rhys Williams, Engineer to the Commissioners, Dock-street, Newport (Mon).

OCTOBER 17.—**Plymouth.**—REPAIRS, &C.—Repairs to and part reconstruction of the Devonport Guildhall, for the T.C. Mr. J. Wibberley, Borough Engineer, Municipal Offices, Plymouth. Deposit £2 2s.

OCTOBER 17.—**Plympton St. Maurice.**—WAR MEMORIAL.—For erection of Plympton St. Maurice War Memorial. Mr. J. T. Redding, Hon. Secretary, Foresters' Arms, Plympton.

OCTOBER 17.—**Sheffield.**—HOUSES.—Erection of the fourth instalment of 144 houses, on the Manor Estate, City-road, Intake, for the T.C. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield. Deposit £2.

OCTOBER 18.—**London, E.C**—TELEPHONE EXCHANGE.—Erection of Bishopsgate Telephone Exchange, E.C., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s.

OCTOBER 19.—**Downham Market.**—BRIDGE AND ADAPTATIONS.—For erection of a road bridge (over Common Lode Drain from Barroway Drove) and the adaptations and additions to farm premises at Hill Farm and Newbridge Farm, Stow Bardolph Fen, near Downham Market, for the Norfolk C.C. Mr. Victor Playle, County Land Agent, Shirehouse, Norwich. Deposit £1 1s.

OCTOBER 19.—**Glasgow.**—LIBRARY.—Erection of the District Library, Whiteinch, for the T.C. Office of Public Works, 64, Cochrane-street, Glasgow. Deposit £2 2s.

OCTOBER 19.—**Huddersfield.**—HOUSE.—Erection of a dwelling-house in Blackmoorfoot-road, Crosland Moor. Messrs. Lunn & Kaye, Architects, Milnsbridge.

OCTOBER 19.—**London, N.W.**—GARAGE AND STORE.—Erection of a garage and store at Dollis Hill Research Station, N.W., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

OCTOBER 19.—**Manchester.**—HOUSES.—Erection of houses on the following estates:—Newton Heath Estate, Amos-avenue, Newton Heath, from four houses up to 60 houses; Burnage Estate, lying between Burnage-lane, Crossley-road, and Cringle Fields Park, Burnage, from four houses up to 200 houses. Housing Director, Town Hall, Manchester. Deposit £2 2s.

OCTOBER 20.—**Blackwood (Mon).**—TRANSFORMER STATION.—For erecting for the Bedwellty U.D.C., a transformer station at Blackwood. Mr. D. H. Price, Surveyor, Council Offices, Aberbargoed.

OCTOBER 20.—**Bleanpant.**—HOUSE.—Erection of house. Mr. J. Williams, architect, Kilgerran, Pem.

OCTOBER 20.—**Irvine.**—PAINTING, &C.—For the electric lighting work and the painter work of 12 houses in course of erection, for the T.C. Messrs. David Gillies & A. R. Wilson, Town Clerks, Irvine. Deposit £1 1s.

OCTOBER 20.—**Kirkcaldy.**—GLAZING.—Glazier work for four shops, for the Pathhead and Sinclairtown Reform Co-operative Society, Ltd. Mr. Archibald Welsh, architect, 233, High-street, Kirkcaldy.

OCTOBER 20.—**Leckaun.**—RESIDENCE.—Erection of a parochial residence at Leckaun, Co. Leitrim, for Rev. Francis Prior, C.C. Mr. P. J. Brady, architect, Broomfield House, Ballyhaise, Co. Cavan.

OCTOBER 20.—**Near Abergavenny (Mon).**—HALL, &C.—For erecting a parish hall at Llanvihangel Crucorney (near Abergavenny), with submission of alternative estimate for same, if erected, of timber framing and galvanised corrugated sheeting. Mr. B. J. Francis, architect, Abergavenny. Names of intending tenders must be sent to Mr. W. H. Wood, Clerk to Parish Council, 1, Pant Glas, Pandy, near Abergavenny.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Plas-terers' Labourers.
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/–	
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½		
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 584.

OCTOBER 20.—**Porth (Rhondda).**—REBUILDING OF CHAPEL.—For undertaking, for the Trustees. the rebuilding of Cymmer Welsh Congregational Chapel, Porth. Messrs. Thomas & Morgan & Partners, Architects, Gelliwasted-road, Pontypridd. Deposit £2 2s.

OCTOBER 20.—**Swindon.**—HOUSES.—Erection of 50 houses in Limes-avenue, Hurst, for the T.C. Mr. S. C. Baggott, Borough Engineer, 34, Regent-circus, Swindon.

OCTOBER 22.—**Barnsley.**—For the erection of house, Bond-road, Barnsley. Messrs. Dyson, Cawthorne & Coles, 10, Regent-street, Barnsley.

OCTOBER 22.—**Croydon.**—FLATS.—For the erection and completion of a block of flats at the rear of Nos. 8, 10 and 12, Cherry Orchard-road, for Croydon C.B. Borough Engineer, Town Hall, Croydon. Deposit £3 3s.

OCTOBER 22.—**Cymmer (Port Talbot).**—EXTENSIONS.—For extending the offices of the Glyncorrwg U.D.C. at Cymmer (Port Talbot). Mr. W. P. Jones, Surveyor, Council Offices, Cymmer (Port Talbot). Deposit £2 2s.

OCTOBER 22.—**Farnborough, Kent.**—HOME.—For work required to be done in the erection of an additional Nurses' Home at the Infirmary, for Bromley Union. Mr. F. Danby Smith, F.R.I.B.A., Parliament Mansions, Victoria-street, Westminster, S.W.1. Deposit £5.

OCTOBER 22.—**Hemsworth.**—LAUNDRY.—Erection of a new laundry at the Poor Law Institution, for the Board of Guardians. Mr. W. T. Lynam, Engineer, Union Offices, Hemsworth near Pontefract. Deposit £2 2s.

OCTOBER 22.—**Huddersfield.**—PAINTING.—Interior painting of hospitals at the Crosland Moor Institution, for the Board of Guardians. Mr. T. W. Armitage, Clerk, Union Offices, Ramsden-street, Huddersfield.

OCTOBER 22.—**King's Langley.**—COTTAGES.—Erection of 12 cottages on the Housing Site at King's Langley, Herts, for the Hemel Hempstead R.D.C. Mr. T. H. Lighbody, M.S.A., Council's Architect, 16, Alexandra-road, Hemel Hempstead, Herts. Deposit £1 1s.

OCTOBER 22.—**Lochgelly.**—INSTITUTE.—Erection of a Welfare and War Memorial Institute at Main-street, Lochgelly, for the District Welfare Committee. Mr. D. Thomson Kennedy, Clerk, Guildhall Chambers, Guildhall-street, Dunfermline.

OCTOBER 23.—**Braintree.**—HOUSES.—Erection of following houses, for the R.D.C. :—Parish of Rivenhall 12, Parish of Terling 8, Parish of Great Coggeshall 6, Parish of Little Coggeshall 4. Mr. E. O. Wheeler, 71, Rayne-road, Braintree.

OCTOBER 23.—**Port Talbot.**—PAINTING.—For carrying out, for the B.C. (Contract C), the external painting of iron buildings at Central Schools, Port Talbot, and (D) painting in the Arcade, Aberavon. Borough Engineer's Office, Aberavon.

OCTOBER 24.—**Oxford.**—GARAGE.—Erection of a motor 'bus garage at Cowley-road, in the City of Oxford, for the Directors of the City of Oxford Motor Services, Ltd. Company's Office, Leopold-street, Oxford.

OCTOBER 24.—**Southampton.**—OFFICES.—Erection of offices, Town Quay, Southampton, for the Harbour Board. Engineer, Offices, Town Quay, Southampton. Deposit £1.

✱OCTOBER 24.—**Workington.**—HOUSES.—For the carrying out of the several works required in the erection and drainage of 100 houses, for the Corporation. Mr. H. B. Williams, Town Hall, Workington. Deposit £2 2s.

OCTOBER 25.—**Settle.**—HOUSES.—Erection of one block of four and one pair of houses, for the R.D.C. Mr. T. E. Pearson, Clerk, Town Hall, Settle. Deposit £1 1s.

✱OCTOBER 26.—**London, E.1.**—TENEMENTS.—For the erection of five-story tenement buildings in Brook-street and Caroline-street, Ratcliff, E.1, for the Metropolitan Borough of Stepney. The Borough Engineer and Surveyor, Municipal Offices, Raine-street, Old Gravel-lane, E.1. Deposit £2 (two pounds Treasury Notes).

OCTOBER 26.—**Strath.**—IMPROVEMENTS.—For the mason, carpenter, plumber, slater, plaster, and painter works, and for low pressure heating apparatus at Strath Parish Church, Isle of Skye. Mr. John Wittet, architect, Elgin.

OCTOBER 29.—**Durham.**—SCHOOL BUILDINGS.—(1) Cassop Council School—Builder's work in connection with the alterations to out-offices and drainage and laying main drain. (2) Kirk Merrington New School—Erection of new school to accommodate 242 scholars. (a) General builder's work in preparation of site drainage, substructure, water supply and sanitation. (b) Superstructure of light construction, for the Durham C.C. Mr. F. Willey, F.R.I.B.A., 34, Old Elvet, Durham.

✱OCTOBER 31.—**Brighton.**—TOWER.—For the erection of a hose-drying tower at the Fire Station, Preston Circus, for C.B. Borough Surveyor, Town Hall, Brighton.

OCTOBER 31.—**Waltham Abbey.**—PAINTING.—For internal decoration of hospital, for the Joint Hospital Board. Mr. T. J. Tee, Clerk, Council Offices, Buckhurst Hill. Deposit 5s.

NOVEMBER 2.—**London, N.9.**—EXTENSIONS.—Extensions to the Edmonton United Services Club, Ltd. Registered Office, 99, Hertford-road, Edmonton, N.9. Plans and specifications may be seen at the office on Wednesday, Thursday and Friday, October 17, 18, and 19, between the hours of 11 a.m. and 3 p.m. Mr. J. W. Shaw, Secretary, 99, Hertford-road, Edmonton, N.9.

NOVEMBER 3.—**Dewsbury.**—BUILDINGS.—Construction of main buildings and other appurtenant works in connection with the construction of sewage disposal works at Mitchell Laithes, for the T.C. Messrs. J. Diggle & Son, 14, Brown-street, Manchester. Deposit £2 2s.

✱NOVEMBER 6.—**Coventry.**—POST OFFICE EXTENSION.—Extension of Coventry Head Post Office, for the Commissioners of H.M.O.W. Contracts Branch, H.M.O.W., King Charles-street, S.W.1. Deposit £1 1s.

NOVEMBER 6.—**Mountain Ash.**—ERECTION OF SCHOOL.—For erecting, for the Mountain Ash Education Committee, a Boys' School at Penrhiwceiber, for 410 children, with playgrounds, &c. Mr. W. H. Williams, M.S.A., Town Hall, Mountain Ash. Deposit £3 3s.

NOVEMBER 30.—**Singapore.**—POST OFFICE.—Erection of new general post office, Singapore. Crown Agents for the Colonies, 4, Millbank, S.W.1. Deposit £10.

NO DATE.—**Ballater.**—HOUSE.—For work in connection with proposed house at Ballater, Aberdeenshire. Mr. J. A. O. Allan, F.R.I.B.A., 25, Union-terrace, Aberdeen.

NO DATE.—**Buxton.**—ALTERATIONS.—For alterations and additions to Oliver's and Haddon Hall, Hydros, London-road, Buxton. Mr. Charles Flint, architect, Buxton.

NO DATE.—**Collingham.**—HOUSE.—Erection of a detached house at Collingham, near Leeds. Messrs. F. Mitchell & Sons, architects, 9, Upper Fountaine-street, Albion-street, Leeds.

NO DATE.—**Conway.**—STORES.—Erection of stores at Conway, for the Conway and Colwyn Bay Joint Water Supply Board. Mr. C. F. Farrington, Trinity-square, Llandudno.

NO DATE.—**Edinburgh.**—FACTORY.—For the construction and equipment of the Scottish bacon-curing factory in a central part of Scotland, for the Scottish Bacon Curing Factories, Ltd. Mr. L. McQueen Douglas 27, West Saville-terrace, Edinburgh, or Secretary, Queen-street.

NO DATE.—**Gilfach Goch (Glam).**—ADDITIONS.—For carrying out alterations and additions to the Gilfach Goch Musical Institute premises, High-street. Mr. G. Howells, Secretary, at Institute.

NO DATE.—**Howden.**—DEMOLITION.—Taking down of four steel-constructed airship sheds and windscreens at Howden. Manager, Airship Station, E. Yorks.

NO DATE.—**Leeds.**—HOUSE.—Whole works or separate trades required in the erection of a detached house at Collingham, near Leeds. Messrs. Fredk. Mitchell & Sons, architects, 9, Upper Fountain-street, Leeds.

NO DATE.—**Trethomas.**—CORRUGATED SHEETING.—For covering of Trethomas Mission Church with galvanised corrugated sheets. Secretary, 12, The Avenue, Trethomas.

FURNITURE, MATERIALS, etc.

OCTOBER 12.—**Edinburgh.**—MATERIAS.—Supply of general stores to Gas Dept. for six or twelve months. Mr. H. H. Gracie, Manager, 15, Calton Hill, Edinburgh.

OCTOBER 13.—**Edinburgh.**—MATERIALS.—Supply of cement, bricks and fireclay goods to the Burgh Engineer's Dept. Burgh Engineer, City Chambers, Edinburgh.

OCTOBER 13.—**Edinburgh.**—MATERIALS.—For stores for the Fire Engines' Dept. of the T.C. Central Fire Station, Lauriston-place, Edinburgh.

OCTOBER 13.—**Glasgow.**—MATERIALS.—For supply of general stores to the Gas Department. General Manager, 30, John-street, Glasgow.

OCTOBER 19.—**Dublin.**—FURNITURE.—Supply of office furniture, for the Commissioners of Public Works, for one year. Mr. J. J. Healy, Secretary, Office of Public Works, Dublin. Deposit £1.

OCTOBER 20.—**Clacton.**—GRANITE.—Supply to the U.D.C. of 500 tons of 2 in. granite. Mr. G. T. Lewis, Clerk, Council Offices, Clacton-on-Sea.

OCTOBER 20.—**Glossop.**—SANITARY PIPES.—Supply of 10,000 yards of sanitary pipes to T.C. Town Clerk, Glossop.

OCTOBER 22.—**Rhondda.**—OILSKINS.—For supply to Rhondda U.D.C. of about 100 suits of oilskins. Mr. E .Taylor, Council Surveyor, Council Offices, Pentre, Rhondda.

ENGINEERING IRON AND STEEL.

OCTOBER 12.—**London.**—MATERIALS.—Supply to the South Indian Railway Company of (1) copper rods, (2) miscellaneous articles. Offices, 91 Petty France, Westminster, S.W.1. Charges, 5s. and 2s. 6d. respectively.

OCTOBER 15.—**Carmarthen.**—GAS PLANT.—New plant, &c., for gas works, for the Joint Counties' Mental Hospital, Carmarthen. Mr. W. J. Wallis-Jones, Clerk to the Visitors, 34, Quay-street, Carmarthen.

OCTOBER 15.—**Falmouth.**—ELECTRIC INSTALLATION.—For the installation of electric light at the Poor Law Institution of the B.G. Mr. E. P. Skinner, Clerk, Town Hall, Falmouth.

OCTOBER 15.—**Gravesend.**—AIR COMPRESSORS.—Supply and erection of two electrically-driven air compressors at sewage works, for the T.C. Mr. F. T. Grant, engineer, Woodville-terrace, Gravesend.

OCTOBER 15.—**Manchester.**—STEELWORK.—Supply and erection of steelwork required in the bridge carrying the new road from Moston-lane to Bower-lane over the Rochdale Canal, for the T.C. City Engineer, Town Hall, Manchester. Deposit £2 2s.

OCTOBER 15.—**Newcastle-on-Tyne.**—HEATING, &C.—For the remodelling of the heating and lighting installation at the City Hospital, Walker, for the T.C. Mr. Ernest Hatton, General Manager, Transport and Electricity Undertaking, Newcastle-on-Tyne.

OCTOBER 15.—**St. Pancras.**—BOILER.—For a Cornish boiler, for the B.C. Mr. C. H. F. Barrett, Town Clerk, Town Hall, Pancras-road, N.W. 1.

OCTOBER 15.—**Sunderland.**—ELECTRICAL INSTALLATION.—For installation of electric power and light at the Institution and Cottage Homes of the B.G. Mr. W. P. Brantingham, Clerk, Offices, 17, John-street, Sunderland. Deposit £1.

OCTOBER 15.—**Wickham West.**—BRIDGE.—Reconstruction of bridge, for the Southampton C.C. Mr. W. J. Taylor, County Surveyor, The Castle, Winchester. Deposit £1 1s.

OCTOBER 16.—**Liverpool.**—REFRIGERATI[N]BER.—Installation of a small refrigerating cha ice tank, &c., at the Infirmary of the West D Mr. G. W. Coster, Clerk, Union Offices, B terrace, Liverpool.

OCTOBER 16.—**London.**—BRIDGES.—Suppl Madras and Southern Mahratta Railway Co girder bridges, comprising deck spans of fro 67 ft., total approximate tonnage =1,008 ton tary, 25, Buckingham Palace-road, Westminst Charge £1 1s.

OCTOBER 17.—**Eye.**—ELECTRICAL INSTAL Installation of electric light at Infirmary, for t mere B.G. Mr. H. Warnes, Clerk, Unio Victoria-road, Eye, Suffolk.

OCTOBER 18.—**Liverpool.**— RAILINGS.— and erecting 200 lineal yards of wrought-iro together with two pairs of wrought-iron Greenbank Park, for the T.C. City Engine cipal Offices, Dale-street, Liverpool.

OCTOBER 19.—**St. Faith's.**—BRIDGE.—Erec reinforced concrete bridge of a suitable leng approximately 88 ft. waterway and 18 ft. the Ford at Ringland, for the R.D.C. Mr. Cha Clerk, 1, Redwell-street, Bank Plain, Norwic

OCTOBER 20.—**Yarmouth.**—TANK.—Suppl tional cast iron tank, 5 ft. square by 5 ft. Infirmary, for the Board of Guardians. Infirmary, Great Yarmouth.

OCTOBER 22.—**Biggleswade.**—ELECTRIC LI electric light installation at pumping statio Biggleswade Water Board. Mr. H. Carne, Biggleswade.

OCTOBER 22.—**London.**—TUNNEL.—Constr a tunnel under the River Thames at Barkin County of London Electric Supply Co., Alexander Gibb & Partners, Queen Anne' S.W.1. Deposit £15 15s.

OCTOBER 23.—**Birmingham.**—HEATING TION.—For a steam heating installation at Office Stores Factory, Birmingham. Contract H.M. Office of Works, King Charles-stree Deposit £1 1s.

OCTOBER 24.—**Australia.**—BRIDGE.—Const bridge for Country Roads Board, Victoria General for Victoria (Australia), Melbou Strand, W.C.2. Preliminary deposit £500.

OCTOBER 24.—**Edinburgh.**—PIPES.—Suppl tons of cast-iron branches, bends, &c., to Messrs. J. & A. Leslie & Reid, 29, Water Edinburgh. Deposit £5.

OCTOBER 31.—**Australia.**—ELECTRIC C Supply and erection at Port Adelaide of f electric coal-handling cranes, for the South Harbours Board. Agent-General for South Australia House, Strand, W.C.2.

NOVEMBER 1.—**Siam.**—BRIDGES.—Supply structures of steel railway bridges to Siam S ways. Messrs. C. P. Sandberg, 40, Grosvenor S.W. 1. Charge 28s.

NOVEMBER 3.—**Reading.**—COMPRESSD AIR Supply of complete equipment of air co station at Manor Farm, for the T.C. Mr. G Taylor, 36–38, Victoria-street, S.W. Deposi

NOVEMBER 8.—**Karachi.**—WATERWORKS.— well three-throw pumps in duplicate, with gears and other appurtenances, capacity of e 9,000,000 gallons per 24 hours; (2) cast- linings and gauge plates; (3) steel chimne (4) travelling crane, for the Municipality. John Taylor & Sons, 36, Victoria-street S.W.1. £5.

NOVEMBER 9. — **India.**—STEELWORK.—Su structural steelwork for wagon repair shop, poly workshops scheme, for the South Indian Co. Company's Offices, 91, Petty France, Wes S.W. 1. Charge £1.

NOVEMBER 12.—**Walton.**—PUMPING PLANT water-tube boilers, piping, &c., at the Walton Station, for the Metropolitan Water Board. M E. Stilgoe, Chief Engineer, 173, Rosebery-avenu Deposit £3 3s.

NOVEMBER 30. — **Sydney.**—BRIDGE.—Con of the superstructure and substructure of a c bridge across Sydney Harbour; also an al tender for the construction of the superstruc substructure of an arch bridge across Sydney Agent-General for New South Wales, Australia Strand, W.C.

DECEMBER 3.—**Sydney.**—High tension sw for Municipal Council. Department of Overse (Room 52), 35, Old Queen-street, S.W.1.

NO DATE.—**Bradford.**—PIPING &C.—For lineal of 2 in. copper piping and fittings, at the Institution, Rooley-lane, and for covering abo feet lineal of 2 in. piping with non-conducti position, for the Board of Guardians. Mr. F land, Engineer, 22, Manor-row. Bradford.

ROAD, SANITARY, AND WA WORKS.

OCTOBER 12.—**Lancaster.**—SEWER.—Exten sewer at Slyne-with-Hest, for the R.D.C. Dixon, Surveyor, 5, Dalton-square, Lancaster.

OCTOBER 13.—**Newport (Mon).**—NEW RO construction of a new road from St. Julian Christchurch-road, approximately 270 yard in connection with relief of unemployment s Newport Borough Council. Unskilled labo Employment Exchanges and Ministry of T and labour wage rates to be paid. Borough Town Hall, Newport. Deposit £1 1s.

OCTOBER 13.—**Penge.**—ROADS.—For 700 ya Durax paving with 8 to 10 centimetres Scan granite setts on Anerley-hill, for the U.D.C. W. Longdin, Surveyor, Town Hall, Anerley.

OCTOBER 13.—**Stretford.**—ROADS.—For paving in rock asphalte, &c., St. John's-r passage, for the U.D.C. Mr. Ernest Worrall, Council Offices, Old Trafford. Deposit £2 2s.

R 15.—**Bootle.**—SANITARY.—For sanitary ents to 36 houses, for the T.C. Borough Bootle.

R 15.—**Bridgend.**—WATER MAINS.—Providing g about 107 lineal yards of 4 in. dia. cast-iron d 473 lineal yards of 3 in. dia. cast-iron mains, arran Housing Scheme, Cowbridge R.D.C., fid-Glamorgan Water Board. Mr. Eiryn W. Manager, Water Board Offices, Bridgend. 1 1s.

R 15.—**Cardiff.**—ROADS.—For private street Hazelhurst-road, Holly-terrace, Holly-lane, e, The Avenue, Howells'-lane, and Howells'- h, for the T.C. City Engineer, City Hall,

R 15.—**Edmonton.**—ROADS.—For making-up nstance road, for the U.D.C. Mr. Cuthbert urveyor, Town Hall, Edmonton. Deposit

R 15.—**Harrow-on-the-Hill.**—ROADS.—For nt works of kerbing, channelling, paving, &c., public streets, for the U.D.C. Mr. J. Percy Surveyor, Council Offices, Harrow. Deposit

R 15.—**London.**—SCAVENGING.—Removal and f slop and refuse from, and the supply and f hoggin and sand to, Blackwall and Rother- nels during 12 months, for the L.C.C. Chief Old County Hall, Spring-gardens, S.W. 1.

R 15.—**Mid-Glamorgan.**—WATER MAINS.— at Llanharran Housing site of the Cowbridge r the Mid-Glamorgan Water Board, about rds of 4 in. diameter cast-iron mains and 473 of 3 in. diameter cast-iron mains with all valves and fittings. Mr. Eiryn W. Davies, Water Board Offices, Bridgend. Deposit

R 15.—**Salcombe.**—ROADS.—For making-up d, for the U.D.C. Mr. J. G. Howard, Salcombe. Deposit £2 2s.

R 16.—**Adwick-le-Street.**—WATER MAINS.— g and refilling of about 800 lineal yards of or water mains, for the U.D.C. Mr. George urveyor, Offices, Adwick-le-Street. Deposit

R 16.—**Glasgow.**—ROADS, &C.—Construction nd sewers at Newbank, Parkhead, for the T.C. dsay, Town Clerk, City Chambers, Glasgow.

R 16.—**Shepshed.**—SEWAGE WORKS.—Exten- e sewage outfall works, Shepshed, Leicester- he U.D.C. Messrs. McCarthy, Collinge & Co., hambers, Coalville, near Leicester. Deposit

R 17.—**Glamorganshire.**—ROAD IMPROVE- For carrying out, for the Glamorgan County he following works:—(1) Llantrisant and Llan- in road; proposed footpath and surface water veen Talbot and Salem Chapel, Llantrisant risant and Llandaff main road; proposed and improvement of corners at Mwyndwy ar Llantrisant. Surveyor, County Hall, d at Llantrisant Police Station.

R 17.—**Ilkley.**—DRAIN.—Construction of yards of surface water drain in 9 in. 12 in., n. earthenware pipes, for the U.D.C. Mr. ue Gameson, Town Hall, Ilkley.

R 17.—**Manchester.**—ROADS.—For surfacing ited rock asphalte, of carriageway, Upper eet and Anson-road, Rusholme, from High- Dickenson-road, for the T.C. Paving, &c., nt (District Surveyors' Office), Town Hall, r. Deposit £1 1s.

R 17.—**Northwood, Isle of Wight.**—WATER ying 924 yards of 3 in. cast iron water main, e of Wight R.D.C. Mr. R. Joliffe, surveyor, eposit £1 1s.

R 18.—**Renfrewshire.**—ROADS.—For widen- dden-road from the north side of the North llway to the County boundary at Garscadden the C.C. Messrs. Kyle & Frew, C.E., 227, ge-street, Glasgow. Deposit £1 1s.

18.—**Salford.**—ROADS.—(*a*) Paving, r macadamising, and building wall in Park- imilar work in Broom-lane and Legh-street, . Borough Engineer, Town Hall, Salford. 1s. each contract.

18.—**Stockton-on-Tees.**—ROADS.—For sew- street making works at Blue Hall Estate, r the T.C. Borough Engineer, Victoria- Stockton-on-Tees.

19.—**Long Eaton.**—ROADS.—Reconstruc- idening of 1,800 yds. (50 and 60 ft. wide) s known as Breaston and Sandiacre-lanes- D.C. Mr. H. Raven, C.E., Surveyor, The Eaton. Deposit £5 5s.

20.—**Alnwick.**—DRAINAGE, &C.—Laying of 6 in. sanitary pipes and (2) erecting 103 ncing, for the R.D.C. Mr. M. T. Wilson, spector, 24, Fenkle-street, Alnwick.

22.—**Alnwick.**—WATER MAINS.—Providing 5,000 yards of 3 in. cast-iron socket pipes, tively, for weldless steel tubes, at Newton- , for the R.D.C. Clerk, 24, Fenkle-street,

22.—**Blaenavon (Mon).**—SEWERS.—For ind laying of a stoneware and cast-iron ring manholes, vents, &c., for an approxi nce of 2,355 yards, for the Blaenavon . John Morgan, Surveyor to U.D.C., Blaen- Deposit £2 2s.

22.—**Disley.**—SEWERAGE WORKS.—Laying es of sewer, mainly of 9 in. stoneware pipes, of manholes, &c., for the R.D.C. Mr. J. Council Office, Disley. Deposit £2 2s.

22.—**Fowey.**—WATER MAINS.—Provision of about one-and-a-half miles of 6 in., 5 in., cast-iron pipes and steel tubes, and other nnection with the water supply of the es at Fowey Harbour. Mr. James D. Alliance House, 15, Dartmouth-street, S.W.1. Deposit £3 3s.

OCTOBER 23.—**Deptford.**—PAVING.—For wood-paving the carriageways on either side of the tramway tracks, in Lewisham High-road, with creosoted deal blocks on prepared foundations, for the B.C. Mr. H. Morley Lawson, Borough Surveyor, Town Hall, New Cross-road, S.E.14.

OCTOBER 23.—**Port Talbot.**—PIPES SUPPLY, &C.—For (*a*) carrying out work of excavation for Cwmavon water main, and (*b*) supply of 6 in. cast-iron pipes, for the B.C. Borough Engineer, Council Offices, Aberavon, Port Talbot.

OCTOBER 24.—**Cheadle.**—WATER SUPPLY.—Laying four and a half miles of 6 in., 5 in., 4 in., and 3 in. cast-iron mains, &c.; construction of engine house and service reservoir, having a capacity of 100,000 gallons, and other works, for the R.D.C. Messrs. Willcox & Raikes, 63, Temple-row, Birmingham. Deposit £10 10s.

OCTOBER 24.—**Chiswick.**—SEWERS.—For the construction of about 5,200 ft. of 9 in., 12 in., and 15 in. surface water sewers in the Chiswick High-road, and other works incidental thereto, for the U.D.C. Mr. E. Willis, M.I.C.E., Engineer and Surveyor, Town Hall, Chiswick. Deposit £2 2s.

OCTOBER 27.—**Dolgelley.**—ROADS.—For strengthening and resurfacing about three-and-a-half miles of road near Maerdy, for the Merioneth C.C. Mr. W. D. Jones, County Surveyor, County Offices, Dolgelley.

OCTOBER 29.—**Doncaster.**—SEWER.—Laying 440 yards of 9 in. sewer in Rossington, for the R.D.C. Mr. W. R. Crabtree, surveyor, Nether Hall, Doncaster.

Competitions.

(*See Competition News, page* 558.)

Auction Sales, Tenders, etc.

★OCTOBER 16.—**Holborn.**—Messrs. J. S. Skelding & Co. will sell, at the Auction Rooms, No. 5, Lamb's Conduit-street, varnishes, paints, enamels and decorators' materials, &c. Auctioneers, 48, Gresham-street, E.C.2.

OCTOBER 16.—**London, S.W.**—Messrs Veryard & Yates will sell without reserve at 255, Clapham-road, timber fittings and building materials. Auctioneers, 365, Norwood-road, S.E. 27.

OCTOBER 17.—**Bromley, Kent.**—Messrs. Veryard & Yates will sell without reserve at Hayes-lane, building plant and materials. Auctioneers, 365, Norwood-road, S.E.27.

★OCTOBER 23.—**London, E.C.**—Messrs. Fuller, Horsey & Co. will sell, by order of the Port of London Authority, in lots, at the Commercial Sale Rooms, Mincing-lane, E.C., contractors' and engineers' plant, machine tools and stores, lying at various docks and wharves. Catalogues of the Chief Engineer, Port of London Authority, Trinity-square, E.C., and of the Auctioneers, 11, Billiter-square, E.C.3.

OCTOBER 23.—**London, S.W.**—Messrs. Bradshaw Brown & Co. have received instructions from Messrs. W. G. Tarrant, Ltd., to sell, owing to the completion of contracts, Wandle Valley Relief Sewer, L.C.C., contractors' plant and material, laying at the following depots, viz., 536, Garrett-lane, Tooting, S.W., close to Earlsfield Station, and Church-lane, Tooting, S.W. (near by). Auctioneers, Billiter-square Buildings, London, E.C. 3.

OCTOBER 23 AND 24.—**London, E.C.**—Messrs. Fuller, Horsey, Sons & Cassell will sell at the Commercial Sale Rooms, Mincing-lane, contractors' plant and material, at 11 o'clock. Auctioneers, 11, Billiter-square, E.C. 3.

OCTOBER 24.—**London, N.W.1.**—Messrs. Parsons, Clark & Bodin will sell at a low reserve, on the premises, 9A, Diana-place, Euston-road, the beneficial lease of extensive workshops, stores and yard, known as 9A, Diana-place, with immediate possession. Auctioneers, 24, Hanover-square, London, W.

OCTOBER 25.—**Essex.**—Messrs. Knight, Frank & Rutley will offer for sale as a going concern the valuable freehold Portland cement, lime and whiting works, Saffron Walden, Essex. Auctioneers, 20, Hanover-square, W.1.

★OCTOBER 25.—**Hastings.**—Messrs. Veryard & Yates will sell without reserve building materials arising from demolition of the Old East Sussex Hospital. Auctioneers, 365, Norwood-road, S.E.27.

OCTOBER 30.—**London, W.1.**—Messrs. Henry Holmes & Co. will sell, at Mortimer Hall, 93, Mortimer-street, Oxford Circus, W. 1, important building site, 14, 16 and 18, Great Titchfield-street, and 9A, Margaret-street, Oxford Circus, W. Auctioneers, 82, Mortimer-street, W. 1.

Public Appointments.

OCTOBER 12.—**Liverpool.**—Three Temporary Architectural Assistants required in the Land Steward and Surveyor's Department. Mr. Walter Moon, Town Clerk, Municipal Buildings Liverpool.

★OCTOBER 12.—**Truro.**—Architect's Assistant required by Cornwall C.C., in the Small Holdings Dept., temporarily. The County Land Agent, County Hall, Truro.

★OCTOBER 20.—**Whitby.**—Clerk of Works required by the U.D.C. Mr. L. M. Blanchard, Surveyor, Council Offices, Whitby.

★OCTOBER 22.—**Chesterfield.**—Building Inspector required by the Borough T.C. Mr. Vincent Smith, Borough Engineer and Surveyor. Borough Surveyor's Office, 2, Gluman Gate, Chesterfield.

MECHANICAL APPLIANCES USED IN BUILDING.

ADDRESSING a large gathering of building and architectural students at the Northern Polytechnic Institute, Holloway-road, London, N., on the subject of "Mechanical Appliances used in Building," Mr. J. H. Bennetts (of Messrs. Holland & Hannen and Cubitt) said the Polytechnic was opening a new field in which there was much to exploit, and in which there was plenty of room for them to get a grip of the things that would help in business. They could not walk along Oxford-street, Regent-street, and some of the other main roads of London without realising that we were making rapid strides just now in mechanical aids to building.

Take, for instance, Peter Robinson's or Adelaide House, near London Bridge. There were points that the youth of to-day and junior members of firms wanted to consider, and to consider very carefully. As they knew, plant sometimes, if kept in stock a long time, instead of being an asset in a firm's balance-sheet gradually dwindled until it became a liability. It cost money for storage and for upkeep, and sometimes it had been kept so long that it was only scrap-iron, and hardly paid the cost of breaking up.

It was necessary to remember that a man did not get any capital return on money expended until he could use a building. To give a man a quicker return the builder must either speed up the job or save labour and make it easier for a man to do his work. In order to get a full output from the steam navvy they must be able to get their material away quickly. If they got a spot where only one cart could get in at a time, and that cart had to draw out and another back in, they were not getting full value out of a steam navvy. The steam navvy should be put down in such a way that it fed as quickly as it gave up. Every site should be treated on its merits, and each plot should be plotted out from the very start. The question of plant should not be left until someone found out that it was really wanted. Someone should have foresight and understanding, and if they were going to get the benefit out of plant they must not wait until they had spent a lot of time and labour doing work which would be done by plant much more readily and economically.

Mr. Bennetts went on to speak of cranes, and, on the subject of power, remarked that the builder was trying to use electric current where available. It was really more economical than using steam boilers, and then there was the insurance and inspections, and getting up in the morning to get the steam up. Steam boilers belonged to bygone days. He thought that a job near Moorgate Station was the first in London to go to the expense of putting up a hoist for workmen.

Speaking of concrete block-making machines, Mr. Bennetts observed that when bricks were at such fearful prices nearly everybody wanted to do something with concrete. Men were at the front, and there was really great difficulty in getting bricks. Thousands of concrete blocks were used in a large factory job he had at Stockton-on-Tees. The blocks were made with the machines by girls, who did their work very well. He did not know that he should like to run jobs with concrete bricks to-day. They knew the basements there were in London, and they saw sand, ballast and bricks shot down in the bottom and all picked up again, whereas they could use gravity and by putting up a little bin save labour.

Touching on mortar-mills, Mr. Bennetts said that in the North far more mortar was used than in London. They were favoured in London by having so much sand and ballast available and ready to hand. The lecturer dealt with other building machinery, and the lecture throughout was illustrated by lantern views.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERYSTWYTH.—An inquiry is to be conducted by Ministry of Health into proposal of T.C. to borrow £23,000 for additional sewers scheme and sewerage disposal.

AMMANFORD.—Negotiations are proceeding for the lay-out of new road at Tirydail by the Council and Dynevor Estate. The road will have 20 ft. carriageway and 6 ft., each side, footpaths. The Brynmawr is also to be terraced and a carriage-way of 14 ft. laid down. The U.D.C. is promoting a housing scheme.

AUDENSHAW.—Plans passed by U.D.C.: House, Audenshaw-road, for John Eastwood.

BARNARD CASTLE.—The U.D.C. have approved plans for the erection of 81 houses at Harmire-road and 25 houses in Green-lane.

BATH.—Plans passed by T.C.: house, Brass Mill-lane and Osborne-road; houses, Bradford-road; house, Van Diemen's-lane; houses, London-road; houses, St. John's-road, Bathwick; conversion into tenements, Chandos House, Westgate Buildings; bungalow, Frome-road; house, Fairfield Park-road; houses, Rockliffe-road.

BATLEY.—The West Riding E.C. has approved of a proposal of the Governors of the Batley Girls' Grammar School to carry out the complete scheme of extensions in connection with the school, at an estimated cost of £4,281.

BELFAST.—Plans proposed by T.C.: Ten houses, Rugby-road, for N. H. Kilpatrick; reconstruction of premises, Royal-avenue, for Steen & Milliken; house, Myrtlefield Park, for A. McDowell; shop, Sandy-row, for Miss S. Rosbotham; shop and house, Short-strand, for John Cosgrave; reconstruction of premises, Castlereagh-street, for W. J. McEntegart; two houses, Hillsborough-drive, for J. H. Barton; dance hall, Agincourt-avenue, for the reps. of the late Joseph McKibben; two houses, Castle-avenue, for Wm. Curran; house and shop, Cupar-street and Wilton-street, for MacArdle, Moore & Co., Ltd.; shop and house, Crimea-street, for Miss A. Finnegan; houses, Myrtlefield-park, for A. McDowell; house, Fortwilliam-drive, for L. Morton; additions to hospital, Grosvenor-road, for the Board of Management of the Royal Victoria Hospital; house, Felt-street, for J. A. Napier; house, Innisfayle-road, for F. Carroll; two houses, Cyprus-park, for W. Rodgers; shop and house, Linfield-road, for J. McGaherty; house, Martinez-avenue, for E. Youell; additions to Cathedral, Donegall-street, for the Select Vestry of St. Anne's Cathedral; shop and house, Castlereagh-street, for D. McMahon; shop and house, Albertbridge-road, for H. Fitzpatrick; house, Whitewell-road, for T. McKinney; house, Grasmere-gardens, for Mrs. M. E. Penpraze.

BELPER.—Plans passed by U.D.C.: Two cottages, Rothwell-lane, for Mr. Charles Waterfall; bungalow, Shaw-lane, for Mr. H. Wheeldon.

BEXHILL.—Plans passed by T.C.: House, Richmond-avenue, by Mr. C. Ackland; residence Gillham Wood-road, by Mr. J. H. Lye, for Mrs. E. Swinburne; detached residence, The Highlands, Turkey-road, by Mr. J. H. Lye, for Mrs. Tripp; cottage, De La Warr-road, by Mr. G. H. Gray, for Mr. W. Willard; pair of semi-detached houses, Knebworth-road, by Mr. D. B. Sceats, for Messrs. Sceats & Bates; dwelling-house, Crescent-drive, Cooden, by Mr. A. C. Morris Edwards, for Rev. S. Le Mesurier; house, Withyham-road, by Mr. A. Morris Edwards, for Mr. M. N. Sheffield; house, Hartfield-road, by Messrs. S. H. Rowson & Co., for Mr. A. C. Rowson; house, Cooden-drive, by Messrs. Strouds, for Messrs. Ching & Co.; house, Wickham-avenue, by Mr. J. E. Maynard, for Miss O. Steains; bungalow, Mayo-lane, by Mr. J. E. Maynard, for Mr. E. S. James; house, The Highlands, Turkey-road, by Mr. G. H. Gray, for Mr. H. Carter; residence, Collington-grove, by J. E. Maynard, for H. P. Farnfield; bungalow, Normans' Bay, by Mr. H. Clarke, for Mr. W. E. Mullens.

BIRKENHEAD.—The Corporation has decided to erect 940 houses, 260 on the Derby Park Estate; it is also decided to erect 200 flats on the north side.

BOLSOVER.—The U.D.C. has decided to co-operate with the Blackwell and Blyth and Cuckney Rural Councils in a sewage scheme for Langwith, at a cost of £33,000.

BOLTON.—Plans passed by T.C.: Albert Lomax, lock-up shop, Whiteley-street; Tootal, Broadhurst, Lee & Co., pavilion, back Higher Swan-lane; Mill Hill Spinning Co., Ltd., turbine house, Kestor-street; W. Z. Miller, house, Wagon-road, Breightmet; Horrocks & Andrews, three houses, Thompson-road; Horrocks & Andrews, eight houses, Maple-avenue; Horrocks & Andrews, four bungalows, Bradford-road; Thos. Blakley, two houses, Green-lane; Leigh Bros., Ltd., two houses, Chorley Old-road; A. S. Woods, six houses, Easedale-road, and six houses, Rydal-road; A. S. Woods, 12 houses, Brighton-avenue; Executors late J. Haslam, six houses, Romer-street, and house, Bury-road, Breightmet; F. Draper, 15 houses, Roscow-avenue; Geo. E. Blackburn, lock-up shop, 1,149, Chorley Old-road; W. Golding & Sons, Ltd., extension of bridge, back Knowsley-street; W. Walker & Sons, Ltd., power station, Nelson-street; C. F. Kenyon, rebuilding Prince William Hotel, Manchester-road; J. Arrowsmith, two houses, Westcliffe-road; Blackburn-road Congregational Institute, for cricket pavilion, Sharples Park; D. Williamson, for bungalow, Belmont-road; Messrs. Bleachers' Association, Ltd., pavilion, The Oaks Works.

BRECON.—The Borough Surveyor has submitted to the Council details of a scheme for the proposed provision of a new high-level reservoir 750 ft. above ordnance datum and with mains connecting to higher parts of the area supplied.

BRENTWOOD.—The U.D.C. has decided to erect a secondary school for girls. The estimated cost is £20,000.

BRIDLINGTON.—Dr. A. W. Brightmore, on behalf of the Ministry of Health, has held an inquiry into the application of the T.C. for sanction to borrow £6,400 for the provision of public shelters on the Beaconsfield Promenade.

BURNLEY.—Plans passed: Café, 27, Yorkshire-street, for Mr. Wrigglesworth; house, Barden-lane, for Mr. G. A. Jobling.

BUXTON.—Plans passed by T.C.: House, Temple-road, for Mr. G. W. Nicholls.

CARDIGANSHIRE.—The Southern Division Main Roads Committee is to invite tenders for widening of Nebo Bridge. The Committee hopes shortly to undertake work of constructing new New Quay-road (estimate £18,072) of which, approximately, one-third is already obtained from grant toward cost. Further grant has been applied for. The Northern and Southern Roads Committees have received estimate from surveyor as follows: For proposed aerial ropeways construction for transit of stones from quarries: from Hafen Quarry to Llandre Station, capable 25 tons per hour, £15,555, of 16 tons, £13,745; from Bronaut Quarry to Trawscoed Station, 25 tons, £10,600, of 16 tons, £9,495; these prices include stations for delivery at main roads whose airway will pass over them. In each case an additional expenditure of £8,425 will be necessary for construction of bins, storage and quarry plant.

CARLISLE.—Plans passed by R.D.C.: Messrs. Higginson & Slack, architects, Carlisle, for Thomas Bowman, Blackwell-terrace, house on land abutting Blackwell-road; Messrs. A. Blakeley & Son, Stanwix, for Mr. J. Clubbs, farm buildings at High Knells Farm, Houghton; Mr. Robert S. Story, Acrehead, Cumwhinton, conversion of existing buildings at Turnshaw, Cocklakes, into a cottage; Mr. G. Armstrong, architect, Carlisle, for Mr. R. Graham, Knockupworth, bungalow, Kirkandrews-road, Millbeck; Mr. H. H. Hodgkinson, architect, Lowther-street, Carlisle, for Mr. R. S. Forsyth, Warwick-terrace, Carlisle, house, Wheelbarrow Hall.——Plans passed by T.C.: Messrs. Higginson & Slack, for Mr. A. Hoodless, bungalow, Blackwell-road; Messrs. Higginson & Slack, for Mr. A. Hoodless, two semi-detached houses, Blackwell-road; Mr. H. E. Ayris, for Mr. D. Anderson, house, Empire-road; Messrs. Higginson & Slack, for Messrs. Ferguson Bros., four cottages, Colmore-street, Denton Holme; Mr. J. P. Tanner, four houses, Boston-street, Currock; Mr. J. P. Tanner, for Mr. B. McKerd, house, Rosebery-road, Stanwix; Mr. J. P. Tanner, four houses, Maitland-street, Currock; Mr. J. P. Tanner, for Mr. R. Allen, house and shop, Boston-street, Currock; Sir Robert Lorimer, for Mr. James Morton, outhouses at Tuether House, Empire-road.——Application is to be made by the T.C. to borrow £233,822 for a new electricity generating station.

CASTLEFORD.—Plans passed: Extension of works, Wheldale-lane, for Messrs. J. Bellamy & Sons, Ltd.

CHELMSFORD.—The T.C. is applying for a loan of £1,850 for a water supply scheme to the Boarded Barns housing estate.

CHEPSTOW.—The R.D.C. is to invite tenders for a new floor for the public hall. The Council is to lease to the G.W.R. Co. plots of undeveloped building land at Severn Tunnel Junction, on which the company will shortly undertake erection of houses. Col. Curre, Itton Court estate, has re-purchased a building site at Newchurch from the R.D.C. The Council is to widen a length of 300 yds. of Blackrock-road. In addition to the new Government Cadet Training Camp to be prepared at Beachley, it is now reported that work will be undertaken preparatory to moving early in the new year the Hibernian School from Dublin to Chepstow.

CHERTSEY.—Plans passed by U.D.C.: Bungalow, Liberty-lane, Addlestone, for Mr. T. Lloyd Davies; house, Oak End Waye, for Mr. L. P. Kerkham; house, Addlestone Park-road, for Mr. W. T. Latley; house, Anningsley Park, Ottershaw, for Mr. Hextall; shop, High-street, Addlestone, for Mr. P. H. Ricks; bungalow, Rowtown, for Messrs. Arney Bros.; cottage, Brox, for Mr. Horn; bungalow, Ruxbury-road, for Mr. Adey.

CHESTER-LE-STREET.—The R.D.C. have passed plans for the erection of 141 houses at Lumley; 44 to be constructed under the slum clearance scheme, and 97 under the Housing Act. The Clerk has been instructed to apply to the Ministry of Health for sanction to borrow £17,600 for the first and £47,400 for the second scheme. The Council also approved of plans for alterations and additions to the Church Institute, Pelton.

COLNE.—Plans passed by T.C.: Bungalow, Clare-avenue, for Mr. R. J. Thornton; two houses, Penrith-road, for Messrs. D. Flory & Sons.

CONISBOROUGH.—The C.C. Education Committee propose to erect a new school with accommodation for 400 children.

COWES.—Plans passed by U.D.C.: House and shop, Newport-road, for Mr. G. Gates; house, Albert-road, Gurnard, for Capt. Rogerson; bungalow at the Gurnaries, for Mr. S. G. Galton.

CROSSGATES.—The Municipal Tenants' Association are to have new club premises erected at an estimated cost of £7,000. Plans have been approved by the City Engineer's Dept., and the Ministry have sanctioned the selling of the land. T is to be two stories high, comprising bil lounge, reading rooms and offices, and the is to be fitted as a concert room with stag

DERBY.—The Special Works Committe Council is to undertake the erection of four p houses in Brighton-road, 16 non-parlour typ Spencer-street, two non-parlour type houses ton Park-road, 14 houses and shop Uttoxet 22 houses Manor-road. The Provision Committee recommends the Council to ma for the compulsory acquisition of about land comprising allotments and pasture la Morley-street, and also for land in Radbo where 84 houses are to be erected.

DERBYSHIRE.—Approval has been giv C.C. to the proposal by the Mental Hospital to proceed with improvements in the heati and equipment of the Mental Hospital, at a cost of £2,905.

DEWSBURY.—Plans passed by T.C.: Electric Power Co., extension of electric s Bottoms-road, Savile Town; Mr. W. C. two bungalows, Church-lane, Thornhill Morris, lock-up shop, Slaithwaite-road.

DORKING.—Sanction has been given for to erect fifty houses.

DOVER.—A proposal by Mr. W. H. Gri builder, by which the town would eventuall possession of twenty almshouses, was unde tion by the T.C. at its last meeting. Mr. Gri to erect 20 houses to cost £400 to £450 eac poration contributing the subsidy of £100 which they have agreed to make to local bui £2,000 total subsidy would be invested, an interest on this and the rental of the Grigg is to be paid five per cent. on his o period to be decided, but not to exceed 50 the end of the period the houses would b property of the town for use as almshous Town Clerk is to discuss details of the Tr with him.

DUBLIN.—Plans passed: Cottage, Cati for Mr. J. O'Connor; shop and dwelling, road, for Mr. G. Lonergan.

EAST HAM.—Plans passed by B.C.: B sterilised milk, 59–65, Whitta-road, for W. factory, Boleyn-road, for C. Haysey; tw Church-road, for W. Dorling; business High-street North, for J. Lyons & Co., L and residence, corner of Caledon and Wall for A. Cable.——Sanction has been given t borrow £2,300 for the erection of a mortua

EASTRY.—Plans passed by R.D.C.: Fou for Mr. J. Betts, at the back of the Baptis Eastry.

GELLYGAER.—The U.D.C. has given the statutory notice of intention to proceed wi planning scheme.

GOLCAR.—Plans passed: Proposed wi Scar-lane, for the D.C.; farm buildings road, for Mr. Frank Whiteley; new dye hou conversion of old dye house into a dye-stuffs for Messrs. T. W. Thorpe, Ltd.; two bungalo street, for Mr. Leonard Day.

HARTLEPOOL.—The T.C. have approved for the extension of the North Promena estimated expenditure of about £32,000; th provides for a sea wall 2,300 ft. in length a crete promenade 20 ft. wide. Another schem about £4,000 was adopted, providing for out of the remaining three acres on the to which the Council has obtained sanction t in order to add three more hard tennis court bowling green, a second putting green, qu and other sports provisions.

HERNE BAY.—Plan passed: Villa and Station-road, for Mr. E. J. Larby.

HORBURY.—Plans passed by D.C.: Northfield-lane, for Mr. Stringer Hunter Windyridge-street, for Mr. W. Cave; two New-street, for Mr. T. W. Clarke; house, Wi street, for Mr. S. Grayshon; showrooms, road, for Messrs. Lee & Briggs; house, Wi street, for Mr. H. Bagley.

HORNSEY.—Plans passed by B.C.: Eighte Priory-road, by Mr. John Farrer; 10 houses at road, Highgate, by Mr. E. N. Cansick; thr at Dickenson-road, Crouch Hill, by Mr. Willi six houses at Causton-road, Highgate, by Day & Brewster; two houses at Muswell-av five houses at Coniston-road, Muswell Hill Wm. Ellyatt; house at Ellington-road, Mus by Messrs. Moffat Bros.; house at Cranley by Messrs. E. T. Evans, Ltd.

HULL.—Seventy-seven plans for new chiefly private houses, have been approved Buildings Committee of the T.C.——Sanction received for a loan of £5,258 and £5,469 asphalte paving.

HURSLEY.—Plans passed by R.D.C.: at North Baddesley, for Mr. T. Hammond; at Baddesley, for Mr. Chandler; bungalow desley, for Mr. Hilton; bungalow at Badd Mr. Wm. Avery; bungalow at Baddesley, James Avery; bungalow at Baddesley, for Squibb & Domoney; bungalow at Hur Chandler's Ford, for Mr. P. G. Freemantle; Hursley-road, Chandler's Ford, for Mr. Lesl house, Shaftesbury-avenue, Chandler's Ford Batstone.

ILKESTON.—Plans passed by T.C.: Longfield-lane, for Mr. Jas. Cooper; bungal Lawn-road, for Mr. R. A. Allen; house, for Mr. A. R. Richardson; two houses, Hob for Mr. E. Cobb; bungalow and outbuildin lotte-street, for Mr. S. Clemerson.

KEIGHLEY.—Plans passed by T.C.: transformer house, for Messrs. H. Hey & C street; two houses, Oakworth-road, for M Midgeley and Mr. T. C. Sugden; shed off Dal for the trustees of the late Mr. J. H. Crave

* See also our List of Contracts, Competitions, etc.

ry buildings, for T. Conyers & Co.——Plans passed .D.C.: Cottage, Holme-lane, Sutton, for Miss E. ley; two houses, Sandbeds, Morton, for Mr. J. W. dington; two houses, Alter-view, for Mr. G. W. h; bungalow, Bradford-road, Riddlesden for W. Bracken; bungalow, Morton-lanes, for Mrs. ert Wright.

NDAL.—Plans passed by T.C.: House at Murley for Mr. O. D. Griffiths (architects, Messrs. arth & Son); four cottages, Captain French-lane, fessrs. S. & R. Park (architect, Mr. J. Hutton).

RKBURTON.—Plans of new Church of England ols and of a house for Mr. W. Wortley and a house r. A. Douglas have been passed by the U.D.C.

ARESBOROUGH.—The U.D.C. has decided to erect new working-class houses of a non-parlour type irect labour.

ANELLY.—The B.C. has assented to road diversion ent to Messrs. Richard Thomas & Co.'s tinplate s, after which the company will erect six new at estimated cost £50,000. The Council has l this company to build further houses for its oyees. The B.C. is negotiating for sanction to new boundary walls near Messrs. Lewis & Lloyd's ises, and Messrs. Nevill's Dock & Railway Co. have granted permission to erect new sidings at same The Council has applied to borrow £10,000 r Small Dwellings Acquisition Act. A gale has oyed the grand stand of Llanelly R.F.C. at Stradey , one of the largest in South Wales. The Board ducation has held a public inquiry into proposal rmarthen County Education authority to demolish es acquired at Llanelly in furtherance of a scheme tension at the Girls' County School.

NDON (LEWISHAM).—Plans passed by B.C.: houses, Winn-road, for J. C. Witcombe; re- ing of 198, Sydenham-road, for G. H. Wallsgrove .; building, Randlesdown-road, for Bethel & nell; eight houses, Woolstone-road, for Edmonds eale; two houses, Sydenham-hill, for H. W. s; two houses, Penberth-road, for T. A. Boughton: lock-up shops, Dartmouth-road, for W. Scotter ; bungalow, Thorpewood-avenue, for Briggs & wood: public house, Randlesdown-road, for ent; house, Dacres-road, for T. Crossley & Son.

NDON (ST. MARYLEBONE).—The B.C. proposes structing the carriageway of Marble Arch at an ated cost of £2,072.

UGHBOROUGH.—The T.C. has decided to ask the try of Health for sanction to a scheme for the ing of 100 houses under the 1923 Housing Act, d of 50.

RFIELD.—Plans have been passed by the U.D.C. house off Parker-lane, for Mr. A. D. Ridgway; emi-detached houses in Littlemoor-road, for Mrs. enior; two houses on the Mirfield Garden Suburb e. The Mirfield Co-operative Society has decided y land to erect branch premises at Knowle.

TCHAM.—The scheme of the U.D.C. to level and ove Figg's Marsh at a cost of £4,000 to relieve ployment this winter has been sanctioned.

NMOUTHSHIRE.—The Llanfrechfa U.D.C. proposes y-out new cemetery at Tyr Box, providing for burial plots. Plans have been submitted by yor to U.D.C. and early start on work is likely. Nantyglo and Blaina U.D.C. has instructed pre- ion of plans and estimates for proposed new tion ground's laying out, and has applied for s toward cost. Having sold 20 houses erected em, the Panteg U.D.C. has applied for sanction ct an additional 20 houses with the proceeds and money. The Pontypool Council is to proceed diately with the clearing of slum property in ay-parade and West-street, and also embarks on titution housing scheme. The Bedwas Navigation Colliery Co. directorate has notified U.D.C. that vill consider at next meeting question of erecting at Bedwas and Machen for their employees. Monmouthshire County Council has forwarded for six relief of unemployment works to the ry for sanction and has convened a conference posed new road through Pontypool Park.

HOLMROYD.—Plans passed: Four houses on th Estate, for Mr. H. R. Culpan.

BIGGING.—The U.D.C. have resolved to apply Ministry of Health for sanction to raise £8,900 erection of twenty houses.

BURN.—The Housing Committee of the U.D.C. d that the Minister of Health has agreed to ncil's proposal to erect not more than 50 houses. nistry would recognise these houses as ranking neial assistance under the Act of 1923. It has cided to advertise for tenders for 52 houses ifferent types.

ASTLE.—The City Council have acquired es of land on the North Heaton Estate, at r acre, for the erection of a secondary school.

AVEN.—Plans passed by the U.D.C.: Bungal a bungalow shop on the Harbour heights, Peacehaven Building & Supply Co., Ltd., on f Mr. R. Holloway and Mr. W. R. Stenton ely.

ORT (MON).—At a meeting of the Rotary Club the Borough Electrical Engineer (Mr. A. Moore) stated that an expenditure of £100,000 rical extensions has been authorised by the and sanctioned by Electricity Commissioners. ish Mannesmann Tube Co. proposes to build ouses for workmen at Newport. The Council recommended by a special committee to Belle Vue Court from Messrs. John Jenkins, conversion to a museum and art gallery. stry of Health has sanctioned the borrowing by B.C. for resurfacing portions of Shaftes- t, Clarence-place, and Chepstow-road. The Engineer has submitted plans for the extension r-Yn Hospital and new approach road, and quisition negotiations are proceeding. A al lease of land to St. Stephen's Institute. a suitable building is erected thereon, is nded by the Council's Parliamentary Com-

NORMANTON.—Plans passed: Four bungalows, Dalefield-road, for Mr. C. J. Foster.

OSSETT.—Proposals by the Governors of the Ossett Grammar School for the provision of additional accommodation at the school, at an estimated cost of £2,300, have been approved by the West Riding Education Committee.——Plans before the T.C.: House in Headlands-lane, for Mr. S. Kitson; warehouse at Flushdyke, for Mr. Thompson North; house at Spa-road, for Mr. Walter Illingworth; house and shop in Dewsbury-road, for Mr. Horace Jennings; two houses and shops in Teall-street, for Mr. T. W. Bentley; villa off Belgrave-street, for Mr. A. E. Mottram.

OXFORD.—Plans passed by T.C.: F. Tilby, Lloyd's Bank Chambers, Carfax, house, Botley-road; Oxford University and City Golf Club, "Southfields," Hill Top-road, pavilion in golf grounds; Mrs. Phelp, Bledington Vicarage, house, Banbury-road; Mrs. and Miss De Butts, The Convent, Manor-road, house, Woodstock-road; F. F. Cripps, Midland Machine Co., 23, George-street, shop and offices, George-street.

PENARTH.—The Council proposes to build, under Small Dwellings' Acquisition Act, 53 houses, as a minimum number, for lease to tenants, and has interviewed Ministry on proposal, which was stated to have been favourably entertained. The U.D.C. has asked sanction to borrow £5,625 for relaying Windsor-road and £1,700 for repairing Seabrook-road. The Ministry of Health is to hold public inquiry into Council's proposal to build large underground cloakrooms.

PENYBONT.—The R.D.C. has received application from Mr. H. Foster Pyle, for assistance in erection of 40 houses at Pyle. A scheme for erection of 80 houses by R.D.C. at Pencoed has been forwarded to Ministry for sanction. The Council has leased site for a house and shop at Sarn to Mr. W. E. Hill. The Council has received loans from Unemployment Relief Committee for Pencoed and Coychurch sewerage schemes, completion of, respectively, £9,200 and £3,800. The Electricity Commissioners have sanctioned the Council's Kenfig Hill electricity scheme, of which the estimates are: Building and equipment of generating station at Waun Bont site, Pyle, £7,100; engines, alternators, &c., with mains and cable distribution system, £9,330; house wiring, £4,960; meters, £3,200; oil and stores, approximately, £1,000.

PONTARDAWE.—The U.D.C., in addition to giving a house building subsidy of £125, is to build 104 houses, 52 parlour type, as follows: Clydach 30, Alltycham and Alltwen 20, Ystalyfera 20, Caegurwen 30, and Godregraig 4.

PRESTON.—Amongst the numerous plans passed by the R.D.C. at its last meeting were those for the erection in the district of a score of houses, ten bungalows, a cottage, and a shop at Goosnargh.

RHYMNEY.—At a meeting of subscribers to the Rhymney Workmen's Institute it was resolved to proceed immediately with erection of a public hall, to seat 1,100, and billiard rooms as an Institute extension. The estimates given to meeting were as follows: Three-story building, £17,000 to £19,000, and two-story, £11,000.

ST. HELENS.—Plans passed by T.C.: Two houses (semi-detached), Bishop-road, Mr. I. Griffiths; two houses (semi-detached), Sandy-lane, Messrs. E. Bowdler and E. Rylance; 51 houses, Dunriding-lane and St. Ann's-road, Messrs. Pilkington Bros. Ltd.; sewers and drains to houses rear of Tennyson-street, Milton-street, also north side of Forest-road, Sutton Manor. Sutton Manor Colliery Co., Ltd.——A new reservoir scheme, at an estimated cost of £100,000, has been approved by the T.C.

SOUTH CROSLAND.—House, Stonepit-hill, for Mr. J. Petty.

SOUTH SHIELDS.—To provide work for the winter months for the unemployed, the T.C. have in hand schemes for the further extension of the tramcar sheds and the provision of a motor omnibus garage.

STAFFORD.—Plans passed by T.C.: Mrs. A. Lloyd, house in Co-operative-street; Mr. T. Lloyd, house in Stone-road and two cottages in Stone-road; Mr. G. Jervis, three houses in Lichfield-road.

STRETFORD.—Plans passed by U.D.C.: Five houses, Ryecroft-road, for Messrs. Howard & Son; 22 houses, off Grasmere-road, for Messrs. Patching & Co.; house, Seymour-grove, for Lieut.-Col. S. L. Tennant.

SUNDERLAND.—The R.D.C. has passed plans for 70 houses at Fulwell, by the Sunderland Co-operative Society, 40 of the bungalow type of four and five rooms, and the other 30 of the two-story type, with four rooms. Tenders have been accepted by the R.D.C. for the erection of 96 houses of four and five rooms on land developed at Ryhope under the Estate Agents' scheme.——A scheme to be launched by the Sunderland Electricity Committee for the extension of their electricity works in Hylton-road, at a cost of between £130,000 to £140,000, will provide work for a large number of unemployed this winter.

SWINDON.—Plans passed by T.C.: E. W. Beard, 28 houses, Southampton-street; W. Walker, house and shop, Cricklade-road; E. W. Beard, 15 houses, York-road; Tydeman Bros., 4 houses, Groundwell-road.

WAKEFIELD.—Plans passed by City Council: House, Horbury-road, for Mr. C. Hudson; alterations and additions at Rutlands Mill, for Messrs. Baldwins & Paton's, Ltd.; house, Horbury-road, Lupsett, for Mr. W. Gillott; house, Horbury-road, for Mr. Blakey; garage, Horbury-road, for Mr. Gillott; house and shop Agbrigg-road, for Mr. P. Crawford; motor showrooms and alterations and additions to house and shop, lock-up offices, Wood-street, George and Crown-yard and Chancery-lane, for Messrs. Hylands, Ltd.

WALLASEY.—Plans passed: Four houses, Lymington-road, for Messrs. Evans & Williams; conversion of "Green Lea," Mount-road, into two flats, for Mr. J. Collier; 11 houses, Station-road and Willoughby-road, for Mr. W. Stocks; house, Shrewsbury-road, for Mrs. J. N. Meredith; 12 houses, Radley-road, for Mr. J. H. Lindley; five houses, Station-road and Stourcliffe-road, for Mr. G. Peers; six houses, Willoughby-road, for Mr. A. H. Shaw; two houses and two shops, King-street, for Freeman, Hardy & Willis, Ltd.; six houses, Monmouth-road, for Mr. A. Macdonald; five houses, Station-road, for Mr. G. Peers; two houses, Pendennis-road, for Messrs. E. J. & W. H. Jones; two houses and garage, St. George's Park, for Messrs. Tate, Pumford & Doughty; two houses, Broadway-avenue, for Mr. H. W. Jones; six houses, Dawlish-road, for Mr. J. Henshaw; 11 houses, Monmouth-road, for Mr. A. Macdonald; house, Cliff-road, for Mr. A. J. Bridge.

WALLSEND.—The T.C. have approved the recommendation of their Housing Committee to provisionally accept tenders for the erection of 96 houses in blocks of two at £345 per house, subject to the subsidy of £6 per house for twenty years being obtained from the Ministry of Health. They also resolved to seek powers to acquire a portion of the Wallsend golf course at Willington.

WORTHING.—Plans passed by T.C.: Two houses, Burlington-avenue, J. E. Lund, for H. A. Webb; three houses, Mill-road, F. J. Reid, for G. Harwood; house, Brighton-road, S. G. Short, for Dunnings, Ltd.; house, Brooklyn-avenue, E. J. Love, for Miss Heath; house, Reigate-road, T. R. Hyde, for W. H. Evans; five houses, Bath-road, S. C. Phillips, for S. W. Phillips & Co.; house, Bulkington-avenue, A. Clare, for Major Cripps; house, Chancer-road, H. Osborn, for Col. A. Cripps; house, Pavilion-road, A. M. Butler, for M. Fox; house, Longfellow-road, F. G. Abell, for Miss Marshall; house, Cissbury-road, H. Osborn, for H. K. Heyland; house, Forest-road, A. Clare, for E. W. Dorrington; six houses and garages, Rowlands- and Boundary-roads, for E. H. Barton; house, Pavilion-road, J. Gausden, for P. G. Calladine; house, Shakespeare-road, F. Sandell & Sons, for W. W. Sandell; house, Brooklyn-avenue, H. M. Potter for Mr. Sutherland; four houses, Gannon-road, J. E. Lund, for F. H. Butler; conversion of 31, Victoria-road into two flats, for P. H. Diplock; house, St. Lawrence-avenue, P. D. Stonham, for Mrs. Barry; six houses, Windsor-road, for A. Crane; six houses, Woodlea-road, for A. Churcher; three houses, Chesswood-road, H. M. Potter, for C. W. Collier; conversion of St. James's Hall, Montague-street, into business premises, and for lock-up shops fronting Liverpool-road, F. Carwardine, for J. W. Mansfield; house, Wallace avenue, A. M. Butler, for Mrs. Hallpike; two houses, St. Thomas's-road, for Bridger & Son; two houses, Ethelred-road, H. M. Potter, for A. R. Kennard; house, Pembury-road, J. E. Lund, for H. Jasper; bakehouse, Railway-approach, J. E. Lund, for F. Seager; two houses, Grand-avenue, for D. S. Barclay; garage, Gannon-road, for G. Tickner; four houses, Longfellow-road, H. Osborn, for G. Baker & Son; house, Park-avenue, S. E. Merridew, for Mrs. Mackie; two houses, Lyndhurst-road, for G. Tickner; house, St. Wilfred's-road, H. M. Potter, for F. Green; four houses, Abbotts-close, A. M. Butler, for A. A. Adams.

YORK.—Plans passed by T.C.: L.N.E.R. Co., house, Leeman-road; Governors, York College for Girls, assembly hall, 69, Petergate; G. W. Herbert, house and shop, Fourth-avenue, Tang Hall Estate; S. Burrows, house, Moorgate; Sir E. N. Kay, three houses and shops, Bishopthorpe-road and eight houses, Beech-avenue.

FIRES.

EBBW VALE.—Fire at 5, Institution-terrace, owned by Mr. Sam Smith, completely gutted the building and damaged the adjoining two houses. Damage is estimated at £1,500.

OSSETT.—Two fires have occurred in the town, viz., at Paleside Mills, occupied by Messrs. F. Lawrence & Sons, and at Springfield Mills, owned by Messrs. Jessop Bros.

Builders and Housing.

A CORRESPONDENT writes to the *Daily Telegraph*:—

"The Ministry of Health is receiving representations from all over the country as to the hard position in which private builders find themselves as a result of commencing building operations under the official circular of April 27, which promised retrospective action in the cases of approved structures. Apparently when these builders obtained sanction of their plans by the local councils they thought the official approval after the Act had passed would be largely a matter of form, provided they complied with the Act; but the Ministry now refuses the subsidy to any house started before actual official sanction was obtained.

"Members of Parliament all over the country are receiving letters from constituents accusing the Ministry of bad faith, and laying stress on the serious financial position in which the writers find themselves through failure of the anticipated subsidy; and this is especially so among the working-classes, many of whom built and are building small houses for themselves. The Government, despite appeals, has not expressed any opinion on the representations made to it in favour of generous treatment to those builders whose only error—if it was one at all—was too great enthusiasm to construct; but if there continues to be silence the matter will undoubtedly be raised in the House when it meets by representatives of all parties."

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	2 15 3	Do. Bullnose	10 1 6
Do. Bullnose	3 8 3	Blue Wire Cuts	7 11 6

Best Stourbridge Fire brick :—

2½ in.	11 3 0	3 in.	13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
Quoins. Bull-nose and 4½in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. „	2 5	4 in. „	3 7

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand	15 6	„ „
⅜ in. Shingle for Ferro-Concrete	14 0	„ „
½ in. „ „	15 0	„ „
¾ in. Broken Brick	10 6	„ „
Pan Breeze	5 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement. British Standard Specification Test £2 18 0 to £3 3 6

51/- alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 6
„ „ Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5

White basebed, 3d. per ft. cube extra.

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ¼d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides „	27/-
Sawn three or four sides „	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 5½
1½ in. to 2 in. ditto, ditto „	1 3

HARD YORK—

Delivered at any Goods Station London.

Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto. ditto „	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s. d.
Plain per ft. cube	6 6
Moulded „ „	7 9
Cills „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	29 0	3 × 6	25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	24 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	21/-	1¼	33/6
¾	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.	Inches	per sq.
1	26/6	⅝	17/6
1¼	33/6	¾	22/-
1½	38/6	1	26/-

MATCHINGS (BEST).

BATTENS

Inches	s. d.	
⅞ × 2	2 4	per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¾ in. do. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt.	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Hip and valley tiles (per dozen) Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
„ „ Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
⅛ in.	16 10 0	⅛ in. to ⅞ in.	13 10 0
⅜ in.	14 10 0	⅜ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¼	1/0¾	3½d.
4 in.	1/4	1/1¾	3½d.
4½ in.	1/5¼	1/4	4d.
5 in.	1/7¾	1/5¼	5d.

O.G. GUTTERS.

3 in.	1/6¼	1/2¾	3½d.
3½ in.	1/6¼	1/2¾	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9¾	1/6¼	4d.
5 in.	2/1¾	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 ft.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6 ft. plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5½	3 3½
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3½	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9 ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	14 0 0	to	15 0 0
Staffordshire Crown Bars—good merchant quality	14 10 0	..	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	13 10 0	..	14 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 10 0	..	14 10 0
Hoop iron, basis price	16 10 0	..	17 10 0
„ Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	15 10 0	..	16 10 0
„ „ „ 24 g.	16 10 0	..	17 10 0
„ „ „ 26 g.	18 10 0	..	19 10 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24 10 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	21 10 0	..	23 0 0

METAL WINDOWS—Standard sizes suitable for c plete houses, including all fittings, painting coats, and delivery to job, average price about to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.		
LEAD—Sheet, English, 4 lb. and up	35 10 0	..	—
Pipe in coils	36 0 0	..	—
Soil Pipe	39 0 0	..	—
Compo pipe	41 10 0	..	—

NOTE—Country delivery, 30s. per ton extra; lots u 3 cwt., 2s. per cwt. extra and over 3 cwt. and un cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt ex

Old lead, ex London area, at Mills per ton	23 10 0	..	—
Do., ex country, carriage forward per ton	24 10 0	..	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/-	76/-	153/-	246/-	510/- per d

NEW RIVER PATTERN SCREW DOWN STOP COCKS UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per d

NEW RIVER PATTERN SCREW DOWN MAIN FERRU

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	4 in.
7/6	10/-	14/-	23/-	30/- 42/- per doz

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES. S.F

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
35/-	56/-	98/-	162/-	228/- per d

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEA SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per
8 lbs. S. traps	35/-	45/-	66/-	120/

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	..
Thin „ „	0 2 4	..
Copper nails „	0 2 3	..
Copper wire „	0 2 4	..
TIN—English Ingots „	0 2 0	..
SOLDER—Plumbers' „	0 0 11	..
Tinmen's „	0 1 1	..
Blowpipe „	0 1 3	..

PAINTS, &c.

	£
Raw Linseed Oil, in pipes per gallon	0
„ „ „ in barrels „	0
„ „ „ in drums „	0
Boiled „ „ „ in barrels „	0
„ „ „ in drums „	0
Turpentine in barrels „	0
„ in drums (10 gall.) „	0
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	56
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms." "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	77
Red Lead, Dry (packages extra) per ton	42
Best Linseed Oil Putty per cwt.	0 1
Filocol per cwt.	0 1
Size. XD Quality fkn.	0

[Concluded on next page.]

* The information given on this page has specially compiled for THE BUILDER and is copyr Our aim in this list is to give, as far as possible *average* prices of materials, not necessarily the hig or lowest. Quality and quantity obviously prices—a fact which should be remembered by who make use of this information.

ES CURRENT OF MATERIALS (*contd.*)

GLASS.

SH SHEET GLASS IN CRATES OF STOCK AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
ourths....	3¾d.	32 oz. fourths	8¾d.
hirds	4¼d.	32 ,, thirds	10¼d.
ourths....	5d.	Obscured Sheet, 15 oz.	4d.
hirds	6¼d.	21 ,,	5¾d.
ourths....	6d.	Fluted 15oz. 6¾d., 21oz.	9¾d.
hirds	7¾d.	En'lled 15 ,, 5¼d., 21 ,,	7¼d.

rice according to size and substance for squares n stock.

SH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
ed plate	4¼d.
gh rolled	5¼d.
gh rolled	5¾d.
red Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6¼d.
itto, tinted	9d.
ed Sheet	6d.
te Rolled Cathedral	5¼d.
ed do.	7¾d.

ast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
nish	Outside	0 14 0
tto	ditto	0 16 0
pal	ditto	0 18 0
pal	ditto	1 0 0
pal Carriage	ditto	1 4 0
tto	ditto	1 12 0
rnish	Inside	0 18 0
le Paper	ditto	0 18 0
pal Cabinet	ditto	1 2 6
pal flatting	ditto	1 0 6
ying Oak	ditto	0 18 0
rd drying Oak	ditto	0 19 0
pal Varnish	ditto	1 0 0
ditto	ditto	1 2 0
ditto	ditto	1 12 0
pan Gold Size		0 12 0
ck Japan		0 12 0
l Mahogany Stain (water)		0 12 0
ck Black		0 9 0
Black		0 14 0
g (patent)		1 5 0
nd Brush Polish		0 17 6
Dryers in Terebine		0 9 0
Black Enamel		0 7 0

EW COMPANIES.

particulars quoted below have been ed by Messrs. Jordan & Sons, Ltd., ny Registration Agents, of 116 & 117, ry-lane, W.C. 2, from the documents le at the Companies' Registry.

GUISE & Co., LTD. (192,287). Registeptember 4. 61, Church-road, Epsom, Builders and contractors, &c. Nominal £100.

SHAW'S REINFORCED CONCRETE Co., 192,013). Registered August 21. Windse, Victoria-street, S.W.1. Engineers ncrete specialists. Nominal capital,

CHAINE & Co., LTD. (192,415). Registeptember 11. 13, Lime-street, E.C.3. , decorators, contractors, &c. Nominal £1,000.

RIDGE & SON, LTD. (192,418). Registptember 11. To acquire and carry on siness of builders, contractors, and rs, now carried on under the style of ge & Son. Nominal capital, £3,500.

RN DWELLINGS, LTD. (192,459). Registptember 12. 54, Evington-street, Lei- Builders and contractors, &c. Nominal £3,000.

STEER, LTD. (192,771). Registered er 29. 8, Carfrae-terrace, Plymouth. and contractor, now carried on by ohn Steer, at 8, Carfrae-terrace, Plyand elsewhere, under the style of A. J. Nominal capital, £10,000.

nstruction in Building Subjects.

urses of instruction in building subjects, der the auspices of the Builders' Mer- Alliance, Ltd., at their offices, Finsbury- nsbury Pavement, E.C. 1, are held every ay and Thursday, and over 100 s attend each evening.

NEW BUILDINGS IN SCOTLAND.

Falkirk.—HOUSES.—The Corporation Housing Committee proposes to prepare a scheme for the erection of 200 workmen's houses on suitable sites within the town.

Dumbarton.—HOUSES.—Plans have been prepared for the erection of 28 Council houses at Silverton.

Stirling.—SCHOOL.—The Stirling School Management Committee recommends the Education Authority to build a new primary school in the Shore-road District immediately.

Denbeath.—HALL AND INSTITUTE.—At a meeting of the Miners' Welfare Committee for Fife, Kinross and Clackmannan, held at Dunfermline, plans were approved of a hall and institute at Denbeath, adjoining the ground recently laid out by miners, assisted by the Wemyss Colliery Co., Ltd., as tennis courts and bowling and putting greens. The cost is estimated at £5,000.

Hamilton.—ABATTOIR.—The T.C. is considering the provision of a public abattoir, and a deputation from the Council is making a tour of the best-equipped premises in neighbouring towns.

Airdrie.—MISSION HALL.—The Dean of Guild Court has passed plans submitted by the directors of Airdrie Town Mission for alterations at 22, High-street, known as the Town Mission Hall. The architect is Mr. Bruce Scotland, of Messrs. John Scotland & Sons.

NEW BUILDINGS IN LONDON.

Euston-road.—Mr. Wm. H. Overton, F.S.I., F.S.Arc., of Warnham House, 22, Ship-street, Brighton, is the architect carrying out a new building in Euston-road, Warren-street, and Cleveland-street, and Messrs. James Smith & Sons (Norwood), Ltd., of 106, New Bond-street, W. 1 are the contractors. The building consists of three premises extending from Euston-road into Warren-street, and will probably be used as motor showrooms. The steelwork has been carried out by Messrs. Young & Co., Ltd., of 4–6, Wandsworth-road, Vauxhall Cross, S.W. 8. The pavement lights are being supplied by Messrs. J. A. King & Co., of 181, Queen Victoria-street, E.C. 4. The steel windows are being supplied by Messrs. Henry Hope & Sons, Ltd., of Smethwick, Birmingham.

Whitechapel. — At St. Mary's Station (Whitechapel) on the Underground Railway, Messrs. Kirk & Kirk, of Westminster, are erecting a building to contain public billiard room, with shops and flats over, which will cover the entire area formerly used by the Railway Co. for the purpose of ventilation. Mr. George Coles, of 40, Craven-street, Strand, W.C., is the architect. The steelwork is being carried out by Messrs. A. D. Dawnay & Sons, Ltd., of Steelworks-road, Wandsworth.

Manufacture and Uses of Portland Cement.

A cinematograph exhibition and lecture will be given at the L.C.C. School of Building, Clapham, S.W.4, by Mr. H. K. G. Bamber, F.C.S., M.I.Struct.E., managing director of the Associated Portland Cement Manufacturers, Ltd., on "The Manufacture and Uses of Portland Cement," on October 19, at 7.30 p.m. The chair will be taken by Mr. H. D. Searles-Wood, F.R.I.B.A., Chairman of the Advisory Sub-Committee of the School. Admission will be by ticket, to be obtained on application to the school.

Building Dispute Settled.

A dispute which had threatened to involve a lock-out of 8,000 building operatives in Nottingham and district was settled on Saturday afternoon, after a conference of representatives of master-builders and the men's national organisations. The employers withdrew their notices, upon terms affording a prospect of a permanently satisfactory arrangement.

PATENTS.*

APPLICATIONS PUBLISHED.

194,264.—H. Gronroos: Process for the manufacture of building materials, such as building stone and roofing tiles.

201,852.—C. Webster and H. F. Wernham: Devices for raising and lowering windows.

201,861.—E. Clark: Paving-blocks.

201,867.—A. W. Dickinson: Combined hollow-tile and reinforced-concrete floor and ceiling constructions.

201,650.—Soc. Anon. Prodor and Dr. M. Levy: Manufacture of concrete.

201,952.—E. Hawley: Die-press for moulding or shaping handles and other articles of clay.

202,089.—A. Hart: Fastening devices for windows and doors.

202,092.—W. H. Price: Seat and foot action flushing for sanitary closets.

202,104.—P. G. Tideman: Rotatable apparatus for digging furrows and ditches.

202,112.—G. Whitfield: Furniture and like castors.

202,129.—J. G. Dudley: Cement-coated metal-framed buildings.

202,145.—H. L. Doulton, S. F. Corby and R. J. Pleace: Waste-preventing valves.

202,164.—Clay Cross Co., Ltd., and M. R. K. Bion: Brickmaking machinery.

202,177.—J. Y. Johnson (Congoleum Co. Inc.): Floor coverings.

202,182.—B. W. Roberts and J. E. Hodson: Windows.

202,187.—O. Wilkes: Locks.

202,204.—J. Procter: Apparatus for the regular and certain firing of top-fired continuous and chamber kilns for clayware by mechanical means.

195,978.—J. Scheldeman: Sash windows.

179,961.—O. Brandenberger: Coating-compositions or paints.

202,404.—British Thomson-Houston Co., Ltd. (General Electric Co.): Cements impervious to the action of water.

202,414.—T. Oldfield and G. J. Maddison: Window-sash fasteners.

202,455.—M. T. Phillipps: Sanitary flushing device.

202,461.—C. L. Cummings: Lintels or beams.

202,518.—F. J. Commin: Formation of corrugated sheets for roofing.

202,534.—W. M. McNaught: Ridge-roof ventilators.

186,344.—Limousin et Cie: Construction of concrete vaulting for hangars or sheds.

187,956.—H. Treitel and Kammerziegelges: Manufacture of hollow bricks.

199,694.—R. M. Ash: Rubber-faced paving setts and flooring tiles.

202,560.—G. Barden: Nurseries, greenhouses, and market-halls.

202,572.—A. Henderson: Concrete beams, girders, and columns.

Obituary.

The old-established firm of Samuel Wright & Co., Ltd., fibrous plasterers, of whom the founder and managing director, Mr. Samuel Wright, is well-known in building circles, has sustained a severe loss in the death of Mr. Samuel Arthur Wright, eldest son and a director of the company, which occurred at his residence on September 22nd. The late Mr. S. A. Wright had acquired a considerable amount of technical and business experience, having been trained from youth in his father's business, but, unfortunately, owing to a lengthy illness, had been unable for some months past to take a very active part. He will be greatly missed by a large number of friends and business connections.

Mr. W. H. Littler, for many years in business at Hinckley, as a builder, died last week, aged 65.

The death has occurred of Mr. Alfred Davis, builder and contractor of Burnopfield, county Durham. He was aged 72, and "father" of the Tanfield U.D.C.

* **All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.**

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		1"	1½"
Deal wrot moulded and rebated	per foot cube		1
Plain deal jamb linings framed	per ft. sup.	1/8	1/9
Deal shelves and bearers	"	1/5	1/7
Add if cross tongued	"	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8

Housings for steps and risers	each
Deal balusters, 1 in. × 1¼ in.	per ft. run.
Mahogany handrail; average 3 in. × 3 in.	" "
Add if ramped	" "
Add if wreathed	" "

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	
Sash fasteners	11½d.	Mortice locks	
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

Rolled steel joists	per cwt.
Plain compound girders	"
Do. stanchions	"
In roof work	"

RAIN-WATER GOODS.

		3"	4"	5"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7
Ogee Do. Do.	"	2/4½	3/1	3/10
Rain-water pipes with ears	"	2/9	3/7	
Extra for shoes and bends	each	4/4	5/11	
Do. stopped ends	"	1/11	2/4½	3/7
Do. nozzles for inlets	"	2/2	2/7	3/10

PLUMBER.

Milled lead and laying in flashings and gutters	per cwt.	5
Do. Do. in flats	"	4
Extra labour and solder in coated cesspools	each	
Welt joint	per ft. run.	
Soldered seam	" "	
Copper nailing	" "	

		⅛"	¾"	1"	1½"	2"
Drawn lead waste	per ft. run	10d.	1/6	1/9	3/1	3/10
Do. service	"	1/5	1/11	2/3	3/6	
Do. soil	"					
Bends in lead pipe	each					3/3
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6
Red lead joints	"	11d.	1/-	1/3	1/11	2/4
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6
Lead traps and cleaning screws	"				14/7	19/6
Bib cocks and joints	"	6/4	9/7	15/4	41/-	
Stop cocks and joints	"	15/4	17/2	25/8	64/-	

PLASTERER.

Render, float and set in lime and hair	per yard sup.	
Do. Do. Sirapite	" "	
Do. Do. Keen's	" "	
Add sawn lathing	" "	
Add metal lathing	" "	
Portland cement screed	" "	
Do. plain face	" "	
Mouldings in plaster	per 1 girth	
One-and-a-half granolithic pavings	per yard sup.	

GLAZIER.

21 oz. sheet plain	per foot sup.	
26 oz. Do.	" "	
Obscured sheet	" "	
⅛ in. rolled plate	" "	
¼ in. rough rolled or cast plate	" "	
¼ in. wired cast plate	" "	

PAINTER.

Preparing and distempering, 2 coats	per yard sup.	
Knotting and priming	" "	
Plain painting 1 coat	" "	
Do. 2 coats	" "	
Do. 3 coats	" "	
Do. 4 coats	" "	
Graining	" "	
Varnishing twice	" "	
Sizing	" "	
Flatting	" "	
Enamel	" "	
Wax polishing	per foot sup.	
French polishing	" "	
Preparing for and hanging paper	per piece 2/- to	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges, percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of information given on this page is copyright.

TENDERS.

ons for insertion under this heading should to "The Editor," and must reach him not uesday evening.
ccepted. † Denotes *provisionally accepted.*
commended for acceptance.
ccepted subject to modifications.

.—For the erection of 24 working-class nsfield Park-road, for the Corporation :—
pson & Sons, Alnwick .. £9,077 7 3

upply of 11 mahogany cases for Museum, :—
& Hayes £165

or foundations for new machinery at tation, for the T.C. :—
l & Wooster..... £234

or construction of Charlcombe-lane sewer, :—
ose £585 11 9

or construction of Weston service re-inforced concrete, for the T.C. :—
l & Wooster £1,449 15

ATER.—For interior decoration of the police station, &c., for the T.C. The veyor, Municipal Buildings, Bridgwater :—
ham, Bridgwater..... £358 0
t & Son, Weston-super-Mare 228 15
, Junr., Bridgwater..... 185 0

Y.—For plumber's and glazier's work at ary, Colne-road, for the T.C. :—
Bros., Burnley £173 11 7

ELD.—For construction of covered service the Metropolitan Water Board :—

tchell & Son, Ltd.	£14,338	18 0
offat	10,420	0 6
Co., Ltd.....	10,318	15 5
Co., Ltd.	10,099	0 0
nson & Co.	10,092	1 4
Stewart	9,961	14 2
r's Estimate	9,577	6 0
Muirhead & Co., Ltd.	9,365	14 1
merville & Co., Ltd. ..	9,306	7 8
	8,460	7 0 (a)
t & Co.	8,874	12 3
nd & Co.	8,463	0 0
e Piling, Ltd.	8,338	12 9
revs, Ltd.	8,157	0 0
irhead & Son	8,037	0 0
Moss & Sons, Ltd. ..	8,009	0 0
Bell & Sons, Ltd.	7,961	0 0
er Hyslop	7,917	17 5
Moodie & Co.	7,766	16 8
Yerburgh & Hutchinson	7,563	1 11
llingham, Ltd.....	7,395	12 2
man & Son, Ltd.	7,140	1 9
T. Thorne	6,804	13 2

(a) Plus 10 per cent.

NHAM.—For alterations at Grafton-road for the T.C. :—
llings & Sons..... £188

NHAM.—For provision of conveyor at ty Works, for the T.C. :—
nveyor Co..... £591 2 6

—For erection of 30 houses, for the T.C. . Wilkinson, Borough Engineer, Municipal rewe :—

right & Son, Crewe ..	£15,997	13 1
ms, Crewe	15,877	12 6
n, Winsford	14,095	16 8
Surveyor, Crewe	13,404	0 0
latt, Crewe	12,490	0 0
tt, Crewe	12,058	6 7
& Son, Crewe	11,164	15 6

HIRE.—For the drainage of Locko Park, or Capt. Drury-Lowe. Messrs. Elliott & neers, Burton Buildings, Nottingham :—

os., Mansfield	£2,036	10 6
mlinson, Derby	1,567	0 0
rice & Co., Nottingham	1,540	0 0
arry, Radcliffe-on-Trent	1,530	0 0

For rebuilding culverts and repairs to ne Essex C.C. :—
, French, Buckhurst Hill—
vreth Wash culverts £1,922 7
nold, Chelmsford—Chrishall
ert 637 14
oble, Ongar—Shellow bridge 100 0

RD.—Construction of pumping station r the Metropolitan Water Board :—

	Amount of Tenders. As submitted.	After correction.
Proctor &	£24,556 10 8..	—
Layne Gall-	24,122 10 8..	—
n & Sons pl), Ltd.	22,989 0 0..	—
k.....	21,615 7 9..	—
Blay, Ltd.	20,346 10 0..	—
dge	20,097 0 0..	—
.....	19,713 3 2..	—
ham, Ltd.	19,700 0 0..	—
& Son, ...	19,020 0 0..	£19,021 12 8
Estimate	18,845 11 11..	—
rsh, Ltd.	18,690 0 0..	19,255 0 10
& Sons, ...	18,597 0 0..	18,597 11 10

has since modified the scheme with the the accepted tender is reduced to £14,735

FEATHERSTONE.—For painting and distempering at Lister Baths, for the U.D.C. Mr. Samuel Chesney, Surveyor, Council Offices, Featherstone :—
R. Robinson, Bradford.

GLASGOW.—For installation of tubular boiler at Woodside Baths, for the T.C. :—
*Babcock & Willcox..... £1,240

GLASGOW.—For construction of Kelvindale House Purchase Scheme, for the T.C. :—

Brick, &c., work—		
*James Crawford	£46,707	15 7
Joiner work—		
*John MacDonald (Contractors), Ltd.	39,276	17 6
Slater work—		
*Peter White & Co.....	15,216	7 9
Plumber work—		
*John Paterson & Co., Ltd.	20,220	16 7
Plaster work—		
*H. S. Bathgate	7,325	12 1
Painter work—		
*Peter M'Kerracher & Son ..	2,741	8 6
Glazier work—		
*R. Whyte & Sons	8907	13 7
Iron railings—		
*A. & J. Main	1,751	13 7

HALIFAX.—For erection of 31 parlour houses and 42 non-parlour houses at Beechwood-road, for the T.C. :—

Mason—		
*E. & T. Bower	£21,752	9 5
Joiner—		
*J. Holdsworth	6,533	0 0
Slater—		
*E. Marshall	4,786	0 0
Plumber—		
*W. Robinson	4,396	16 7
Painter—		
*J. Barber	627	1 11
Electrician—		
*F. S. Jackson	536	0 0
Streets—		
*J. Holdsworth	1,686	0 0

HALIFAX.—For supplying and fixing a new ornamental cast-iron parapet to existing parapet at North Bridge. for the Corporation :—
*John Berry & Sons, New Bank Foundry, Halifax £465

HALIFAX.—For laying 218 yards of 18 in. earthenware pipe sewer between Hopwood-lane and Mackintosh-street, for the Corporation :—
*E. & T. Bower, Salterhebble, Halifax £1,299 2 6

HAYES.—For erection of 50 houses with roads and sewers, for the Great Western (London) Garden Village Society, Ltd. Mr. T. Alwyn Lloyd, architect. Cardiff. Quantities by Mr. W. Doyle :—

	Houses.	*Roads and Sewers.*
F. Foxley & Co., Ltd., London	£38,701 0 0 ..	£2,027 0 0
T. Millman, Ltd., South Ealing ..	38,000 0 0 ..	2,388 0 0
C. Miskin & Sons, St. Albans	34,270 0 0 ..	1,595 0 0
Walter Jones & Sons, London	33,922 0 0 ..	1,850 0 0
R. Wilkins & Sons, Bristol	33,891 17 0 ..	1,601 0 11
Frost & Carter, Luton	33,160 0 0 ..	1,625 0 0
Wilson Lovatt & Sons Wolverhampton	32,298 12 3 ..	1,655 9 3
A. & B. Hanson, Ltd., Southall.....	31,315 0 0 ..	1,516 0 0
Trollope & Colls, Ltd., London	31,195 0 0 ..	1,995 0 0
W. Creed & Co., Maidenhead	30,743 0 0 ..	1,814 0 0
Ernest Clarke, Stratford-on-Avon ..	28,743 0 0 ..	2,089 0 0
*John Laing & Sons, Ltd., Carlisle ..	28,626 10 0 ..	1,700 3 8

*Subject to modifications, reducing tender to £27,601.

HORNSEY.—For the erection of a sub-station and cottage in North-road, Highgate, for the B.C. :—
*Stevens & Sons £5,786

LEEDS.—For cold water storage tank at Cookridge-street Baths, for the T.C. :—
*Royles. Ltd..... £109

LEEDS.—For dancing floor at Kirkstall-road Baths, for the T.C. :—
*H. C. Bridge..... £107 3 6

LEEDS.—For extensions at Nurses' Home at Leeds Township Infirmary. Messrs. G. F. Bowman & Sons, Greek-street, Leeds :—
Brick, &c.—J. H. Wood & Co.
Joiner.—Banks Mawson.
Plumber.—Jones (Leeds), Ltd.
Plasterer.—John Dobson's Exor.
Slater.—Wm. Atkinson.
Painter.—C. & N. Greenwood.
(All of Leeds.)

LEEDS.—For the erection of a telephone exchange at Roundhay, for H.M.O. Works :—
Main contract—Saml. Flockton, Leeds.
Joiner & Carpenter—Lazenby Bros., Leeds.
Asphalter—Tunstall's Rock Asphalte Co., Ltd., Leeds.

LEEDS.—For the supply and erection of switchgear at the Whitehall-road Power Station, for the Electricity Dept. of the Corporation :—
*Reyrolle & Co., Ltd., Hebburn..... £19,300

LEYTON.—For private street improvements in Epsom- and other roads, for the U.D.C. :—

Tarslag (1923), Ltd., Wolverhampton	£6,222	11 6
G. P. Tatner & Co., Ltd., Dartford	3,540	19 11
William Griffiths & Co., Ltd., Bishopsgate	3,390	0 6
F. J. Coxhead, Leytonstone....	3,209	0 0
G. J. Anderson, Poplar	3,037	2 3
London & County Public Works Ltd., Gray's Inn.....	2,970	4 6
*W. French & Co., Buckhurst-hill	2,797	3 7

LEYTON.—For the supply of desks and furniture to Canterbury-road Boys' School, for the U.D.C. :—

North of England School Furnishing Co., Ltd., Darlington....	£231	9 2
Mann, Egerton & Co., Ltd., Norwich	219	19 6
Educational Supply Association, Ltd.	215	12 6
*Bennet Furnishing Co., Ltd., Glengall-road, S.E.....	201	9 2

LITTLETON.—For erection of superstructure of pumping station, for the Metropolitan Water Board :—

Thomas & Edge	£83,919	0 0
Humphreys, Ltd.	82,154	0 0
Allen Fairhead & Son	79,997	0 0
J. Parkinson & Sons (Blackpool), Ltd.	79,300	0 0
Wilson Lovatt & Sons, Ltd. ..	76,798	8 3
Griggs & Son	76,778	0 0
Engineer's Estimate	76,746	13 0
F. R. Hipperson	76,255	0 0
Leslie & Co., Ltd.	73,840	0 0
Grace & Marsh, Ltd.	71,818	0 0
*John Laing & Son, Ltd. ..	70,307	12 9

LONDON.—Repairs, &c., at cottages, New River-yard, and 60, Amwell-street, Clerkenwell, for the Metropolitan Water Board :—

Thomas & Edge	£319
Chessum & Young	241
Collins & Co.....	210
*Lidstone & Son	168

LONDON.—For repairs to Chelsea Cottages, West Molesey, for the Metropolitan Water Board :—

Gaze & Son	£308	0 0
Singleton & Son	236	8 6
*T. Johnson	204	0 0

LONDON.—For painting and decoration to the exterior of the Baths establishment building, for the St. Marylebone B.C. :—

Stevens & Co.....	£1,425	0 0
C. Tavener & Son	1,246	0 0
C. W. D. Meekcoms.....	1,024	4 7
Withrington, Burgess & Prebble	783	0 0
Waring & Gillow, Ltd.	704	10 0
F. Mark	690	0 0
*J. W. Buckingham & Sons....	650	0 0

LONDON.—For asphalte macadam paving in Augbrook-street, Paradise-street, and Huntsworth-terrace, for the St. Marylebone B.C. :—
Limmer & Trinidad Lake Asphalte Co., 14s. 9d. per sq. yd., and 5 years' free maintenance.

LONDON.—For redecorations to portions of interior of Metropolitan Water Board offices :—

W. H. Kelland & Sons, Ltd.	£360
E. B. Holmes & Co., Ltd.....	251
*H. & E. Lea, Ltd.....	217
Moffat Bros.....	162

(Tender subsequently withdrawn.)

LONDON.—For external repairs, decorations, &c., at the Head Offices of the Metropolitan Water Board :—

E. B. Holmes & Co., Ltd.....	£856 0
Mullen & Lumsden, Ltd.....	820 0
Thomas & Edge.....	810 0
Rice & Son	807 0
A. Vigor, Ltd.....	768 10
H. & E. Lea, Ltd.....	733 0
W. H. Kelland & Sons, Ltd.....	688 0
Holland & Hannen & Cubitts, Ltd..	655 0
J. Simpson & Son	619 0
Cole, Loasby & Co.....	599 0
*J. Greenwood, Ltd.	596 0

LONDON.—Construction of buildings for steam turbine plant at Surbiton Pumping Station, for the Metropolitan Water Board :—

Thomas & Edge	£12,493	9 4
Cropley Bros., Ltd.	11,461	15 9
Wilson Lovatt & Sons, Ltd. ..	10,882	16 2
Engineer's Estimate	10,652	0 0
F. D. Hidden & Co., Ltd.....	10,446	19 4
Henry Taylor & Son.....	10,190	0 0
John Laing & Son, Ltd.....	10,139	5 5
Grace & Marsh, Ltd.....	10,069	14 7
Perry Brothers.....	10,010	5 2
*Humphreys, Ltd.....	9,750	6 10

LONDON.—For repairs to 7 and 9, Aubrey-walk, Campden-hill, for the Metropolitan Water Board :—

W. A. Harris	£179 0
Collins & Co.....	176 0
Chapman & Sons	169 10
*T. Johnson	169 0

NORTHFLEET.—For the erection of a new paper mill for Messrs. H. V. Bowater & Sons, Ltd. :—
Building construction and machinery—W. G. Armstrong Whitworth.
Construction of two super paper machines—Charles Walmesley & Co., Bury.
Contract over £500,000.

PONTYPOOL.—For erecting new offices for the B.G. in Hanbury-road, Pontypool :—
*W. Branch, Pontypool..... £3,875

ROMFORD.—For completion of Rainham sewer, for the R.D.C. :—
*T. Muirhead & Co..... £10,299

ST. ANNES-ON-SEA.—For the erection of new station buildings for the L. M. & S. Ry. Co. :—
**Main contract*—Jonathan Partington & Co., Ltd., Middleton Junction.
**Steelwork*—Saml. Butler & Co., Ltd., Leeds.

STONE.—For Victor-street extension scheme, for the U.D.C. :—
*D. Carson, Wolstanton..... £1,174 10 2


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STRETFORD.—For supply of materials for six months to the U.D.C. :—
GRANITE.—Macadam tarred, ½ in. to 2 in.—Penmaenmawr & Trinidad Lake Asphalte Co., Ltd. (Stretford), 33s. 3d. to 31s. 3d. Penmaenmawr & Trinidad Lake Asphalte Co., Ltd (Cornbrook), 34s. to 32s. Macadam (machine broken)—Penmaenmawr & Welsh Granite Co., Ltd. (Longford Wharf), 2 in., 18s. 4d. ; 1½ in., 18s. 4d. ; 1 in., 18s. 4d. Penmaenmawr & Welsh Granite Co., Ltd. (Stretford), 2 in., 16s. 11d. ; 1½ in., 16s. 11d. ; 1 in., 16s. 11d. Penmaenmawr & Welsh Granite Co., Ltd. (Cornbrook), 2 in., 17s. 6d. ; 1½ in., 17s. 6d. ; 1 in., 17s. 6d. Penmaenmawr & Welsh Granite Co., Ltd. (Longford Wharf), ½ in. chippings, 19s. 4d. ; ¼ in. chippings and sand, 15s. 7d. ; 5 in. × 3 in. × 5 in. to 7 in. setts, 63s. 6d. Penmaenmawr & Welsh Granite Co., Ltd. (Stretford), ½ in. chippings, 17s. 11d. ; ¼ in. chippings and sand, 14s. 2d. ; 5 in. × 3 in. × 5 in. to 7 in. setts, 61s. 2d. Penmaenmawr & Welsh Granite Co., Ltd. (Cornbrook), ½ in. chippings, 18s. 6d. ; ¼ in. chippings and sand, 14s. 9d. ; 5 in. × 3 in. × 5 in. to 7 in. setts, 61s. 10d.
FLAGS, CURBS, SETTS, &C.—*Flags*—Brooks & Brooks Quarries, Ltd.—Best barns, 3 ft., 13s. 3d. ; 2 ft. 6 in., 13s. Rudman & Phillipson—Sawn barns, 3 ft., 10s. 6d. ; 2 ft. 6 in., 9s. 6d. Second barns, 3 ft. 9s. 6d. ; 2 ft. 6 in., 9s. *Curbs*—Brooks & Brooks Quarries, Ltd., 12 in. × 8 in., dressed, 7s. 6d. ; undressed, 4s. 11d. ; 14 in. × 8 in., undressed, 5s. 9d. *Setts*—Brooks & Brooks Quarries, Ltd., 6 in. brown lonky, 25s. ; 4 in. cubes, 45s.
PITCH AND OIL.—J. E. C. Lord, Ltd.—Pitch, £7 5s. per ton ; oil, 9½d. per gal. ; tar for spraying, 10d. per gal.
GLASS AND PUTTY.—*Glass* (per sq. ft.)—Pilkington Bros., Ltd.—15 oz. plain, 2⅜d. to 2½d ; 21 oz. plain, 2⅞d. to 3⅜d. ; 15 oz. opal, 6d. (all less 2½ per cent. discount).
PAINT.—D. Macpherson & Co., Ltd., 4s. 6d. to 7s. per gal.
PIPES, &C.—*Pipes* (per yard)—The John Crankshaw Co., Ltd. (less 2½ per cent.), 4 in., 1s. 8d. ; 6 in., 2s. 6d. ; 9 in., 4s. 6d. ; 12 in., 7s. 6d. ; 15 in., 12s. 6d., 18 in., 17s. 6d. ; 24 in., 37s. 6d. *Gullies*—The John Crankshaw Co., Ltd. (less 2½ per cent.), street, 33s. 4d. ; passage, 10s. Buxton Lime Firms Co., Ltd. (Stretford), lime, 36s. 10d. per ton ; limestone, ½ in. and ¾ in., 15s. 1d. ; Buxton Lime Firms Co., Ltd. (Cornbrook), limestone, ½ in. and ¾ in., 14s. 4d. ; Buxton Lime Firms Co., Ltd. (Warehouse), lime, 37s. 6d. per ton. *Cement*—W. A. Hoare & Co., 55s. per ton, delivered. LAND DRAIN TILES (per 100)—Stringer & Johnson, 3 in., 12s. ; 4 in., 16s.

THURSTONLAND.—For the slating of cottages in the area, for the U.D.C. :—
Crabtree, Halifax.

TWICKENHAM.—For erection of 16 "A" type houses, for the U.D.C. :—
J. W. Kent £12,690
S. E. Moss..... 8,574
†F. D. Hidden & Co..... 7,910

WAKEFIELD.—For the erection of a bungalow at Carr-lane, Sandal, for Messrs. Massie & Holdsworth :—
**Mason*—J. Lockey.
**Joiner*—W. Bramald.
**Plasterer*—H. & W. Parker.
**Plumber*—H. Gillott.
**Painter*—A. Stead.
**Slater*—T. E. Senior.

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WORTHING.—For the laying-out gardens, for the T.C. :—
*Maxwell Hart, Glasgow.....

WORTHING.—For extension of the Electricity Works, for the T.C. :—
James Bodle, Ltd., Eastbourne.....
F. Sandell & Sons.....
*A. Crane & Sons, Worthing.....

YORK.—For provision of Married Men Weights and Measures Office, for the T.C.
*F. Shepherd & Son.....

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JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

. CXXV.—No. 4211. OCTOBER 19, 1923

LINE OR COLOUR IN ARCHITECTURE.

LL architectural roads lead to Rome. The mediæval styles may be traced back step by step to the city of the Emperors through the Romanesque just as modern manifestations have their origin in the more self-conscious copyings of the Renaissance, hether the outgrowths of Romanesque or of the Re-ıce be examined, the course of evolution has tended in ɔrthern buildings towards the substitution of the line for ass and of shadow for colour.

lready, in the days of ancient Rome, lines of moulding een introduced, together with attached columns and y entablatures used as ornamental features on buildings actual support consisted of piers and arches, but the sting colours of the materials of construction, the great thic shafts of precious marbles or polished granite, the tive sheeting of large surfaces with marble and vivid modified the effect of the superficial mesh of lines. reek simplicity of straightforward constructional ex-n had, indeed, been lost, but the ancient love of colour ed to give a character to both the exterior and the r of Roman buildings that could not have been created ise. Colour was evidently considered to be of the very nportance, and enormous cost must have been incurred vide the masses of porphyry and other precious coloured al, which were carried immense distances over sea and om quarries in remote parts of the Empire.

th the employment of colour as an important element itecture, a tradition as to the disposition of colour masses l to guide the designer, who could hardly fail to learn les of harmony from the multitude of examples which nded him on every side. The arts of decoration and of uction went hand in hand, both well understood and sly put into execution with assured confidence even if ects aimed at might appear to a modern critic somewhat y magnificent rather than expressing the utmost possible ient. The more barbarous and uncertain arts of the esque period retain in their poorer and more meagre this respect for colour, and often where the lack of funds the employment of mouldings and attached columns Roman manner, the large surfaces covered in cloth gs, such as the Bayeaux tapestry, or with designs executed nents, preserved something of the ancient tradition. ements in masoncraft and the invention of ribbed g, however, weighed down the balance in favour of n to lines as distinct from modelled masses or coloured and although traces of pigment are to be found on the najority of untouched medieval works, the love of mouldings gained ground, and for a time overmastered ther consideration.

as with minds filled with the Gothic tradition of ribs nels, of lines of vaulting shafts and label moulds that rthern designers turned to the consideration of the ance of Roman architecture which had been exploited great Italian masters. And here, though the Gothic detail were to be cast off like so much old clothing, the in which the Renaissance came to the north tended t attention to the lines and proportions of Roman ture rather than to its management of colour masses. time Gothic art had run its course the majority of Roman examples of colour decoration which remained round had been subjected to the destructive influences ral centuries of exposure to weather, if not also to ful destruction either as pagan works, unworthy to be d, or for the sake of the value of their materials, and the s of the Renaissance could gain but an imperfect im- of the important place colour had taken in the buildings ey were new. Still less could their diagrams and d drawings, executed in line, convey colour values to rs in the north, who had their attention directed instead inute proportions of the columnar orders as they may be expressed in fractional parts of the diameter of a column. This was arid food for architects, and tended to leave them starving for lack of what should have been a necessary ingredient of their diet.

Colour vanished from the exteriors of buildings, and if it was retained in treatment of interiors it was applied not at the discretion of the architect but at the whim of the painter called in to adorn and finish his work. Even when, as in the case of Michelangelo, painter and architect were one, the architecture tended under this arrangement to become a frame for pictures rather than a living colour scheme; and in the absence of a great master of both arts the question of colour was left more or less to chance. Sir Christopher Wren, that magician in sculptured form, managed to knock some colour sense into the module by marshalling the lights and shadows on the columns and intercolumniations of his portico into key with those on the more distant and more elevated mass of the dome and its encircling peristyle. But after he had painted this gigantic chiaroscuro athwart the sky, and upheld it by half a hundred matchless spires, the colour sense was painstakingly washed out of architecture once more by a return to classical correctness of detail and proportion.

The brothers Adam, Owen Jones, and Butterfield each in their own way, strove to reinstate colour, but their efforts were those of individuals struggling against an overwhelming flood. Ruskin pleaded for colour in architecture, and the last remnants of colour tradition seem to have broken down at his words. It would be well if we could dismiss the subject as ancient history, but unfortunately architecture at the present time has not only to get on as best it may in the absence of adequate instruction, but to combat some pernicious influences of great, if disregarded, strength.

It may be fairly claimed that almost every architectural student is trained in his early years from line diagrams of the orders of classic architecture which fail to indicate the polychromatic decoration applied to ancient buildings. Far worse than this, many students are allowed to work from diagrams which represent one column and a fragment of entablature without reference to the appropriate intercolumniation or to the fact that the colour value of a column is determined by reference to the relative dimensions of the whole assembly of units, the columns and entablature with their proper minor shadows in relation to the main bulk of shadowy intercolumination enclosed in the more brilliantly lighted frame. From the time of the Renaissance to the present day the difference between the colour value of a pilaster and of a column standing free with an ample loggia behind it has been involved in confusion owing to the fact that in an outline elevation such as is put before the student the two things appear identical, although intensely different in actual effect.

The misuse of conventional colours for tinting working drawings to distinguish different materials of construction is another stumbling-block. Truth is sacrificed to an exaggeration purporting to lead to increased legibility and the young architect learns to accustom himself to looking without disgust at collections of the most discordant hues and tones provided in the paint box arranged upon the paper, not in reference to the effect of the resulting pattern, but in accordance with the quality or quantity of certain materials represented. Perhaps the most hopeful sign of a return to a realisation of colour values may be read into the domestic architecture designed and erected since the war under pressure of great economic stringency. Funds have not been available for the many functionless features of pre-war times, and simple, useful shapes have had perforce to be adopted. Under the circumstances architects were driven to consider the possibility of redeeming the plainness of their bare walls and unbroken roofs by the choice of pleasantly coloured materials. It is to be hoped that when the enforced economy has passed the value of colour will not be neglected.

NOTES.

Competition Results.

The letter from a correspondent on the subject of competitions which we publish this week no doubt reflects a large body of opinion as to the desirability of the jury system and the responsibilities of the technical press. Whether it be for our ultimate good or no we can hardly doubt that the jury system of assessing will be on trial before long. As to technical criticism, we have seen it tried with extreme frankness, and the wounds caused thereby have never healed. For our own part we have always aimed to give the utmost publicity to what we think to be the best in every competition, and our recent record shows that we have recognised outstanding quality outside the lists of premiated designs. One might be inclined to suggest that the Holt Line Building Competition, the winning design for which we gave last week, and Sir Edwin Cooper's design this week, would be assessed about as well with the aid of one eminent assessor as with three or four.

Station Architecture.

We have heard so much of the architecture of the small house that we are apt to lose sight of other small buildings, many of which have sunk architecturally to quite as sad a pass as the pre-war house. In buildings such as railway stations there does not exist the stimulus to improvement that the searchlight has provided in respect to housing. One can imagine those in authority at one of the great railway termini, when they hear that a new station is required or that an old one has to be rebuilt, ordering everything to a standardised pattern, including the pressed brick and the curious little spiky fascias that the railwayman seems to love. Let us hope that the new life that is creeping into housing will have its repercussion on the wayside station, and that railway magnates will come to realise that a small railway station might be made a piece of architecture by the exercise of a little thought and little if any additional expenditure.

British Museum Lectures.

The second of these lectures emphasises the absorbing interest of the facts revealed through recent excavations, modifying our views on subjects of the highest importance. The Victorian ideas about "Progress," so complacent in their illusions, have already received a sudden set-back growing out of the threatening experiences of recent years. We are no longer able to assume that kind of progress under which civilisation was found to be so secure, because previous civilisations have entirely disappeared, to be replaced after dark spaces of time by lower ones in the scale of human completeness. And we are also able to see that the collapse of civilisations is not a slow thing: they were not destroyed by slow decay, but by war and fire, coming to swift and disastrous ends. There is a particular significance in this for Europe at the present time which needs no labouring here. Miss Claire Gaudet, in the course of her lecture, gave some very instructive particulars of the method of building construction by the Sumurian civilisation (4000 B.C.). To give elasticity to their buildings they put in courses of reed, mud and bitumen, in their stone or brick buildings, bricks which were plain or convex and unglazed, and the chambers of their houses were grouped round a rectangular court, the mortar being composed of slime (a clay mud) and bitumen. The discovery of the sites of the five antediluvian cities proves the tradition, so long held, that these existed, and which Arab tradition also endorses. At Shiruppak, one of these cities, there are a large number of dry, covered-in wells, brick-lined, and their tops constructed with the earliest form of vaulting known to us.



International Exhibition of Decorative Arts, Monza. (*See p.* 599.)

The Ministry of Transport.

In taking such an important step as that of circularising the County Councils against ugly advertisements, the Ministry of Transport has earned the thanks of all who use our public roads and who desire to preserve the quiet and the beauty of the countryside. Our roads have come recently into very great prominence, owing to the enormous increase in motor traffic. The advertiser, to whom every frequented thoroughfare is a potential hoarding, has not been slow to carry his excesses—his "abominations," as a leader in *The* describes them—far into the co side, his business counting far m his mind than his citizenship. Minister of Transport, in the cou his circular, says that it is "lament that the wayfaring public should b deprived "of the enjoyment public highways should afford," a should like to see among architect other workers in the arts some cor step taken in support of his spirited action. There is a challe decency—let alone beauty—in th cesses to which the Ministry refer. gratifying that a Government depar should have taken this step of circula the County Councils, and we fee that the whole body of disinte public opinion will support any f steps that are necessary to give to their action. For there is a infringement of public rights in claims of commerce to override dominate every other interest tha own. As the smoke of industr has defiled our great cities, so the hoa and its strident advertisements hav defiled our countrysides and towns step which the Ministry of Healt taken will, if the advertiser does not own house in order, before long lead being compelled to do so, and in action they will have the suppo public opinion.

"The Clash of Masterpieces."

Two such eminent pro as *The Times* and have recently denoun different ways the inflicted on a too to public by this "abuse of advertisen The disfigurement of the countrysi hoardings, referred to by the forr a crime of stupidity and blindness

urement of town buildings by letter-atirised by the latter, is a crime of ng, in the sense of too much know- . The tragedy depicted by Mr. ge Morrow is almost too true to life funny. "The young architect puts est work into his design for the Company's new premises," sustained midnight cup of coffee. "He pro- a masterpiece which he hopes will his reputation . . . but the sign- r has his own ideas," and dis- nment is complete. Under modern tions, the design of commercial ngs in some form or other is in- bly one of the main avenues to reputation." Should we be in a on to complain if our young archi- —or old ones either, for that matter— d cease to put their "best work" nything at all, when we permit this drama of the "clash of master- s" so long a run without a protest?

ns on dings. Lettering on buildings can be made a decorative feature; "signs" of a pictorial nature can be valu- dditions to the surface of a building, operly treated; but when either command the death-knell of the ng as architecture begins to . *The Times*, naïvely remarks that the first time that the evil has been ritatively denounced as an evil, and the rights of the public, to whom the roads belong, officially championed." All this is in an admirable cause, but what of the man-in-the-street? Has he no rights and none of that determination? Is it only rural highways that should afford enjoyment? And are there no "wayfarers" in London streets?

Vibration. A serious problem is arising as a result of the extended use of heavy motor vehicles, including the latest type of bus. No doubt under ideal conditions our roads should be capable of carrying such traffic without imparting undue vibration to adjacent structures, but in practice the roads are often allowed to get into a state of ridge and furrow, when the vibration communicated to the neighbouring buildings becomes excessive. The only remedy we can suggest is that increased attention should be paid to the solidity and evenness of surface in city streets, and that we should give up the absurd habit of tearing up the foundations at frequent intervals to arrive at pipes and cables that ought to be placed in accessible underground galleries.

Cinema Notices. We observe in one of the latest and most up-to-date cinemas that the architect's provision of special panels for announcements has not met with the success one might have anticipated; the advertisements have strayed off the panels on to the surrounding pilasters — like patches of fungus. It may be that the panels provided in this particular case are not adequate, but we feel that managers of theatres and cinemas ought to be in a position to know the maximum area that they will require for their notices, and that, when that area is given them, they should stick to it and not spoil the design of the building by going beyond it.

Aerials. The family washing has always been in evidence in the London backyard or garden, and has not added to the beauty of a scene that admittedly had none to spare to begin with. We are now faced with another feature that seems destined to become as universal as the washing—the wireless aerial. The aerials on the Admiralty and on ships are not ugly, but we rather deprecate the extensive use that is now made in the suburban garden of the weedy-looking pole, which totters feebly over as if bowing to the back door. One can count hundreds along any suburban line, not one of which appears to be strong enough for the task imposed upon it, whereas it should be simple enough to fix and support a post that would maintain a dignified posture.



International Exhibition of Decorative Arts, Monza. (*See p.* 599)

GENERAL NEWS.

Appointment.

Mr. L. Doyle, M.S.A., of Leeds, has been selected from seventy applicants as senior architectural assistant for Newcastle. He was for two-and-a-half years an inspector of houses under the Ministry of Health.

The Mayor of Lichfield.

Councillor J. H. Bridgeman, J.P., has accepted the unanimous invitation of the Lichfield City Council to fill the office of Mayor for a second year.

A Builder's Estate.

Mr. Frederick Charles Huins, of Redditch, one of the principals of Messrs. F. C. Huins & Seden, builders and contractors, Redditch, left gross estate of the value of £16,534.

Glasgow Housing Exhibition.

The Housing and Health Exhibition which has been running in the Kelvin Hall during the past fortnight has proved one of the most successful organized by the Corporation. The attendance of visitors has been exceptionally good.

Bristol Square as Motor Park.

The proposal of the City Council to convert Queen-square, Bristol, into a park for motor-cars, and to cut down a number of the fine trees, has aroused the opposition of many citizens. Queen-square is one of the finest Georgian squares in the country, and was at one time the home of the merchant princes of the capital of the West, though now the majority of the fine old houses are occupied by business firms, mostly those connected with shipping. It is five acres in extent.

The Liverpool Architectural Society.

We have received the syllabus of the Liverpool Architectural Society. The principal meetings are as follows:—October 23: Mr. A. N. Shelley, M.A., B.C.L., on "The Control of Buildings by By-laws and other Forms of Local Regulation." November 20: Mr. Ernest C. Bewlay, F.R.I.B.A., on "Outdoor Sketching." December 4: Mr. Herbert A. Welch, A.R.I.B.A., on "Our Clients and Ourselves— and Possibly Other Thoughts." January 8, 1924: Mr. Theodore Fyfe, F.R.I.B.A., on "The Study of the Past." January 22: Mr. F. X. Velarde on "A Student in Paris." February 5: Professor T. H. Hughes, A.R.I.B.A., on "The Monumental Architecture of France" (lantern slides). February 19: Mr. Leonard Barnish on "Birkenhead" (lantern slides). March 6: Mr. W. Milburn, Jun., A.R.I.B.A., on "Hospitals." March 18: Mr. Lionel Budden, M.A., A.R.I.B.A., on "The Relation of Architecture to the Arts."



A Corridor at the International Exhibition of Decorative Arts, Monza. (*See p.* 599.)

The Surveyors' Institution.

Draft Rating and Valuation Bill.—The Minister of Health, having invited the Council to consider the proposed amendments in the existing law and practice of rating contained in this Bill, and to lay their views before him, the Council has set up a Special Committee, representative of the different branches of the profession more directly concerned, to report thereon. The Executives of the County Branches in England and Wales have also been asked to examine the provisions of the Bill, and to forward their observations in time for consideration by the Special Committee before that body completes its report. The Council hopes to be in a position to forward a memorandum on the Draft Bill to the Minister before the end of the year.

Annual Country Meeting.—The Council has accepted an invitation from the Sussex Branch to hold the next annual country meeting of the Institution in their district.

Institution Reception.—The Council has decided to revert to the custom, which obtained prior to the war, of holding an annual reception.

Annual Conference of County Branches.—The date of the annual conference between the Council and the Chairman and Hon. Secretaries of County Branches has been fixed for February 11.

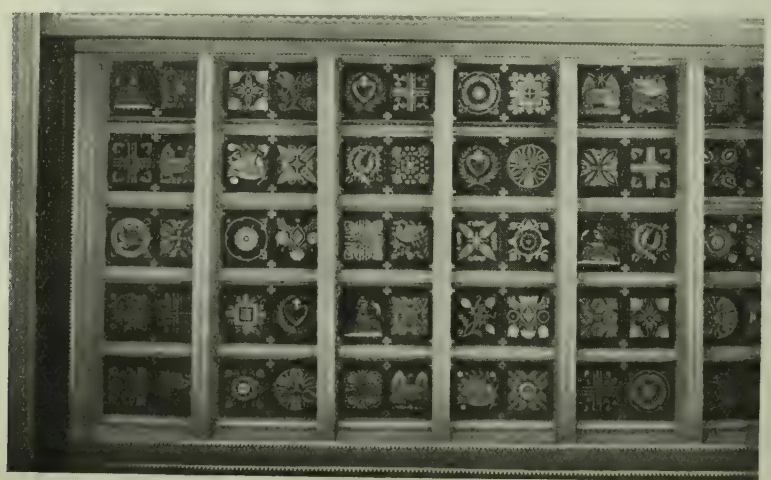
Annual Dinner.—The annual dinner of Institution will be held at the Connaught R W.C.2, on April 8.

The London County Hall.

The unique system of ventilating the Council Chamber was described by M P. M. B. Grenville and T. Moodie, M.I.Me at the autumnal meeting of the Institut Heating and Ventilating Engineers in paper entitled "The London County Plant, Facts, Figures and Reflections." is partly obtained by a system of trunking the Council Chamber, providing an indi supply to each seat. Besides the main special registers are so arranged to ever that each member can direct the incomi either towards himself or vertically out range. The plant is capable of delivering cubic feet per hour for every occupant chamber.

The apparatus consists of a humidifier, h batteries, automatically controlled fror chamber itself, fans and ice tanks for c The paper commenced with the history section of the plant from the time Mr. the architect, won the open competition in including the provision made for warmin portion of the building completed whe war intervened and stopped the work, ar Government took it over for the use Ministry of Food.

A complete description, illustrated by l slides, of the whole of the equipment was The main building is heated by means of circulation of hot-water to over two tho radiators, having a total heating surfa 68,349 square feet. The hot-water supp over eight hundred lavatory basins and is capable of providing 71,400 gallons water in one hour.



International Exhibition of Decorative Arts, Monza. (*See p.* 599.)

COMPETITION NE

Institute of British Decorators.

The prizes in the Incorporated Institu British Decorators' Travelling Stude Competition are as follows:—

First Prize (Travelling Scholarship, sixty guineas, and Silver Medal of the Inst —Mr. Charles Minett.

Second Prize (Silver Medal).—Mr. Sexton.

Third Prize (awarded for special me Mr. Harry Rutherford.

[For competitions open, see our last issu

IIBITION OF DECORA-VE ARTS AT MONZA.

irst International Exhibition of Decora-ts at Monza, of which we have already preliminary notice, has proved to be by the fine results achieved. The is to have a series of biennial exhibitions, ing with those of the city of Venice; way in which it has been carried through mmer by the Committee, with an c Director-General, the Onor. Guido oni, and Sig. Rafaelle Calzini as his y, promises well for the future, if the standard can be kept up and even d. especially in the countries coming thout Italy. The *locale* of the, exhibi-the beautiful Villa Reale of Monza, Piermarini in the eighteenth century, ly an immense palace rather than villa, park stretching for miles, and the whole cessible from Milan, is itself a valuable the Exhibition.

talian provinces which took part in the on were Lombardy, Piedmont, Tuscany, re Venezie"—including Venice herself Veneto—Trieste, Bergamo, Volterra alabaster, Faenza with her majolica, a feature also of the Roman section, and lastly Sardinia and the Abruzzi eir interesting peasant arts. Besides ere were special displays of individual such as the attractive "Mostra del installed in the library of the palace ueen Margherita had formerly arranged, ving the book in its features of artistic tiful printing, binding and illustration; in as the "Sala della Mensa," giving rdering of the table in fine glass, linen amics; and a limited but choicely display of the goldsmith's and jeweller's stly, among these separate shows was ay of sacred art, and a display of the decorative work of that fine northern craftsman, Hans Lerche, who had made his home in Italy. Lerche—who had been a pupil of Eugene Carriere at Paris, and who died at Rome in 1920—had made a special study of glass work, but also worked at ceramics, bronze figures, and every side of decorative art. He was an innovator in touch with all that was most alive in modern creation, including the Japanese, and his place in the exhibition was fully justified and a worthy homage to a great modern craftsman.

The idea in the Piedmont room at the Exhibition was to show the home which might be that of a man of artistic tastes and interests. Passing through an entrance hall or vestibule with a fountain, the dining-room was entered, then a studio or work-room, a delightful music room with panels by Reviglione, the billiard room, bedrooms, and children's room, and finally a little gallery.

In regard to the foreign sections it was a matter for regret that England was not fully represented in decorative art, for as one saw last spring at Burlington House, we have a rich field in furniture and arts and crafts. The collection of posters shown in the vestibule had merit in many cases, but obviously did not represent the Empire in decoration. The financial side presented difficulties no doubt, but when we find France, Belgium, Sweden, Bohemia and even Hungary coming forward we may surely hope that on the next occasion some better effort will be made by our own country.

From the decorative side the Hungarian section was most original and interesting, and, of course, Czecho-Slovakia showed well in her traditional industry of glass which, we believe, preceded in order of time even that of Venice, who showed some beautiful glass work. The French rooms were good in sculpture and quality of design, and Belgium gave attention to the theatre in a display of theatrical "maquettes." In a room near this the Futurists, given a free hand as to their choice of subjects, saw their opportunity and took it, with astonishing results. Excellent though this first Monza Decorative Exhibition has proved, what it needs in the future is careful choice, quality rather than quantity in the exhibits, and above all careful and complete organisation on the business side. It might then become a potent aid in the re-establishment of harassed and broken trade throughout Europe and the world, which is what all sane people are working and hoping for.

R.I.B.A. Premises.

It was hoped to complete the rebuilding of the R.I.B.A. Galleries and other alterations before the opening of the Session, but unforeseen difficulties have arisen which will delay the completion until the end of December. Arrangements are being made for holding the examinations in November and December at other premises.——Through the generous hospitality of the Royal Society of Medicine, the R.I.B.A. general meetings in November and December will be held in the Barnes Hall of the Royal Society of Medicine, 1, Wimpole-street, W. 1. Members are particularly requested to note the address.——The inaugural meeting, which will be opened by the President's Address, will be held at the Royal Society of Medicine, at 8.30 p.m., on Monday, November 5. On this occasion, the portrait of Mr. Paul Waterhouse (Past President), which has been painted by Sir William Orpen, R.A., will be unveiled and presented to the Royal Institute; and the Medal for the year 1922, which was awarded to Mr. W. Curtis Green, A.R.A., for Wolseley House, Piccadilly, will be presented to Mr. Green.



A Room at the International Exhibition of Decorative Arts, Monza.

CORRESPONDENCE.

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Architectural Competitions.

Sir,—From the interesting correspondence that has taken place in your columns on the subject of architectural competitions, it seems clear that there is a large consensus of opinion in favour of the jury system; at least, if one may judge from the letters you have published, for no arguments against have been put forward.

It was good to see that the opinions of such leaders of the profession as Mr. Lanchester, Mr. Davis, Mr. Atkinson, or Professor Reilly were no less emphatic than those of the younger men; and the conclusion one draws is that this is a reform that might easily be effected at once. I hope that the subject will be brought up at the R.I.B.A. this autumn by one of these gentlemen. Whoever does so will be doing a great service to his fellows and may be sure of their enthusiastic and immediate support.

It seems to me, however, that in this matter, Sir, the technical press has a certain amount of responsibility, which it has held a little too lightly of late. In the first place, one expects enlightened and authoritative criticism. The critic of to-day should have the right to judge the work submitted in public competitions by a high standard, and if he finds that this standard has not been reached in some of the premiated designs, it is his duty to say so. He should be an impartial onlooker, holding a brief for the whole profession; and he, as well as the asssesor, has the right to judge, suggest, applaud or reprove, as may be necessary. Such criticisms as are so often seen to-day, and which consist of little else but some pleasant and soothing praise for the winners, and a kind word for everybody, are totally without value, and a betrayal of trust on the part of the critic.

I would like to suggest that it is only the technical press that can undertake this duty, and that the journal that does so honestly and fearlessly will gain in esteem and prestige.

As a corollary to this, only work of good quality should, as far as is possible, be illustrated. It should not be necessary always to devote the entire space that is available for the illustration of any particular competition to the premiated designs alone, to the exclusion of other designs of probably equal, or maybe greater, interest. It may be that there has been a design submitted of unusual imaginative quality and which would therefore be unlikely to be premiated; I think everyone would be keen to see it, and would rather see it than the sections or side elevations of the successful designs, for instance, if they had to make a choice. Before the war practically all designs of interest were illustrated in some way in the text, if not on separate plates, and this was particularly the policy of *The Builder*.

What I want to emphasise is that architects want to feel sure that they will see sooner or later in your columns all the best designs sent in for any competition, so that they may judge for themselves on what is being done at the time.

London. V. O. Rees.

[**** We comment on this letter in our "Notes" pages.—Ed.]

Field Gates.

Sir,—As a lover of our English countryside I was more than delighted with Mr. Lethaby's sketches in your issue of July 6. The farm cart, as described and illustrated by your contributor, has been a joy to me "since these arms had seven years pith," and the perfect field gate—alas, how rare!—will stir me to my innermost depths. I am neither a builder, an artist, nor an architect; neither can I claim to being more than a mere amateur carpenter. But I know the "right gate" when I see it, and I see it in Mr. Lethaby's sketch No. 8.

Whilst on a summer holiday this year in Brittany I saw a series of gates new to me and which may prove of interest to some of your readers. I only saw them on one stretch of road between Dol and Pontorson, betwixt Brittany and Normandy, but can quite imagine they are common enough in that countryside. Being but one of a party of motorists, with Mont St. Michel as an outward objective, and dinner as a homeward one, I had not sufficient courage to stop the char-a-banc and make a photographic record or accurate pencil sketch of one of these, to my mind, perfect gates. However, I think my sketch (*see p.* 601), after memorising the 20 or more I saw, will convey the idea even if not drawn accurately to scale. I may say at once that it is constructed from the wood of the near countryside and is entirely without metal in its composition.

The outstanding feature is the top rail (A), which consists of a small tree trunk—and often not very small at that—generally, but not necessarily, roughly squared and with the heavy butt end left on, sometimes with the rough and picturesque roots as dug from the ground still intact. This butt end is, of course, the crux of the whole construction, acting as a counterbalance to the barred portion or gate proper.

B is a stout and well-sunk post rather loosely dowelled into the top rail (A), just sufficiently loose to allow of a little upward and downward play in addition to the lateral movement of the top bar. A dismantled gate luckily furnished me with this detail.

C is a post with crutch top in which the top bar comfortably rests when the gate is closed.

When closed and at rest the bottom of gate is just clear of the ground. As the butt end nearly balances the remainder, it requires but a pound or two of hand power to lift the top rail from the crutch and the gate rests comfortably and securely on the ground, wherever placed, either inside or outside of the field. Obviously there must be free play for the counterbalance above the low hedge, wall or bank.

There is nothing, apart from natural decay, to put this gate out of order. The slightest sagging of the hinge post of the ordinary English gate puts it out of gear at the hasp end and, when opened, how often it digs its bulky weight into mother earth half-way between open and close. I have used bad words to the decrepit English "five-bar" after reading the polite legend, "Please shut this gate." Recently returning from the politest of countries, I raise my hat to the Norman-Breton gate.

Upminster. A. E. Reveirs-Hopkins.

The Old Court House, Barking.

Sir,—Some twenty years ago the ancient mediæval Parliament House at York, constructed entirely in the most sturdy yet graceful style of solid oaken architecture, having to be demolished to extend a street, was purchased by a resident of that city, who had every timber carefully taken apart and numbered, with a view to a re-erection of this priceless building in the Minster yard as a Church House—an ideal destiny. Unfortunately, instead of the materials being immediately transported to the new site and at once put together, they were loosely stored in a shed, where they have remained ever since, and as the intending preserver of them is now deceased, it seems very problematical whether this masterpiece of Gothic art at its very best period will ever be reconstituted in its pristine beauty, with its exquisite carvings and perfect outlines.

The same fate seemingly threatens another similarly precious, though less elaborate, historic monument, the Elizabethan Court House at Barking, which was most wantonly and needlessly taken down a few weeks ago, although it was no obstruction to the street, which was wider at that point than any other part, and could have been adapted and utilised for many public purposes. It was also in absolutely perfect preservation, with the exception of one point where, through gross carelessness, a gutter-pipe from the roof, not having any outlet to a proper drain, had undermined the foundation, causing the roof to sag slightly, but this could easily have been set right and the whole building put in complete repair for the small outlay of about £200, which indeed the Society for the Protection of Ancient Buildings had collected, but was refused by the Council! The ostensible reason was t the structure as a pavilion in the par here again, instead of the new fo being previously prepared, so that thes timbers could be directly set up without for double cartage, they also were ready numbered, promiscuously heaped where, unless very promptly put togeth their exact positions may be probabl memory and their delicate and skilful construction forgotten.

In any case, there is no hope of the r being executed in the firm yet con method of the original construction, w so carefully put together that scarcel had started, while the roof, so far fr of the flimsy kind we know now, required saws, axes and crowbars to w tear it apart.

The sight of this splendid but unp old landmark being thus ruthlessly ha shattered was a heart-breaking one to inhabitants, only slightly modulated assurance that it was to be thoroughly and renovated in the Park, a long wa familiar and most useful position, bu now it only depends upon a chance v Council whether the now much- expense of re-erection will be sanctio quite possible that this may be indefinitely or abandoned altogether, one of the most stupid and unnecessa of vandalism that have ever taken plac perpetrated. It even appears that th Party in the council are opposed to th thus proving that they are not only u of their noble heritage in this inimitab but of the opportunity of varied and work it offers, which at least one wo they might welcome.

If the Whitgift Hospital could b though every utilitarian consideration d its destruction, surely this far more example of an architecture that can n revived nor imitated should be spare there was absolutely no serious practic tion, and even the expenses provided.

Croydon. Evacustes A. P

Information on Current Town Pla

Sir,—I was very interested to read Notes that the Northern Division of th Planning Institute is trying to give help to town planners. Institutes g I am told, only develop marked interes members when their subscriptions overdue. It is most difficult usual working on a town-planning scheme to practical data. Half a dozen may be over exactly the same problem, when a information would save a great deal o besides providing a means of obtaining solution.

I have often thought that if practic tions were put periodically to those i of schemes, and the results entered up accessible form by some known person, be applied to by those in difficulty. of preparing schemes, for instance, c kept in relation to areas, &c., methods o with compensation or betterment, the po of concessions, &c. Such a centre of info would be of great use, and probably a would be obtainable from it promptly would cut out, say, six months' corresp with the Ministry.

Manchester. Fiat

The Art of Plumbing.

A correspondent, signing himself sends us an account of a scheme of pl carried out in one room, 97 ft. long an wide, containing 144 wash-basins and 5 In the room there are nearly 4,000 ft. pipe (exclusive of iron), with 1,700 wipe on from 6 in. to ½ in. pipe. He sugges the whole scheme is a work of art and an tion to the student, and would like to any similar scheme that has been carri on a larger scale.

THE DEVELOPMENT OF CITIES.

Principal of the University of Birming-
r. C. Grant Robertson, M.A., C.B.O.,
at an inaugural lecture given at the
ity of Birmingham by Mr. Raymond
F.R.I.B.A., on October 9, on "The
s Past and its Future Form," and in
ing remarks referred to the gratitude
he University felt to the late Mr.
Cadbury and the Bournville Village
or the generosity which had enabled
arrange for the building of town-
and civic design and for the public
connected with it.

e course of his lecture Mr. Unwin,
me remarks on the development of
the past, said general experience in
, where high buildings had been
and where increased road surfaces
n provided, seemed to suggest that
any, advantage was gained by trying
d upwards. Broadly speaking, New
d London were centres of equal popu-
umbering between eight and nine mil-
each case. The average height of
s in New York, although the actual
ers were confined to comparatively
reas, was much greater than in
The number and width of streets
e for carrying the traffic was also
rger. And yet the congestion in the
ork streets was greater than in
; the time that was occupied in getting
rom place to place in the town ap-
to be no less; while the distances
ust be travelled and the time which
occupied to reach suburban dwellings
l to show no compensating advantage
ult of the increased average height and
on of buildings. The disadvantages of
ldings had been so fully recognised in
in recent years that zoning regula-
niting the heights were being adopted
e cities with increasing rapidity.

was true in regard to the overcrowd-
ndividual dwellings or buildings upon
l, or to the piling of stories upon the
, was equally true of the undue crowd-
ther of the different parts of the town.
by mere external accretion must lead
ciency in connection with anything
ad even so much definite organisation
dern town.

nefficiency not only affected the daily
of industry and commerce, but in-
normous waste of capital expenditure.
o the growth of the town by hap-
accretion on the circumference, the
rea was constantly being hemmed in
side, so that no part could grow
t the expense of some other part.
opulation in a town increased, every
central function of the town must expand also. Hence it was that one of the most characteristic sights in certain areas of modern towns was the pulling down of buildings still serviceable for the purpose for which they were erected, in order to make room for the expansion of commerce, wholesale or retail trade, industry, or whatever at the moment might be needing to expand. Over a further large area of the town, where the pressure for expansion had not yet caused so much difficulty as to justify the cost of scrapping the old buildings, efficiency was reduced by the makeshift use for new purposes of buildings which were erected for totally different ones.

From the present method of haphazard growth a disorderly muddle of industrial, commercial, and residential areas or buildings inevitably resulted. As further accretions developed on the outside, many of the advantages which led to the selection of particular sites were taken away. In the built-up area of each large town there ensued a continuous struggle of the different parts to re-sort themselves on some more rational basis; and every move was accompanied by the sacrifice of something which had gone before.

Overcrowding solved no problems; in whatever form adopted it created new difficulties; that was the first lesson.

The second was that in essence the problem to be handled was one of distribution and localisation; the proper distribution of the parts of the town in relation to each other and to the site, and the localisation as far as possible of the life of the people in each part.

In existing towns the disentanglement of the confusion of parts and buildings which had resulted from haphazard growth must take time; but that proper distribution of parts must underlay all planning if it were to be on right lines. Better distribution and greater localisation of life offered the only solution of the present traffic problems. It had become evident that there was no solution to be reached by merely multiplying facilities; each in turn was liable to increase the congestion by bringing people to the centre, as much as it relieved it by taking them out, was liable merely to increase the volume of movement. Bad distribution simply meant that things were in wrong places. A large proportion of the different sections of the town, and many of the buildings which gave rise to heavy transportations, being in the wrong places, much of the congestion of traffic was entirely due to the unnecessary moving to and fro of goods and people which resulted.

The volume of traffic in large towns would be great in any case; but it could be reduced by good distribution, by decentralisation, and by localising the life of the people in each decentralised unit. There would still be need to study carefully the many new methods of transportation now available, and using each for the kind of service for which it was best adapted, to frame the whole scheme to give adequate facilities for such movement of men and things as might prove to be necessary or desirable. So long, however, as towns were permitted to spread out indefinitely over the surrounding territory in a dense mass of streets and buildings, industrial, commercial, and residential parts indiscriminately mixed up and packed together, so long must life in towns be one vast disordered confusion of people rushing backwards and forwards over the whole area, impeded by the congestion which resulted from this cross transport of men and things.

The third principle concerned the method of expansion; for the growth of towns by irregular accretions on the circumference there must be substituted a system of development by definitely organised and complete units, to each of which should be allotted space for expansion up to a reasonable limit. It must be recognised that definite organisation implied limitation. Healthy organisms did not grow by the indefinite inflation of their own bodies, but by becoming the parents of new and younger organisms.

The great towns must be disentangled and organised as a group of definite parts, and in so far as they continued to grow that must not be by mere accretion, but by the addition of new satellite parts, industrial or dormitory suburbs, complete satellite towns, or garden cities, each having its allotted area for expansion and its reserved belt of open space to limit and define it.

The fourth principle was that open space was an essential ingredient of every town, or part of a town. Those sections of the private and public life of the community which depended on adequate buildings; they could not be sacrificed to the undue expansion of the other constituent parts—streets, buildings, or what not—without destroying the completeness of the unit and crippling the efficiency of the city.

The scope of the town planner's work had been expanding stage by stage, from the planning of the simple site or street, until he now had to regard the whole town as an expending organisation for which he must lay out a suitable home. That involved a study of the economic and social principles, which must determine the proper distribution of the parts of the town, and fix the limits within which that distribution could be guided into the form desired; for it was the form of the whole town which in the future must be defined if great aggregations of population were to be able to build beautiful cities and live beautifully in them.

The city plan must be a definite design: no mere mix-up of country and town, garden and buildings. Such a compound, brought about by the extravagant scattering of buildings on the land, must destroy the character of both town and country. There was a beauty of town dependent on the proper grouping of the buildings, and there was a beauty of open space, of fields, woods, or gardens. Design consisted not in mixing of these together, but in bringing them into proper relations, so that each might enhance the beauty of the other, and combining them into a still larger unity.

Much of the most important work of town planning must depend on the knowledge and judgment of the sociologist, the surveyor, the valuer, the economist, the sanitarian, or the engineer, but the result of all their work must finally be embodied in a plan; that plan, if successful, must reveal a definite design, and could only be made by an architect or a town planner who was a trained designer: one whose imagination had been cultivated in the art of creating out of a mass of details a unified design, bringing them all into proper proportion and relation.



A French Farm Gate.
(See letter on previous page.)

THE SOCIETY OF ARCHITECTS.

Election of Officers and Victory Scholarship Awards.

Mr. E. J. Partridge, F.S.I., presided over a special general meeting of the Society of Architects, on Thursday evening last week, when the officers and council were elected for the ensuing year and the Victory Scholarship Prizes were distributed, while Mr. Arthur Davis, F.R.I.B.A., on behalf of the jury of assessors, gave criticisms of the designs.

The following officers were re-elected *en bloc*: President, Mr. E. J. Partridge; past presidents, Messrs. E. J. Hamilton, E. C. P. Monson, A. E. Piedmore, E. J. Sadgrove, P. B. Tubbs; vice-presidents, Major C. F. Skipper, Messrs. L. S. Sullivan, A. J. Taylor, T. Wallis; hon. secretary, Mr. N. D. Sheffield; hon. treasurer, Mr. W. G. Ingram; hon. librarian, Mr. G. B. Tubbs.

The Council is constituted as follows:—London—Fellows remaining in office: Messrs. H. C. H. Monson, C. F. Norman, F. T. Verity, E. Marsland, J. H. Pearson, and T. Davidson. Three Fellows elected: Messrs. H. Freyberg, F. C. Moscrop-Young, T. S. Vickery. London members remaining in office: Messrs. T. G. Angell, T. S. Darbyshire, F. G. M. Chancellor, H. M. Robertson. Elected: Messrs. A. B. Hayward and H. R. Sayer. Licentiate: Mr. S. V. Bradford. Country—Fellows remaining in office: Messrs. H. Gill and G. C. Vernon-Inkpen. Elected: Mr. T. T. Rees. Members remaining in office: Messrs. E. J. Williams and J. Knight. Member elected: Mr. H. W. Smith. Licentiate elected: Mr. J. H. Lye.

On the motion of the President, a hearty vote of thanks was accorded the scrutineers in the election of the Council.

The President then handed to Mr. B. M. Flegg, the winner of the Victory Scholarship, a cheque for £100, and a gold medal. The following other competitors were each awarded a cheque for £5:—Messrs. F. Scarlett, D. F. Martin-Smith, J. C. Shepherd, R. H. Brentnall, A. J. Saise, J. A. Coia, and S. Bradley.

Mr. Arthur Davis, before giving his criticisms of the designs, which were for a hydropathic establishment, read the programme for the competitors and the principal features to be considered, as follows:—(1) Site is on an incline; (2) the special character of the building and garden lay-out; (3) the building would probably be erected by a local municipality or a company, and therefore should not be of such a costly nature as to jeopardise the commercial prosperity of the establishment; (4) it would be used not only for hydropathic and medicinal purposes, but should be a semi-pleasure resort; (5) a valley is mentioned in the programme, therefore the question of outlook and aspect should be carefully considered, and all the principal terraces, porticoes, and sitting-out places should be planned to obtain good views; (6) the buildings should be effective as a climax and background to the trees and foliage designs of the surrounding gardens, and should form a fitting architectural setting to the entire composition; (7) any formal garden treatment and all secondary buildings should be grouped in an economical way so as to give the maximum effect, which always occurs when a sloping site is being dealt with; (8) the programme demands that the men's and women's baths should be treated in separate compartments, but this would only apply to the baths themselves, and the public rooms, and especially the terraces, gardens, &c., should be enjoyed in common.

Mr. Davis observed that the scheme of a hydropathic establishment was not a kind of theoretical scheme in the air, but was a type of establishment that was being constantly demanded, and such buildings were being put up in Austria and France and other parts of the Continent. On the whole he thought this year's competition rather disappointing compared with the previous year, and the jury of assessors thought that the schemes submitted were not so good as they might have been. In most of the designs sent in the features mentioned in the programme had only been partially carried out, and in some cases they had been ignored. He pointed out that when, as in the present scheme, they were building on a hillside they had to deal with the effects of the elements in a more careful way, and the upkeep of the masonry and roads was far greater than when one was building on the flat. This was another point the competitors had failed to observe, and the consequence was their designs would never make for a paying proposition. A hydropathic establishment should also be a kind of pleasure resort and have the character of a casino, but he had not seen one elevation that fulfilled these conditions. Many of the competitors had also failed to put the windows in a position to ensure a good view of the beautiful valley below.

The winning design had a great deal of merit, but there were faults. It was considered a very simple and straightforward attempt to solve the problem; the general lay-out was good, and with that design a fine view could be obtained on the sloping site without great cost. The winner had planned his treatment and dressing rooms side by side, which was good. His principal fault was in the arrangement of the terrace, which had been divided by the recreation room.

On the motion of Mr. H. V. Lanchester, seconded by Mr. L. S. Sullivan, a hearty vote of thanks was accorded Mr. Davis for the criticisms.

EXHIBITION NOTES.

BURLINGTON HOUSE "PRIMITIVES."

In spite of the considerable interest in the work shown, what we had foreseen in such an exhibition as likely to happen has affected the critics also, some of whom find it a little depressing. As a writer in the *Evening Standard* says: "The fact remains that we had no Cimabue, no Van Eycks; and it will be mournful for newly-returned travellers to go to Burlington House"—those in fact who have their minds coloured by Italian memories. We felt at the time of the inception of such an exhibition that Lord Lee of Fareham showed more patriotic zeal than judgment in proposing such a scheme, because likely to lead to an inference not strengthening to the claims of English mediæval art, while at the same time it could hardly fail to be unjust to it. The relatively small amount of work it was possible to show, seeing that it is neither possible to remove wall paintings or to show much masons' work—which is better seen in its own native setting of the ancient churches and other buildings throughout the country—made it impossible to give any really representative character to the show. Nor is it possible—is it even so very important?—to be so anxious to prove the native character of the work. A well-meaning patriotic propagandism, no doubt, but not so important as other more intrinsic considerations. While it is not possible to determine the exact amount, we know that English mediæval art was subject to strong Continental influences, and that, like the Eton wall paintings, was probably the work of Flemish artists in many cases, but this need not concern us so much as the genuine beauty of its character. It is, perhaps, in the work of the mason and in woodwork that the English work is so supreme—but such an exhibition will convey but a poor idea of this. We can recall work done in Suffolk churches alone which establishes the highest claims for our native genius, but obviously this cannot be seen in galleries.

INSTITUTE OF OIL PAINTERS.

Once again the pleasant galleries of the Institute of Oil Painters offer an attractive show of well-displayed pictures, amongst which are many which make a vivacious appeal, as the airy grace of Anna Pavlova, by Sir John Lavery (348). This picture is painted in a light key of colour, warm greys and red, and is lightly handled, so that the dainty poise of the dancer is tellingly accentuated. After all, this treatment is pleasant and harmonious, for we do not want a heavily painted and dignified picture fairy-like a creature as Anna Pavlova. A ing panel picture of a child, "Angela (340), by Isaac Cohen, shows a signal in of the possibilities of colour value in a palette. The clever painting of "The Spades" (356), by Fred Leist, forcible and pelling as it is, would hardly outlast the of a less strident note. The charming s by the Hon. John Collier, painted with ap truth and reserve, loses in value for lac better colour scheme. The portrait of jynin (380), by Geo. J. Coates, is admira colour and drawing. Two or three portra R. G. Eves, "Marjorie" (135), by Inglis Sh Williams, and other figure subjects are noting. In landscape work the exhibit unusually interesting. We have quiet, meadows with a soft, tranquil handling pleasing in Alfonso Toft's "Missenden" several minor pieces of quality like "The Moon" (357), by C. Ross Burnett, and pi like 294, 329, 350, 121, 127, 106, 101, 15 59, which are lifted well above the common Leonard Richmond, Terrick Williams, Olsson, Davis Richter, Anna Airy, John R. Sir Wm. Orpen, and others have contribu place the level of attainment above the The extremely clever impression of "Sunl by Sir Wm. Orpen, is not likely to be overlo but even in presence of such great skil cannot help questioning the unfortunate position of the half-nude woman wit reflection.

THE FINE ART SOCIETY.

A number of charming landscapes in toned colour by Henry A. Payne are no view at the Fine Art Society. The passa subtle, refined colour effects in some of water-colours, such as Nos. 22, 23, 13, 4 30 and 27, will give much pleasure to of the quieter aspects of nature. The expr of form and colour in "The Norwegian Fi (23) and the "Strange Hills of Norway" is very pleasing, and most of this artist's dra have a very definite and distinctive Four well-designed gilded and lacquered mi are agreeable items in the exhibition. pictures are well displayed in the new decor setting of these galleries, which are now counted amongst the pleasantest in Lo Upstairs is a collection of cabinet picture members of the Royal British-Colonial So of Artists—the object of the Society is to the Arts of the Dominions, States, and Col of the Empire under the notice of those resi within the United Kingdom—a useful praiseworthy object which in time we may be effected. Meantime, several well-kn names show the authorship of a number of most striking exhibits, such as Miss Ke Welch's "Haymaking on the Downs" "Our Carnival" (43), by T. C. Gotch; bare-boughed trees in "April" (61); by Lamorna Birch, "Stormy Haymaking" (85) the late Claude Hayes, and the charm "Jenny" (16), by G. P. Jacomb-Hood. Ar tecture is represented by good-coloured elevat section and plans of the Grand Staircase, Sk Ball-Bearing Works, Luton, by Sir A. Brun Thomas; a water-colour of a Gloucesters House, by A. N. Prentice (74); photograph "Hatton Park" (54), by H. C. Corlette; attractive drawing, "In Ancient Bretagn (87), by W. E. Riley; "The Old Bridge at A non" (82), by W. H. Y. Titcomb, and Mo Lindner's "Puerte Nuevo Pronda" "The Fringe of a Manx Moorland" (73), Wm. Hoggart, shows a fine spacious eff "The Trees near Bolton Abbey" (32), by Vicat-Cole, is an excellent piece, and a deligh picture is the "Wan Water, Yarrow" by Jas. Paterson. The dainty picture "Early Morning, Venice," (15), by E. Boro Johnson; the rich colour note in Geo. C. Hai "Water Vendor" (14); W. R. Wollen's mast rendering of "A Lonely Watch" (3); and Boy and Dog," by H. S. Tuke, are amongst more notable works in an exhibition which much to show in range and variety of acc plishment.



GALLERY OF THE "TRE VENEZIE."

International Exhibition of Decorative Arts, Monza. (*See p.* 599.)

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ILLUSTRATIONS.

Design for Office Building, Liverpool, for Messrs. Alfred Holt & Co.

We now have the opportunity of publishing the design submitted by Sir Edwin Cooper in this limited competition.

The promoters of the competition stipulated the positions of entrances, and that the north-east half of the ground floor would be taken up and utilised as a bank, and that one of the upper floors would eventually be allocated to Messrs. Holt's own use. These being the conditions, the problem became one of obtaining as much floor area as possible with good light and ventilation, the floor area being disposed in such a way as to become readily adaptable for any unknown requirements.

The treatment of the design shows the handling one would look for from the author for a building of this character. The total height was suggested in the letter of instructions. The details amplify the elevations and show how a maximum of light can be obtained, especially on the ground floor, without sacrifice of architectural dignity and strength. One internal lighting court has been adopted as the solution affording adequate light for internal rooms upon the lower floors, which should be of the same rental value as those on the exterior of the building.

The design placed first, by Mr. Arnold Thornely, F.R.I.B.A., and Mr. Herbert J. Rowse, A.R.I.B.A., in collaboration, was given in our last issue.

Banque Belge pour l'Etranger, Bishopsgate, E.C.

This drawing illustrates the Banque Belge as erected in Bishopsgate. The scaffolding is now being dispensed with, and the interior is well advanced. The whole of the ground, first, fourth, and fifth floors and the floors under street level are being utilised by the Bank. The building is in Portland stone and the contractors are Messrs. John Mowlem & Co., Ltd.

Sir Edwin Cooper, F.R.I.B.A., is the architect.

Messrs. Spillers' Building, St. Mary Axe, E.C.

This building is now in the course of erection for Messrs. Spillers' Milling and Associated Industries, Ltd., as their office headquarters.

The angle on the ground floor will be utilised as a bank for Messrs. Barclay, the bulk of the remainder of the building being allocated for Messrs. Spillers' own use, with the board room, Chairman, committee, and chiefs on the second floor. The building is of Portland stone, and the contractors are Messrs. Higgs & Hill, Ltd.

The architect is Sir Edwin Cooper, F.R.I.B.A.

CHURCH FITTINGS.*

The author of the English Parish Church, unfortunately deceased before the present volume under review was completed, has added to his claims as antiquarian and ecclesiologist by the informative character and wide range of what it includes. With a wealth of well-chosen illustrations the book shows so much appreciation and knowledge of the subject that it becomes a necessary possession to all those interested in the wealth of artistic tradition included in the English Church, and can be warmly recommended.

Mr. Aylmer Vallance, in a brief and sympathetic introduction, gives us an illuminating account of the growth and correlation of the various arts of this country, showing how they acted and reacted on each other. He is less happy when enunciating the relation of architecture to the other arts. It is a comparatively modern fallacy which mixes up priority in service with paramount claims, and the shibboleth of the "mistress art" leads him astray. The jewel is not less precious than the casket which encloses it. There is no first or last in art; nor was, we think, architecture in advance of the other arts in the Middle Ages, as stated by the writer. Their strength lay in that they all grew together.

In looking at the variety and beauty of so many of the examples reproduced, admiration is compelled to the humble and aspiring character to be identified with the best of them. But we have also to remember that there is a like claim on our own time for beautiful expression. Nor should the past wrap itself around our life to the exclusion of a self-respect which feels equal to the same endeavour only shaped to our own needs. lead us to forget that the present—as all —holds within it the seed of a po nobility. Anything less is superstition appreciation, and obscures our right u standing, not only of the past, but ours Study these illustrations, fairly comprehe as they are, and representative of the d ent ages illustrated, and we shall fin wards the termination of the fifteenth ce a change occurring—a change in whi included a visible decline both in temper direction. The earlier humble strengt diverted from its dream—from its sp time, and other motives are drawn in Instead of art being a sort of worship expression of the mystery which broods life—the reverence for what was above there is seen the entrance of worldly fluences, of ambition for display and assertion instead of the breath from Divine which cloistered it before. The m ments gradually change their chara Donors appear in the windows. The cr manship remains, but the ideal of servi what is above ourselves is directed elsew until we reach the time when the recum figure rests elegantly on his elbow, that may see more of his earthly likeness— always inspiring—until later the Royal A the hachment, redundant inscriptions to bodies, convey to us the likeness of a dec sion in direction and inspiration under w the ancient noble spirit becomes buried.

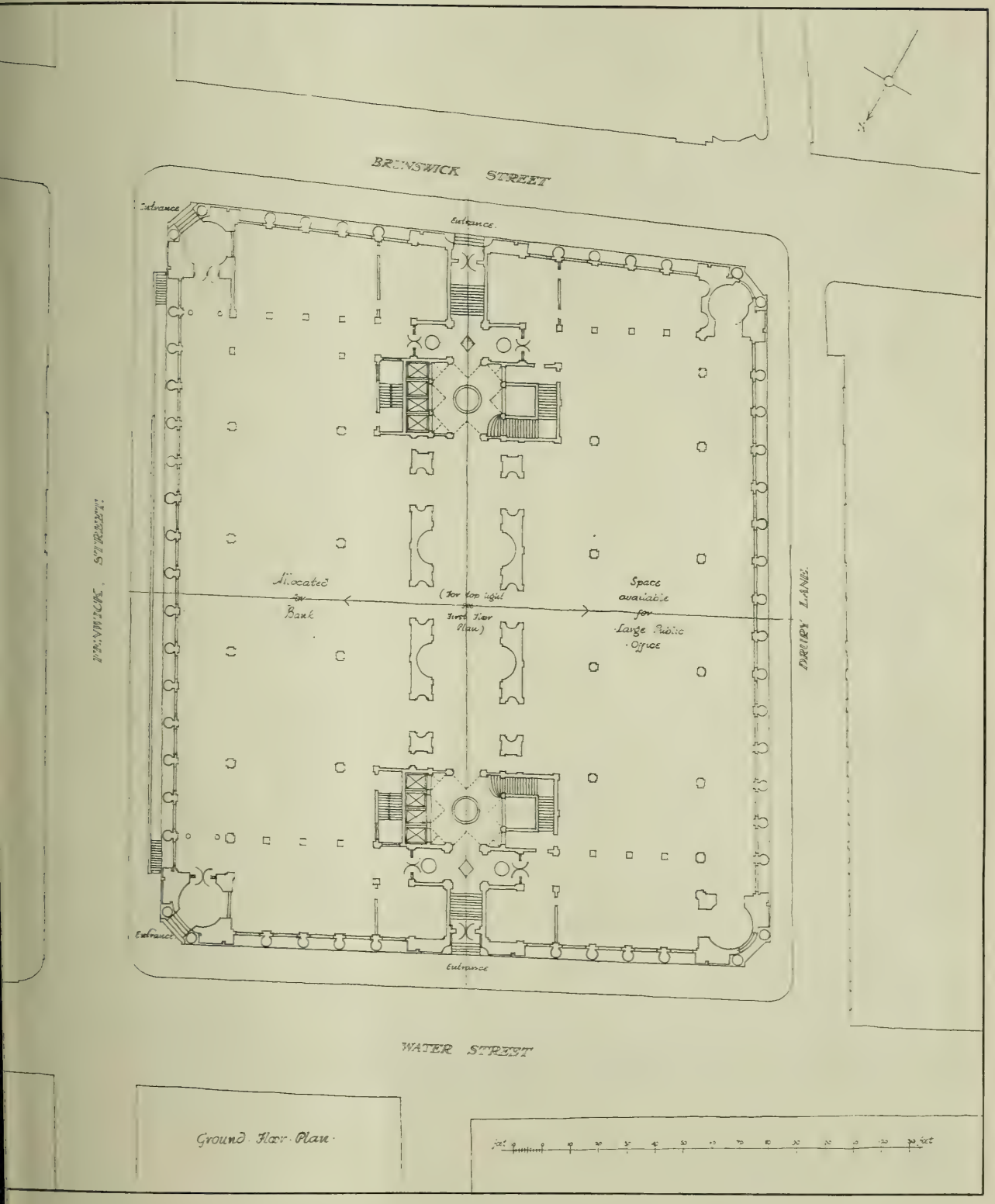
There are critics who will tell us that period must be judged independently; own contribution estimated away altoge from such generalisations as we have n here. Unfortunately for such a view, human question remains, and its claims c pel us to distinguish in what so much aff the well-being of life, which in one case g freedom to it and in the other enslaves The revival of the "Baroque" in Germ preceded the Great War. Full of shal pride and pretension, its contribution was wards the evils which subsequently transpi If we are to shape the world for bet things we must see them as they are, mixing up things or claiming any "rate" for art.

Another consideration occurs in study this book, which has not been sufficien opened out in recent days when consideri the prospects of the crafts. It was the ha of old time to speak of art as a "mystery denoting in this its prevailing value, c which transcended knowledge. The pres pride of knowledge, which governs our craf manship, the attachment to machinery, t almost superstitious belief in the efficacy organisation, diverts us from the appreciati of this intuitive creative quality, which endo all vital craft work. Could we but leave little more to nature, we might understand much better, as not thinking that we did all ourselves. Is it not too readily assum that our schools, methods, and "cra ideals" will do for us what, perhaps, th are in themselves wholly unable to do. b cause it is the life which determines th achievement! It was not the learning these mediæval craftsmen that gave the work its supreme quality, but the life whi nourished it and sheltered it under belie which could hold it secure. We cannot f with their wings—nor can we without o own, nor will the pride of intellect and civ lisation achieve much for us robbed of the in pulse that gave their work its strength. Or is also reminded when looking at these illu trations of their superiority to academ claims. Work is not rude because unrealist in the narrower sense. Representation ma be the meanest kind of veracity, far belo art, and the photograph is a better picture All noble truth is robed in another garmen The volume runs to twenty chapters, includ ing index, and 274 illustrations, and muc credit is due to Messrs. Batsford for it excellent get-up.

* "English Church Fittings, Furniture and Accessories." By J. Charles Cox, LL.D., F.S.A. £1 1s. (B. T. Batsford.)



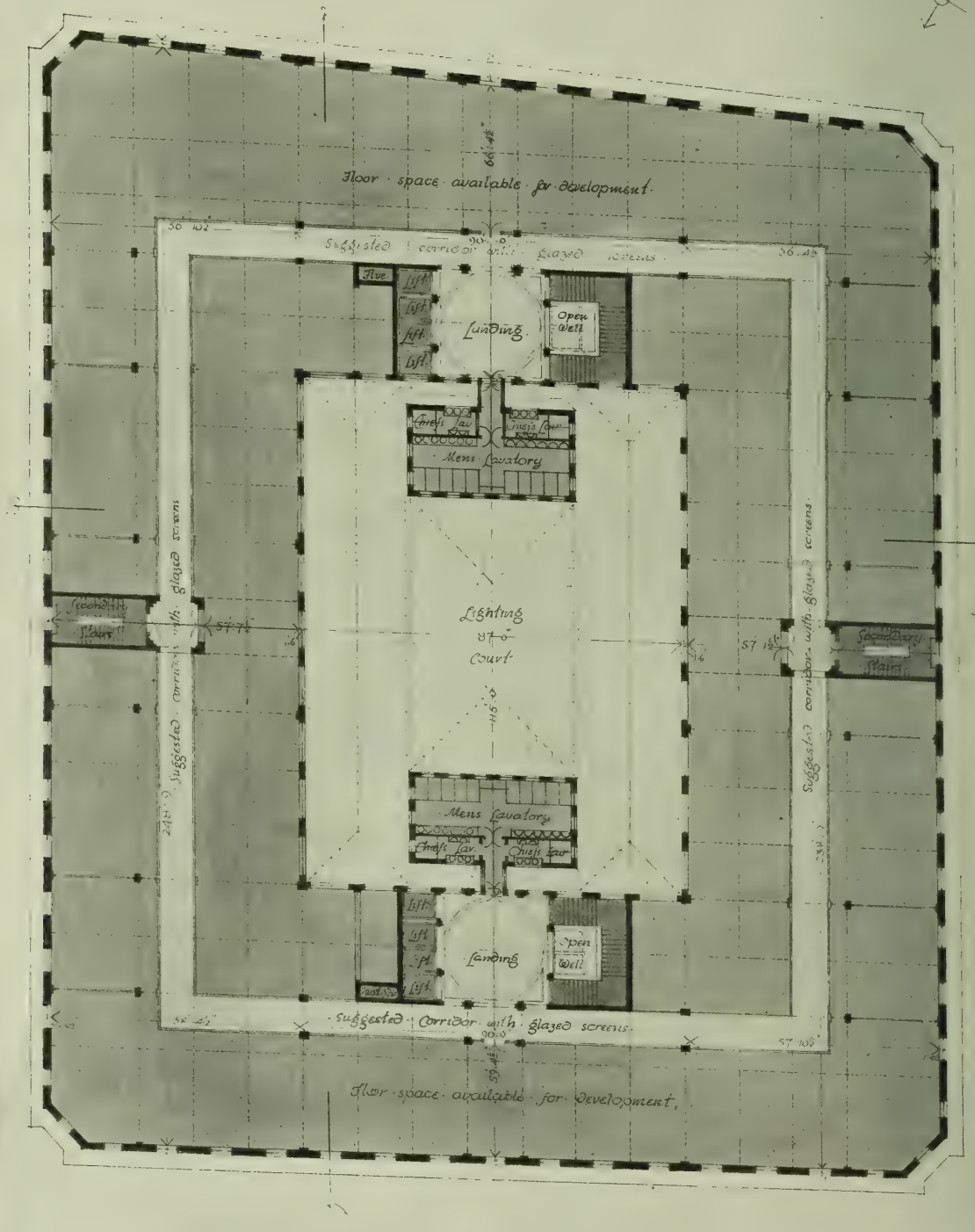
An Exhibit at the International Exhibition of Decorative Arts, Monza (*See p.* 599.)



New Offices for the Holt Line, Liverpool.

Design submitted by Sir Edwin Cooper, F.R.I.B.A.

[The accepted design in this Competition, by Mr. Arnold Thornely, F.R.I.B.A., and Mr. Herbert J. Rowse, A.R.I.B.A., was given in our last issue.]



First Floor Plan.

Note: The total floor space upon this floor ... for offices including ... suggested ... Court and ... landings ... 358:8:0 ... feet

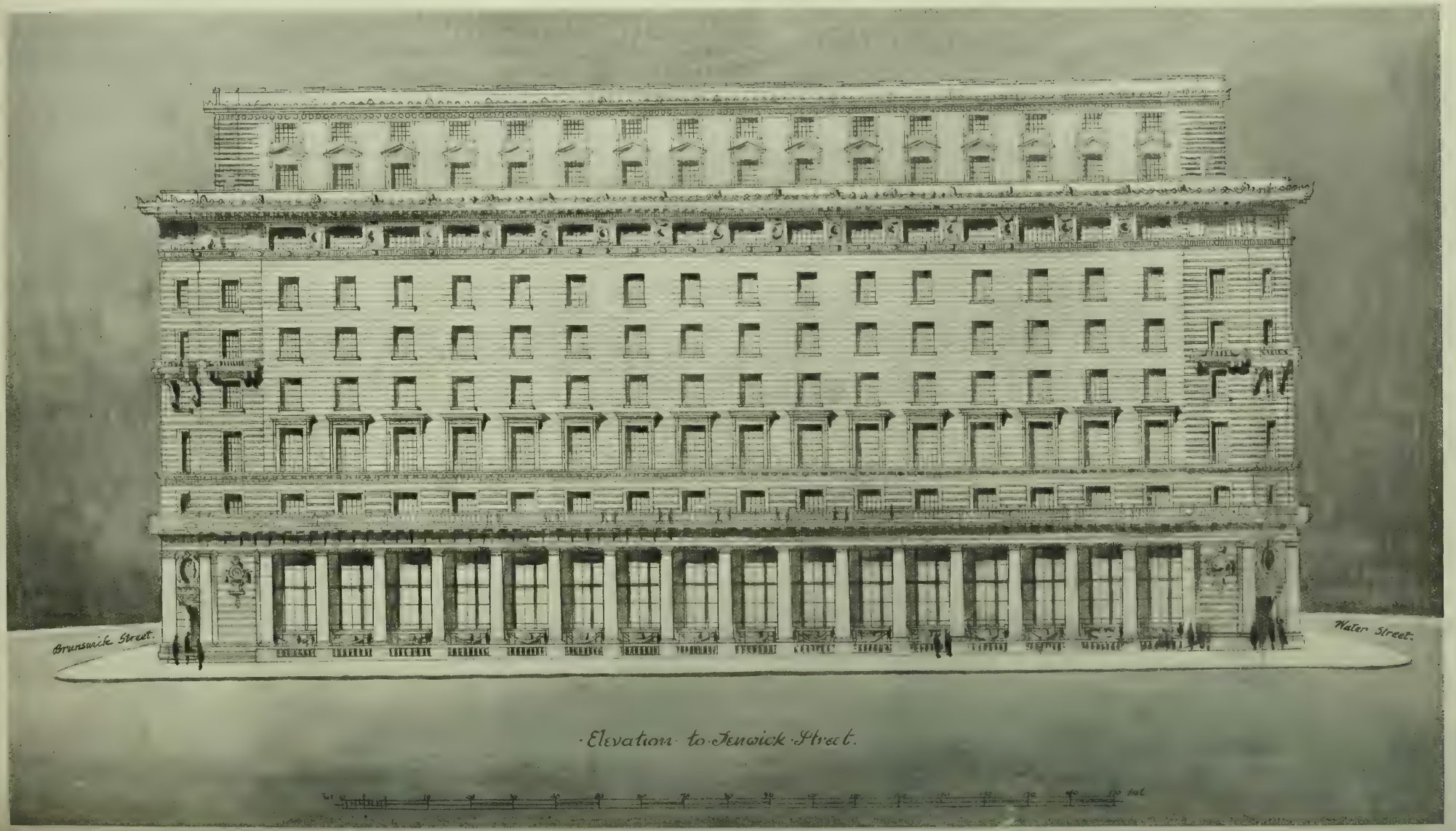
New Offices for the Holt Line, Liverpool.

Design submitted by Sir Edwin Cooper, F.R.I.B.A.



MESSRS. SPILLERS' NEW OFFICES, ST. MARY AXE, E.C.

Sir Edwin Cooper, F.R.I.B.A., Architect.



NEW OFFICES FOR THE HOLT LINE, LIVERPOOL.



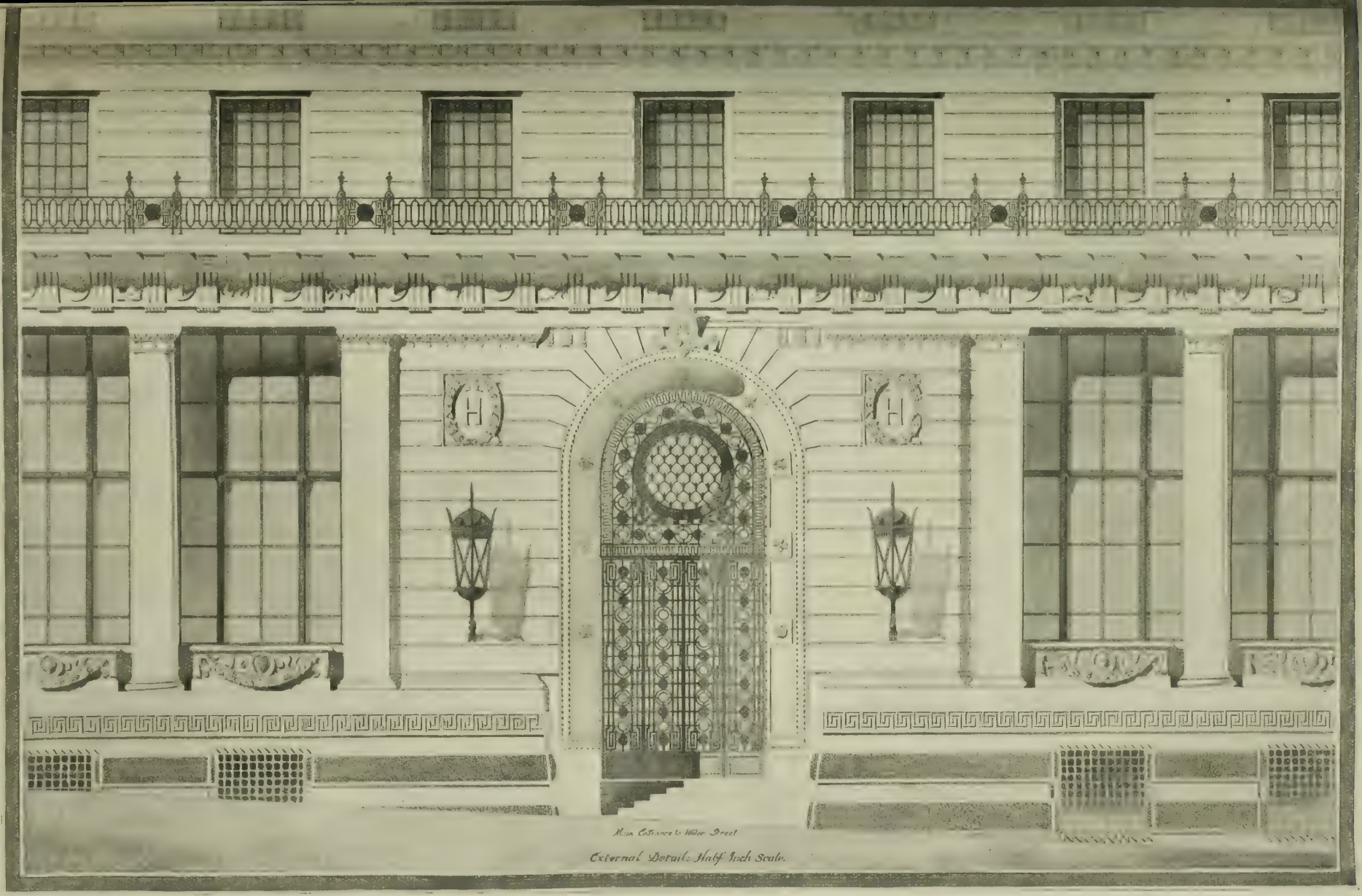
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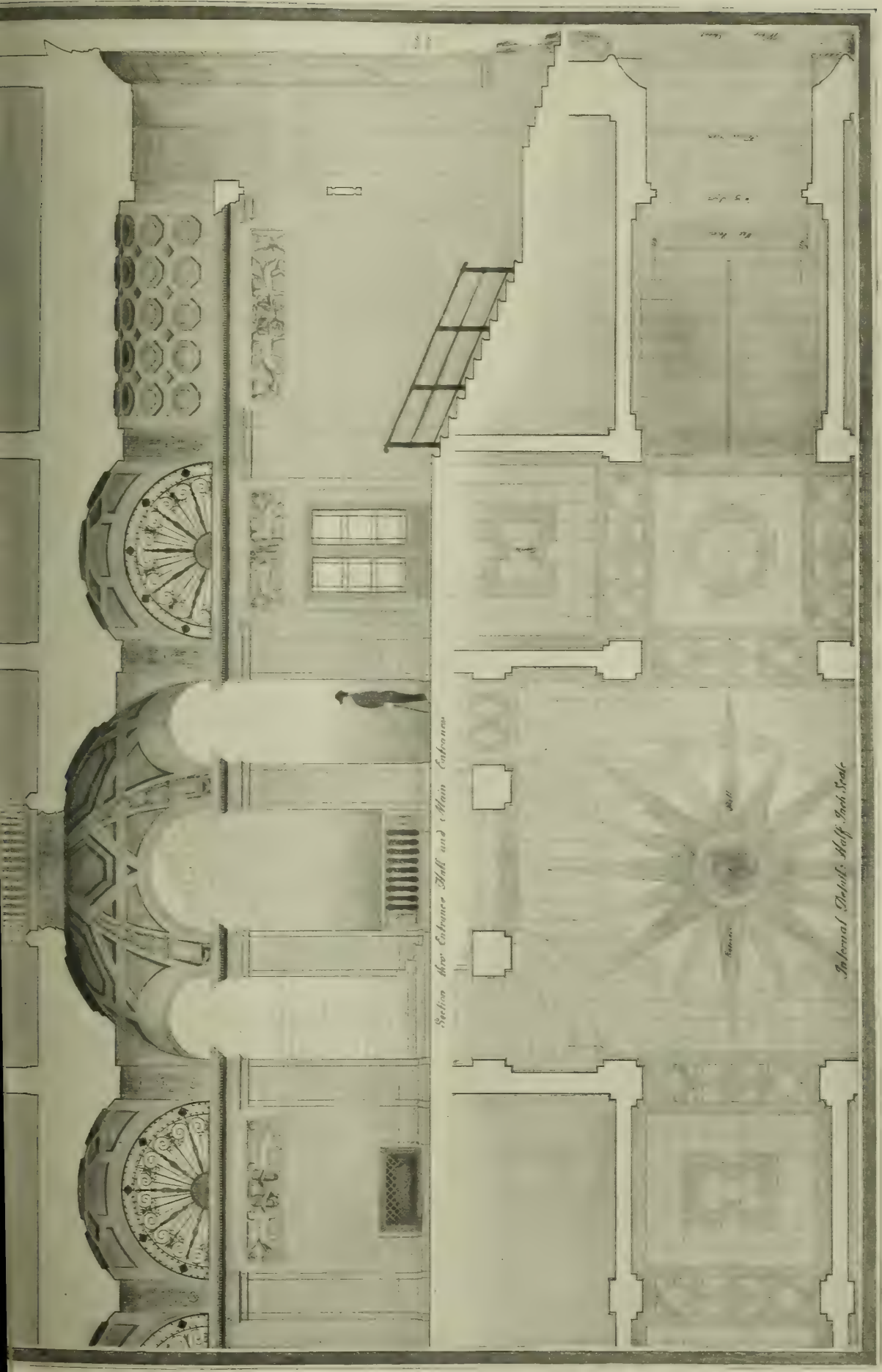
NEW OFFICES FOR THE HOLT LINE, LIVERPOOL.

DESIGN SUBMITTED BY SIR EDWIN COOPER, F.R.I.B.A.



BANQUE BELGE POUR L'ETRANGER, BISHOPSGATE, E.C.

Sir Edwin Cooper, F.R.I.B.A., Architect.



New Offices for the Holt Line, Liverpool.

Design submitted by Sir Edwin Cooper, F.R.I.B.A.

THE ETHICS OF RESTORATION.

By REGINALD HALLWARD.

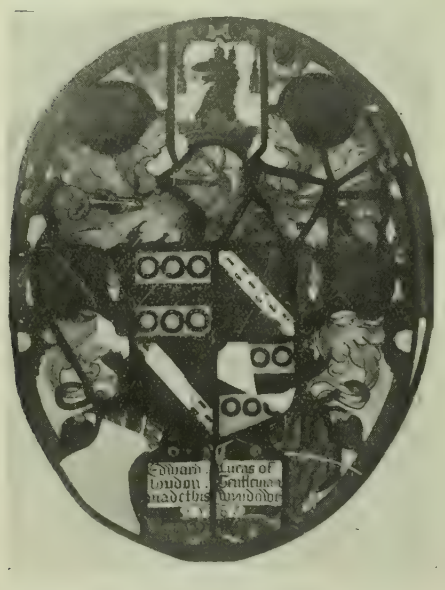
I THINK it has been a defect of the *intelligentia* of the last decade or two that it has carried its knowledge too solemnly to let in the light of more generous views, and as a consequence knowledge has become darkened by maxims and formulæ, ready at any moment to be flourished in the face of any unhappy individual with the temerity to question them. This has been rather the case in regard to restoration, which, working so much evil in the past, has frightened us into the other extreme of doctrine, which in itself also leads to error.

Until I tried, it was not known to me how very interesting and agreeable was the task of repairing—I dare not say "restoring," word of such horrid significance—a piece of ancient glass. So when a client suggested sending such a piece for me to look at, and the glass itself came to hand—an heraldic glass medallion, evidently authentic, and a fine example of its period (1586), though a good deal damaged, and here and there pieces of the glass absent altogether—the impulse was strong on me to renew its ancient, beautiful completeness if I could. Permission being granted I set to work, and found in it a very interesting interlude from my own work. For it had always been some distress to see those patches of plain matted glass, replacing the lost pieces in an ancient window, which, from the terrible experience of ignorant restorations in the nineteenth century, had superseded it. The absence of the artist in such restoration was so glaring that a better taste rejected all restoration for a purism well meant, but more sincere than satisfactory. The medallion to be repaired (see illustrations) had been releaded about a century ago, and had no doubt been the occasion of the repair of a bad break in one of the larger pieces of glass—the mantling on the right hand side above shield. This repair shows no appreciation of the intention of the lead design, and it will be observed that the releading of the breaks is made with lead of the same thickness as that surrounding the whole piece; whereas, had a narrow or string lead been used, the intention of the lead lines would not have been obscured. However, this was authentic early nineteenth-century repair, and to be left alone, and only where the lead was actually perished or to mend the breaks was new lead introduced.

It is a delicate matter repairing enamel glass of this period, which is very thin. The enamels take the fire better on thin sheet and with less loss of translucency, which I take to be the governing reason for its use. I have made experiments of the use of enamel on thicker glasses which have their own interest and particular quality, to which I hope to refer in a further article; but to return to the medallion, of which the lower left-hand piece of painted glass next to the inscription was missing, as also a piece from the lower right-hand division of the shield, and another small piece elsewhere. I had to decide between renewing the gaps with plain glass, so, as it appears to me, emphasising the loss, or repainting them in the likeness of the original. I had no doubt that all the advantage lay with the latter course. So I painted and fired on thin glass new pieces to correspond with the old, and found it an entirely natural thing to do so. Far from feeling that I was divided by centuries from sharing the impulse of the craftsman who had executed it, or that I was "forging" anything, I entered so much into the spirit of his work, that I might have been him myself! None but those who prefer maxims and formulæ to life can doubt but that the result is much better than if I had only inserted plain glass. History may surely yield to beauty in such a case, for in such an instance the appeal to history has really no meaning.

I am sure that most craftsmen would find a natural delight in so restoring tenderly the work of brother craftsmen on which the hand of time had left its mark, for in spite of all our superstitions there is nothing like the distance between ourselves and them, which some would have us believe. And this later enamel glass treatment, though a subsidiary means, has none the less much attraction for the painter of glass, in its own particular way. Though unsuited for large spaces it has quite its own attractiveness for medallion work, as witnessed in so many instances of its own period, and I often apply it in combination with the ordinary glass painting with metallic oxides, for small details and enrichments, an embroidery to a dress, or flower, I recall the mystification which the introduction of this enamel treatment as an enrichment to an inscription was to a critic, at a loss to understand how I had obtained this particular effect—an effect obtained by the simplest means—though he much approved it. The delicacy of treatment obtainable with enamels makes their use singularly attractive for domestic work, where it is seen near the eye, and its use for domestic work was considerable about two centuries or so ago, and I should like to see some revival of it at the present time. There is much that is agreeable in the conjunction of coloured glasses with enamel colours and they have their own quality, lying in the particular materials used, and at the period of the medallion illustrated here, they introduced a new very delightful quality of their own, of great richness and variety, and it appears better than taking sides on the matter to appreciate this, and not to talk of enamel as denoting the decadence and end of good stained glass, but having its own expression and characteristics.

It is said as an objection to the use of enamel that it does not last well, but throughout the country are still to be seen and giving a very good account of themselves, many medallions dating from the sixteenth century. I do not propose for a moment to press the claims of this enamel treatment against the earlier method, the one I practise myself, but as contributing a further charm when combined in the subordinate way I suggest, it extends the resources of the materials. Raphael painted a masterpiece on the bottom of a tub! With all respect for "craft ideals," and the rather excessive worship of materials, we are perhaps too ready to put the emphasis in the wrong place, and to mistake the means for the end. There are many ways of doing things, more than one for producing beautiful features in glass painting, and we ought not to mistake the means for the end, so much as to suppose it an intelligible proposition to suggest that the use of enamel lead to the destruction of the "art of stained glass." We must look a little deeper than that.



SIXTEENTH-CENTURY ENAMEL GLASS MEDALLION (BEFORE REPAIR).

ADVERTISEMENTS A HIGHWAYS.

THE Ministry of Transport has dra attention of local authorities to the di ment of the countryside by advertis along public highways, and the circular attention to the fact that the new arteria in the area of Greater London are beir disfigured even before the roads are o public traffic, and the Ministry sugges the local authorities should consider w action can be taken under the Advertis Regulation Act, 1907, or otherwise, t guard the amenities of the public hi under their control.

It seems the irony of fate if th arterial roads, themselves destroyin rustic appearance of the country, sho attacked by "lesser fleas," and furth figured by advertisements.

It will be remembered that there wa siderable difficulty in framing satis by-laws under the Regulation of Adv ments Act, 1907, which would prote highways (see *The Builder*, Septemb 1908), but in 1911 the Hampshire County drew up a by-law prohibiting the exhibi advertisements visible from any public way or footway so placed as to disfigu natural beauty of the landscape (see *The B* September 22, 1911). In 1912 the Kent Council framed a by-law on these line somewhat more drastic, as it included ra and any space of land or water open public (see *The Builder*, August 30, 1912

Under the Act, existing hoarding advertisements are exempted from th for five years from the making of the b and this unfortunate provision prevent by-laws taking immediate effect.

We are unable to say whether the Ham and Kentish by-laws have been enforc whether their validity has been impugne they have been upheld the local auth appear to possess the necessary powers i care to exercise them, but if otherwise diate legislation should be passed leg by-laws drawn on these lines.

Decorative Panels at Southampton

THE excellent decorative panels illus on pp. 609 and 610 were executed i Southampton Cinema by Mr. G. R. Ru R.B.A. They are large panels, the ones measuring 16 ft. each way, an others 14 ft. by 9 ft. 6 in. The artis been successful in securing good bread effect, with a pleasing emphasis and d tion of features.



SIXTEENTH-CENTURY ENAMEL GLASS ME LION (AFTER REPAIR).

THE DECORATORS' EXHIBITION.

Decorators' Exhibition, opened at
d Park Hall on Wednesday, Octo-
gains in architectural dignity from its
on axial lines. To avoid crowding at
rance and attract in-comers away from
ors an imposing exhibition stand has
laced where it can be seen by visitors
as they enter the hall from the main
le. The centre of the floor area has
lanned as an open space where the
can gather, and its individual members
k about them, get their bearings, and
great many of the surrounding ex-
in perspective before approaching any
lar one of them. The advantage of
rangement is great in that congestion
ruggling are avoided and the sight-
whether bent upon business or pleasure,
abled to proceed to the inspection of
ibits in an unruffled state of mind.
stands and show-cases surrounding the
space are not designed purposely to
e one another, but the general arrange-
ermits them to appear as units in a
scheme in spite of their individualistic
er. Absolute uniformity is neither de-
nor practicable in an exhibition where
t manufacturers and merchants each
te their own designs, but the assem-
f a series of stalls of approximately
ne height has sufficed to give a sense
ortable enclosure to the central space,
ne selection of the most architecturally
tial stall to occupy the principal
is a notable concession to the archi-
principles of planning which has been
an justified by its success.
nusual degree of consistency also marks the decoration of the building in which the exhibition is being held. The colours —yellow and blue—which appear in the paint-work of the stanchions and girders of the gallery, have been repeated in the festoons of drapery suspended between the tie bars of the iron roof and the valances hanging from the sills of the clerestory windows.

The white, cream, stone colour and light neutral greys that have been used freely as background colours in a great majority of the stalls also help to preserve an air of harmony throughout the whole exhibition. The period of unrestrained jazz effects seems to have passed, and the principal exhibit, designed in free Renaissance style of architecture with columns, arches, and three niches, has been painted modestly in broken white with an egg-shell surface, with a black base, two black panels, and a black line in the cornice to give relief. The colour values of simple architectural features are well brought out in this exhibit, and the plain clean white and black indicate what good things lie in store for us when once the smoke and soot nuisance shall have been abolished.

For exhibition purposes coloured lamps have been arranged to throw pink and green reflections upon the curving surfaces of niche and vault and column with amusing results, and, where the cornice cuts off this rather theatrical glow, two large pink globes supported on vase-like pedestals at the ends of the attic maintain the quality of the light and colour on the upper part of the structure.

Pleasant lighting effects have been arranged in most of the stalls on the indirect and semi-indirect systems and by the use of coloured globes and shades either of frankly Chinese design or of veined alabaster in a fashion that is becoming deservedly popular. These bowls and shades are not only beautiful in themselves, but help to minimise dazzle and eye-strain, and, strangely enough, even the vigorously coloured shades do not detract from the appearance of the coloured exhibits as much as might be expected. The pale alabaster, opal glass, and frosted or fluted glass bowls used with the semi-indirect system actually seem to produce an improvement in the appearance of coloured wall-papers and other strikingly patterned objects, which look better by this pleasant form of artificial light than when seen by the diffused daylight of the hall.

Among individual stalls some which were open and unroofed had the advantage of looking well from the gallery as well as from the floor of the hall. This dual aspect of stall design is receiving attention, and some stall-holders who had roofs over their stands expressed themselves disappointed that they had not thought of the effect when looked at from above, and realised in time that a simple tent-like canopy would suffice to keep the dusty ceiling cloth from becoming an eye-sore before the time comes for its removal. The He-o-lin stand, constructed somewhat after the manner of a small Chinese temple, scores by possessing a roof of yellow material stretched upon curving black enamelled supports, rather like an enormous lamp-shade, which looks bright and interesting from every point of view. Besides being more tidy, this method of finishing the top of a show-stand is more distinctive than the too usual unsightly tray for the collection of paper and cigarette ends, and is, in consequence, a far finer advertisement to the firm employing it. Viewed from the ground floor the simple



anels (14 ft. by 9 ft. 6 in.) at a Cinema at Southampton. Painted by Mr. G. R. Rushton, R.B.A. (See p. 608.)

square lines of Messrs. Sanderson's stand are very effective, and the reposeful effect of the frame with its well designed lettering, not too large in scale, contrasts well and throws into prominence the beautiful patterned wall-papers exhibited in the interior. The stand of Messrs. Blundell, Spence & Co., Ltd., with its woodwork decorated in flat black and gold, is also eminently satisfactory, and their varied exhibit, including both raw materials and examples of work carried out in their well-known petrifying liquid enamel, makes a mass of broken colour that retains its interest even in competition with the more elaborate artistry of the other stalls. It was a happy thought to use dull black Doulton ware pots and bowls to contain the brilliant samples of powdered pigments and the chemical substances from which they are derived, since they carry the colour note of the stand itself into the mass of articles displayed on the counter. The crystals and masses of gum used in the manufacture of enamel and varnish give some suggestion of the labour involved before the crude material can be converted into the reliable finished product ready for the painter's brush. In another stall paint-making machinery actually fitted up and operated by an electric motor carries on the thread of this technical interest. A pug mill grinding up a surging mass of paint in a large steel pan, rollers mixing the paint, and mechanical strainers straining it free from lumps or impurities marks a great advance upon the time when pigments were prepared by a blindfolded donkey walking drearily around a pivot.

An example of the long continuance of an old-fashioned method of manufacture is to be seen in the stall of Mr. G. M. Whiley, where the several processes involved in beating solid gold into English gold leaf are illustrated by specimens to which descriptive labels are attached. The final processes of trimming the gold leaf and placing it between sheets of paper in book form are carried out in the exhibition. The operator's hands must not come into contact with the thin metallic film, and the cutting is performed with sharpened sections of reed fixed in a little frame called a wagon. The finished leaf is lifted with box-wood pincers and gently blown into position in the book. The trimmings are, of course, collected and refined again to melt down once more to solid gold. Machinery is used in the earlier stages of the work, but, for the final beating, experience shows that the hand-work of human experts is necessary.

The manipulative side of decoration is represented in the appliances for cutting and trimming of wall-papers, the brushes and paint sprays, and in the light portable extension ladders and hanging cradles exhibited on various stalls.

The desirability of approaching the surface to be decorated without the erection of a cumbrous scaffold to block out light and i fere with any distant view of the effe obvious, and the many devices by which painter can mount to his work all posse high degree of technical interest. The d of colour decoration enters largely into t of the exhibits. Wall-papers and ste have obviously to be designed before they be executed. Other designs for executio hand in accordance with special method technique are to be seen in some of the where the paint has been made to curiously curdled forms by adroit han and the semi-accidental effect incorporat the scheme of decoration. Prelim sketches showing suggestions of colour teriors for execution in different material pigments have been collected into a gre wonderfully rendered drawings support a stand on the floor of the hall, and gallery students' and apprentices' work hibited which attains a high standar excellence. Some clever specimens of ing done as time tests by young painter also shown, together with examples of writing in which the arrangement of a number of words has been left to the i dual. The rendering of a good type of l character is generally very satisfacto these competitive paintings, and, indeed sign-writing throughout the exhibition strained and dignified in the majori cases.



One of a Series of Three Panels (each 16 ft. sq.) at a Cinema at Southampton.

Painted by Mr. G. R. Rushton, R.B.A. (*See p.* 608.)

THE OPENING CEREMONY.

the absence of the Lord Mayor of London . E. C. Moore) the Exhibition was formally ıred opened on Wednesday by Lord Askwith, was accompanied by Lady Askwith. There a large attendance, presided over by Mr. E. Campbell, F.I.B.D. (the President), ng those on the platform being Mr. J. ıard Cowtan (Master of the Painter ıers' Company) and Mrs. Barnard Cowtan, the Court and Wardens of the Company, De Jong (President of the Incorporated tute of British Decorators) and Sheriff and Middleton Dron.

ıe Chairman said the Federation had from to time promoted similar exhibitions in other great cities in various parts of the try, but this was the first time they had an exhibition in London. Their objects to stimulate their trade by bringing their , in an interesting and effective manner, he public notice, and to place before the bers of their trade, under one roof, every- g that could help them in their business. master decorator who came to their show thoroughly investigated every exhibit d go away not only invigorated by what he seen, with new ideas and new schemes ning in his mind, but he would have dis- red new methods and appliances for solving technical difficulties which were constantly ping up, and he would have a keener eciation of the work of his Federation. The ic would see in the exhibition that this try was, after many years, returning to a hy appreciation of the use of colours; the long reign of monotonous and dazzling e was nearly over, and that a proper use of ır and ornament might do much to lighten homes in this northern climate, and that itects might find a solution to the prohibitive of the most expensive materials used in inishing of buildings, if they would consider enormous possibilities that their craft and smen could offer them. It was a matter of non knowledge that until recently their had been under a cloud, and had not taken roper and rightful place in the decoration ieir public buildings. One of the reasons his low ebb undoubtedly was that some s ago the old race of skilled decorative smen had nearly died out, and no new ones being trained to take their place. The ic grew suspicious of the ability of the rator, and clung to white, until it came to nvested with a virtue, and colour to be idered as not quite respectable. But they changed all that, and that day they would ble to judge for themselves what operatives employers could do to train their young smen when they entered on such a task in l partnership, for no less than that was the titution of their national joint education me. He wanted to pay all honour to their atives' trade union for the honourable part had taken in that movement, sharing lly with their employers' federation not the work, but also the cost of that big rtaking. He ventured to think that that an example to the country, when both sides d forces for the benefit of their industry. result of only a few years' effort might be in the hundreds of examples of the work by lads in various groups of ages and s of training under their joint education me, which were exhibited in the gallery he exhibition. The curriculum of their nal joint education committee was accepted ver 100 of the technical schools throughout country, guided by nearly 50 local joint ation committees, and they were very y proud of this, which was only one of the y activities of the Federation. Their ufacturers would show them on the floor ıe hall that they could supply the finest rials and appliances the world could pro- , and they would show in the gallery that had in their shops and in training highly skilled craftsmen, capable of the finest work in every branch of their trade, and they looked with confidence to the near future for such a revival of the decorative arts as would stimulate them to further efforts, and provide them with some measure of reward for their labours.

Lord Askwith said he congratulated Mr. Cecil E. Campbell on being President of that Federation on that auspicious occasion on having their exhibition in London. The Federation was started in 1918, during the years of the war, and had progressed by leaps and bounds ever since. It was, however, a child of a much older Federation. The Federation seemed determined to keep the whole trade together in a joint enterprise, and as custodians of the interests of their trade were doing their best for all those engaged in it. They had not only concerned themselves with doing their best for all those engaged in it. They had a national joint education committee, and the results of their efforts in that direction would be seen in that hall, and the Chairman of that Committee was there that day—Mr. J. Gibson, of Manchester. Under the able leadership of this committee many branches of their trade had received encouragement and help, and phases of decorative art which had been lost had been restored to the nation. Much credit was also due to the Secretary of that Committee, Mr. Will Mellor. Those who went round the various stands would not fail to see the excellent results of this Committee's enterprise, and would feel how timely it was, in view of the Labour Minister's recent lament that there were not enough skilled men. The designs and craftsmanship at some stands were truly remarkable, and it would be an eye-opener to many to see what brilliancy could be produced by the aid of colours and clever workmanship. He would particularly mention one young man, Mr. Davidson, who had been trained and given scope, whose work not only represented talent but also genius.

Referring to the use of white lead, His Lordship said that a great artist, Sir Edwin Lutyens, R.A., had specially designed a white lead stand in order to illustrate what lead painting could do. He (Lord Askwith) contended it was the duty of their Federation adequately to protect the interests of their craft in this matter from the threat hanging over it. There was a draft convention before the Government, put forward by the International Labour Conference at Geneva, on the use of white lead and if it were agreed to it would affect not only a large section of their industry, but also their Dominions, especially Australia. Science and applied science had, however, it was hoped, come to the rescue, for visitors would be shown how, by the simple process of a damp rubbing down, the danger, which was in the dust, was obviated. It was hoped the Government would not take a drastic step that would so largely affect the livelihood of many people in this country. With the greatest hope that success would attend their efforts he declared the exhibition open.

Proposing a vote of thanks to Lord Askwith, Mr. Barnard Cowtan spoke of the educational work of the Painter Stainers' Company. As one of the final judges of the work exhibited, he said he felt they owed a great debt of gratitude to the National Federation.

Mr. J. A. Gibson (Chairman, National Joint Education Committee, and Secretary of the Operative Painters' Society), in seconding, said it was hoped the exhibition would help solve the unemployed problem, and that the public would be induced to make up the great arrears in regard to painting and decorating of their premises. Speaking of dilution in the building industry, he said he objected to slipshod methods in the training of their craftsmen, and he hoped, as one result of the exhibition, that the apprenticeship system would be properly taken up and co-ordinated throughout. Regarding the use of white lead, and speaking as an operative, he said it was never intended to have the supply immediately cut off and throw men out of work, but they felt it was a question of saving men's lives.

Mr. J. M. McDermid proposed, and Mr. Cantrill seconded, a vote of thanks to the Chairman who, in reply, asked the Press to let the public know they would materially help if they had their painting and decorating work done at other times than the holidays.

THE STANDS.

The Acme Patent Ladder Co. (Stand No. 10B).—The Acme Patent Ladder Co. (of Earlsfield) have on show at their stand No. 10B a variety of their patent extension ladders, made in two and three sections. Some of these ladders have round rungs and some oblong rungs. The Company are also showing their ordinary builders' ladders. A special feature of the exhibit is their labour-saving scaffold trestles. The firm are also showing for the first time a new improved paste-board. In this latter design the legs are made to fold up very compactly, and when opened they form a very rigid trestle.

Aerograph Co., Ltd. (Stand No. 28D).—This company, whose address is 43, Holborn-viaduct, W.C., exhibit their portable spray painting plant, with a complete range of the various instruments needed in order to obtain different results or effects. The use of spraying machinery is much on the increase. They also exhibit their new "Eagle" oxidiser, which oxidises linseed oil by a new method, giving advantages over other methods. This machine should prove to be of much interest to paint-makers, and others interested in the drying of oils.

Anaglypta, Lincrusta-Walton, Lignomus and Camloid (Stand No. 16).—This firm (of Darwen) has arranged its stand for the display of the firm's various materials in different styles and periods. A special feature is made of fixing Anaglypta without adhesive materials. Attractive framing and new panel effects are of interest.

The Bee Kay Waterproof Sandpaper Co. (Stands No. 38C & D).—The Bee Kay-Waterproof Sandpaper Co., of Brimsdown, make a feature of "Beekay" waterproof sandpaper, which is the outcome of experimental work carried out in this country. Facilities are afforded for test on this glass paper after several days' soaking in cold water and after boiling in water. The firm are also demonstrating with soda and soap water. The life of the paper is estimated as about a dozen times that of ordinary paper. The size of the sheets is the standard English size, 12 in. by 10 in. In addition to sandpaper, a large number of lead products produced by the Brimsdown Lead Co., are shown among which was noticed white lead basic sulphate of lead, dry and in paint form, red lead litharge, and other chemical compounds of lead. A sample of titanium, produced in this country, is of particular interest. It is produced from materials of British origin and the commercial development of which is now taking place.

Blundell, Spence & Co., Ltd. (Stand No. 30).—Messrs. Blundell, Spence & Co., Ltd. (of Hull, and 9, Upper Thames-street, E.C.4) are drawing special attention to panels coated with "Japonette," flat and glossy. Bricks showing the effect obtainable with Blundell's petrifying liquid enamel ("Pammel") can also be seen, together with specimens of paints and stainers, oils, varnishes and dry colours, and a collection of gums and raw materials used in the process of making the firm's numerous manufactures.

"The Builder," Ltd. (Stand No. X7).—The stand of *The Builder* exhibits a comprehensive selection of books of interest to the architect, surveyor, builder, decorator, and others interested in building and allied subjects. A model of the winning design, one of the classes, in Part I of *The Builder* Cost of Building Competition, in which architects submitted designs on which builders have submitted prices, is also on view.

Mr. A. Campbell (Stand No. 36C).—The "Campbell" stripping machine shown on this Stand is the invention of Mr. A. Campbell, of 21, Berners-street, W.1. The machine has been well tested and does all that is claimed for it. The most difficult paper, even though covered with sundry coats of paint, quickly surrenders to this most efficient machine.

Chadwick & Shapcott, Ltd. (Stand No. 4 C).—Messrs. Chadwick & Shapcott, Ltd., are the manufacturers of the well-known "Acorn" brand of painting brushes. They display a useful selection of brushes which are well worth attention.

Charles Churchill & Co., Ltd. (Stand No. 11C).—Messrs. Charles Churchill & Co., Ltd., of 9–15, Leonard-street, Finsbury (selling agents for Manning Abrasive Company of U.S.A.), are showing a complete range of abrasive papers and cloth, known as "Manning Speed-grits." The most interesting is the waterproof series, specially manufactured for the wet rubbing down of paint and varnish. They dispose of the menace of lead and pigment poisoning, and are suited to all kinds of fine paint-work, including interior and coach work. They are made with special paper and coated with artificial abrasives in such a way that, although used with water, the grains do not break down or come off. They are also more homogeneous and uniform. There are painted panels available for making practical trial of wet rubbing. "Metalite" cloth and garnet papers are also shown, manufactured by the same company. In addition to the above there is a small exhibit of the well-known "Norton" alundum safety products for making walking surfaces slip-proof and durable.

J. Davies & Allen (Stand No. 10A).—This firm (whose London address is 43, Basinghall-street, E.C.2) are showing "Glossolar" gold and silver enamels, which are used for interior and exterior decoration of all kinds. "Glossolar" paints are made with the highest grade metallic powders, and bronzing liquid, which is made from a patent recipe. When the powder and liquid are mixed together an excellent enamel surface is obtained. "Staneglas" window transparencies are shown. The article gives an exact imitation of stained glass or ground glass windows. It is made in rolls, so that any size window can be covered in one piece. The rolls are 9 yards long by ½ yard wide. Metallic powders (gold, silver, copper, green and various other shades) are also shown. They are used for theatrical and cinematograph decoration. "Nero" aluminium paint, which is one of the firm's exhibits, is used for painting lamp standards, railings, cinema seats, &c. It is guaranteed to be untarnishable, and a protection against rust, sea air, frost, &c. Paint brushes, varnish, and enamel brushes, liners, writers, &c., are included in the exhibit.

Dixon's White, Ltd. (Stand Nos. 26 C & D).—The stand of this firm (whose address is Albion Wharf, Bow) has been treated effectively with the aid of ordinary graining combs to form an ingenious and artistic pattern work arranged in harmonious colours and producing a very pleasing scheme. The whole of the work has been done in position with paints made from "Dixon's White," except the "Poilite" asbestos panels, which have been painted with three coats of "Rogg" concrete paint as an example of the results obtained with this paint on materials containing cement in their composition. Black painted paper fixed to an easel forms a ground on which to judge the comparative opacity and colour of "Dixon's White" paint against white lead. The fact that 1 cwt. of "Dixon's White" makes at least a gallon more paint than 1 cwt. of white lead is easily understood from a glance at the kegs of the two pigments which are displayed for comparison. Other exhibits of interest are "Dixon's White" undercoating and inside glossy paints, which have gained a wide reputation; "Fluxine," an enamel which works well in the brush, flows out perfectly and dries with a high lustre; "Metro" paint is a paint for exterior exposed positions; "Guarantee" paint, composed of white lead and zinc oxide, is a composition which is now generally accepted by paint technologists a s giving better results than any single pigment for exterior work.

Drew, Clark & Co. (Stand No. 36D).—This firm (of Leyton, E. 10), are showing the undermentioned goods:—"Diamond" patent extension ladders in two and three sections; "Diamond" patent auto-folding platform steps; push-up extension ladders; "Diamond" combined ladder and steps; "Raprig" patent sectional scaffold; ladders, steps, trestles, &c., for all purposes.

Easilit Blow Lamp Co., Ltd. (Stand No. 10).—The Easilit Blow Lamp Co., Ltd. (of 34, Watford-road, Kings Norton, Birmingham), display a selection of their various types of blow lamps. Various attachments are also being exhibited.

Eclipse Rail Track Ladder Co. (Stand No. 11B).—The Eclipse Rail Track Ladder Co. (of Bristol) exhibit an up-to-date range of extension ladders, steps, &c., conspicuous amongst which are the rail track extension ladders, extension scaffold boards and an adjustable roof scaffold.

Emdeca Metal Decoration Co., Ltd. (Stand No. 28B).—The Emdeca Metal Decoration Co., Ltd., of 97, Queen Victoria-street, London, E.C.4, are showing their "Emdeca" metal decoration made on zinc. Several new patterns are shown, including a combination of a white- and black tilette-brick pattern, and some gold mosaic work.

Gas Lighting Improvements Co, (Stand No 36B).—The Gas Lighting Improvements Co., Ltd., of Alexandra House, Queen's-square, W.C.1, show their speciality, "Glico" white spirit, a substitute for turpentine.

Goodlass, Wall & Co., Ltd. (Stand No. 7).—This firm, whose address is 42, Seel-street, Liverpool, are giving a demonstration of results produced by some of their manufactures when used for house painting in the ordinary manner. The materials used in the treatment of the scheme are the following:—"Combinol" flat oil paint, "Combinol" high gloss liquid paint, "Swansdown" white enamel, privet green, "Empire" fast red, "non-bleeding," brush graining stains.

Greeff & Co., Ltd. (Stand Nos. 18C and 18D).—Messrs. Greeff & Co., Ltd., of Thames House, Queen-street-place, E.C.4, have an exhibit illustrating the manufacture and uses of this non-poisonous material, a white pigment for the manufacture of paints for every class of decoration. The opacity or body of this pigment, which is one of its chief characteristics, is illustrated by various interesting exhibits, including panels in which it is painted out over differently coloured backgrounds, showing the complete obliteration in one coat. The immunity of this pigment from discoloration by sulphur gases, &c., forms the subject of another demonstration, also its resistance to attacks by corrosive gases and acids. Exposure tests of paint made with titanium are exhibited. These show an excellent condition of surface after four years' wear, the paint having neither cracked nor peeled, but slightly worn away from the surface, leaving an excellent condition for repainting.

Hadfields (Merton), Ltd. (Stand No. 23).—Messrs. Hadfields (Merton), Ltd., of Western-road, Mitcham, exhibit a fine example of brilliant colouring and excellent workmanship, clearly demonstrating the facility with which their "Heolin" productions may be handled by the craftsman. The design of the stand and the rich lacquer red with which it is finished give it a decidedly oriental atmosphere, while the corner columns of typical Chinese design, finished in "Heolin" white enamel, relieved by lacquer colours and gold, were a great success. The lines of black introduced as a framing or outline for the lacquer red imparted to the latter a richness which alone and unrelieved it would not exhibit; and this is typical of all the best examples of Chinese and Japanese lacquer work, for we find the colours invariably relieved by black or gold. The lacquer colours themselves are not brilliant, but they become so by judicious relief. On the interior of the stand flat and glaze scumble effects are shown, these are of considerable interest both fro practical and economic standpoint. effects are obtained in two coats from the material. The ground coat or body colou each case the "Heolin" obliterating followed by a coat of "Heolin" lime-flat colour scumbled and stippled. The effe exceedingly good, especially for such a mini specification. It is noticeable that scumbled colours are just as brilliant by arti light as in the daylight, and this is a point noting by those who are called upon to dec surfaces to be viewed in artificial light applies to almost all the scumbled glaze co provided the correct contrast between gr and glaze is employed.

Hoyle, Robson, Barnett & Co., Ltd. (S No. 5).—Messrs. Hoyle, Robson, Barnett & Ltd. (of St. Nicholas-chambers, Amen Co Newcastle-on-Tyne), associated with M John Smith & Sons (Haltwhistle), Ltd Newcastle-on-Tyne), have used their stan express two leading ideas, the decorative of pigments and the charm of fresh techni Both ideas are of immediate interest t practical man. The stand itself is designe simple manner; glass enamel pillars stand of the flat white walls and framing and qu designed leaded glass windows. The rear stand is designed in imitation stone to repr a model paint factory. Paint is actually on the machines within. Two rooms oc the front of the stand and present the f products in a practical manner. One pre a fresh rendering of a Chinese scheme panels in sunshine yellows, black and colours being suitably used. The room blue ceiling. The door and Chinese cabine in pigment relief and expanded paint, thus i ducing methods recently developed; the and ceilings are in "Saneros" water p The Chinese dragons on the door and ca are executed in "Protecteros." The room is decorated in "Hoyflat" flat oil with stained and varnished woodwork. P are exhibited of figure work executed in oil and flat oil paint. It is interesting to con the mural qualities of the two mate "Protecteros" glass paint is used in a new on the dado, while the frieze of little faun been laid on with flat paint and scored out a stylus. The doors throughout the stan of 5-ply built on frames and decorate various ways with simple sets of fittin lions' heads made from plastic wood, and in the manner of gesso over stain, while i others elaborate Chinese designs have been in expanded "Perfecteros." Both in q of paint and in newness of ideas visitors kinds will find much of interest in this s

Robert Ingham Clarke & Co., Ltd., a **Gay & Co., Ltd.** (Stand No. 9).—The first-n of this well-known organisation has the tation of being the largest manufacture varnish in the world. Viewing this stand the front the attention of the observer tracted to five white columns, which ar amples of craftsmanship. They are finis "Pearline" white enamel, and are exh with a background of deep rich blue which enhances the value and importa skilful display. In the plush backgroun three oval panels each treated with inpene paint of a distinctive colour. "Gaymat oil paint has been used for the decorati the room at the back of the stand; it is cl that this material is easier to apply, req no stiffening, and that the material is unaf by washing.

Kirkwood, Craig & Co., Ltd. (Stand No. —This firm, (of Eighth Avenue Works, Park, E.12) show their "Tapwata" dry "Adwata" paste powder, "Kirkor" tub for resale, and "Glood" fluid glue in containers for resale and in bulk for trad "Tapwata" dry paste when stirred int water is, we understand, quite safe to use the most delicate colours. "Adwata" powder, an economical adhesive, has to b

boiling water. "Kirkor" tube glue is an able adhesive producing an appearance. demand is chiefly for the purposes of rs to the home, fretwork, &c. "Glood" glue in red tins, is also ready for use in weather, but requires slight warmth in older months. Many amateur carpenters use this as well as professionals who, ver, take the larger containers. "Glood" rticularly useful to the home woodworker, se there is no need for him to keep a glue- n important consideration being that glue is continually heated loses its adhesive gth. There is also the question of unnt odours, dirt, &c., being eliminated.

vis Berger & Sons, Ltd. (STAND No. 32).—s. Lewis Berger & Sons, Ltd. (of Homerton, show at Stand 32 four specimen rooms ated to colour schemes created by the r Decorative Service Studio. The drawing- walls show an attractive shaded effect in one" flat oil paint, graduated from mauve am, whilst those of the bedroom introduce ti-colour treatment achieved by "mottling" "Matone" colours over a pink "Matone" d. A hall in a quiet grey scheme and a study—both in "Matroil" flat washable —complete an interesting series. The d stencils throughout are chosen from the r series of original exclusive designs. Doors woodwork are variously in "Pompeian" oat finishing paint, and "Scrumble" ng paint varnished with "Bergelac," the white work shows the use of "Exilac," is described as "the easier-working" enamel. Other materials shown include "prepared and "M.P.P." semi-paste s, "Homerton" genuine white lead paint, kgloss" finishing paint, "S. & R." ural and roof paint, "Damp Resister" "Wundercote" one-coat undercoating, manoid" aluminium paint, "Solvoid" remover, "Sealic" colourproofing, "Arm" preservative stain, "Tilo" plastic epairing composition and "Signal Red" el.

n Line & Sons (STAND No. 17).—Messrs. Line & Sons (incorporating John Dann ns), of 213–15, Tottenham Court-road, have a well-designed stand of wood upon to demonstrate the application of this materials. It has a flat semi-circular ornice and facia supported on two columns d with black "Triamite" enamel. Messrs. have a new material for the treatment of "Koverfloor," which gives an elastic which is both waterproof and weather-

der Brothers (STAND No. 21).—Messrs. r Brothers (Wolverhampton) show a large n decorated in a bold and effective scheme ouring. The exterior is mainly white, d by panels of rich green, and a frieze of urple, a number of finely varnished oval specimens being hung on the walls. terior scheme consists of a series of rich panels with black mouldings on a ground -shell white enamel. The exterior white nts the firm's "Flexolin" white enamel, has a lustre and china-like smoothness. namel is suitable for both exterior and r work, its elasticity enabling it to and climatic changes of temperature t the slightest risk of cracking. The r green and purple and the interior coloured panels are done in "Vernasca," the first flat oil paints to be put on the t. The feature of the exhibit is the new k Ebony Finish," which is now being for the first time. Every decorator knows fficulty of obtaining a smooth semi-lustre with the effect of polished ebony, and what has been achieved in this exhibit. ouldings, dado rail and wainscot are hroughout with this article, and show ffectively the results obtainable with it.

nal Federation of Paint, Colour, and n Manufacturers (STAND No. 27).—the most interesting stands is that exby the National Federation of Associated Paint, Colour, & Varnish Manufacturers of the United Kingdom, in connection with "Paint More" campaign. It was in the early part of 1921 that the National Federation of Associated Paint, Colour, and Varnish Manufacturers conceived the idea of a national campaign, with a view to educating property owners in the use of paint, and bringing home to them the results of the neglect of its use. That the capacity for the consumption of paint throughout the country is still greatly in excess of the demand does not admit of argument. How to create this increased demand is the problem, not for any individual manufacturer, but for the industry as a whole—manufacturers, merchants, and master painters and decorators.

The National Federation of Master Painters and Decorators.—This Federation have their own stands, one for the display of drawings, and one where members of the organisation are in attendance to give information and discuss problems with visitors. The organisation is a very live body, which has been quietly working to establish, or re-establish a high standard of craftsmanship. A thoroughly representative and, at the same time, high standard of exhibits has been produced as the result of its Competition Scheme for apprentices and journeymen; the results are very interesting. The other stand of the Federation displays coloured perspective drawings of interiors, notable amongst which are drawings of the late Mr. J. D. Crace, kindly lent by the Council of the Institute of British Decorators. Other drawings by decorators who are members of the Federation serve to prove that the trade has still a good number of decorators who are capable of originating schemes of decoration suitable for difficult situations.

Naylor Bros. (London), Ltd. (STAND No. 24).—Messrs. Naylor Brothers (London), Ltd., have a stand consisting of four rooms—a drawing-room, dining-room, bedroom and bathroom, and each room displays different finishes, one on each wall. The drawing-room is finished in blue and brown, the wall and dado being distempered and the panel mouldings, dado rail, and skirting showing the "super-elastic" gloss paint. The panels are finished with paper, and the door and architrave moulding are of moulded mahogany—these also showing the fine polishes to good effect. In the bathroom one wall is papered with a white and patterned paper, made stain proof with "Suwidec" varnish, whilst the other wall is treated in two colours with "S.E.G." paint, two coats only being used. The door in this case is grained to imitate oak. In the dining-room one wall is oak-panelled and finished with a flat varnish, "Pale Encaustic Copal," whilst the door is of oak, and the other wall distempered, panelled and papered in shades of brown, the fine washable distemper and "S.E.G." paint again being used. In the bedroom the door and architrave mouldings are of "S.E.G." two-coat paint, which gives an enamel blue surface, and the walls, as in the dining- and drawing-room, are distempered, painted and papered in a combination of greys and browns. The floors in all rooms except the bathroom are finished with the fine "Fasthin" varnish and stain for floor and woodwork, and one coat only is used, together with a coat of floor varnish to meet the hard wear necessary for such exacting conditions as it will have to withstand during the week.

Thos. Parsons & Sons (STAND No. 37).—At this stand Messrs. Thos. Parsons & Sons (of 315-317, Oxford-street, W.1) exhibit a variety of panels in modern and period designs, doors, &c., in various colour schemes carried out in the firm's specialities, including "Endelline" enamel for interior or exterior use, producing a porcelain-like finish that may be repeatedly washed without deterioration; "Endelflat" enamel (flat), for interior use, producing a soft, almost dead flat finish of a hygienic and washable character; "Lacreite" enamel, a cheaper enamel for inside or outside work; "Unicote" flat finish, an innovation in wall decorative materials, which shows a finer surface than distemper and can be repeatedly washed without deterioration; "Parso-Glaze," a transparent glazing material produced in a wide selection of shades (it produces effects with brighter finishes than can be gained with opaque paints, and can also be used as a stain on new woodwork or as a graining colour); Parsons' undercoating body white, a ready-mixed undercoating paint, with a surface particularly adapted to take the finishing coat of gloss or flat enamel, tinted to suit the finishing colour; and Parsons' copal varnishes.

A demonstration of the Parsons' colourmeter, a colour-producing machine, is given on the stand.

Pavitt & Sons (STAND No 20H).—This firm (of 69, Southampton-row, W.C.) is showing a varied assortment of painters' and decorators' brushes and sundries, also their "Ardenbrite" gold and metallic bronze paints, which they claim to be untarnishable and washable, and guaranteed to keep their colour for any length of time. These are especially suitable for radiator work, cinemas, theatres, &c. The firm is making a display of hand-painted panels decorated with "Gessotex," the new wall-covering. It is easily applied, artistic in colour, and capable of developments in the hands of the craft.

Pinchin, Johnson & Co., Ltd., associated with Wilkinson, Heywood & Clark, Ltd. (STAND No. 8).—The special attraction at this exhibit is the range of Pinchin, Johnson super-finishes, embodying, "Gripon" super-paint, satinette enamel paint, "Deydol" distemper, "Hygeia" flat wall finish and "Gripon" supervar. Singly and collectively these materials cater for all modern decorative needs and possess merits which will doubtless appeal to the practical decorator. Shade cards, booklets, &c., are available on the stand, whilst those interested can also obtain information regarding any or all of the Pinchin, Johnson super-finishes direct from the firm's representatives in attendance. There are also exhibits of other productions, including iron paints, preservatives, lacquers, stains, polishes, concrete dressing, varnishes for all purposes, silveroid, and every material that the decorative trade needs. The head office of the firm is General Buildings, Aldwych, W.C.2.

Raines & Porter, Ltd. (STAND No. 33). The stand of this firm (of Wincolmlee, Hull) is in the form of a Greek temple in Roman Doric. The interior is set out with four panels on which are life-sized figures painted of the four arts, viz., Painting, Music, Sculpture, and Architecture. The interior colour scheme is in blue, ivory and black, carried out with "Velmatt" flat wall finish de luxe. The supporting columns and pillars are done with "Gloselene" enamel rubbed down to a matt finish, ivory in colour. The following are some of the firm's manufactures, samples and colour books of which can be obtained at the Stand:—"Muradek," an improved paste distemper; "Velmatt," a flat wall finish de luxe; Gloselene" enamel; "Denzene" undercoating; "Flexine" scumble stains and glaze; "Tranby" permanent greens; "Autolac" coach colours, decorators' colours in oil, varnishes, &c.

Rawlplug Co.—The Rawlplug Co., Ltd. of Gloucester House, Cromwell-road, S.W.7, are exhibiting "Rawlplugs," recess screws, and aluminium fittings. Throughout the day demonstrations in the use of "Rawlplugs" and recess screws are given. Recess screws can, it is claimed, be driven home in a third to a quarter of the time which it takes to drive home an ordinary slot-headed type of screw.

Ridgeley Trimmer Co. (STAND NOS. 2 A & B).—The Ridgeley Trimmer Co. (London), Ltd., 117, Clerkenwell-road, London, E.C., show examples of their specialities, notably the trimmer and their special folding table for the use of the paperhanger. They also show a material which appears to be rather a departure from their usual lines—a wall-covering which, it is claimed, introduces features that are entirely new. The material "Sanitas" is one for which

the firm have the British rights; they now exhibit it for the first time.

Regent Wallpaper Co. (Stand No. 1 Y).—This firm, of Imperial Works, Brixton, S.W., show an unique range of their original hand-worked decorations, which are designed and produced in their own studios. They are worth the attention of all up-to-date decorators, being extremely different in the treatment of both design and colouring. The "Ely" panelled nursery frieze, as shown on the facia of the stand, is a typical example of the productions of this firm.

Salubra Co. (Stand No. 13).—This stand is devoted to exhibits of Salubra, which is a wall-paper guaranteed to be absolutely fadeless, its colours being fast-to-light and unaffected by any sort of exposure. The stand is arranged in a series of bays or recesses, each containing a different pattern or style of Salubra for various rooms and various uses, including decorative suggestions. The material can be cleaned with soap and water, and even a stiff brush, necessary to remove ink-stains or other exceptionally obstinate marks, does not injure the pattern. The material is non-porous, and does not harbour germs and dust particles. It can be kept rigorously clean in precisely the same manner as smoother surfaces, such as tiling, glass or wood. From the paperhanging point of view Salubra is easy to fix, and in no case is a white lining paper required. The range of designs shown at the Stand is exceptionally large, full provision being made for all requirements. Considerable ingenuity has been shown with regard to patterns, in order to give scope for imposed strips, borders, frame and panel effects, dados and friezes. Tile patterns for bathrooms, lavatories and kitchens; plain tints for walls and ceilings; "tapestry" effects for all purposes are also shown. To demonstrate the imperviousness to water of the material—materially and in colour-fastness—a small fountain is provided at the entrance to the stand, in which are floating some pieces of the new wall-covering. "Salubra" is supplied wholesale only by the Salubra Company, 11, Fitzroy-square, London, W.1.

Arthur Sanderson & Sons, Ltd. (Stand No. 25).—This firm, whose address is 51–5, Berners-street, W.1, display their fast-to-light wall papers. A special exhibit of much interest is "Tekko," a silk substitute. The firm's leather papers are applied on the interior of the stand, while the exterior shows the excellent qualities of "Sanstonia." The general arrangement of the stand affords an opportunity of the firm demonstrating their various productions to advantage.

The Silicate Paint Co. (Stands No. 38A and B.)—The Silicate Paint Co. (Charlton) show at Stand No. 38A and B specimens of interior panelled wall decoration carried out in various colours, many of them recently introduced. Styles and mouldings are grey and white with lake dado. This is to show the adaptability of Duresco for the class of work now so much in vogue. The whole of the exterior is painted with Portland cement colour as a ground, the writing and lining being executed in dark blue "Silpaco" flat oil paint.

Staunton, Ltd. (Stand Nos. 20B and D).—Messrs. Staunton, Ltd., of 43, Johnson-street, S.W.1, are displaying a class of goods that should appeal to the English market. Their speciality is semi-trimmed wall papers, the edges being treated so that the part usually cut off is removed in a moment. These wall papers have a distinctive note about them.

The Steleonite Metal Decorations (Stand No. 10C).—This firm (of 415, Old Ford-road, E. 3) are showing the new Tileonite enamelled metal decoration, the special feature of which is the dovetailed interlocking joint in all brick designs, thereby avoiding the breaking of bond, and making the surface one continuous whole. The firm make Tileonite on zinc, aluminium and tinplate, and we understand that, as a decoration of this kind, it is for the first time manufactured in Great Britain. The designs are based on British sizes.

Stephens & Carter, Ltd. (Stand No. 2 D).—This firm (of Paddington-green, W. 2) have on view specimens of ladders, extension ladders, steps, trestles, and all plant applicable to the decorating trade. There is also a model of Spencer's patent travelling cradle—of which this firm are now the sole proprietors—demonstrating the method by which the cradle can be made to travel on one track any length required, or even round corners.

Thornley & Knight, Ltd. (Stand Nos. 18 A & 18 B).—Messrs. Thornley & Knight, Ltd. (of Bordesley Green-road, Birmingham), have had the whole of their stand done with two shades of "Asbestolin" water paint in light and dark Wedgwood-blue, together with the mouldings and panel, which have been picked out in white. The relief work and upright beading of the stand have been done with white "Tekamatte" flat waterproof oil wall paint. This material is manufactured in a number of shades, and may be washed with soap and water without deterioration. "Tekamatte" can be applied over wood, plaster, iron, stone, cement, distemper, or metal. The door, canopy and posts of the stand have been done with white enamel, which can be tinted to any light shade by using pure tube colours. Panels of "Scumblette" oil graining and staining colours, together with decorators' varnishes, have been prepared. The ceilings of the stand have been finished off with flat white Japan, which produces a flat, smooth and non-absorbent surface that can be washed with soap and water. "Tekavar" copal varnish is also introduced, and panels of it exhibited.

Tudor, Mash & Co., Ltd. (Stand No. 3).—Messrs. Tudor, Mash & Co., Ltd., of Wilton-road, Victoria, S.W. 1, and High-street, Camden Town, N.W. 1, have in use on their stand the exhibition case used by them 58 years ago, when they were awarded a silver medal at Oporto. The chief interest of this firm lies in the production of ready-made paints. For their "Snowflat" they claim that it is the densest white lead paint on the market.

The Tynecastle Company (Stand No. 6).—The Tynecastle Company (of Edinburgh) are showing their varied productions in the decorative treatment of their stand. There are high and low relief enrichments in canvas and vellum, decorated materials, examples of the "device" frieze formed of applied ornament and panels suitable for picture house or theatre, A portion of the stand is devoted to wall-paper.

Walpamur Co., Ltd. (Stand No. 35).—The inside of the stand of the Walpamur Co., Ltd. (of Darwen), is divided into three rooms, each representing a portion of a decorative scheme for a different type of interior. One half suggests a simple treatment for a cinema theatre, the colour scheme being grey and jade green with gold decoratings. The walls are painted with "Walpamur" water paint and the woodwork in "Muromatte." The remaining half shows two schemes. One, for a café, in orange, black, and gold, with decorative panels carried out in "Muromatte." The other part is a portion of a boudoir with a panelled dado, painted with glossy white "Mirabol," pale blue walls, painted "Muromatte," lined out with gold. The exterior is a mauve grey "Duradio" picked out with silver. The columns are painted with white and pale yellow "Mirabol," with black and silver caps and pedestals in black "Duradio." One end represents the exterior of a small town house, painted in white "Amorol," with door and window boxes in drop black, and varished with "Hall Door" varnish.

White Lead Manufacturers (Stand No. 34).—This stand was designed by Sir Edwin Lutyens, R.A., for the white lead makers to demonstrate the value of white lead. The representatives in attendance are demonstrating the undoubted efficiency of waterproof glass paper as a rubbing-down medium in lieu of pumice stone or dry glass paper. There is no doubt that the health of the painter will benefit the introduction of this change of met which prevents dust of any kind floating al and will make it much more easy for decorator to execute his job cleanly and

PAINTERS' AND DECOR TORS' FEDERATION.

ANNUAL MEETING.

The annual meeting of the National Fed tion of Master Painters and Decorators England and Wales was held on Tuesday Holland Park Hall, Mr. C. E. Campbell, President, in the chair.

The President, in his address, said when the trade guilds flourished every ployer was an expert craftsman, and it one of the objects of the Federation to fo that pride of craft which had always been highest incentive in the production of the work.

Mr. W. G. Sutherland (Secretary) prese a report on behalf of the Council, in wh it was stated that it was to be feared there would be no general revival in the acti of the trade until the great staple indust became more prosperous. During the the Council had made a notable begini with a national working rule agreement, while it was too much to expect its adop entirely without friction, it should prove beginning of much smoother working conditi in the building trade.

A report from the Materials Committee sta that an invitation was received from the wh lead manufacturers to join them in pressing Government not to ratify the prohibition clau of the convention adopted at Geneva two ye ago. The International Materials Commit at a special meeting declined the invitati although they were prepared not to opp a certain extension of exceptions. The Ho Office Committee of 1911 reported in fav of the total prohibition of white lead in painti but a recent Committee took the view that certain painting processes no adequate su stitute for white lead was available. T Government was considering the matter a had not yet announced a decision.

ANNUAL DINNER.

A record number attended the ann dinner of the Federation, held at the Ho Great Central on Tuesday last, under chairmanship of the President, Mr. Cecil Campbell. Amongst those present were M Alfred Gotch (President of the Royal Ins tute of British Architects), Mr. E. Partridge (President of the Society of Arc tects), Mr. T. Middleton Dron (Sheriff of City of London), Mr. A. Barnard Cowt (Master of the Worshipful Company Painter Stainers), Mr. R. Sennett (Sheriff the City of London), Mr. E. Stanley Ha M.A., F.R.I.B.A. (President of the Archit tural Association), Mr. John Sibthorpe, I T. M. Legge (H.M. Chief Medical Inspecto Mr. G. Bellhouse (H.M. Chief Inspector Factories), Mr. G. E. Topham, Mr. H. Dockrell (President, National Association Master Painters and Decorators of Irelan Mr. Hugh Davies (H.M. Inspector, Board Education), Mr. A. Sage (Principal, L.C. School of Building), Mr. T. P. Benn (Head of the Department of Architectu Building and Surveying of the Northern Po technic), Mr. A. G. White (Secretary of t National Federation of Building Trades E ployers), Mr. Noel Heaton, Mr. J. C. Vaughan (The Worshipful Company of Pa ter Stainers), Mr. Arthur Porter (Worship Company of Painter Stainers), Mr. F. Jong (President, Incorporated Institute British Decorators), Mr. W. H. Nicho (President of the National Federation Building Trades Employers), Mr. H. Brya Newbold, M.S.A., Mr. F. J. Walton (Pre

f the London Master Builders' Associa-
Mr. D. Colquhoun (President, National
ation of Master Painters in Scotland),
G. J. Cameron (Secretary, National
ation of Master Painters of Scotland),
H. J. Duncan (Secretary, National
ation of Master Painters and Decora-
f Ireland), Mr. W. Scott (President,
ite of Plumbers), Mr. J. W. Alder
ident-Elect of the Federation), Mr.
Hawkes (City and Guilds of London
ite), Mr. J. A. Gibson (Chairman,
al Painters' and Decorators' Joint
ittee), Mr. Charles Woodward,
B.A., Mr. R. G. Muir, F.R.I.B.A.,
G. M. Trench, F.R.I.B.A., and Mr.
Bush, A.R.I.B.A.

r the loyal toasts had been proposed by
RESIDENT and duly honoured, MR. JOHN
ORPE proposed "The National Federa-
Master Painters and Decorators." In
urse of his remarks, he said more than
eration ago a meeting was held at
rs' Hall with a view to forming just
Federation as that represented that
g; but that meeting was a fiasco be-
of the hostilities which had been left as
tage from similar previous meetings.
er, there were men of vision present at
neeting who refused to accept defeat,
at failure was followed by success in
ester, Newcastle, and Birmingham,
om that day onward the Federation had
ssed. The founders of the Federation
great idea of uplifting the craft, and
st things first. The craft could only
lifted by a better standard of crafts-
ip, and that could only be by education
boys in the industry. The dream of
rning body for the trades had been ful-
but were they to be content? Could
ow fold their arms and say no more
be done? Was there not something
hung about the feet of the craft, de-
ting both employed and employer?
was. There was the fact that they
be moderately busy for eight months
twelve and in absolute idleness for the
four. The decorator was thoroughly
o the evil, but the public did not realise
t meant a great deal to them in that
necessarily got worse work in the busy
. There was a limited number of first-
men, and if those men could be con-
employed during the whole year all
ork would be of first-class quality, but
vas impossible if the bulk of the work
ut in hand during a short season. If
iblic were educated in those facts the
ry could secure a continuity of employ-
which was a desideratum to be con-
d. He was firmly convinced that the
ation could tackle and solve that prob-
and he wished it every success in its
.

responding, the PRESIDENT, after em-
ing the necessity for good-fellowship be-
all members of the industries, said the
hat the Federation had promoted friend-
throughout its membership was itself
ent reason for its existence, if it did
ng else. The Federation was fully alive
e detrimental effects of the seasonal
of the decorating trades, and was
g every endeavour to secure continuity
rk throughout the year.

proposing "Our Guests," MR. J. E.
ERWORTH, in referring to the effects of
on buildings in London, said the grime
e atmosphere had endowed St. Paul's
a new beauty of light and shade in
Wren had no hand. So long ago as
he said, the Painter Stainers' Company
urated a "labour exchange" for the
with which it was concerned. With
creasing complexity of later days, how-
and the new conditions which were
the necessity for trade unions and em-
's' organisations became manifest, and
ompany did not perhaps occupy that
on in the regard of the rank and file
craft which it held in days gone by.
ompany had, however, done great work
her directions, such as education and charity. In conclusion, he urged the necessity for co-operation between architects and builders and decorators.

Mr. T. Dron, Mr. A. B. Cowtan, Mr. Alfred Gotch, and Mr. W. H. Nicholls responded to the toast.

MR. COWTAN said the Painter Stainers' Company, in company with all the other Companies in the City of London, was not inactive. At the present time it had a school at Great Titchfield-street, where good work was being done in the training of craftsmen in the decorating and other crafts. The exhibition at Holland Park was excellent. The journeyman was fine, but the work of the boys should not be overlooked, for several of the young men's work on exhibition showed that those young men had a great future before them. Such men would raise, and continue to raise, the status of the craft in which they were all interested.

MR. GOTCH said architecture and decoration had from the outset gone very largely hand in hand. He was extremely glad to hear that one of the activities of the Federation was the training of young members in the crafts which they followed. It was highly desirable that craftsmen of every kind should be trained to have an initiative of their own. Architects welcomed any craftsmen who could help them from their own resources. The architect was, after all, only the chief workman, and the more the allied crafts could help them in their work the better would it be for the architect and the better it would be for the public. He hoped decorators would help architects with the exuberance of their inventions, and architects would help with the austerity of their taste. He would like to make one suggestion. Architects were fascinated with the study of colour; it came before them in various forms. Feeling as he did what wonderful delight there was in the study and observation of colour, it occurred to him that it might be possible for members of the Federation who had an inventive turn of mind to establish colour concerts in which the appeal would not be to the ear but to the eye.

MR. NICHOLLS urged the necessity for a closer working between the builder and decorator.

Other toasts included "The Ladies," proposed by Mr. H. S. Manning, and responded to by Mr. A. Andrews; "Kindred Associations," proposed by Mr. D. Green, and responded to by Mr. F. de Jong, Mr. D. Colquhoun, and Mr. H. Dockrell; "Technical Education," proposed by Mr. T. Foster, responded to by Mr. J. A. Gibson; and "The President," proposed by Mr. J. W. Aldo, and responded to by Mr. C. E. Campbell.

BOOK REVIEWS.

Memoirs of the Geological Survey: Special Reports on the Mineral Resources of Great Britain. Vol. II, Barytes and Witherite. By G. V. WILSON, T. EASTWOOD, R. W. POCOCK, D. A. WRAY, and T. ROBERTSON. With contributions by H. G. DINES, A.R.S.M. London: His Majesty's Stationery Office.) Price 3s. net.

THE war period, during which foreign supplies were very considerably diminished, was marked by a great increase in the output of barium minerals from British mines. Production from all native sources except Derbyshire—which reached its maximum in 1919—was greatest between the years 1914 and 1916, when the mines of the North of England, of Shropshire and North Wales, and of Ireland, showed a simultaneous access of activity. In pre-war times development in one quarter was generally accompanied by diminished production in the others, and the chart on Plate 1 of the Geological Survey's handbook shows how the great international calamity reacted upon the British supply.

"Barytes, barite, heavyspar, or barium sulphate ($BaSO_4$) contains 65·7 per cent. of barium oxide or baryta (BaO).

"The commercial uses of barytes are largely dependent on the fact that it is a heavy white mineral, cheap, and chemically inert. The market price depends not so much on purity as on colour, and the grades produced are arranged on that basis. The finest quality white powder is used in the preparation of white paints, for wall papers, for 'bleaching' flannel, shoddy cloth and Austrian flour; while inferior darker grades are extensively used in the manufacture of lithopone (a paint composed of a variable mixture of zinc oxide, zinc carbonate, zinc sulphide, and barium sulphate), and in asbestos goods."

It is also used for making "artificial ivory," fertilizers, boiler-compounds, insecticides, peroxide of hydrogen, and "artificial driftwood salts."

"Witherite or barium carbonate ($BaCO_3$) carries 77·6 per cent. of barium oxide (BaO)," is not largely used in its native state, but is valuable as a source of supply for the re-agents used in various processes of chemistry and manufacture.

The book includes charts and maps, and a description in detail of the mines of Great Britain divided into four main groups: The six northern counties; the mines of Derbyshire, Shropshire, and the Welsh Border; the mines of Wales and the West of England; and the mines of Scotland.

The House You Want. By R. RANDAL PHILLIPS, Hon. A.R.I.B.A. (London: 20, Tavistock street, W.C.2.) Price 2s. 6d. net.

Quite a useful amount of information is conveyed to the prospective house builder in "The House You Want," by Mr. R. Randal Phillips. The points of view of the architect, the builder, the sanitary engineer, the housewife, and the solicitor are simply set forth, and it is possible that the very brevity and simplicity of the writing will give value and emphasis to it. There is not absent a hint of partiality as to Georgian work, which, perhaps, might as well have been omitted, and the doubt about "quaintness." However, it is probable most of the reading public value the dignity imparted to a small house by a Georgian architect rather than an affected Jacobean or Tudor quaintness.

Meteorological Office, Air Ministry. Eighth Report of the Committee for the Investigation of Atmospheric Pollution. 1923. Price 3s. net.

This report deals with observations made during the year ending March 31st, 1922. During that year twelve authorities have maintained thirty-one standard gauges to test atmospheric pollution, six being situated in the County of London. Twenty-four comprehensive tables of monthly records are included; these give the rainfall, the quantities of soluble and insoluble matter, and the total solids in metric tons per 100 square kilometres. It is instructive to note that in Rochdale about 66 per cent. of deposited matter was due to factory smoke; this is as one would expect, but it does not bear out the contention often urged that the domestic chimney is a greater offender than the factory. Figures are given for Kew, Westminster and Savoy-hill, on the basis of summer days and foggy and non-foggy winter days, separate consideration being given to (*a*) Week-days, (*b*) Saturdays, and (*c*) Sundays. The results of these investigations are plotted in curves, and the experiments as a whole go to prove that summer impurity in London is only about one-third of the winter impurity. Seeing that it is especially important for the public health to make the fullest use of winter sun, the winter smoke clouds are doubly obnoxious. The report emphasizes the evil effects of smoke on public health and says: "It is doubtful how far exercises involving deep breathing should be recommended to city dwellers under present conditions, owing to the polluted state of the air." We hope that these results, and the lesson they convey, will be seen and understood by those who so far have regarded smoke as a natural and inevitable accompaniment to city life.

RAILWAY HOUSING SCHEMES.

G.W. Railway.

LIKE most other large industrial undertakings the Great Western Railway has been faced with the urgent problem of housing their staff, who number in all over 100,000 men. Various proposals were considered by the Company's Surveyor and Estate Agent, Mr. F. W. Showers, F.S.I. Finally, two schemes were adopted.

(*a*) For assisting the staff to purchase their houses. In this case, the Company are prepared to lend 90 per cent. of the value on mortgage at 5 per cent., repayable within 20 years.

(*b*) For assisting the staff to form Public Utility Housing Societies in various centres, for the purpose of letting houses to members. The Company are prepared to purchase sites, to arrange for their lay-out, to construct roads and sewers and to lease the site for 99 years on a 4 per cent. ground rent basis to societies, in sections as they are required for building. In addition, the Company, in approved cases, will provide the capital for the houses up to 90 per cent of cost at 4 per cent. interest, repayment being spread over 50 years. The members of each Society, therefore, collectively, have only to find 10 per cent.

The first society formed is the Great Western (London) Garden Village Society, Ltd., and other Societies have been formed, or are in process of establishment, at Cardiff, Barry, Penarth, Newport, Severn Tunnel, Swansea, Port Talbot, Llanelly, and elsewhere.

For the Great Western (London) Society, the Company have acquired two estates—one at Acton, W.; and the other at Hayes, Middlesex. The former consists of 46 acres, making ultimate provision for some 500 houses; the Hayes site being 60 acres in area, with provision for 600 houses. The lay-out of both estates provides ample open space and good gardens, and the houses will be in pairs and groups of four. At Acton, the Company have collaborated with the Borough Council in the construction of a new "through" road, 50 ft. wide, connecting Noel-road with Twyford-avenue and with Hanger-hill, Ealing. This will be an important public improvement in the district and is included in the Council's town-planning scheme.

Contracts for the erection of the first 50 houses at Acton and for the roads and sewers serving them have been let to Mr. Ernest Clarke, of Melton Mowbray; and for the first 50 houses at Hayes to Messrs. John Laing & Son, Ltd., of Carlisle and London. Forty of these first 100 houses have parlours and upstairs bathrooms, the others being of the large single living-room type with bathrooms downstairs. Some groups will be built in 11 in. cavity walls and Luton facings, and others in 9 in. walls and roughcast—all being roofed with hand-made tiles. Gas and electric light is to be laid on in each case, with hot water supply and all modern conveniences.

The architectural work in connection with these schemes has been entrusted to Mr. T. Alwyn Lloyd, F.R.I.B.A., of Cardiff and London, Architect to the Welsh Town-Planning and Housing Trust, Ltd; the Organizing Secretary for the Societies being Mr. E. Hall Williams, who is connected with the same organisation.

L. & N.E.R. Scheme.

With a view to solving the housing problem so far as their own employees are concerned, the directors of the London and North-Eastern Railway have in hand a scheme whereby employees may purchase their own houses with the financial assistance of the Company. The scheme has already been commenced at Gosforth, where the men are enabled to purchase new houses by weekly payments from their wages, and a similar scheme is being advanced at Darlington, where the Company have large constructional and repair establishments. The Company, it is understood, are prepared to advance £50,000 for houses for employees working in that town, at 4 per cent.

CIVIL ENGINEERING GEOLOGY.*

The author of this volume lays considerable stress, and rightly, on the fact that an engineer undertaking constructional works of any size should have a good working knowledge of geology. The first care of an efficient engineer will be to inform himself with regard to the geological features of the site he has to deal with. As stated in the preface, the nucleus of the book was obtained from a paper prepared in 1921 on "Some engineering aspects of Geology" for the newly-formed Institution of Engineers (India). Hence it follows, naturally, that much of the geological matter has particular reference to India. The book contains 140 pages, divided into three parts: Water supply and irrigation, field operations, and building material; is well illustrated, the photographs and photomicrographs being excellent.

Under the heading water supply, it is clearly shown that requisite knowledge of the underlying strata is absolutely necessary. Thus a valley with a perfect basin structure may be utterly worthless as a reservoir site if the beds forming the basin are open-textured and therefore porous. In an endeavour to increase the capacity of a moderate well by deepening, a strong joint may be encountered which will possibly drain the well. The trouble may be overcome but at considerable expense. The geological structure designated by the word artesian, is often misunderstood. Artesian conditions may exist, but unless the top of the bore-hole is correctly placed with reference to the height of the outcrop of the porous bed the water may have to be pumped out of the well instead of flowing freely.

Under field operations the chapter on retaining walls is of a very practical nature. The calculation of the dimensions does not come within the scope of the book, being considered as outside the province of the geologist, but the question of foundations is considered and is one that calls for skill on the part of the engineer. Evidence of which can be found in the examples of many lofty buildings of enormous weight supported on pillar foundations, the pressure being as much as 1,000 tons, and hence the foundations of a heavy building are sometimes the cause of anxiety.

In London the general rule is to get down to the ballast or to the London clay, the chief consideration being, in most cases, to obtain uniform distribution of the weight. In many cases dams have to be built in shallow valleys in rocks which are seldom satisfactory from the engineer's point of view. The particulars given of the individual beds of strata should prove useful in this respect. The troubles that may arise, due to faults, soft or porous unconsolidated strata, open joint planes and other fissures, are clearly explained, as also are the essential considerations in tunnelling. For any engineering undertaking each site requires a thorough investigation of the material and structural features of the underlying strata, and in some materials, *i.e.*, sand and gravels, the angles of repose are affected by the condition of the material if wet or dry.

The effect of earthquakes on structures does not concern the engineer at home, but, probably by an oversight, the use of reinforced concrete is not mentioned with regard to buildings to resist earthquake shocks, although their effect on buildings is mentioned.

Building material covers definition of terms and mode of occurrence of rocks. For Great Britain the geological maps published by the Geological Survey Department give invaluable information to engineers. The photomicrographs in this section, together with the text, explain clearly that the porous or impervious nature of a rock is dependent on size of the pore spaces.

The three great classes into which it is usual to group the various types of rock which have been recognised on the crust of the earth—Igneous, Sedimentary and Metamorphic—are given with further sub-divisions and classification. The igneous rocks form no less than per cent. of the whole. The physical prope of rocks and choice of materials in this se should prove of great service in choosing for building purposes, and to understand properties of rocks, a knowledge of geolo necessary. For ordinary use in Great Br the building stones are known more familiar granites, limestones and sandstones. Stre and durability are the two most impo considerations. In this connection, hard defined as resistance to abrasion, is de by numbers, and found by scratching a sm surface of the mineral with a steel knife comparing with effect of the knife on wi glass. In a similar way metals under Brinell test are arranged. In metals, how hardness is treated as resistance to penetra and is found by calculation of the diamet the impression made by a steel ball unc standard load. The crushing strength of d ent specimens of the same stone will be f to vary under test. In addition porosity weathering qualities are frequently of cons able importance.

It is essential that care should be take all cases of building work, more particu in the case of sandstones and other rocks w present distinctive planes of stratificatio bed the stones in the structure in the pos of natural bedding, because, if used in any way, they usually disintegrate much rapidly under atmospheric influence. At t it may not be possible to obtain reliable to determine the weathering properties stone for a particular locality. In such a examination of the stone that has used locally will provide useful informa Crystalline stone is more weather resi than non-crystalline, and some kinds of require to be seasoned before use.

* *Civil Engineering Geology*. By CYRIL S. FOX. (Crosby Lockwood & Son.) 18s. net.

TUTANKHAMEN'S TOM

"THE Pyramids and other Tombs o Egyptians" was the subject of a le by Sir Banister Fletcher at the Ce School of Arts and Crafts on Wedn last. With many interesting lantern illu tions he described the houses of the Egy dead, from the "mastabas," or small o buildings evolved probably from the p toric grave scooped in the sand, to the cut tombs at Beni Hasan, with their octagonal columns, and the great pyra at Gizeh, near Cairo, and elsewhere. remarkable productions of Egyptian ar sulted from their desire to preserve the mified bodies till they should be re-inha by the soul. The Great Pyramid of C is 482 ft. high and covers 13 acres— nearly as large an area as Lincoln's Fields— and this and the Second and Pyramids are all nearly 6,000 years old. lecturer illustrated the innermost recesses the first-named pyramid, and described mysteriously guarded approaches to them

The lecturer also referred to the enig Sphinx of Gizeh, standing as sentinel o forgotten years which lie behind it, a the so-called "Temple of the Sphinx" by, with its very ancient construction.

The lecturer then described the ron tombs of the Kings at Thebes, on the we bank of the Nile, opposite the better-k Luxor, and their remarkable plannin chambers and corridors sloping back int heart of the mountains. Of greatest in among these at the present time is the of Tutankhamen, son-in-law of the "h king" Amenophis IV, who adopted the of Akhenaton. The entrance to this whose discovery has excited such wides revival of interest in Egypt and its lif history, is below that of Rameses VI. leads by a staircase to several char packed with the most remarkable treas and clearly shown in the lantern view Banister described. He concluded by remarks on the burial rites of the Egypti

ITISH EMPIRE EXHIBITION, WEMBLEY.

YEAR ago the site of the British Empire bition at Wembley, covering some 130 , was open country except for the Stadium ng completion and the plant and litter in ection with the erection of that structure n were lying about. Now about half of the s covered with buildings either roofed in or irse of roofing.

will be seen from Fig. 1, the main entrance on to a formal garden with fountains, gh which the main avenue, with the Palace ndustry and the Machinery Hall on either leads to the Stadium. Entrances to these ngs are placed on the main avenue, but are alternative covered ways leading to from the entrance. These covered ways, d of concrete columns in pairs tied at the ith reinforced concrete beams, are seen in ustration on either side of the garden. The ings to the left and right of the main ie are the Palace of Industry and Machinery respectively, the largest buildings in the bition.

ne idea of the vast extent of the Palace of try and the Machinery Hall may be gained Figs. 2 and 3. The structures are entirely crete and steel, with the roof partly glazed artly filled in with asbestos cement sheet- The concrete columns were poured *in situ*, the curved members forming the arches upporting the roof were cast on the floor e building and hoisted into position. The s a reinforced concrete raft extending over hole of the area. The roof trusses of the aisles seen in the middle of the illustration steel, but for all the subsidiary aisles pre- einforced concrete trusses are used; these e seen to the right of Fig. 2. All internal ions and curtain walls are of breeze blocks thin face of a mixture of cement and sand. are made by hand in wooden moulds on or of the building (see Fig. 3), and stacked required.

arge number of concrete flag masts are yed on different buildings. The weight of ast is taken on a lion's head corbelled out the face of the wall and they are kept it by passing through a ring bonded into the wall about 4 ft. above the lion's head; both the lions' heads and the stays are cast in concrete.

TOWN PLANNING AT GLASGOW.

MR. JAMES MACAULAY, F.S.I., A.M.T.P.I., last week gave his presidential address to the Royal Technical College Architectural Craftsmen's Society. The main subject treated was town-planning, and after outlining the history, objects, Acts, authorities, and powers, the lecturer gave the practical application to Glasgow.

The report of the Glasgow Medical Officer of Health in the beginning of 1913 was, he said, the means of the Corporation determining to prepare town-planning schemes, so that in October of that year they passed resolutions for two areas (1) lands at Kennyhill and Riddrie, situated wholly within the area of the Corporation; and (2) lands in the districts of Kelvinside, Temple, Jordanhill, Broomhill, Whiteinch, Scotstoun, Yoker (East), Drumchapel, Scotstounhill, and Knightswood, situated partly within the area of the Corporation, partly within the area of the local authority for the County of Dumbarton, and partly within the area of the local authority for the County of Renfrew.

The Kennyhill and Riddrie scheme at the time of its first consideration included 106.1 acres, of which 62.6 acres in the Riddrie area were owned by the Corporation, 27.5 acres of Blackhill Estate, 15 acres of the Kennyhill area, owned by the Corporation, and 1 acre in small plots belonging to others. Shortly afterwards the Corporation purchased the Blackhill Estate, and the scheme was approved in February, 1919. That area was one of the sites selected by the Corporation for a housing scheme, and was fully developed.

The second scheme proposed as the Great Western-road scheme was chiefly considered as likely to be one of arterial roads. The total area extended to about 6,580 acres. A Joint Town-Planning Committee was subsequently appointed with powers to prepare a skeleton scheme embracing provisions for main arterial and traffic roads and bridges, widening of existing roads, definition of building lines, heights of buildings, general densities of buildings in land units, location of works areas, location of large and regional open space, definition of new docks and wharves, railways, sidings, &c., tramway routes, systems of main drainage, water supply, gas supply, and any other feature which might be of general concern and interest to the area as a whole.

The Joint Town-Planning Committee for the Western Areas was prepared to submit its scheme to the Scottish Board of Health last year, but through the urgency of the work connected with State-aided housing schemes and shortage of staff it had been unable to undertake the examination of the proposals, and there the matter rested. It was significant, however, that development of the area included in the proposals of the Western Area scheme must proceed, and it was to be presumed that that development was along the lines suggested by the Joint Town-Planning Committee even although the scheme as a whole was in abeyance.

For instance, the Admiralty had to build oil tanks at Dunotter; Messrs. Birrell wished to extend their works; Glasgow determined to proceed with the 140 ft. wide boulevard from Anniesland towards Bowling; the Board of Agriculture to give off small holdings on part of the lands required for that boulevard; Clydebank to provide work for the unemployed in road and street works in their portion of the scheme; and now there was Glasgow's great enterprise in the formation of the new western suburb at Bankhead which, together with Knightswood and Cloberhill, would be laid out for 3,300 houses.

Except for those two schemes Glasgow might be said to have made no progress in town planning. That seemed to him to be particularly unfortunate, because development was being forced upon her, and although it might be guided aright in compartments by housing schemes, and State-aided private enterprise, public utility societies, slum clearances, arterial and secondary roads, and all the contributory departments of public health, besides the growing speculative building and the slowly-growing industrial works extensions, there was a great lack of co-ordination and that high level of planning only to be had by means of town-planning schemes.

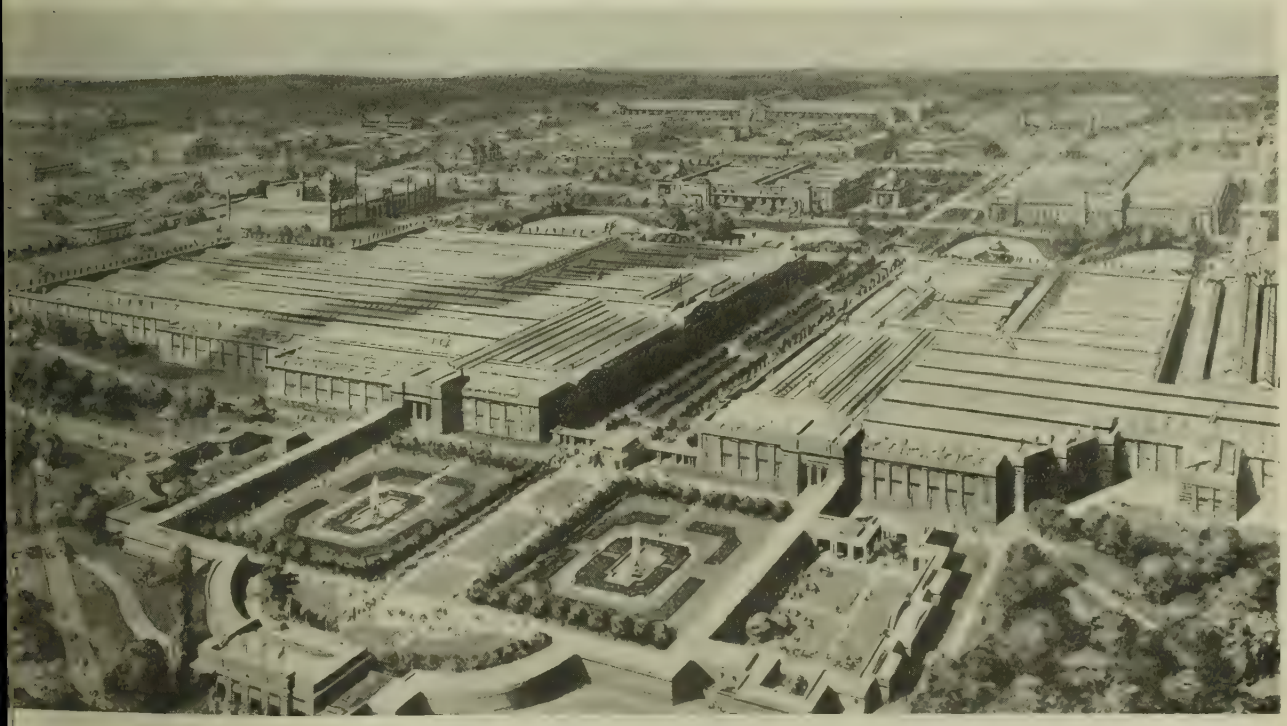


FIG. 1.—British Empire Exhibition, Wembley: Aerial Perspective.

MESSRS. J. W. SIMPSON & MAXWELL AYRTON, Architects.



FIG. 2.—THE PALACE OF INDUSTRY.



Photos: Campbell Gray.

FIG. 3.—THE MACHINERY HALL.

British Empire Exhibition, Wembley.

Messrs. J. W. Simpson and Maxwell Ayrton, Architects. (*See p.* 615.)

NNE HATHAWAY'S OTTAGE, STRATFORD-ON-AVON.

DITH SHAKESPEARE, daughter of William espeare and Anne Hathaway (twin of net Shakespeare), was born in 1585. he age of thirty-one she married Thomas ney, vintner, at Stratford-on-Avon. While ratford, Judith and her husband lived for y-six years at 1, High-street. At that time, house in which Judith Shakespeare lived, first Elizabethan state, was a half-timbered ing with overhung eaves and gables, and the face of oak and plaster. In writing of this e, the weekly *Graphic* says :—

t is reasonable to conclude that the poet d his daughter there during the ten ining weeks of his life after her marriage. inly, Judith would be visited here by her Susanna, who had married the humourless Hall, and by their daughter, who became Barnard. Equally clearly we can descry oet's widow as a specially welcome and ant guest at the High-street house, a few away from her own.

Early in the last century, Corporation ates decided to 'restore' it, as they and the deed was done. A record of shows that some years before the Council xpended £600 on this philistine enterprise ; during the recent work it was discovered the old eaves had been cut away. One ularly interesting section of the interior dith's cellar and the basement once used e town lock-up. Under this roof were the three children of Thomas and Judith ney, and here they died.

uinney leased the house from 1616 to He seems to have prospered here for time, becoming a town councillor in 1617 hamberlain in 1621-2 and 1622-3. After his affairs grew somewhat involved, and t Stratford late in 1652 for London, where months later he died. His widow survived February 9, 1661-2, and was buried in churchyard near her sons. Her twin er, Hamnet, the poet's only son, had died eleventh year, and with Lady Barnard oet's only granddaughter), the direct xpired.

is eminently fitting, therefore, that this ng should be made to preserve some of ginal form, as known to the Shakespeares, ne public-spirited act which has rescued it ly from a state of very conspicuous ss and made it to live again, is worthy iversal recognition. A mask of stucco, for many years concealed and distorted udor façade, is now removed, and we a restoration ranking in importance after lace and the birth-house in Henley-

se responsible for the restoration work Messrs. W. H. Smith & Son, booksellers ewsagents, the present tenants of the es. The Stratford-on-Avon Corporation owners of the property, which forms part Guild Estate. Half the rent of the ng goes to the King Edward School, as in the days when William Shakespeare schoolboy there. The restoration was l out under the direction of Mr. Guy rton, Lic.R.I.B.A., of the firm of Messrs. n, Pemberton & White, architects, rd-on-Avon. The restoration was carried n "Atlas White" Portland cement . Our illustration is given by permission *Graphic*.

New Bristol Housing Schemes.

Bristol Housing Committee has prepared rt for presentation to the City Council re- ending a scheme for the building of ano- 500 houses, and to proceed with the lay- sites at Bedminster Down, Horfield, well and Shirehampton. Arrangements so being made for building working-class ngs, and to sell them to the tenants by a of extended payments.

BRISTOL TOWN PLANNING CONFERENCE.

A CONFERENCE of members of the Bristol Town-Planning Committee and representatives of local authorities in the surrounding district was held at Bristol on October 11, under the presidency of Mr. G. L. Pepler, of the Ministry of Health.

The Lord Mayor gave an address of welcome.

The Chairman said one of the objects of joint town planning was to maintain the identity of the parts, safeguarding that which should be preserved, keeping the right balance between the parts, and fostering and co-ordinating their functions, so that the most might be made of the resources of the region and it might develop on the most economic and healthy lines. In view of the urgent need for economy, he thought the fact should be emphasised that through town planning waste might be avoided and economy achieved. The principal economic object of town planning was to plan out all developments, so that whatever money was subsequently spent in the locality, either public or private, should be put to its most productive use and not wasted on mutually destructive and ineffective objects, as had so often been the case in the past. After pointing out the mistakes which had been made in the past through lack of definite plans, which had resulted in much inconvenience and expense, he said the right method was to treat as one an entire economic and geographical unit, and plan so that each component part might develop to the full and to mutual advantage, and at the same time might enhance the prosperity of the region as a whole by enabling the most to be made of all its resources, and the best possible conditions obtained for all its inhabitants.

After discussion it was decided to form a Joint Town-Planning Committee for the area, to include the county boroughs of Bristol and Bath and the surrounding urban and rural districts, such committee to consist of delegates from the local authorities in the following proportion :—Each county borough, 2 members ; each borough, 2 members ; each urban district, 1 member ; each rural district, 1 member ; the withdrawal of any one or more constituent councils from membership not to invalidate the appointment and continuance of the committee. It was agreed that officials of County Councils should be allowed to attend the meetings of the Committee, and also any officials of any local authority represented on the Committee, but such attendance to be in an advisory capacity only.

It was also decided that the County Councils of Gloucestershire and Somerset should be invited to send a representative to attend the meetings, but such representative would not be capable of being appointed a member, or of voting. Representatives of interested trade, professional, technical, business or other organisations may also be invited to attend the meetings at the discretion of the Committee.

British Empire Exhibition.

The authorities of the British Empire Exhibition have considered the question of awards, and it is reported that the general feeling seemed to be that, having regard to the purely British character of the Exhibition and the absence of any element of international competition, it would be in the best interests of the Imperial objects of the Exhibition, as well as of the exhibitors themselves, to abandon awards on a competitive basis. If the general opinion is against awards steps will be taken at once to regularise their abandonment. If this be found impossible the awards in each particular section will probably be made by a jury appointed by the exhibitors in it. Should the new policy be approved, a commemorative medal will be presented to each exhibitor.



Anne Hathaway's Cottage, Stratford-on-Avon.
MR. GUY PEMBERTON, Lic.R.I.B.A., Architect for the Restoration.

THE BUILDING TRADE.

THE TRAINING OF OPERATIVES IN THE BUILDING INDUSTRY.

BY T. P. BENNETT, F.R.I.B.A., Head of the Department of Architecture, Surveying and Building, Northern Polytechnic, London, N.

The Training of Operatives.—The sources of supply and the training of skilled operatives are problems which are causing grave concern to those who are intimately acquainted with present conditions in the building industry.

Lack of an Adequate Supply of Craftsmen.—In the last few months there has been a slight revival of activity in building and immediately skilled men, particularly bricklayers, joiners and plasterers, have become unobtainable. It is common knowledge that indentured apprentices have steadily decreased in numbers in recent years, and as the trade organisations at present tend to view with disfavour the progress of a man from a labourer to a craftsman, there can be no doubt that the number of craftsmen available is being steadily depleted. The seriousness of the situation becomes evident when building schemes are held up, labourers are unemployed, and building work is consistently cancelled or withheld from the industry because of the slow progress of a building and the length of time during which capital is locked up in uncompleted work.

Education and Training in the Past.—In order that some attempt may be made to solve the problems involved in this matter it is necessary to investigate past conditions of work and conditions of labour and to compare them with those prevailing at present. The method of training craftsmen for many generations has been by means of apprenticeship, and the fact that as a system it produced a high standard of work is sufficient to create a powerful tradition in its favour.

Industrial Conditions.—The conditions under which it flourished were (*a*) long hours of labour, (*b*) a comparatively slow rate of output (*c*) low rates of pay.

Relations between Skilled and Unskilled Men.—In order that a true perspective of apprenticeship as a modern method of training may be obtained, it is necessary to visualise the conditions of the building crafts of this country in previous generations. In the first place the community was not collected in large towns to the extent which prevails at present, and in the second place there was a much greater measure of contact and sympathy between individuals. These factors created a personal interest between skilled craftsmen and embryo craftsmen, which resulted in a willingness to spend time in training, not in evidence at the present.

Demand and Output.—The flow of work into a particular workshop was much more constant than it is now, largely because the speed of modern building and modern life had not been reached and the work as it arrived was automatically spread out. This created more stable conditions in the industry, and in individual workshops, as a result of which the number of men employed in a particular shop was more constant and the serious slumps and intense booms which are now experienced did not exist. In addition to these inherent elements of stability were the external features enumerated above, viz., long, and at one time almost unlimited hours of labour, accompanied by an output of which the speed was immaterial.

As a result of these conditions building trade employers raised no objection to skilled operatives or foremen using a certain amount of time teaching an apprentice. Any time so lost was made up as a matter of course by the man remaining a longer time to finish his task, and was further favoured by the fact that if this incident of teaching delayed the progress of the building it caused no comment either by the employer, architect or prospective user of the building. To these factors must be added low rates of pay which did not make the engaging of additional workmen a serious matter.

Modern Conditions.—It is necessary at the outset, therefore, to realise that the conditions of work in the industry at the present moment differ in essential factors from conditions that prevailed even so recently as 50 years ago, and they differ still more seriously from those which prevailed up to the eighteenth century, when the system of Guilds and apprentices flourished with its greatest success. It must also be realised that much of the anxiety for producing work in a given time falls upon the general foreman in large works and that it is upon these men that the responsibility of teaching apprentices rests. The result is that the foreman chooses the line of least resistance, confines himself to his work and refuses to take apprentices. We may summarise these factors as follows :—

Different Methods of Training Craftsmen.—(a) Short hours of labour leave little time for responsible hands to spend in teaching boys, apprenticed or otherwise ; (b) the responsibility thrown upon foremen and charge hands to produce work in the shortest possible space of time adds so much to their difficulties that they will not be saddled with the necessity of spending time teaching unskilled or semi-skilled operatives ; (c) increased wages have increased the cost of the work and have still further eliminated any possibility of allowing a portion of the time of skilled men to be absorbed in teaching ; (d) to these factors must be added conditions which fluctuate to a much greater extent than was formerly the case and which, therefore, make it impossible for an employer to bind himself to pay and teach an apprentice for a substantial term of years.

Chief Reasons of Fluctuations in Modern Building.—The fluctuation of work in modern building is due to many factors, of which three have, in recent years, come into prominence :—1, Legislation ; 2, the condition of Europe ; 3, the present size of individual buildings.

The Erection of the Larger Modern Buildings.—It is unnecessary to enlarge upon the first two of these points, which have been sufficiently in evidence in the Press and elsewhere. The third point is a factor which is not, perhaps, fully realised. Modern buildings tend to be erected by communities such as Municipalities, Companies, Co-operative Societies, Government Departments, &c., and this fact, together with the development of steel and ferro-concrete construction and the increase of land values in town areas, has meant that individual buildings of considerable extent, each absorbing a large amount of labour, have become a commonplace of building instead of an exception. As a result of this increase in the number of larger buildings to be erected, an individual firm may receive one or more extensive contracts which entail a substantial increase in the number of operatives in their employ. Their success in obtaining contracts may not be repeated at regular intervals and the same firm may find that the number of their operatives will fall substantially in other periods.

The fact that such buildings absorb a large amount of capital means that substantial sums of money are standing idle during the progress of the work with consequent loss of interest, and this is still another factor in causing the speeding up of erection. As a result of these essentially modern factors in building, firms can no longer gauge, with the same accuracy, the average number of men whom they employ, they cannot, with confidence, take the same proportion apprentices, neither can they undertake to wages to a large number of apprentices periods of five to seven years, during which amount of work passing through their shop quite an unknown quantity. In the case small and medium-sized firms, these factors aggravated, and they refuse to undertake to men with so great an uncertainty in front them.

There appears to be almost universal agr ment upon the fact that the existence of a or seven years' indenture is a definite almost insuperable barrier to the engagemen apprentices ; only the largest firms will cons such possibilities and even if these firms t a substantial number, the proportion of app tices to the total number of operatives enga in the industry is still insignificant.

Migration of Skilled Men to London.—Lon is apparently less fortunately placed than ot centres, because, for many generations, the r of pay have been higher than in any other p of the country, and the best men in the coun districts have consistently migrated to capital. The result of this has been t London employers have relied for their supp of skilled labour more upon migration than u the training of apprentices. Recently, rate wages have been fixed for zones and cert (A) towns have been created which have ra of wages similar to those in London. It perhaps, too early to make any definite st ment upon the result of this system, and, a is already proving somewhat unfair to Lon operatives, it may possibly be revised in the too distant future, but the opinion may hazarded that it will result in keeping ski men away from London. Those in the ne bourhood of Birmingham, for example, may migrate to Birmingham rather than take longer journey to London. Further, it admitted that the cost of living in Lon(including heavy daily travelling expenses considerably greater than in provincial tow and therefore the London operative, although may get the same wages as some of his provin colleagues is worse off because his expenses greater.

If these factors can be completely stantiated they tend to show—(1) apprenticeship has many difficulties w never previously existed ; (2) that it is extrem doubtful whether this method of training ever become the universal gateway for en into the building crafts which it undoubt has been for many years ; and (3) spe difficulties surround its revival in London.

The Attitude of Employers and Operative the Apprenticeship Scheme.—With regard to attitude of employers and operatives respecti towards the apprenticeship scheme, it is follows :—(*a*) The employers are divi between (1) a small minority who are extrem interested in the crafts as such, and believ the tradition of apprenticeship ; they furthermore, prepared to make any reason sacrifice that may be necessary to reinstate and (2) the almost overwhelming majority consider that it is financially impossible for th to undertake to pay apprentices for a pe during which the amount of work they have in hand is quite unknown. The claus the present scheme which provides for attendances of apprentices for one day a w at a technical school is, from a business p of view, an added difficulty, and is only car out by the enthusiastic minority referred previously.

(*b*) The operatives support the sch universally. (1) They honestly believe tha is the best method of training craftsmen possibly, in fact, the only method ; (2) t consider the restrictive character of an indent an asset.

The time has arrived when a Commi should be set up to deal with the whole quest of the education of operatives, and to investig

sible means by which this education might obtained. The problem is difficult, as are new solutions to matters which are of age- importance. It may be that a new system pprenticeship can be devised, that labourers be allowed under certain conditions to me craftsmen, or that technical schools , in future, be responsible for preliminary ning just as architects are now trained in ols where formerly they were indentured. not a question of overthrowing apprentice- , which is still of very great importance, will continue to be a part of the organisation rge building firms. It is a matter of finding eans of supplementing the number of tsmen who are being trained by this method. his connection it is important to consider effect of the elimination of apprenticeship out the substitution of some other definite od of training.

he War and Unskilled Labour.—The war ided an invaluable object lesson. In its days operatives in building were seriously ced in numbers, and in the later stages a amount of building work was put in hand. result of this late development of building ities numbers of practically unskilled men nted themselves at works offices for gement as skilled operatives. In most they were engaged and were admitted to bership of their respective Trade Unions. easy to understand that a man may, out much difficulty, learn one operation rpentry, joinery, plumbing or bricklaying. may not be able to do it well, but in the ce of any better craftsman he gets engaged. obvious, also, that at the earliest possible ent such a man is discharged, and the ntage of unemployed in the industry is by increased. A certain amount of this of thing is again occurring in building, and discovers that the tendency towards alisation, which is a feature of all industries, ing aggravated, the knowledge and skill of smen being so exceedingly limited.

an instance of this, a leading master builder d a short time ago that special carpenters to be employed to make centering for rced concrete work and that when this was finished and no further centering was able the men were discharged. To anyone ssing a knowledge of the ability which the d craftsman can readily obtain, it seems lous that there are such special features reinforced concrete that they cannot be understood by men capable of doing any kind of carpentry work. It is evident the result of lapse of apprenticeship as a m of training and a failure to substitute lternatives will be that in boom years large bers of operatives will come into building are almost entirely unskilled, that at the est sign of slump these men will become ployed and, indeed, unemployable, and therefore not only will the level of crafts- hip fall but the burden on the country will finitely greater than it need be. It is cer- that the members of the trade unions fail ppreciate this result of the restriction of ition, and training facilities, or the entry the trade of skilled men. The absence of ing is a menace, not only to the efficient ct of the industry, but also to the nation whole.

portance of Building.—Building is one of most important industries in the country n times of great social change it is essential building should be facilitated in every ble way. New buildings are required to ly with advancement in methods of con- tion and revolution in current ideas about al and artificial lighting, ventilation, ne, economic organisation, mechanical ances, lifts, &c.

e importance of building cannot be denied. need for training is beyond doubt and the ion therefore arises as to the best method taining a live system of education. In rst place apprenticeship is accepted almost rsally as theoretically the best method of ing. In practice, however, the number of ntices employed in building work has ily declined for the last 25 years. This decline has been progressive, and is assuming quite serious proportions. After the war determined efforts were made to re-introduce apprenticeship on an extensive scale and to revive interest in the system as a part of the practice of the industry. The effort met with temporary success of a partial character, but it was in the nature of a flash in the pan. This interest in apprenticeship as such coupled with its progressive signs of practical failure suggests that it is out of touch with modern conditions and the possibility must be faced of its eventual disappearance as a means of entry to the crafts. Before any efficient substitute can be found the opinion of all responsible parties must be obtained and the object of this paper is to endeavour if possible to ascertain whether :

(1) Conditions all over the country show that there has been the same decline in apprentices as has occurred in London.

(2) Whether responsible employers consider the revival of apprenticeship upon a large scale is probable in the near future.

(3) What alternative means of training can be suggested to either partially or wholly take the place of apprenticeship.

Boys in Building Works under Present Conditions.—Briefly, the position is this : between the ages of 14 and 16 boys are of no great value in building works, and under present conditions they tend to run errands, make tea and perform other odd jobs properly belonging to labourers. Between these ages, therefore, they are not a serious loss to the industry ; on the other hand, their minds are in a pliable condition and under skilful guidance they can be made to develop remarkable progress and quite a high standard of skill. If they enter the industry at the age of 16 or 17 with some efficient craft training behind them, they are able to do useful work almost immediately. It might be possible to arrange for craft schools to give this preliminary training. It is obvious that any scheme adopted must be one of considerable magnitude and will not be limited to London, although possibly in London the need is greater than in any other place in the kingdom for the reasons already stated.

Condition of Payment of Operatives.—Wrapped up with this question of training is the question of conditions of payment in the industry as a whole, because so long as men are faced with a low wage during booms, with a short week and loss of time in bad weather, together with the almost entire elimination of their wages in periods of slumps and bad weather, they cannot appreciate the facts that many additional operatives can be supported by the industry. In discussing any scheme of payment it must be borne in mind that building is dependent upon general financial prosperity compared with the cost of building, because building represents the sinking of capital and can only proceed when the return is relatively great. Building, therefore, will always be a fluctuating industry.

Summary.—The salient features of this short résumé may be summarised as under :—

(1) The apprenticeship scheme is extremely unlikely to succeed or to experience any extensive revival, because it does not conform to the conditions which prevail in the industry at present.

(2) The existence of an active apprenticeship Committee is essential to the well-being of the industry.

(3) That the absence of an adequate system of training and method of entry into building will be followed by a disastrous inrush of unskilled and semi-skilled men during periods of boom and, consequently, an exaggerated unemployment list on the slightest suspicion of a slump.

(4) That some system of payment must be put into force to remove the difficulties that many operatives experience at present in obtaining adequate remuneration for the number of years they spend in attaining the level of ability demanded by their work.

(5) That the time is ripe for a full investigation of all possible means of training operatives, and that to this end the opinion of both employers and operatives must receive the fullest possible publicity.

COLONEL TROLLOPE AND THE HOUSING ACT.

Speaking at a meeting of Cobham (Surrey) Parish Council on Tuesday last week, Colonel G. H. Trollope said that, so far as getting houses or cottages for the working-classes, the Housing Act of 1923 might as well be non-existent.

The Minister seemed to be under the impression, said Colonel Trollope, that because it had been found possible, in certain favoured localities, for builders to erect houses and sell them at a small profit, similar conditions would prevail in all cases. The localities where those operations could be carried out, which the Minister seemed to think possible generally, were where the land had been acquired by the local authorities, and roads and sewers were constructed, as well as gas and water mains laid. Those localities must also be where there were adequate facilities for getting to London, or other place of employment, at reasonable cost, because it was found that in the majority of cases the purchasers were not actually operatives, and in any case must be able to command a first instalment of the purchase money, the balance being advanced by the local authority and repaid in the shape of rent spread over a term of years.

In the case of Malden a large number of builders, he understood, were actually erecting houses in anticipation of getting the £75 grant, which, had it been received, would have enabled them to sell the houses at that amount less than otherwise they could. However, for the artisan or labourer such a programme was quite out of the question in the majority of cases—those people seeking houses at a rental. It was the business of a builder to build, not to act as a financier ; and, therefore, unless such houses as were required were provided by local authorities, or public utility societies, they would never be built. With the present cost of materials and labour, in addition to the expense of acquiring land, making roads and sewers, and laying gas and water mains, an economic rent could not be expected unless the builder were aided by the subsidy provided for and contemplated in the Act of 1923. The whole trouble had arisen because of section 2, clause 2, which gave the Minister power to withhold the subsidy unless, in his opinion, houses could not be erected without assistance under the Act.

It was decided to await the result of a request for a conference at the Health Ministry.

MEETINGS.

Tuesday, *October* 23.

Liverpool Architectural Society.—Mr. A. N. Shelley on "Control of Building by By-Laws and other Forms of Local Regulations." At 13, Harrington-street.

Incorporated Institute of British Decorators.—Mr. F. De Jong on "Empire Style in Decoration." At Painters' Hall, Little Trinity-lane, E.C. 7.30 p.m.

Wednesday, *October* 24.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Temples, Obelisks, Dwellings." At Southampton-row, W.C.1. 6 p.m.

Builders' Association for Pembrokeshire.

At Haverfordwest on Saturday there was a representative gathering of Pembrokeshire county master builders and building trade employers to consider the formation of an association of building trades employers for the county. Mr. J. O. Morgan, J.P., Prendergast, Haverfordwest, was elected to preside over the meeting, which was addressed on the question of an association's advantages by Messrs. W. E. Goodridge, Neath (President of South Wales Federation of Building Trades' Employers), E. W. King, Newport (Mon) (Auditor of the National Federation), David Davies, Swansea (President, Swansea Builders' Association), and D. Anderson, Aberavon, the Technical Adviser to the South Wales Federation.

It was unanimously decided to form a Pembrokeshire Association.

BUILDING TRADE WAGES AND THE PUBLIC.

By "SURVEYOR."

Public opinion on this question is becoming confused by the reiterated, conflicting arguments of the various interested parties. Public sentiment has hitherto leant to the side of the file of the industrial army. It has desired better conditions for manual workers, represented, of course, by higher wages, which are the foundation fact of all amelioration.

Now, this has evidently come into being of recent years. The working man has had his hours of work reduced and his pay very much increased. His scale of living has been revolutionised. Clothes, food, amusements and spare money for luxuries are obviously all enjoyed on a scale that the present mechanics' or labourers' parents would not have dreamed possible for them to attain. Even in country villages, where wages and the style of living were formerly on a lower scale, at the present time even external appearances show that much more money is available in every family. This has not only been the case during the war boom, but has persisted since lean times have set in for the building as well as other trades, and unemployment has become endemic.

At the same time public assistance for the working classes has become widespread. Education is free to all; scholarships are given gratuitously to selected pupils; medical attendance, boots and breakfasts granted to necessitous children, and conveyances provided for weaklings. The expense of rearing children has been largely lifted from parents' shoulders. At the same time, for the workman himself, doctoring and out-of-work subsistence are largely assisted from the public purse or from employers' funds, and enormously augmented by Boards of Guardians.

The cost of living is all the time coming down, slowly, it is true; but the problem of reduction is complicated by the increased wages paid in course of production, and these have been maintained by combinations of workmen in all trades. Further, rents of industrial-class houses have been legislatively restricted at a low level, at the expense of property owners, for the benefit of working-class tenants, and the latter have largely taken advantage of the shortage of houses to make heavy profits out of their homeless brethren by subletting rooms at high prices. In a word, during and since the war all classes, especially wage-earners, have enjoyed unwonted prosperity, and generally have spent their whole income without reckoning the certain lean times to come.

Now the inevitable backward swing of the trade pendulum finds us all shocked and discontented because we cannot maintain our raised estate. Many trading companies have failed, trade profits have fallen, and subsidies to unemployed, war pensions and profligate public expenditure and mismanagement have burnt the candle at both ends. Foreign competition has hit the export trade by means of depreciated exchanges and the low wages paid to workmen abroad. Nearly all trades have had, unwillingly, to submit to reductions in wages and profits to keep their heads even spasmodically above water—all but the building trade, and, possibly, a few other occupations, sheltered from the keen blast of foreign cheap imports. Slight reductions, proportionate to the lower cost of living, have certainly been made in the building trade, from the inflated wages paid during the feverish boom after the Armistice, when politicians sang pæans about everlasting peace and future El Dorados, and when the lavish outpouring of public taxation demoralised all building ranks in the effort to make up the shortage of dwellings.

This deficiency was plainly and obviously aggravated by the inflation of building costs, preventing both the public provision of houses, except at a ruinous loss, and at the same time effectually stopping all private speculation for profit. This same prohibitive expense checked, and still checks, the placing of contracts, except some for Government or public authorities, where expense is not considered or it is desired to mitigate the miseries of unemployment. In addition, a few luxury trades, supported by the extravagant habits of the public, can afford the outlay on new works and offices for purposes of advertisement. If the "Lists of Tenders" are carefully scanned it will be seen that these two classes cover the bulk of new business.

Under these untoward circumstances building contractors have naturally pressed for a reasonable reduction of wages, in order to stimulate building, and to diminish the lamentable amount of unemployment. After months of haggling, both sides agreed to refer the dispute to independent arbitration by a higher legal expert, entirely immune from trade interests. The consequent award decreed a small reduction of wages in the higher-paid towns and a smaller decrease in the cheaper country districts. The reductions were disappointing to the farthest seeing men in the trade, who desired to nourish the golden goose to induce a more plentiful supply of eggs. In some country districts the halfpenny decrease awarded was so trifling that builders hesitated to stir up strife by enforcing it, and the old rate is still paid.

Now, however, the highest scorers in the team are disputing the umpire's decision, contrary to all the rules of the game, on the ground that it reduces them to starvation wages. This, obviously, is a mere flower of speech, as in many other trades, for instance, shipbuilding and engineering, wages of skilled mechanics, and even exactly similar branches to some employed in the building trade, such as pattern-makers and joiners, were about two-thirds only of the standard of "building mechanics." Further, in these great industrial centres the cost of living and general scale of wages are higher than in London, and it is in the building trade that high wages persist.

Now, when good workmen, living in highly civilised centres, are managing to live comfortably without complaint, it is incredible to believe that building-trade men cannot make both ends meet on much better wages.

Again, for building mechanics to cry, "We are starving, and we won't agree to lower our pay," and yet, at the same time, peevishly to refuse to work longer hours, although paid at higher rates for overtime, rather smacks of the spoilt child. Surely they should feel a little consideration for the general wages-payer and bounty-dispenser, the public. They appear to overlook that all payments come out of the general purse, either by direct payments or by public taxation. Many people appear to think subconsciously that the Government find all public subsidies out of some mysterious hidden reservoir, as a conjurer produces a golden apple out of a mystery hat.

If the above appeal is not strong enough, have the men no sympathy for their hundred-thousand fellows out of work in the trade, nor for the million lacking a house to live in? Is the rest of the community expected to tax itself to pay further largesse, both in high wages and in bounties, to a class naturally sheltered from the blast of foreign competition? Is it generous for this protected section to cry out at the proportionate reduction of pay as an "insult"?

Building operatives have for generations built up a reputation for sanity and moderation of views, and should surely now be chary of encouraging small sections to endanger their good name. On the other hand, reasonable complaints of uncomfortable or inadequate messrooms must certainly be investigated and remedied by the employers' associations, not only to satisfy public sentiment, but still more to produce a friendly and satisfied feeling amongst the men. Common sense, if not generosity, ordains this decent provision, in order to keep the working army in good fe and heart. Only mean minds would re such reasonable treatment of one class another.

In the settlement both sides must sh moderation and good feeling to ensure a las peace and to hearten up the building force attacking the problems of unemployment, trade and lack of housing. All minor questi will then soon settle themselves.

PRICE OF BUILDING MATERIALS.

The report for the month of September the Inter-Departmental Committee appoin to Survey the Prices of Building Material as follows:—

"The position remains practically unalte since the date of the last report (Augu As regards the more important materials, si August there has been an advance of £1 standard in carcassing timber at Willes and £1 10s. per standard in joinery timber Birmingham. On the other hand, the spe purchases of the London County Council ha been made at a price of £22 7s. 6d. a sta as against £25 7s. 6d. paid during Aug It should, however, be stated that this Aug price was specially high for a local rea namely, that the London County Council h to depart from their ordinary source of sup on account of the dock strike. The co parison would therefore be better made w the July price of £21 7s. 6d.

"In the case of the other materials, a gene advance in lead, varying from 10s. to £1 a ton is reported from Bristol, Leeds, Newcast on-Tyne, Swansea, Hampshire, Edinburgh, a Glasgow.

"Apart from these items, there have been o a few small fluctuations of minor importa in such materials as, for example, turpent and linseed oil, but there are no apprecia changes, and prices generally remain steadi the same level as during the previous month

MIDLAND FEDERATIO OF BUILDING TRADE EMPLOYERS

By invitation of the Northampton Ma Builders' Association, the Executive Council the Midland Federation of Building Tr Employers held their quarterly meeting Northampton, on October 11. Those pres included Mr. W. Sharrat (Wolverhampt President; Mr. G. A. Hewitt (Leicester), Vi President, and also President of the Leices and Rutland County Federation; and Mes F. G. Whittall, S. Guy Sapcote, S. F. Swift, a A. J. Bowen (Birmingham); W. W. Webst H. A. Glenn (Northampton); C. S. Kersh (Burton-on-Trent); G. Sandy (Stafford); Powell (Wolverhampton); J. J. Hicken (Will hall); P. Bow, J. Stimpson, N. Hopewell, C. Gilbert (Nottingham); G. Knight (Ketterin W. O. Chambers (Leicester); I. W. Wooto (Alfreton); T. W. Youngman (Long Eato R. Streather (Sutton Coldfield); G. Coo (Nuneaton); A. Parker (Lincoln); J. Basw (Sedgeley); H. T. Golding (Dudley); W. Penn, W. Jones, W. H. Jones (Coventry); Kendrick (Walsall); S. Jackson (West Bro wich); I. W. Bowen (Leamington); R. Turnbull, Organiser; and F. W. Amphl Secretary. Members of the Northampt Master Builders' Association present wer Mr. C. A. Sharman (President), Mr. H. Archer (Vice-President), and Messrs. F. Smith, A. E. Green, C. H. Green, J. Wareing, L. Hawtin, J. Sharman, R. Busw W. Throssell, and A. Airs (Hon. Secretary)

THE NATIONAL FEDERATION OF HOUSE BUILDERS.

HALF-YEARLY MEETING.

IE half-yearly meeting of the National eration of House Builders was held on the inst. at Harrogate. The meeting was held e Council Chamber at the Municipal Offices, the delegates were welcomed by the Mayor David Simpson, J.P.). The Mayor said the housing difficulty was the outcome of 1909-10 Finance Act. He was a builder, s father before him had been, and before ar he used to build houses which he would f he could, and if he did not find a ready sale ould let them to tenants. All that had and, until the restrictions which had been sed upon owners of property were removed, could be no letting to tenants; the builder l only build for sale.

e Secretary (Mr. Norman McKellen, A.A.) read his report on the work of the ration during the past half-year. The ities of the Committee had been largely ed to the Housing Act, for the work led by constant watching the Bill as it went gh Parliament had been very great. The nittee had made repeated recommendations e Ministry of Health on the assistance which o be provided by the Act, and it was prac- y founded upon the Federation's plans, one important exception—the assistance to be dispensed by the local authorities ad of by the Government direct. The rnment were determined to decentralise ork, and the Act was drafted accordingly. e Federation was active in the question of nistering the subsidy, and was now in iation with the Ministry of Health as to the encing date for houses to qualify for the The Federation had approved a badge e by the members, and had also an attrac- prospectus which had been widely distri- . The President (Mr. H. R. Selley, on) had been appointed by the Minister of h to a Committee, which had been formed e purpose of advising the Minister on the ardisation of water fittings. There had a very strong attempt on the part of the Works' Association to get some very specifications for water pipes, cisterns aps, but, owing to the opposition of house rs, property-owners and others, the er of Health had formed a Committee to him before he took action.

H. R. Selley (London), in his Presidential s, congratulated the members on the sing amount of recognition which the tion had received from all quarters. were, he said, not only represented on the ty of Health Committee on Water Fittings, ere also engaged on a joint Committee he Surveyors' Institution and the Master rs' Association to consider local by-laws. l been invited as President to attend the ational Housing Congress to be held in where he had promised to give a paper using in England after the War. All this ition was gratifying, and would do the tion good.

brick shortage in the South of England adually becoming less acute, but the great was the cost of all materials, not only of House builders were only the vehicle on the cost to the consumer; whatever t, we had to hand it on, and he could not substantial fall in costs until there was abour available. There was a real short- labour in the two key industries, brick- and plastering, and it was due to the uilder having been out of commission for y years. He thought the trade unions be a little bit more relaxing on the ques- apprentices, and when there were more ere would be more houses built.

regard to the Housing Act, the house trade welcomed the Act when it was first passed. It was not perfect; but if it was carried out in the spirit in which it was designed it would provide many houses. The size of the house to rank for the grant was raised from 850 ft. to 950 ft. while the Bill was in Committee, and that extension was the acknowledgement of the Ministry of Health that the subsidy would apply to the working-class who did not carry a hod nor dig with a shovel. Their members set out to meet the need, and, although it was a difficult task, they and their architects had planned artistic, compact and convenient houses on the limited space of 950 ft. inside measurement. Not only did the members welcome the subsidy on behalf of their customers, they did more—they built many houses expecting them to qualify for the grant. Relying upon what both the builder and the local authority took to be definite advice from the Government to go ahead with their schemes, they consulted the local officials and fixed up their plans to fall in with the requirements of the Act, so that the customers should have the benefit of the subsidy. About the middle of August the Ministry dropped a bombshell on to the job by declaring that no subsidy could be paid on any houses the construction of which was commenced before the local authority had obtained the approval of the Ministry to the scheme.

Although the houses were in every respect eligible for the grant, if the builder in his haste to get on with housing had commenced too soon the subsidy was not to be paid. He had heard of a case where a builder had eight houses in course of construction and sold six of them to newly-married people; now there was to be no subsidy on these houses all six had been compelled to cancel their contract. He believed there were well over 1,000 houses commenced for the subsidy which were now barred out because they were started too soon. The Federation had been one of the first to urge its members to get busy, but now they had to tell everyone to wait and on no account to commence a house until the local authority had given a definite promise to find the grant. It was a serious misunderstanding, and would do a lot of harm to the working of the Housing Act. He was not without hope that in all cases where they could prove their *bona fides* there would be a way to an understanding with the Ministry.

The difficulty about the commencing date was not the only difficulty. Very few local authorities had obtained the sanction of the Ministry to their schemes. Their members were waiting, and they wanted to know quickly whether the subsidy would be given on certain types of houses or not. House-builders were like men in the dark, and, until the Government laid down a line to enable people to define what would qualify and what would not, they could not see daylight. The general idea was that when the limit in size was fixed at 950 feet inside measurement, that limit constituted the dividing line, and he still believed that it was the best and only line to draw. The Ministry wanted to draw some other line which would divide the working-class house, but the suggested limit of selling price would not work. The land cost anything from £50 to £1,200 per acre, and the house would vary from £600 to £800. It would be good value at the price. To fix the subsidy by the price would not do. The only guide should be the size, and he maintained that every house which came within the limit of measurement in the Act should be eligible for the grant and should be sold to a buyer at a fair market price giving him the benefit of the subsidy.

The administration of the subsidy was giving a lot of trouble. Various local authorities were imposing conditions which rendered the whole thing impossible. He had heard that in Liverpool they were issuing a specification to guide the builder in qualifying for the subsidy, a detailed specification of twenty or thirty foolscap pages, a specification sufficient for a County Hall, and they were only giving the Government subsidy of £75 per house. The whole thing was monstrous. This and other conditions imposed in other places looked as if the authorities had made up their minds not to give the subsidy in cases where it could be said that the house was anything superior to an imaginary working-class standard. There was a large and deserving class of people who looked to the Housing Act to get them a house, and they would be bitterly disappointed if there were unnecessary restrictions thrown in their way.

Mr. R. A. Costain (Liverpool) said that he was driven to the conclusion that the Liverpool Corporation did not want houses built by private enterprise. The subsidy even in the old days was unsatisfactory. Customers of his firm had been deprived of the subsidy because the houses were started a day too late; now they were unable to get it because they started them a week too soon.

Mr. J. Belton (Sheffield) said that the time-limit had delayed building in Sheffield, where some of the builders had started too soon, but were now told that the subsidy would only be paid on houses commenced before December 31. One never knew whether he was too late or too soon.

After an animated discussion, in which many members took part, the following resolution was carried unanimously, on the proposal of Mr. R. A. Costain, seconded by Mr. George Sadler (Nottingham):—

> "This General Meeting of the National Federation of House Builders strongly protests against the failure of the Ministry of Health and the Local Authorities generally (with some honourable exceptions) to administer the Housing, &c., Act, 1923, in such a way as to permit private enterprise to receive the assistance which Parliament intended to provide when passing the Act, especially in reference to the following points:
>
> "1. The withholding of the subsidy where the building of houses has been commenced (on the promise of Local Authorities) on the ground that construction was begun before the proposals have been approved by the Minister.
>
> "2. The failure to grant the subsidy on all houses which comply with the Government regulations as set out in the Act.
>
> "The meeting, therefore, urges the Government to indicate promptly and definitely what conditions are to be fulfilled in order to qualify houses for the subsidy."

It was also decided that the Minister of Health should be asked to receive a deputation on the administration of the subsidy.

At the afternoon sitting a paper on "Housing the Owner-Occupier," which had been prepared by the Secretary, was read by Mr. G. F. Darbyshire (Manchester). The paper outlined the various methods of selling houses by means of mortgages and repayment mortgages, and Mr. Darbyshire laid great stress upon the necessity for house-builders to study salesmanship, for the most successful builders were those who knew most about finance.

The next annual meeting of the Federation is to be held in London in April.

Concrete Houses for Edinburgh.

The Edinburgh Town Council has adopted a recommendation that a contract for thirty-six concrete houses shall be accepted by the city. The houses are to be on the pier and slab system, similar to those at Newcastle and Nottingham. Concrete houses are already in existence in various cities, and a deputation of the Corporation who inspected some of them recently reported favourably in respect of their appearance, comfort, and cost. The cost is £375 per house. The offer which the Corporation are recommended to accept is by the patentees of the system, Messrs. Airey & Sons, Leeds.

LONDON BUILDERS' FOREMEN'S ASSOCIATION.

Annual Dinner.

THE Second Annual Dinner of this Association was held on Saturday last week at the Holborn Restaurant.

Mr. F. J. Walton, F.I.O.B. (Messrs. Ford & Walton, Ltd.), President of the London Master Builders' Association, presided, and was supported by Messrs. F. Thorne, R. B. Chessum, G. M. Burt, E. J. Brown, A. B. Falkner, Major R. J. Holliday, A. N. Dove, W. W. Dove, S. Holloway, G. S. Roberts, and other members of the L.M.B.A.

The usual loyal toasts were proposed by the Chairman and duly honoured.

The toast of the "London Builders' Foremen's Association" was proposed by Mr. F. Thorne, J.P., F.I.O.B., Vice-President of the L.M.B.A., who said he realised the many difficulties that faced them from time to time, and the often impossible conditions laid down as to time for completion. He congratulated them, as a body, on the way they rose to and overcame the difficulties that confronted them. The builders looked upon their foremen as the captains of ships, while they (the builders) were the admirals engaged in the general direction and manipulation of the fleet.

Mr. W. Mitchell, President, L.B.F.A., in responding to the toast, said difficulties arose to be overcome, and he could assure the members of the L.M.B.A. that they could always rely upon the ready co-operation and assistance of the members of the Association.

The toast of the "London Master Builders' Association" was proposed by Mr. J. T. Mackie, Vice-President, L.B.F.A. He pleaded that in negotiations on trade matters the foremen's view-point should be sought and given consideration.

The Chairman, in responding, pointed out that the members of the L.M.B.A. did seek the views of their foremen, and drew attention to the fact that London was only one region of the National Federation and that all agreements were made by the National Wages and Conditions Council.

Mr. J. W. Lamden, Secretary, L.B.F.A., gave a brief account of the activities of the Association since its inception, and said that although the Association had only been in existence two years, the membership now numbered 360. He expressed his thanks for the help and assistance he received from the Director of the London Master Builders' Association and his staff.

Mr. E. J. Brown said it gave him great pleasure to know that the Foremen's Association had so far fulfilled its expectations, and he hoped for a considerable augmentation of the membership.

RATES OF WAGES.

MR. ARTHUR GEE writes:—

Sir,—I have been an operative in the building trade now thirty years, less a few years' unemployment. This unemployment I have always regarded as almost entirely due to inclemency of weather, which in my branch of the trade is unquestionably detrimental. I presume the same applies more or less to all other branches of the building trade. Therefore, I have always concluded that the winter rest was inevitable—until the last few years. Now it occurs to me that, if no better reason can be adduced for putting the shutters up for three months out of every twelve, it is about time the operatives adjusted their demands to season, instead of throwing themselves on the unemployment fund.

Presentation.

An interesting ceremony took place at the works of Messrs. James Gibbons, Ltd., St. John's Works, Wolverhampton, when a presentation was made to Mr. Paul Gibbons, second son of Mr. F. J. J. Gibbons, on the occasion of his coming-of-age. On behalf of the employees, Mr. Paul Gibbons was presented with a fitted suit case.

RATES OF WAGES IN THE BUILDING TRADE

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Masons'	Bricklayers'	Pl ter Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Bedford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½			1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3			0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Cambridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Chelmsford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Colchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½			1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3			1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½			1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Great Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3			1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Ipswich	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6			1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½			1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½			1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Luton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			0/11½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Norwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6			1/1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4			1/0
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6			1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7			0/11½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3			1/2½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/0
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3			0/11½
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½			1/0½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/2½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/1½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/2½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/0½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½			1/2½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7			1/1½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/6½	1/5½			1/1½
York	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½			1/1½

(For rates of wages in the Building Trade in Scotland, see page 623.)

CONTRACTS, COMPETITIONS, &c.

ne contracts still open, but not included in this List, see previous issues. Those with an asterisk rtised in this number. Certain conditions beyond those given in the following information sed in some cases, such as that advertisers do not bind themselves to accept the lowest or any that a fair wages clause shall be observed; that no allowance will be made for tenders; and osits are returned on receipt of a bona-fide tender unless stated to the contrary.

ts given at the commencement of each paragraph is the latest date when the tender, or the names lling to submit tenders, may be sent in; the name and address at the end is the person from whom here quantities, forms of tender, &c., may be obtained.

ILDING AND PANTING.

20.—**Blackwood (Mon).**—TRANSFORMER For erecting for the Bedwellty U.D.C., a r station at Blackwood. Mr. D. H. Price, Council Offices, Aberbargoed.

20.—**Bleanpant.**—HOUSE.—Erection of . J. Williams, architect, Kilgerran, Pem.

20.—**Irvine.**—PAINTING, &C.—For the elec- g work and the painter work of 12 houses in rection, for the T.C. Messrs. David Gillies ilson, Town Clerks, Irvine. Deposit £1 1s.

20.—**Kirkcaldy.**—GLAZING.—Glazier work hops, for the Pathhead and Sinclairtown o-operative Society, Ltd. Mr. Archibald hitect, 233, High-street, Kirkcaldy.

20.—**Leckaun.**—RESIDENCE.—Erection of a residence at Leckaun, Co. Leitrim, for Rev. ior, C.C. Mr. P. J. Brady, architect, Broom- e, Ballyhaise, Co. Cavan.

20.—**Near Abergavenny (Mon).**—For erecting a parish hall at Llanvihangel (near Abergavenny), with submission of estimate for same, if erected, of timber d galvanised corrugated sheeting. Mr. B. J. chitect, Abergavenny. Names of intending st be sent to Mr. W. H. Wood, Clerk to Parish Pant Glas, Pandy, near Abergavenny.

20.—**Porth (Rhondda).**—REBUILDING OF For undertaking, for the Trustees, the re- f Cymmer Welsh Congregational Chapel, essrs. Thomas & Morgan & Partners, archi- wasted-road, Pontypridd. Deposit £2 2s.

20.—**Swindon.**—HOUSES.—Erection of 50 Limes-avenue, Hurst, for the T.C. Mr. S. C. Borough Engineer, 34, Regent-circus,

22.—**Barnsley.**—HOUSE.—For the erection Bond-road, Barnsley. Messrs. Dyson, & Coles, 10, Regent-street, Barnsley.

22.—**Bristol.**—VARIOUS WORKS.—(1) Cem- roughcasting portions of back of St. Peter's (2) plastering walls, &c., and cementing painting, &c., in the kitchen at Eastville ; (3) painting, repairs, &c., in the corridors, staircases, &c. at the Stapleton Institution ard of Guardians. Mr. Thomas S. Lamb Peter's Hospital, Bristol.

22.—**Carlisle.**—PAINTING.—Outside paint- erties in George-street and Creighton-court street, Mill-street and Wood-street, for the Henry C. Marks, City Surveyor, 18, Fisher- lisle.

22.—**Croydon.**—FLATS.—For the erection tion of a block of flats at the rear of Nos. 8, , Cherry Orchard-road, for Croydon C.B. ngineer, Town Hall, Croydon. Deposit

22.—**Cymmer (Port Talbot).**—EXTENSIONS. nding the offices of the Glyncorrwg U.D.C. (Port Talbot). Mr. W. P. Jones, Surveyor, ces, Cymmer (Port Talbot). Deposit £2 2s.

22.—**Edinburgh.**—RECONSTRUCTION.—Re- n of engine room to form new electric car Tramway Depot, Tolcross, for the T.C. Mr. Williamson, City Architect, Public Works Chambers, Edinburgh.

22.—**Farnborough, Kent.**—HOME.—For ed to be done in the erection of an additional me at the Infirmary, for Bromley Union. y Smith, F.R.I.B.A., Parliament Mansions, et, Westminster, S.W.1. Deposit £5.

22.—**Glasgow.**—CONVENIENCE.—Construc- nderground convenience at the junction of t and Cranston-street, for the T.C. Office orks, City-chambers, 64, Cochrane-street,

22.—**Hemsworth.**—LAUNDRY.—Erection of dry at the Poor Law Institution, for the uardians. Mr. W. T. Lynam, Engineer, es, Hemsworth near Pontefract. Deposit

22.—**Huddersfield.**—PAINTING.—Interior ospitals at the Crosland Moor Institution, rd of Guardians. Mr. T. W. Armitage, Offices, Ramsden-street, Huddersfield.

22.—**Inverness.**—HOUSES.—Erection of of three-roomed houses at Lochalsh-road, Mr. J. Hinton Gall, architect, Lombard- ness.

22.—**King's Langley.**—COTTAGES.—Erec- cottages on the Housing Site at King's rts, for the Hemel Hempstead R.D.C. Lighbody, M.S.A., Council's Architect, a-road, Hemel Hempstead, Herts. Deposit

22.—**Lochgelly.**—INSTITUTE.—Erection of d War Memorial Institute at Main-street, or the District Welfare Committee. Mr. Kennedy, Clerk, Guildhall Chambers, eet, Dunfermline.

22.—**Newcastle-upon-Tyne.**—HOUSES.— tion of 70 houses, for the Corporation. hall & Tweedy, 54, Grey-street, Newcastle- Deposit £2.

2.—**Port-Glasgow.**—FENCING.—For timber tes in connection with the erection of 16 uses, for the T.C. Mr. Andrew Paton, Port Glasgow.

OCTOBER 22.—**Wallsend.**—HOUSES.—Erection of 144 self-contained houses (in pairs), for the T.C. Borough Surveyor, Town Hall, Wallsend. Deposit, £2 2s.

OCTOBER 23.—**Braintree.**—HOUSES.—Erection of following houses, for the R.D.C.:—Parish of Rivenhall 12, Parish of Terling 8, Parish of Great Coggeshall 6, Parish of Little Coggeshall 4. Mr. E. O. Wheeler, 71, Rayne-road, Braintree.

OCTOBER 23.—**Coulsdon.**—CONVENIENCES.—Construction of public conveniences in Brighton-road, for the U.D.C. Mr. R. Chart, Surveyor, Council Offices, Purley. Deposit £2 2s.

OCTOBER 23.—**Port Talbot.**—PAINTING.—For carrying out, for the B.C. (Contract C), the external painting of iron buildings at Central Schools, Port Talbot, and (D) painting in the Arcade, Aberavon. Borough Engineer's Office, Aberavon.

OCTOBER 23.—**Wakefield.**—CONVERSION.—Conversion of Thorne's House into a secondary school. Mr. Percy Oliver, Director of Education, Education Department, Town Hall, Wakefield. Deposit £3 3s.

OCTOBER 24.—**Ashford.**—LAVATORY.—Erection of a lavatory, at the Swimming Bath, for the U.D.C. Mr. Wm. Terrill, surveyor, 5 North-street. Ashford, Kent.

OCTOBER 24.—**Belfast.**—COTTAGES.—Erection of 146 cottages at Cregagh, for the Government of Northern Ireland. Minister of Finance, 15, Donegall-square West, Belfast. Deposit £1.

OCTOBER 24.—**Glasgow.**—SUB-STATION.—Erection of electric sub-station at Baillieston, for the T.C. Mr. James Dalrymple, General Manager, 46, Bath-street, Glasgow.

OCTOBER 24.—**Oxford.**—GARAGE.—Erection of a motor 'bus garage at Cowley-road, in the City of Oxford, for the Directors of the City of Oxford Motor Services, Ltd. Company's Office, Leopold-street, Oxford.

OCTOBER 24.—**Southampton.**—OFFICES.—Erection of offices, Town Quay, Southampton, for the Harbour Board. Engineer, Offices, Town Quay, Southampton. Deposit £1.

OCTOBER 24.—**Workington.**—HOUSES.—For the carrying out of the several works required in the erection and drainage of 100 houses, for the Corporation. Mr. H. B. Williams, Town Hall, Workington. Deposit £2 2s.

OCTOBER 25.—**Downpatrick.**—COTTAGES.—Erection of three cottages, for the Government of Northern Ireland. Ministry of Finance, 15, Donegall-square West, Belfast.

OCTOBER 25.—**Settle.**—HOUSES.—Erection of one block of four and one pair of houses, for the R.D.C. Mr. T. E. Pearson, Clerk, Town Hall, Settle. Deposit £1 1s.

OCTOBER 26.—**London, E.1.**—TENEMENTS.—For the erection of five-story tenement buildings in Brook-street and Caroline-street, Ratcliff, E.1, for the Metropolitan Borough of Stepney. The Borough Engineer and Surveyor, Municipal Offices, Raine-street, Old Gravel-lane, E.1. Deposit £2 (two pounds Treasury Notes).

OCTOBER 26.—**Strath.**—IMPROVEMENTS.—For the mason, carpenter, plumber, slater, plaster, and painter works, and for low pressure heating apparatus at Strath Parish Church, Isle of Skye. Mr. John Wittet, architect, Elgin.

★OCTOBER 27.—**Chelsea.**—REPAIRS.—For internal plastering, painting and repairs at the Infirmary, for the Guardians of the Poor of Chelsea. Mr. Edmund J. Harrison, Lic.R.I.B.A., 23, Berkeley-road, Crouch End, N.8. Deposit £2.

OCTOBER 27.—**Newcastle-under-Lyme.**—PAINTING.—For painting exterior of hospital block at St. John's Institution, for the Board of Guardians. Mr. S. E. Lovatt, Clerk, Newcastle-under-Lyme.

★OCTOBER 27.—**Worcester.**—COTTAGES.—Erection of 20 detached non-parlour cottages at Northwick, Worcester. Architect, 38, Foregate-street, Worcester.

OCTOBER 29.—**Bournemouth.**—REFRESHMENT ROOM.—Erection of a new refreshment room, &c., in the Upper Pleasure Gardens, for the T.C. Mr. F. P. Dolamore, Borough Engineer, Town Hall, Bournemouth. Deposit, £1 1s.

OCTOBER 29.—**Chepstow.**—BUILDING.—For completing, for Monmouthshire Agricultural Committee, the unfinished contract for house and farm buildings on No. 9 holding on the St. Pierre Estate, near Chepstow. Mr. A. Every-Clayton, County Land Agent, 2, Gold Tops, Newport (Mon). Deposit £1 1s.

OCTOBER 29.—**Durham.**—SCHOOL BUILDINGS.—(1) Cassop Council School—Builder's work in connection with the alterations to out-offices and drainage and laying main drain. (2) Kirk Merrington New School—Erection of new school to accommodate 242 scholars. (a) General builder's work in preparation of site drainage, substructure, water supply and sanitation. (b) Superstructure of light construction, for the Durham C.C. Mr. F. Willey, F.R.I.B.A., 34, Old Elvet, Durham.

OCTOBER 29.—**Eccles.**—SWIMMING BATH.—Construction of new swimming bath, for the Baths Committee. Mr. T. S. Picton, Borough Engineer, Town Hall, Eccles. Deposit, £3 3s.

OCTOBER 29.—**Ferryhill.**—PAINTING.—For the renovating of the Ferryhill Station Workmen's Club and Institute, Ltd. Mr. A. R. Chaytors, Secretary, Ferryhill.

OCTOBER 29.—**Porthcawl.**—PUBLIC CONVENIENCES.—For erecting, for the U.D.C., in John-street, Porthcawl, public conveniences. Engineer's Department, Council Offices, Porthcawl. Deposit £2 2s.

OCTOBER 29.—**Renfrewshire.**—HOUSES.—Erection of two blocks of buildings containing four houses, at Howwood, for the C.C. Mr. Andrew Robertson, Master of Works, County Buildings, Paisley.

★OCTOBER 30.—**Mold.**—CONVERSION.—For the conversion of the Market Hall into six shops and slipper baths, together with provision of ladies', and alterations and additions to gents' lavatories for the U.D.C. Mr. R. Lloyd Roberts, Earl-road, Mold.

OCTOBER 30.—**Tipton.**—HOUSES.—Erection of 125 dwelling-houses on a site at Summerhill, and new streets sewers, manholes, and storm-water drains, for the T.C. Mr. Wm. H. Jukes, Surveyor, Public Offices, Tipton. Deposit £2 2s.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Plasterers' Labourers.
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/-	
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 622.

OCTOBER 31.—**Brighton.**—TOWER.—For the erection of a hose-drying tower at the Fire Station, Preston Circus, for C.B. Borough Surveyor, Town Hall, Brighton.

★OCTOBER 31.—**Near Christchurch, Hants.**—SCHOOL.—For the erection of a new Council school at Mudeford, for the County of Southampton. Mr. A. L. Roberts, County Architect, The Castle, Winchester. Deposit £2 2s. by cheque, payable to "Hants County Council" crossed "Lloyds Bank, Ltd.; Capital and Counties Branch, Winchester.

OCTOBER 31.—**Waltham Abbey.**—PAINTING.—For internal decoration of hospital, for the Joint Hospital Board. Mr. T. J. Tee, Clerk, Council Offices, Buckhurst Hill. Deposit 5s.

★NOVEMBER 1. — **Lydney.** — ALTERATIONS. — For alterations to Lydney Post Office. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s.

★NOVEMBER 2.—**Leicester.**—DEMOLITION—For demolition work in connection with new telephone exchange. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. Deposit £1 1s.

NOVEMBER 2.—**London, N.9.**—EXTENSIONS.—**Extensions to the Edmonton United Services Club, Ltd. Registered Office, 99, Hertford-road, Edmonton, N.9. Plans and specifications may be seen at the office on Wednesday, Thursday and Friday, October 17, 18, and 19, between the hours of 11 a.m. and 3 p.m. Mr. J. W. Shaw, Secretary, 99, Hertford-road, Edmonton, N.9.**

★NOVEMBER 2.—**Poole.**—RESERVOIR.—For the supply of materials for and the construction of a concrete covered reservoir, and laying and jointing cast-iron rising and leading mains for the Corporation. Mr. A. P. 1. Cotterell, M.Inst.C.E., 17, Old Queen-street, Westminster, S.W.1. Deposit £5 5s.

NOVEMBER 3.—**Dewsbury.**—BUILDINGS.—Construction of main buildings and other appurtenant works in connection with the construction of sewage disposal works at Mitchell Laithes, for the T.C. Messrs. J. Diggle & Son, 14, Brown-street, Manchester. Deposit £2 2s.

NOVEMBER 5.—**Newton-in-Makerfield.**—HOUSES.—Erection of forty Type "A" houses (in brick) at Earlestown, for the U.D.C. Mr. J. Elston, A.R.I.B.A., Market Chambers, Earlestown.

NOVEMBER 6.—**Coventry.**—POST OFFICE EXTENSION.—Extension of Coventry Head Post Office, for the Commissioners of H.M.O.W. Contracts Branch, H.M.O.W., King Charles-street, S.W.1. Deposit £1 1s.

NOVEMBER 6.—**Mountain Ash.**—ERECTION OF SCHOOL.—For erecting, for the Mountain Ash Education Committee, a Boys' School at Penrhiwceiber, for 410 children, with playgrounds, &c. Mr. W. H. Williams, M.S.A., Town Hall, Mountain Ash. Deposit £3 3s.

★NOVEMBER 7.—**Barlby.**—SCHOOL.—For the erection of a Council School for the East Riding of Yorkshire County Council. The County Architect, County Hall, Beverley. Deposit £2 2s.

★NOVEMBER 7.—**London, S.E.2.**—PAINTING, &C.—For cleaning and painting at Goldie Leigh Homes, Abbey Wood, S.E.2, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

★NOVEMBER 7.—**Sutton.**—ALTERATIONS.—For alteration work in forming engineers' office and workshop at the Downs Hospital, for Children, Banstead-road, for the Metropolitan Asylums' Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

NOVEMBER 14.—**West Riding.**—VARIOUS WORKS.—Conversion of privies and drainage at Denby and Cumberworth, Birdsedge Council School, and the conversion of the Offices at Queensbury Catherine Slack Council School, for the West Riding E.C. Education Department, County Hall, Wakefield.

NOVEMBER 30.—**Singapore.**—POST OFFICE.—**Erection of new general post office, Singapore. Crown Agents for the Colonies, 4, Millbank, S.W.1. Deposit £10.**

NO DATE.—**Dundee.**—COTTAGES.—For works in connection with erection of cottages at Craigiebank, for the T.C. Messrs. Allan & Frisken, architects, 26, Castle-street; J. R. Gordon, architect, 39, High-street; J. Lowe & Co., architects, 104, Commercial-street; and F. Thomson, architect, 11, Nethergate.

NO DATE.—**Dundee.**—WORKS.—For electric lighting and painting of kiosks and shops, City-arcade and Market, for the T.C. City Architect, City Chambers, Dundee.

NO DATE.—**Ilkley.**—HOUSE.—Erection of a residence at Ben Rhydding. Mr. A. G. Adkin, architect, The Chambers, Ilkley.

NO DATE.—**Llandilo Bridge.**—ERECTION OF STORES.—For erecting, for the Carmarthen Farmers' Co-operative Society, Ltd., a stores at Llandilo Bridge. Mr. J. Howard Morgan, architect, 24, King-street, Carmarthen.

NO DATE.—**Lincoln.**—HOUSE.—Erection of a house on Lea-road, Lincoln, for Mrs. S. Clegg. Mr. G. R. C. Harding, 29, Broadgate, Lincoln.

NO DATE.—**Liverpool.**—SHOP.—Erection of shop premises, Church-street, Liverpool. Mr. Louis C. Veale, Chartered Surveyor, Spencer House, South-place, E.C.2. Deposit £1 1s.

NO DATE.—**Poulton-le-Fylde.**—HOUSES.—For erection of 10 houses at Poulton-le-Fylde. Messrs. R. Lancaster & Sons, Ltd., Beechwood, Carleton, Poulton-le-Fylde.

NO DATE. — **West Riding.** — ALTERATIONS. — For alterations and repairs to (1) Bentham, Holmes Farm; (2) Boston Spa, Houses and farm buildings; (3) Ingleton, Moorgarth Farm. County Land Agent, County Hall, Wakefield.

FURNITURE, MATERIALS, etc.

OCTOBER 20.—**Clacton.**—GRANITE.—Supply to the U.D.C. of 500 tons of 2 in. granite. Mr. G. T. Lewis, Clerk, Council Offices, Clacton-on-Sea.

OCTOBER 20.—**Glossop.**—SANITARY PIPES.—Supply of 10,000 yards of sanitary pipes to T.C. Town Clerk, Glossop.

OCTOBER 22.—**Rhondda.**—OILSKINS.—For supply to Rhondda U.D.C. of about 100 suits of oilskins. Mr. E. Taylor, Council Surveyor. Council Offices, Pentre, Rhondda.

OCTOBER 24.—**Edinburgh.**—MATERIALS.—Supply of various materials to the Roads Department of the T.C. City Road Surveyor, City Chambers, Edinburgh.

OCTOBER 24.—**Glasgow.**—MATERIALS.—Supply of materials and for joiner work to the baths and washhouses dept. of the T.C. Mr. R. B. Thomson, General Manager, 38, College-street, Glasgow.

OCTOBER 26.—**Merton.**—MATERIALS.—Supply of (1) cement, (2) stoneware pipes, for the U.D.C. Mr. C. J. Mountifield, Clerk, Offices, Kingston-road, Merton.

OCTOBER 30.—**London.**—MATERIALS.—Supply to the Director-General, India Store Department:—1, White lead, dry, and ground in oil; 2, mild steel bars and joists; 3, mild steel plates and sheets, black and galvanised, plain and corrugated; 4, iron bars for Horsfall nut-making machines. Branch 12, Belvedere-road, S.E.

★OCTOBER 31.—**Hove.**—KERBING.—For the supply of 3,000 ft. lineal of granite kerbing to the T.C. Borough Surveyor, Town Hall, Hove.

NOVEMBER 1.—**New Romney.**—FENCING MATERIAL.—Supply to the T.C. of 39 four-hole posts, 4 in. × 6 in. × 6 ft., morticed; 11 three-hole posts, 4 in. × 6 in. × 6 ft. 6 in., morticed; 16 wire fence posts, 4 in. square at foot, 3 in. square at top, 5 ft. long (not morticed); two 9 ft. gates; hanging post, 8 in. × 8 in. × 8 ft. (not morticed); shutting post, 7 in. × 7 in. × 8ft. (not morticed); 7 spurs, 3 ft. 6 in.; 118 rails, 9 ft. long, arris shaped with ends sharpened. Mr. W. Lamacraft, Town Clerk, Town Hall, New Romney.

NOVEMBER 5.—**Hipperholme.**—MATERIALS.—Supply of granite setts to the U.D.C. Mr. S. Dean, surveyor, Council Offices, Hipperholme.

NOVEMBER 6.—**London.**—FENCING.—Supply to the Director-General, India Store Department of posts and wedges for fencing, wrought-iron, and wire, 7-strand, fencing, galvanised. Branch 12, Belvedere-road, S.E.1.

★NOVEMBER 7.—**Tooting, S.W. 17.**—DOORS, &C.—For the supply and delivery of 12 pairs of hardwood doors, frames and linings, to Tooting Bec Mental Hospital Extension, Church-lane, for the Metropolitan Asylums' Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

NOVEMBER 12.—**Margate.**—RAGSTONE.—Supply of tarred Kent ragstone, to the T.C. Mr. Ernest A. Borg, Borough Surveyor, 13, Grosvenor-place, Margate.

ENGINEERING IRON AND STEEL

OCTOBER 20.—**Yarmouth.**—TANK.—Supply of sectional cast-iron tank, 5 ft. square by 5 ft. deep, at Infirmary, for the Board of Guardians. Master, Infirmary, Great Yarmouth.

OCTOBER 22.—**Biggleswade.**—ELECTRIC LIGHT.—For electric light installation at pumping station, for the Biggleswade Water Board. Mr. H. Carne, Engineer, Biggleswade.

OCTOBER 22.—**London.**—TUNNEL.—**Construction of a tunnel under the River Thames at Barking, for the County of London Electric Supply Co., Ltd. Sir Alexander Gibb & Partners, Queen Anne's Lodge, S.W.1. Deposit £15 15s.**

OCTOBER 22.—**Sheerness.**—STEEL GIRDERS.—Supply of about 170 cwts. of steel girders to the U.D.C. Surveyor, Trinity-road, Sheerness.

OCTOBER 23.—**Birmingham.**—HEATING INSTALLATION.—For a steam heating installation at the Post Office Stores Factory, Birmingham. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

OCTOBER 24.—**Australia.**—BRIDGE.—Construction of bridge for Country Roads Board, Victoria. Agent-General for Victoria (Australia), Melbourne-place, Strand, W.C.2. Preliminary deposit £500.

OCTOBER 24.—**Ashton-under-Lyne.**—HOT WATER SYSTEM.—Construction of the domestic hot-water distribution system in the Female Pavilion and administrative block, at Lake Hospital, for the Board of Guardians. Mr. H. Hall Daley, Clerk, St. Michael's-square, Ashton-under-Lyne.

OCTOBER 24.—**Edinburgh.**—PIPES.—Supply of 60 tons of cast-iron branches, bends, &c., to the T.C. Messrs. J. & A. Leslie & Reid, 29, Waterloo-place, Edinburgh. Deposit £5.

OCTOBER 24.—**Leeds.**—HOT WATER INSTALLATION.—Supplying and fixing an "Ideal" domestic hot-water boiler, and for covering piping, &c., at the Offices, South-parade, for the Board of Guardians. Mr. James H. Ford, Clerk, Poor Law Offices, South-parade, Leeds.

OCTOBER 24.—**London.**—CRANES.—Supply of steam travelling cranes, to the East India Railway Co. Mr. G.E. Lillie, Secretary, 73-76, King William-street, E.C.4. Charge £1 1s.

OCTOBER 24.—**Sheffield.**—SIDING.—Construction of a railway siding from the London, Midland & Scottish Railway to the abattoir site at Cricket Inn-road, for the T.C. Improvement Surveyor, Town Hall, Sheffield. Deposit £5.

OCTOBER 25.—**Darlington.**—STEELWORK.—Supply of steelwork for the renewal of Honeypot-lane Bridge, at Darlington. Chief Engineer, North Eastern Area, York.

★OCTOBER 25.—**Liverpool.**—HEATING AND VENTILATING.—For the installation of a heating system and a ventilating system at the premises about to be erected on a site having frontages to Church-street, Church-lane and School-lane. Messrs. Huntley & Wood, Consulting Engineers, P. & O. House, Cockspur-street, London, S.W.1. Deposit £1 1s.

OCTOBER 25.—**Marston Moor.**—BRIDGE.—Strengthening of Skip Bridge, over the River Nidd, between the Stations of Marston Moor and Hammerton, on the York and Harrogate branch of the London and North-Eastern Railway. Chief Engineer, North Eastern Area, York.

OCTOBER 25.—**Monkwearmouth.**—BRIDGE.—and erection of steelwork for the renewal of Sh road Bridge and Sheepfold South Bridge at wearmouth, for the London and North Eastern Co. Chief Engineer, North Eastern Area.

OCTOBER 29.—**Salford.**—HEATING INSTALLA For hot-water heating and hot-water service pi the Ladywell Sanatorium, for the T.C. Medica of Health, Dr. Osborne, 143, Regent-road. Deposit £1 1s.

OCTOBER 31.—**Australia.**—ELECTRIC CRA **Supply and erection at Port Adelaide of fou** electric coal-handling cranes, for the South Au Harbours Board. Agent-General for South A Australia House, Strand, W.C.2.

NOVEMBER 1.—**Dublin.**—STEELWORK.—Sup steelwork for Bridges Nos. 812 and 819, for the Great Western Railway of Ireland Company Engineer, Broadstone Terminus, Dublin. Pay

NOVEMBER 1.—**Siam.**—BRIDGES.—**Supply o structures of steel railway bridges to Siam Sta ways. Messrs. C. P. Sandberg, 40, Grosvenor-p S.W. 1. Charge 28s.**

NOVEMBER 3.—**Reading.**—COMPRESSED AIR P Supply of complete equipment of air com station at Manor Farm, for the T.C. Mr. G. Taylor, 36–38, Victoria-street, S.W. Deposit

NOVEMBER 8.—**Karachi.**—WATERWORKS.—(well three-throw pumps in duplicate, with s gears and other appurtenances, capacity of ea 9,000,000 gallons per 24 hours; (2) cast-ir linings and gauge plates; (3) steel chimney (4) travelling crane, for the Municipality. John Taylor & Sons, 36, Victoria-street S.W.1. £5.

NOVEMBER 9. — **India.**—STEELWORK.—Sup **structural steelwork for wagon repair shop, T poly workshops scheme, for the South Indian Co. Company's Offices, 91, Petty France, West S.W. 1. Charge £1.**

NOVEMBER 10.—**Dundee.**—HARBOUR WORK removal of about 460 cubic yards of rock fr entrance channel of Dunure Harbour (tide Mr. John M'Crindle, Post Office, Dunure.

NOVEMBER 10.—**Seaton.**—SEA WALL.—Cons of 400 lineal yards of reinforced concrete sea appurtenant works in connection with the impro of the Western Esplanade, for the U.D.C. Mr Pimm, 72, Queen-square, Bristol. Deposit £2

NOVEMBER 12.—**Walton.**—PUMPING PLANT, water-tube boilers, piping, &c., at the Walton P Station, for the Metropolitan Water Board. Mr E. Stilgoe, Chief Engineer, 173, Rosebery-avenu Deposit £3 3s.

NOVEMBER 20.—**New Zealand.**—PLATE SPANS.—For supply of plate girder spans Pihama and Opunake Section Bridges and Bridge, for the Public Works Tender Board, ton. Department of Overseas Trade, 35, Old street, S.W.

NOVEMBER 27.—**Carlton.**—BRIDGE.—Constr a steel girder road bridge of 150 ft. clear sp abutments and two flood openings, over the Ri at Carlton, near Snaith, for the West Ridi West Riding Surveyor, County Hall, W Deposit £1.

NOVEMBER 30. — **Sydney.**—BRIDGE.—Cons **of the superstructure and substructure of a c bridge across Sydney Harbour; also an alt tender for the construction of the superstruct substructure of an arch bridge across Sydney Agent-General for New South Wales, Australia Strand, W.C.**

DECEMBER 3.—**Sydney.**—**High tension sw for Municipal Council. Department of Overse (Room 52), 35, Old Queen-street, S.W.1.**

NO DATE.—**Cape Town.**—BRICKMAKING For installation of a plant in Capetown, Sout to manufacture sand-lime bricks, capacity 2 30,000 bricks per day. Mr. Vernon Bosz Keerom-street, Capetown.

ROAD, SANITARY, AND WA WORKS.

OCTOBER 20.—**Alnwick.**—DRAINAGE, &C.—205 yards of 6 in. sanitary pipes and (2) erec yards of fencing, for the R.D.C. Mr. M. T. Sanitary Inspector, 24, Fenkle-street, Alnwick

OCTOBER 22.—**Alnwick.**—WATER MAINS.—I and laying 5,060 yards of 3 in. cast-iron sock and, alternatively, for weldless steel tubes, at on-the-Moor, for the R.D.C. Clerk, 24, Fenk Alnwick.

OCTOBER 22.—**Blaenavon (Mon.).**—SEWE providing and laying of a stoneware and sewer including manholes, vents, &c., for an mate distance of 2,355 yards, for the B U.D.C. Mr. John Morgan, Surveyor to U.D.C avon (Mon). Deposit £2 2s.

OCTOBER 22.—**Denver.**—SLUICE.—Provisio stoney roller sluice at Denver Sluice, for t Drainage Board. Engineer, 90, Hills-road, Ca

OCTOBER 22.—**Disley.**—SEWERAGE WORKS.—about 1½ miles of sewer, mainly of 9 in. st new construction of manholes, &c., for the R.D.C. W. Pearson, Council Office, Disley. Deposit

OCTOBER 22.—**Durham.**—PAVING.—For approximately 850 square yards of road wit hand setts. Mr. J. W. Green, Surveyor, To Durham.

OCTOBER 22.—**Fowey.**—WATER MAINS.—I and laying of about one-and-a-half miles of 6 and 3 in. dia. cast-iron pipes and steel tubes, a works, in connection with the water supply various jetties at Fowey Harbour. Mr. J. Haworth, Alliance House, 15, Dartmou Westminster, S.W.1. Deposit £3 3s.

OCTOBER 22.—**Kirkcaldy.**—WATER MAINS.—about 4 miles of 9 and 7 in. diameter cast iron the Kirkcaldy and Dysart Water Comm Messrs. J. & A. Leslie & Reid, 72A, Geor Edinburgh. Deposit £1.

CTOBER 22.—**Manchester.**—ROADS.—For the drain- paving (with concrete) of the passage adjoining Hill-lane, and adjoining 8 and 10, Floyer-road, kley, for the T.C. Paving, &c., Department trict Surveyors' Office), Manchester. Deposit £1 1s.
CTOBER 22. — **Nelson.** — WATERWORKS. — Laying t three miles of cast-iron water pipes, for the Mr. S. Smitehead, Waterworks Engineer, Nelson.
CTOBER 22.—**Newark.**—SEWERS.—Reconstruction ewers in the Beacon-hill and Newtown areas, for the Borough Surveyor, Mr. J. W. Hipwood, Town , Newark.
TOBER 23.—**Deptford.**—PAVING.—For wood- ng the carriageways on either side of the tramway ks, in Lewisham High-road, with creosoted deal ks on prepared foundations, for the B.C. Mr. H. ley Lawson, Borough Surveyor, Town Hall, New s-road, S.E.14.
TOBER 23.—**Pontefract.**—ROADS.—For street s in Nutt-street, Back Nutt-street, Coburg-street, Coburg-street, and Back Colonel's-walk, for the Mr. J. E. Pickard, Borough Surveyor, Ponte- .
TOBER 23.—**Port Talbot.**—PIPES SUPPLY, &C.—For arrying out work of excavation for Cwmavon water , and (*b*) supply of 6 in. cast-iron pipes, for the B.C. ugh Engineer, Council Offices, Aberavon, Port ot.
TOBER 23.—**Royton.**—SEWAGE WORKS.—For ations and additions to sewage works, for the C. Mr. G. B. Kershaw, 9, Victoria-street, West- ter, S.W. Deposit £5 5s.
TOBER 23.—**Widnes.**—ROADS.—For works or te street improvements in various streets, for T.C. Mr. John S. Sinclair, Borough Surveyor, n Hall, Widnes. Deposit £2 2s.
TOBER 23.—**Willesden.**—SEWER.—Construction ree lengths of sewer, for the U.D.C. Mr. F. inson, Surveyor, Town Hall, Kilburn, N.W.
TOBER 23. — **Yeardsley-cum-Whaley.**—SEWER.— truction of 573 lineal yards of 9 in. and 6 in. stone- pipe sewer at Whaley Bridge, for the U.D.C. s. Brady & Partington, Chapel-en-le-Frith. sit £2 2s.
TOBER 24.—**Birmingham.**—SEWER.—Construction out 68 yards of brick and concrete sewer, and 965 of stoneware pipe sewers, &c., in Moat-lane, Yew oad, and Rowlands-road, South Yardley, for the Mr. Herbert H. Humphries, City Engineer, The il House, Birmingham. Deposit £2.
TOBER 24.—**Cheadle.**—WATER SUPPLY.—Laying nd a half miles of 6 in., 5 in., 4 in., and 3 in. cast- mains, &c.; construction of engine house and e reservoir, having a capacity of 100,000 gallons, ther works, for the R.D.C. Messrs. Willcox ikes, 63, Temple-row, Birmingham. Deposit 0s.
OBER 24.—**Chiswick.**—SEWERS.—For the con- tion of about 5,200 ft. of 9 in., 12 in., and 15 in. e water sewers in the Chiswick High-road, and works incidental thereto, for the U.D.C. Mr. E. , M.I.C.E., Engineer and Surveyor, Town Hall, ick. Deposit £2 2s.
OBER 24.—**Edinburgh.**—ROAD IMPROVEMENT.— xcavator work, upfilling, construction of stone ing walls, &c., at Braid-road improvement, for C. Burgh Engineer, City Chambers, Edinburgh.
OBER 25.—**Belper.**—SEWER.—Laying about 250 of 9 in. dia. pipe sewer in the parish of Markeaton, e R.D.C. Mr. Robert C. Cordon, Surveyor, ld, Derby. Deposit 10s.
OBER 25.—**Chryston.**—ROADS.—Construction of and footpaths in connection with Chryston Hous- eme, for the Lanark C.C. Mr. Jas. A. McCallum, t Clerk, 15, West George-street, Glasgow. Deposit
OBER 25.—**Crich.**—SEWER.—Laying a short of 9 in. and 6 in. dia. pipe sewers in the Parish of near Matlock, for the Belper R.D.C. Mr. Robert don, Surveyor, Duffield, Derby. Deposit 10s.
OBER 24.—**Hammersmith.**—ROADS.—Making up of Wormholt, Aldbourne, Aycliffe and Sedgeford- for the B.C. Mr. R. Hampton Clucas, Borough eer, Town Hall, Hammersmith, W.6.
OBER 24.—**Walthamstow.**—ROADS.—Widening, Forest-road, for the U.D.C. Mr. G. W. Holmes, vor, Town Hall Annexe, Orford-road, Waltham- E.17.
OBER 25. — **Clayton-le-Moors.** — ROADS. — For acing with bituminous material 4,500 yards of c., for the U.D.C. Mr. A. Dodgeon, Surveyor, Offices, Clayton-le-Moors.
OBER 25.—**Denton.**—ROADS.—For making up e-road, for the U.D.C. Mr. J. B. Cooke, Surveyor, Hall, Denton. Deposit £2 2s.
BER 25.—**Southend-on-Sea.**—ROADS.—Making- Elmsleigh-drive (Section 1), for the T.C. Mr. H. Dyer, Borough Engineer, Municipal Build- outhend-on-Sea. Deposit £2.
BER 26.—**Lytham St. Anne's.**—ROADS.—For up of the Inner Promenade, Fairhaven, for the orough Surveyor, Town Hall, St. Anne's.
BER 27.—**Dolgelley.**—ROADS.—For strengthen- resurfacing about three-and-a-half miles of road aerdy, for the Merioneth C.C. Mr. W. D. Jones, Surveyor, County Offices, Dolgelley.
BER 27.—**Tilbury.**—ROADS.—For reconstruc- reinforced concrete of carriage ways, for the Mr. S. A. Hill-Willis, Surveyor, Council Offices, . Deposit, £1.
BER 29.—**Doncaster.**—SEWER.—Laying 440 of 9 in. sewer in Rossington, for the R.D.C. Mr. Crabtree, surveyor, Nether Hall, Doncaster.
BER 29.—**Margate.**—SEWER.—Supply of con- bes and laying of an egg-shaped concrete sewer y 3 ft. 4 in.), for the T.C. Mr. E. A. Borg, Engineer, 13, Grosvenor-place, Margate.
BER 29.—**Margate.**—WATER MAIN.—Supply and of about 4,260 ft. of 12 in. cast iron water main, 740 ft. of 6 in. cast iron water main, for the T.C. Borg, Borough Engineer, 13, Grosvenor-place,

OCTOBER 30.—**London.**—DRAINAGE.—Providing and fixing about 1½ mile of double line of cast-iron socket and spigot pipes, &c., and the removal of the double line of old 14 in. mains, in the Boroughs of East Ham and Woolwich, for the L.C.C. Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £5.

NOVEMBER 5.—**Gravesend.**—SEWAGE SCHEME.—Ejectors and chambers for main drainage scheme of the U.D.C. Mr. F. T. Grant, Engineer, 4, Woodville-terrace, Gravesend. Deposit £1.

NOVEMBER 6.—**Chingford.**—ROADS.—Making-up of The Green Walk, Mornington-road, Mount View-road, and Park Hill-road, for the U.D.C. Mr. J. T. Griffin, Surveyor, Council Offices, 34, Station-road, Chingford. Deposit £2 2s.

✱NOVEMBER 7.—**London, S.E.2.**—ROAD REPAIRS, &C.—For repairs to roads and tar paving at Goldie Leigh Homes, Abbey Wood, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

Competitions.

(*See Competition News, page* 598.)

Auction Sales, Tenders, etc.

OCTOBER 23 AND 24.—**London, E.C.**—Messrs. Fuller, Horsey, Sons & Cassell will sell at the Commercial Sale Rooms, Mincing-lane, contractors' plant and material, at 11 o'clock. Auctioneers, 11, Billiter-square, E.C. 3.

✱OCTOBER 23 AND 24.—**Tooting, S.W.**—Messrs. Bradshaw, Brown & Co. will sell contractor's plant and material lying at 536, Garratt-lane and Churchlane. Auctioneers, Billiter-square Buildings, London, E.C. 3.

OCTOBER 24.—**London, N.W.1.**—Messrs. Parsons, Clark & Bodin will sell at a low reserve, on the premises, 9A, Diana-place, Euston-road, the beneficial lease of extensive workshops, stores and yard, known as 9A, Diana-place, with immediate possession. Auctioneers, 24, Hanover-square, London, W.

✱OCTOBER 24 AND 25.—**Beddington, Surrey.**—Messrs. Leonard Davey & Hart will sell timber and building materials at Queenswood Estate. Auctioneers, The Mitcham Auction and Estate Offices, Upper Green, Mitcham.

OCTOBER 25.—**Essex.**—Messrs. Knight, Frank & Rutley will offer for sale as a going concern the valuable freehold **Portland cement**, lime and whiting works, Saffron Walden, Essex. Auctioneers, 20, Hanover-square, W.1.

OCTOBER 25. — **Hastings.** — Messrs. Veryard & Yates will sell without reserve building materials arising from demolition of the old East Sussex Hospital. Auctioneers, 365, Norwood-road, S.E.27.

✱OCTOBER 30.—**London, E.C.4.**—Messrs Isaac Edwards & Co. will sell by order of the Receiver, a Freehold Cornish Slate Quarry, known as The Trebarwith Quarry, as a going concern and without reserve, in the London Auction Mart, 155, Queen Victoria-street. Auctioneers, Bank Chambers, Merthyr Tydfil.

OCTOBER 30.—**London, W.1.**—Messrs. Henry Holmes & Co. will sell, at Mortimer Hall, 93, Mortimer-street, Oxford Circus, W. 1, important building site, 14, 16 and 18, Great Titchfield-street, and 9A, Margaret-street, Oxford Circus, W. Auctioneers, 82, Mortimer-street, W. 1.

✱NOVEMBER 1.—**Newhaven.**—Mr. F. H. Clark will sell without reserve timber and builders' materials, at Railway Hotel Yard, Bridge-street, Newhaven. Auctioneer, Railway Wharf, York-road, Wandsworth.

Public Appointments.

OCTOBER 20.—**Whitby.**—Clerk of Works required by the U.D.C. Mr. L. M. Blanchard, Surveyor, Council Offices, Whitby.

OCTOBER 22.— **Chesterfield.** — Building Inspector required by the Borough T.C. Mr. Vincent Smith, Borough Engineer and Surveyor, Borough Surveyor's Office, 2, Gluman Gate, Chesterfield.

✱OCTOBER 25.—**Stafford.**—Temporary Architectural Assistant required by the Staffordshire Education Committee. Mr. Graham Balfour, Director of Education, Architect's Department, County Education Offices, Stafford.

OBITUARY.

The death has taken place, at Black Heath, of Mr. John Dallow, a well-known timber merchant, builder, and contractor. For over twenty years Mr. Dallow was one of the representatives of the Rowley Regis parish on the Staffordshire County Council, while he sat as a member of the local Urban Council for his own ward without a break from 1898, occupying the position of chairman of that body in 1906. His other public duties included membership of the Dudley Board of Guardians, Rowley Regis Education Committee, and Upper Stour Valley Main Sewerage Board. He held the chairmanship of the latter authority for some years. He was appointed as a magistrate for Staffordshire in 1912. He was a member for years of the Birmingham and West Bromwich Master Builders' Association, and for three years held the chairmanship. He occupied the presidency of the Midland Centre of the National Federation of Building Trades in 1907, has been a member of the Executive Council of the Centre since 1898, and a member of the National Council since 1903.

THE CLASSIFICATION OF STEEL BY MEANS OF SPARKS.

IN connection with the testing of steel at the Northern Polytechnic Institute on a recent occasion, a demonstration was given by Mr. J. Reader Saul of the classification of steel by a comparatively little-known method, in which "spark pictures" formed by contact between steel and an emery-wheel can be used to indicate the properties of the steel. The only apparatus required is an emery-wheel, preferably attached to a small motor revolving at a high and uniform speed. Contact between the emery-wheel and different classes of iron and steel produces sparks having very distinct and easily recognised characteristics. By means of these characteristics the steel can be immediately classified, and for the purpose of checking and stacking steel in constructional engineering shops it is found that the time spent in classification will be from one-third to one-half that of classifying by any other method. Broadly speaking, the harder the steel the greater the array of brilliant sparks, and in the case of steel containing a percentage of metals such as manganese and wolfram, the spark will vary in shape, and, in some cases, in colour, so that such steels are also easily recognisable.

Amongst the metals tested, the following results were obtained:—

Wrought-iron: Many sparks, terminating in yellow balls.

Cast-iron: Dull sparks, each spark terminating in a group of smaller sparks having a feathery appearance.

Mild steel: Comparatively few spark-rays and a small number of tiny sparks at the end of the rays.

Cast steel: A brilliant array of spark pictures, each ray terminating in a small shower of smaller sparks.

Speedicut steel: Dull sparks, gradually fading to nothing.

Muschett steel: blood-red sparks.

Cobalterom: Dull sparks, terminating in yellow groups of smaller sparks.

Stellite: Short and blood-red sparks.

In a small handbook known as "Machinery's Reference Book, No. 36," reference is made to these spark pictures and to a paper read by Max Bermann before the Copenhagen Congress of International Association for testing materials. This reference gives further particulars of the theory of the spark formations and indicates the value of the test. It is stated that the spark is so sensitive that a difference of .01 per cent. of carbon may be perceived; such fine perception, however, requires extensive practice.

This test is also useful to ascertain the even quality of steel where any suspicion exists that portions of it differ substantially from the remainder, conditions which frequently existed during the war, when constructional steel was manufactured from shell discard steel. For hardening it is valuable as indicating the degree of hardness which has been achieved; for forging it is equally valuable for determining with certainty the malleability of the iron which is to be forged.

BOOKS RECEIVED.

THE DETERIORATION OF STRUCTURES IN SEA-WATER. (London: H.M. Stationery Office.) Price 3s. net.

QUARTERLY REVIEW, October, 1923. (London: John Murray.) Price 7s. 6d.

THE ELECTRICAL CONTRACTORS' YEAR BOOK, 1923–24. Price 2s. 6d.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ASPATRIA.—Plans have been approved by the R.D.C. on behalf of Mr. Oldfield, architect, Workington, for a boiler-house at the Aspatria Industrial Co-operative Society's premises, and from Mr. Peter Berwick for an extension to his stone cutting premises on Tunnel Bridge.

AYR.—Plans passed by Dean of Guild Court: Double cottage, Ashgrove-street, for Mr. Robert Stewart, joiner, George-street; two houses, King-street, for Mrs. M'Mahon, King-street; cottage, Ardlui-road, for Miss King, High-street; cottage, Ardlui-road, for Messrs. W. Govan & Sons, builders, Prestwick; six houses, Bellesleyhill-road, for Mr. Clark, builder, Ayr, £4,800.

BANBURY.—Plans passed by T.C.: House, Hardwick-hill, for Mr. W. Lidsey; house, Oxford-road, for Mr. W. W. Trolley; house, Bloxham-road, for Mr. E. H. Sellers.

BARNET.—The Ministry of Health has sanctioned the R.D.C. proceeding with the erection of twelve new houses at Watling-street, Elstree, and nine at Green-street, Elstree.

BARNSLEY.—The Corporation has decided to proceed with a scheme for the erection of a new abattoir in Queen's-road at an estimated cost of £40,000, and a loan is to be sought. The M.H. has sanctioned the borrowing of £30,550 for the erection of 82 houses at Cundy Cross.——Plans passed by T.C.: Thomas Masters, motor garage, Sackville-street; Dr. D. Holroyde, alterations to house, 7, Huddersfield-road; J. Watling & Sons, office to works, Eastgate; F. Canter, house and shop, Huddersfield-road; Tomlinson & Co., Ltd., warehouse and office to Manor Flint Glass Works, Stairfoot; Armitage & Jepson, two houses, Locke-avenue; D. R. Snowden & Son, Ltd., stores, &c., off Upper Sheffield-road; D. R. Snowden & Son, Ltd., ten houses, Upper Sheffield-road; D. R. Snowden, extensions to shop, Market-street.

BARRY (GLAM.).—The U.D.C. Gas and Water Committee has applied to borrow £14,000 for construction of a new high level reservoir estimated to cost that sum. Agreement has been reached between U.D.C., Romilly Estate and Welsh Town-Planning Trust, Ltd., for lay-out of land adjoining Cold Knap, Barry. Government assent has been received to construction of approach roads and a wide promenade along the pebble beach. The Trust named has leased building land to front approach roads, and will pay Council a portion of roads cost. It is proposed later to construct a marine lake on land given for purpose by Romilly Estate. For the last, Ministry assent has yet to be obtained.

BATLEY.—Plans passed by T.C.: House, Pynate-road, Carlinghow, Mr. William Craddock; house, Thorncliffe-road, Mr. J. P. Spivey; shop and workshop, High-street, Hanging Heaton, Mr. A. Cannings; dairy, back Richmond-street, Mr. C. J. Childe.

BEDWELLTY.—The U.D.C. has agreed to request of Blackwood Miners' Welfare Council that the Blackwood Miners' field be ceded to them by the Council for enclosure and erection of a stadium.

BEESTON.—At the last meeting of the U.D.C. plans for 11 bungalows and houses to be built by private enterprise and eligible for subsidy were recommended to be passed.——The contract for sixteen houses for the Council was given to Messrs. Fletcher & Son, Beeston.

BELFORD.—The R.D.C. have approved plans for the erection of a large new hotel at Bamburgh, on the main road to Lucker. It will comprise 47 bedrooms, with a large billiard room on the basement floor. The plans were presented by Messrs. J. Walton Taylor & Son, architects, of Newcastle, on behalf of Mr. W. Wannop, Wingrove, Bamburgh.

BERWICK.—Operations will be commenced shortly on the houses given to Berwick by Mr. W. H. Askew, of Ladykirk, and it is expected the first lot will be ready in about twelve months' time. The houses have been designed by Mr. G. Reavell, architect of Alnwick, and 14 will be built. The site is on the Billendean-road, Tweedmouth, and the houses will be built in a crescent. Priority will be given to widows and ex-soldiers.

BLACKBURN.—Plans passed by T.C.: Two houses, Pleckgate, by Mr. Robert Isherwood; two houses, Franklin-street, by Mr. Thomas Sargent; eight houses, Preston Old-road and Buncer-lane, by Mr. M. Southworth; two houses, Wensley-street, by Mr. G. Hodgson; four houses, Preston Old-road, by Mr. H. Southworth; two houses, Pleckgate, by Mr. H. Cocker; two houses, Park Lee-road, by Mr. W. A. Cooper; house, Revidge-road, by Mr. R. Pringle; new street, off Whalley New-road, by Mr. T. L. Gregson; two houses, Gorse-road, by Messrs. Caton & Duckworth; fourteen houses, Cecilia-road, by Mr. H. Southworth.

BLACKPOOL.—Plans passed by Building Plans' Committee: T. Slater, house, Marton-drive; Lord & Mellodew, six houses, Holmfield-road; Armitage & Midgley, two houses, Frederick-street, Bispham; J. Hayes, eleven houses and nine garages, Liverpool and Leeds roads; T. Sanderson, bungalow, Highfield-road; J. Harrison, seven houses, Thursby-avenue; J. England & Sons, three bungalows, Bank-avenue, Bispham; Holbrook & Watson, bungalow, Red Bank-road, Bispham; H. Johnson, two houses, Gosforth-road; S. A. Howard, two houses, Westmoreland-avenue; H. Saynor, two houses, Bispham-road; Messrs. Evans, house, Princess-road, Bispham; C. Morrison, eight houses, Winchester-road; W. Shackleton, two houses, St. Anne's-road; W. Briggs, house, St. Anne's-road; J. Parkinson & Sons, eighty houses, Royal Bank Estate; Potts & Pickford, two houses, Coniston-road; Osborne, Mansen & Co., block of six flats, Osborne-road; J. Parkinson & Sons, four houses and shops, Whitegate-drive; C. L. Shepherd, three houses, Warley-road; T. P. Worthington, two houses, St. George's-avenue, Whitegate-drive; Messrs. Pye Bros., two houses, Rose-avenue; H. G. Mason, two houses, Worsley-avenue; Hargreaves & Emery, three houses, Berwick-road; W. T. Russell, house, Wilson-avenue; Absen Bros., two houses, Worsley-avenue; Dryland & Preston, eleven houses, Thames-road and Mersey-road; J. Whittaker, house, St. Walburga's-road; J. Hartley, two houses, Highbury-avenue; A. E. Murdock, six houses, Rothsay-road; E. Duckworth, house, Moister-road; Lord & Mellodew, eight houses and garages, Wolverton-avenue; T. & J. Pye, Bros., ten houses and shops, Bloomfield-road; Harrison & Pilkington, two houses, Silverwood-avenue; Hargreaves & Emery, house, Lytham-road; S. Clough, bungalow, Beech-avenue; J. Marsden, bungalow, Norbreck-road; Cox & Binns, two houses, Harris-avenue; Suthers, Wilson & Randall, two houses, Queen Victoria-road, Cleveleys.

BLAENAVON.—The Ministry of Health has agreed to the U.D.C. contracting out the work on the Forge Sewer scheme instead of doing work by direct labour as was originally projected.

BLYTH.—Plans passed: Alterations to back premises in Rowley-street, for Mr. J. E. Dover; garage and out-offices in back Bath-terrace, for the Trustees of the late Lord Ridley; two shop fronts at the junction of Beaconsfield-street and Carlton-street, for Mr. W. Hope; additions to 10, Cypress-gardens, for Mrs. Jane Thompson.

CARMARTHEN.—The T.C. is to consider estimates for roofing of the market, to form a winter concert hall.

CHESTERFIELD.—At the last meeting of the R.D.C. some difficulty was anticipated regarding the sewage and water supply of the 1,000 houses which the Housing and Town-Planning Trust, Ltd., propose to erect on the Hollingwood Estate at Staveley. It was decided to carry out the scheme in sections, thereby spreading the cost of supply over a term of years.

CLOWNE.—At a meeting of the R.D.C. it was decided to advertise for tenders for the erection of 96 houses of the parlour type—36 at Clowne and 30 each at Barlborough and Whitwell.

DENHOLME.—Plans passed: Conversion of workshop into house, for Miss E. Dove, at Sunnyroyd; new cow-shed and conveniences at Spring-row and Longhouse-lane, for Messrs. W. & H. Foster.

DEVIZES.—Mr. E. G. Strong has submitted a scheme to the R.D.C. for the laying out of four acres of land at Caen-hill, as a garden village of 28 houses. Messrs. Rolfe & Peto, Bath, are the architects. The scheme will be submitted to the Ministry of Health.

DEWSBURY.—Plans passed: Extension to club premises at Brunswick-street, Westborough, for the Ratepayers' W.M.C.; garage in Ossett-lane, for Messrs. S. Lyle, Sons & Co., Ltd.; extensions to electricity sub-station at Bottoms-road, Saville Town, for the Yorkshire Electric Power Co.; additions to motor garage, Carlton Lodge, Oxford-road, for Mr. A. Oldroyd; new wash-house at Thornhill-road, for Messrs. Wormald & Walker, Ltd.; alterations to house, North-road, for Mrs. F. Firth; alterations to house, Staincliffe-road, for Mr. A. Coates; two bungalows, Church-lane, Thornhill, for Mr. W. C. Wakefield; alterations to cottage at "Highfield," Halifax-road, for Mr. Jas. Smith; lock-up shop, Slaithwaite-road, for Mr. O. Morriss; alterations to 67, Lacey-street, Thornhill, for Mr. Branford.——The M.H. has approved a Corporation scheme for the erection of 30 houses on the Wakefield-road site, for rehousing persons who will be dispossessed by the carrying out of the Wilton-street and Aldams-road improvement, for the construction of new road leading from Leeds-road and Wakefield-road.

DUNDEE.—Plans passed by T.C.: Clepington-road, semi-detached cottages, for W. C. Black; Blackness-road, house and garage, for H. A. K. Johnston; Hillcrest-road, bungalow, for W. F. Soutar; Murraygate, alterations, for J. Jamieson & Son; Nelson-street, additions, for W. A. Mitchell & Son; North Lindsay-street, alterations, for Esplin & Clark; Old Glamis-road, bungalow, for S. M. Thoms; Perth-road, alterations, for D. Neave & Son; Panmure-street, alterations, for Esplin & Clark.

EALING.—Plans for the proposed Grange School have been submitted to the Board of Education.

EDINBURGH.—The Gas Committee is recommending the extension of gas mains in outlying areas. In the Cramond district, where the largest extension will be made, the estimated cost is over £6,000.——The Housing Committee has had under consideration Councillor Baxter's scheme, under which it is proposed to build houses and sell them to the tenants on the instalment plan. The original proposal was that five-roomed houses should be built at a cost of £500. Tenders have been considered. It was found that the various tradesmen's tenders amounted to £483 per house, to which there fell to be added various items for feus and technical fees, &c. It was estimated that the total cost of each house would be about £580. The Committee agreed to recommend the T.C. to proceed with the scheme.

EXETER.—The T.C. has approved a scheme for the improvement and extension of the city waterworks at Pynes involving an estimated expenditure of £41,600.

FALMOUTH.—At a meeting of the T.C. it was reported that negotiations were proceeding with the owners of the Market House site for the erection of a new post-office.

FAVERSHAM.—Bungalow, Lynsted-lane, for Mr. H. Hooker.

GIRVAN.—The T.C. has agreed to ask the Board of Health for authority to erect twenty-eight houses at Wreck-road, for accommodation of the working cl

GREENOCK.—The Borough Engineer has been instructed to invite tenders for the erection of public swimming-baths and fire station, the plan which have been approved.

GREENWICH.—The competition for the best de for new public baths, instituted by the Corpora and assessed by Mr. H. V. Ashley, has been awa to Messrs. F. J. Horth and H. Andrews, of Whit gate-hill. The estimated cost of the structure the selected design is £100,000.

HALIFAX.—Subject to obtaining the neces borrowing powers, the T.C. proposes to constru new abattoir from plans by the borough enginee a cost of £58,300. The scheme will include a ro shops facing Market-street.

HARROGATE.—The Housing Committee has appr a plan for the erection of a further 44 non-par type of houses as the completion of the Harro housing scheme.

HAY.—The R.D.C. is to put in hand as soo possible construction of Talgarth new mart.

HAZEL GROVE.—Plans passed by U.D.C.: houses, Linney-road, Bramhall, for Mr. F. Marsla two houses, Highfield-road, Bramhall, for Messrs Hallows & Co.; two houses, Queen's-road, H Grove, for Mr. J. Smith; three houses, Bramhall-l for Mrs. E. Crosby; two houses, Maple-road, Messrs. G. Corrie & Sons; house, Grange-road, Messrs. P. Hallows & Co.; house, Bramhall M lane, for Mr. H. Hallworth.

HECKMONDWIKE.—Plans passed: Twelve house Station-lane, for Sir Hy. Whitehead. The U.D.C decided to invite tenders for the erection of 64 hous 28 at Comersal, 24 at Heaton House site, and 1 Scholes.

HOVE.—Plans passed by T.C.:—Mr. A. Perkin Dr. H. S. Hollis, detached house, Nizells-aven Mr. W. H. Overton, for Messrs. H. J. Green & extension to factory, Lorna-road; Messrs. T. Gar & Son, for Mr. W. Johnson, detached house, Prin square; Messrs. J. H. Hackman, Ltd., for Dr Orlebar, motor garage, 54, Wilbury-road; Mr. J. S addition, 25, Portland-villas; Mr. F. M. Cashm for Mr. S. Herbert, alterations and additions, 81, Drive; Mr. E. Brown, for Mr. F. Brooksbank, m garage, Tandridge-road; Mr. B. James, for Mr. Chadwell, detached house, Vallance-gardens; B. James, for Mr. A. Chadwell, pair semi-detac houses, Vallance-gardens; Mr. H. Spencer, for Massy, conversion of motor garage into a bunga Norman-road; Mr. W. Whiteman, for Mr. F. Schei bungalow, Glebe-villas; Mr. W. H. Overton, for E. Booth, house, Nizells-avenue.

HULL.—Extensive railway extensions are shadowed at Hull in connection with the joining of the low-level lines of the former Hull and Barn Company, and the London & North-Eastern Railw These extensions will involve the construction new bridge and permanent-way alteration. A s is to be made to provide additional siding accommo tion for 2,000 extra waggons.

HYTHE.—Plans passed: House, Seabrook Estate Mrs. Reid; alterations to 112, High-street, for Mr Major.—The T.C. has adopted in principle a sch suggested by Councillor A. E. Palmer for the provi of houses, for the owner-occupier, to be built on fringe of land offered by Mr. W. Deedes, of Salt Castle, to the Hythe and Saltwood Allotment Hold Association, at a very cheap rate. Councillor Pal estimates that a house would cost £510, and, allo for a Government subsidy of £75 and a deposit of by the purchaser, £385 would have to be found.

JEDBURGH.—The T.C. has approved of a sch for the reconstruction in reinforced concrete of burgh Station Bridge, at an estimated cost of £5,81

KING'S LYNN.—Plans passed by T.C.: Alterat 116, London-road, for Mr. H. Smith; saw mills, Cross-bank, for Messrs. J. T. Stanton & Co.; loc shop, Albert-street, for Mr. H. C. Rust; wareh South-quay for Messrs. Packards & J. Fison, L house, Blackfriars-road, for Mr. J. J. Bone; ex shed, 18, Church-street, for Mr. W. Nicholls; inte alterations, St. James's Rooms, for King's L Amusements, Ltd.; bungalow, The Chase, for Mr. Fachney; shop and chambers, 24–5, High-street Messrs. Wyles Bros., Ltd.; Mr. F. E. Hares, houses on the Homelands Estate.

KIRKBURTON.—Plans passed: New Church England school; house, for Mr. W. Wortley house, for Mr. A. Douglas.

LEEDS.—The Maternity Hospitals Board of Man ment propose entering upon a scheme for the prov of a new wing to the Hospital in Hyde-terrace. will provide additional office accommodation; estimated cost of the scheme is £10,000.

LICHFIELD.—Plans passed by T.C.: House, Staf road, for Mrs. M. F. A. George; two houses, Gaia-s for Mr. J. R. Deacon; two houses, Church-lane Vicarage-lane, for Mr. J. R. Deacon.

LLANDUDNO.—Plans have been approved by T.C. for the erection of a new hotel to replace the e ing Washington Hotel at the junction of Craig parade and Cleveland-road, for Messrs. Ind, Coo Co., Ltd., Burton brewers. Mr. T. Jenkins, of Bur on-Trent, is the architect, and he will shortly be inv tenders for the work.

LLANELLY.—The B.C. has received 40 plans building of subsidy houses, and upon approva Ministry of Health of plans will sanction building. Borough Education Committee is to obtain estimat installing electric lighting in all the schools.

LLANYBYTHER.—Notification of intention to their own dwelling-houses has been given to R. by Messrs. Evan Evans, Ninant Daniel Davies, Ilwni; and W. R. Davies, Llanybyther, and the Co will grant subsidy. The Council is to further a hou scheme and has presented plans of 14 houses approval. The Council is to widen the Brechfa-

* See also our List of Contracts, Competitions, etc.

n road at estimated cost of £4,000 and has applied nt.

DON (BATTERSEA).—The L.C.C. has sanctioned rrowing of £38,450 by the B.C. for the recon- on of pipe sewers.

DON (HACKNEY).—The Electricity Committee mmending the Council to expend £26,000 on the n and equipment of show rooms.——The g Committee proposes to erect seven blocks of tained flats to provide accommodation for ilies in Fletching-road, at an estimated cost of 5.

DON (STEPNEY).—The B.C. has agreed to an ce of £750 for alterations at St. George's Baths, vide for more slipper baths.

DON (ST. MARYLEBONE).—The L.C.C. has ned the borrowing of £28,870 by the B.C. for ction of 112 tenements.

DON (STOKE NEWINGTON).—The B.C. proposes t slipper baths at the corner of Park-street, at mated cost of £5,000.

DON (WANDSWORTH).—Sanction has been given L.C.C. to the B.C. borrowing £23,760 for paving

STEG.—The U.D.C., with Glyncorrwg and Port Councils, is to convert the Port Talbot Isolation al into a joint authority small-pox hospital.—— uncil is negotiating to acquire building sites at ——A large scale road improvement scheme n favourably considered by Ministry of Trans- —The Caerau Welfare Committee has notified D.C. that it will proceed with a scheme for on grounds, &c., as a separate undertaking from uncil's scheme.

LING.—Plans passed by R.D.C.: Timber bun- Robinhood-lane, Aylesford, for Mr. A. Wise; Lodge-farm, Birling, for Mr. P. Nevill; two ungalows, Birling-road, Snodland, for Messrs. . Wickham; house, Kingsdown-road, Ightham, J. Doleby; bungalow, Blue Bell-hill, Aylesford, srs. A. Webb & Son; addition to house, West- Vest Malling, for Mr. G. Waters; addition to bake- n Malling-road, Snodland, for Mr. J. Gammon; n to house, Fishponds, Leybourne, for Colonel s-Bramley; cottage, Eccles-road, Aylesford, A.P.C., Ltd.; brick bungalow, Sevenoaks-road, n, for Mr. A. W. Smith; addition to factory, rd Paper Mills, for Messrs. A. E. Reed & Co; bungalow, Hale-street, East Peckham, for Mr. hby; cottage, Trottiscliffe, for Mr. H. J. Rogers; shop, High-street, West Malling, for Mr. W. r; engine house, Kiln Barn Quarry, Ditton, for Eagleton & Cochrane, Ltd.; addition to house, reet, West Malling, for Mr. C. K. Dain.

ON.—Plans passed: Sixteen houses on the hill Estate, for the Earl of Fitzwilliam. These erected by the Earl's own workmen.

ERN.—The U.D.C. are to erect a new fire brigade he surveyor who has prepared the plans is ed to invite tenders.

HESTER.—The Improvements and Buildings tee have passed the plans of the first part of the for the extension of Messrs. Lewis's premises. timated that the work, when completed, will st more than a million pounds. From two to ars will be necessary to carry it through.

ELLTOWN.—Plans passed: Garage, 6, Glasgow- or Mr. W. Reid, of "King's Arms" Hotel; avid-street, for Mr. James Bell.

HYR TYDFIL.—The T.C. has applied for sanction f £26,000 to complete a 20-in. main sewer from hiw to Quaker's Yard.——Unemployment hemes are to be put in hand, the Council having in hand for the purpose. The Public Works tee has in consideration construction, at estim- t £2,500, of municipal golf-links at Cyfarthfa.

ELD.—Plans passed: House off Parker-lane, A. D. Ridgeway; two semi-detached houses moor-road, for Mrs. H. Senior; two houses on len Suburb Estate; and temporary hut, for ation Army.

SEY.—The U.D.C. has decided to erect 12 houses.

DDISLWYN.—The U.D.C. has decided to con- portions of work of constructing new Ynysddu imated to cost £65,000 for its two miles length. uncil's previous decision to do the work by bour is now reversed.

OLMROYD.—The members associated with the n Church and School have decided to extend nt school premises. Already £2,300 has been d.

ASTLE.—Plans have been approved for the of 85 houses in various parts of the city.

ORT (MON).—The Bristol Channel Steamship Association has notified the Newport Harbour hat it will erect a new light at Goldcliffe and d has agreed to maintain same. The G.W.R. gotiating with Tredegar Estate for land near engine sheds, and it is reported will build 400 r their workmen.

LE.—The Ogmore and Garw U.D.C. is formulat- wn housing scheme. The Wyndham Colliery the S.W.M.F. has requested the Council to it in securing construction of pit-head baths.

C.—The governors of the Grammar School ceived sanction from the County Council n Committee to carry out extensions at an t cost of £2,300. The same authority have their sanction for extensions to Batley Girls' r School at an estimated cost of £4,281.

LOKESHIRE.—Grant of £13,090 has been made Ministry of Transport to County Main Roads ee. The County Public Works Committee led to protest against Lechroyd Bridge being as an ancient monument. A special extra- traffic grant of £1,000 has been received by ouncil and is to be used to improve Haverford- beth road.

MOUTH.—The T.C. has decided to erect another s on Portsdown-hill—eighty to cost £563 each ty to cost £638 each, the cost in each case to 108 in respect of the land, roads and sewers.

TE.—Plans passed by R.D.C.: Betchworth— to Holmcroft, Pebble Hill-road, Mr. E. T. Coles, Betchworth; study and garage, Boxhill-road, Dr. Bernard Hart, Betchworth; bungalow, Boxhill-road, Mrs. E. Johnson, Reading. Burstow: conversion of cow-stable, &c., Westlands, into three cottages, Mr. G. Burbridge, Horley. Chaldon: house, Doctor's-lane, Mr. Kenneth Allport, Chaldon Common; bungalow, the Heath, Mrs. E. Cooper, Lympne. Chipstead: house, Hollymead-road, Mr. H. T. Wellard, Walton-on-Thames; new streets, Messrs. Costain & Sons, Blundell-sands, near Liverpool. Horley: house, Avenue-gardens, Mr. E. C. Pollard; bungalow, Balcombe-gardens, Mr. H. J. Johnson, Lancing; house, Lumley-road, Mr. Percy Ebbs, Fernhill, Burstow; new street, adjoining Lee-street, Mr. E. Legg, Horley; garage and stable, Oldfield-road, Mrs. Sotham, Horley. Kingswood: Forest-drive, Mr. C. J. Stenholme, Clapham-park; lodge, Mrs. J. Morris, London; house, Forest-drive, Mr. A. Rodwell; new street, Messrs. Costain & Sons. Nutfield: additions, Thornthrift Cottage, Clay-lane, Mr. G. Nixey Smith, South Nutfield. Walton-on-the-Hill: garage, adjoining "Chussex," Sir Hedley Le Bas, Walton-on-the-Hill; 24 cottages, Chequers-lane, Lord Riddell; house, "Egmont," Park road, Mr. John H. Spratt.

RHYMNEY.—The local Welfare Committee has received an additional grant of £1,500 from Miners' Welfare Committee, and will expend it in preparing public recreational facilities.

ROTHESAY.—The T.C. has decided to erect a pavilion on the site of the present bandstand enclosure, with accommodation for 1,400 people.

RUGBY.—Plans passed by R.D.C.: Mr. J. Shaw, addition to Boot's Farm; Mr. S. Robbins, three houses at Brown's Farm; Mr. T. Russell, Clifton, alterations to farm house; Mr. G. Ingram, Long Lawford, bungalow; Mr. R. Bell, Long Lawford, house; Men's Club, Bilton, stores; Phillips & Co., alterations to Green Man Inn, Donchurch.

ST. HELENS.—The Corporation has decided to proceed with a new reservoir scheme at an estimated cost of £100,000.

SEAHAM HARBOUR.—Plans passed by U.D.C.: From Mr. T. S. Wright, for Mr. F. W. Armstrong, for alterations to property at corner of Church-street and Adelaide-row; trustees of Seaham Harbour Good Templars, for temperance hall behind James-street; Mr. F. Willy, on behalf of Durham Aged Miners' Homes' Association, for 12 homes at Dawdon; from Mr. J. W. Claxton, on behalf of the Marquess of Londonderry, lay-out of east side of Princess-road; Mr. J. W. Claxton, on behalf of the Londonderry Collieries, Ltd., 46 four-roomed houses on the east side of Princess-road; from Mr. J. W. English, on behalf of Messrs. Nimmo & Sons, make-up of roadway adjoining the Bradyll Arms, together with roadway from Adolphus-place to Lord-street.

SHEFFIELD.—Plans passed:—Two bungalows, Gleadless Common, for Mr. A. Tate; four houses, High Storrs-road, for Mr. D. Topliss; house, Matthew-lane, Norton, for Mr. G. L. Oxley; house, Dalewood-road, for Mr. Ernest Collins; four houses, The Drive, Hillsboro', for Mr. W. J. Patchett; house, Main-road, Handsworth, for Mr. Charles Cooper; house, Rundle-road, for Mrs. Green; four houses, Christ Church-road, for Messrs. Smith & Hawley; two houses, shops, &c., Heavygate-road, for Mr. Joseph F. Senior; house, Cobnar-road, for Messrs. S. Higton & Sons; house, shops, and workshop, Attercliffe-road, for Mr. G. H. Johnson; house and alterations, Norfolk-row, for Mr. Belbin; house, Derbyshire-lane, for Messrs. Bonser Bros.; house, Tom-lane, for Mr. J. Samuel; bungalow, Dalewood-road, for Mr. A. Stevenson; bungalow, Dalewood-road, for Mrs. Annie Rodgers; bungalow, Dalewood-road, for Mr. W. R. Chamberlain; bungalow, Dalewood-road, for Mr. J. Stephenson; bungalow, Dalewood-road, for Mr. Froggette; bungalow, off Richmond-road, for Mr. Jno. Elliott; 10 houses, Firth Park-crescent, for Mr. Thomas Pye; house, School Green-lane, for Mr. E. V. Wolstenholme; house, Shirebrook-road, for Mr. A. Pemberton; bungalow, Kennedy and Chatfield-roads, for Mr. C. Dungworth; four houses, Havercroft-road, for Mr. E. Sivil; two houses, Muskoka-drive, for Mr. G. M. Taylor; two houses and garages, Milden-road, for Mr. E. Bilbrough; house, Stumperlowe-crescent, for Mr. C. P. Styring; house, Dalewood-road, for Mr. E. Gandy; 147 houses, Manor Estate, for Sheffield Corporation Estates Committee.

SOUTHBOURNE.—Plans passed: Additions to Immanuel Congregational Church, for the Trustees.

SOYLAND.—Plans passed: Erection of workshops at Causeway Head, for Messrs. Binns & Berry.

SPENBOROUGH.—Plans passed: New street off Knowler-hill, Liversedge, for Mr. David T. Beumont; two houses off Knowler-hill, Liversedge, for Mr. David T. Beumont; warehouse at Flush Mills, Liversedge, for Messrs. T. F. Firth & Sons, Ltd.; two houses, at Corn Mill-lane, for Mr. E. A. Mountford; two houses at Bradford-road, Oakenshaw, for Messrs. Wood & Alderson; fried fish shop at Bradford-road, Oakenshaw, for Mr. W. H. Bailey. and two houses at Union-road, Liversedge, for Mr. and Miss Pollitt.

SUNDERLAND.—Plans passed and subsidies granted by T.C.: Rackstraw & Thompson, seven four-roomed houses, Inverness-street, grant £115 per house; W. & T. R. Milburn, six five-roomed houses, Park Gate, grant £110 per house; W. & T. R. Milburn, five five-roomed houses, Park Gate, grant £115 per house.

SWANSEA.—Plans passed by T.C.: Additions, 18, Lan-street, Morriston, for Mr. P. Francis; house, Spencer-street, Brynhyfryd, for Mr. J. Jewell; classroom, Aberdyberthi-street, for the Trustees of Mount Pleasant Chapel; two bungalows, Whitestone-lane, Newton, for Mr. D. Davies; house, Heol-cnap, Treboeth, for Mr. W. Davies; boiler and calorifier house, chimney stack, &c., Union-buildings, Mount Pleasant, for the Swansea Board of Guardians; house and shop, Newton-road, Mumbles, for Messrs. W. & T. Beynon; shop, Waunarlwydd, for Mrs. T. Bevan; additions, "Arosfan," Mynydd-garn-llwyd, for Mr. H. E. Morgan; additions, 32, Catherine-street, for Mr. W. Parkes; two houses, Parc Wern-road, for Mr. G. Symons; two houses, Pinewood-road, Blackpill, for Mr. G. H. Wilding; additions, Caswell-road, for Mr. F. W. Gilbertson; additions, 10, Chemical-road, Morriston, for Mr. Ivor Francis; house, New-road, Treboeth, for Mr. D. J. Demery; house, Pentregethin-road, for Mr. F. Rosser; bungalow, Hendrefoilan-road, for Mr. D. A. Williams; additions, "Park" inn, Park-street, Mumbles, for the Swansea United Breweries, Ltd.; house, Neath-road, Peniel Green, for Mr. P. Howard; substation, Rosehill, for the Borough Architect; six shops, Eversley-road, for Mr. G. W. Rott; bungalow, Pontardulais-road, for Mr. G. J. Williams; house, Waunarlwydd-road, Cockett, for Mr. W. Hollingdale; house, Town Hill-road, Sketty, for Mr. Foner; two houses, Town Hill-road, Sketty, for Messrs. Ace & Mansell; two houses, Glais-road, Birchgrove, for Mr. Tudor Davies; house, Clydach-road, Ynistawe, for Mr. A. Arnold; additions to garage, Carmarthen-road, for Messrs. Taylor Bros.; house, Middle-road, Gendros, for Mr. Thos. Thomas; house, Morfydd-street, Morriston, for Miss G. M. Griffiths; alterations, "White Hart" public-house, and the "Gower" inn, Oxford-street, for Mr. H. Vye Parminter; two houses, Sketty-road, for Mr. Rees Jones; house, Pwll-street, for Mr. W. T. Leyshon; house, Pwll-street, for Mr. D. Davies; two houses, Pwll-street, for Mr. Wm. John; two houses, Mumbles-road, Blackpill, for Mr. H. P. Honey; house, Llwynmawr-road, for Mr. D. A. Williams; bungalow, Gower-road, Killay, for Mrs. Ada Gregory; two houses, Middle-road, Gendros, for Mr. Emrys Thomas; house, Manor-road, for Mr. W. H. John.

TORQUAY.—Plans passed by T.C.: Mr. H. J. Heard, dance hall, 9-11, Hoxton-road; Mr. A. E. Brown, house, Ilsham-road; Mrs. Marsden, house, Cliff-road; Messrs. A. Harris & Son, pair of villas, Hampton Estate; the Trustees, St. Faith's Home, Memorial Chapel; Mr. W. Adams, for lay-out of new street adjoining Lummaton-road; Mr. W. Deakins, bungalow, Ilsham-road; Mr. T. S. Gibson, house, Lincombe Hall; Mr. R. E. Narracott, house, Dunmere-road; Mr. F. Pollard, house, Cliff-road; Mr. W. Bays, house, Cliff-road; Mr. F. J. Rolfe, house, Ilsham-road; Mr. J. Stoneman, bungalow, Old Woods-hill; Mr. W. S. Gibbs, house, Wheatridge-lane; Mr. F. C. Martin, 15 houses, new road between Windsor and Warberry-roads; Mr. E. K. Grist, house, Ilsham-road; Mr. H. Cruse, two bungalows, Windsor-road; Mr. R. Tucker house, rear of "Empire," Ellacombe; Mr. W. Deakins, bungalow, Ilsham-road.

TRURO.—Bungalow, Chapel-hill, Mr. A. J. Cornelius, architect, for Mr. Dunstan.

UPPER RENFREWSHIRE.—Plans approved by the Buildings Committee of Upper Renfrewshire:—Double villa, Craignethan-road, Whitecraigs, for John Allan, builder, Dennistoun, Glasgow; villa, Alder-road, Hillpark, Eastwood, for John Galt, architect, Glasgow; cottage, Uplawmuir, for David Muir, Glenview, Uplawmuir; cottage, at Uplawmuir, for R. P. Stewart, Uplawmuir; bungalow, at Kilmarnock-road, Giffnock South, for George W. Dixon & Sons, builders, Giffnock; bungalow, at Woodvale-avenue, Giffnock South, for R. D. Melville, Church-road, Giffnock; four bungalows, at Busby-road, Giffnock, for J. & A. Dixon, builders, Kilmarnock-road, Giffnock; bungalow, at Patterton, for J. Grant Deas, Cathedral-street, Glasgow; bungalow, at Woodvale-avenue, Giffnock South, for J. Grant Deas; cottage, at Uplawmuir, for Alexander Cameron, Cathcart-road, Glasgow; double cottage, at Wedderlea-drive, Cardonald, for John Young, builder; double villa, at Busby-road, Clarkston, for James Wright, jun., 261, West George-street, Glasgow; bungalow, at New-road (Davieland Estate), Giffnock South, for J. B. Hunter, Glasgow.

WEST BROMWICH.—The T.C. has decided to purchase for £4,340 the vacant land on the Tantany housing estate, which includes a large pit mound. Part of the land, it is stated, would be suitable for building purposes, and 54 houses could be erected there.

WEYMOUTH.—Plans passed by T.C.: Jenkins, Hitt & Grant, bungalow, Fernhill-avenue; S. Jackson, conversion of "Ventura," Trinity-road, into flats.

WHITBY.—The U.D.C. has received the sanction of the Ministry of Health to the raising of a loan of £7,367 for the purpose of Spa improvements—an extended promenade, a new music pavilion, and a colonnade.——Plans passed: Shop alterations in Baxtergate, for the Star Tea Company; detached house in Upgang-lane, for Mrs. French; and a detached house in Upgang-lane, for Mr. A. E. Young.

WHITLEY BAY AND MONKSEATON.—The U.D.C. housing schemes now embrace the erection of 300 houses and not 200 as previously reported. Of this number, 200 will be working class dwellings, and the remainder represent an effort to assist private enterprise, for which £7,300 is to be borrowed in order to make grants of £75 per house as subsidy.

WIGAN.—The T.C. has decided to prepare a town-planning scheme for the whole area comprised within the borough.

FIRES

GOUROCK.—A disastrous fire, involving the destruction of Ashton United Free Church, the gutting of a two-story tenement, and partial damage to another tenement, has occurred in Albert-road.

SILSDEN.—The Airedale Mills, occupied by Messrs. John Knox & Sons, Messrs. Berry & Fletcher, Ltd., Mr. C. H. Fletcher, Mr. J. Walton, and Mr. E. Wiseman, have been damaged seriously by fire.

Carbonate of Lead.

The International Bureau of Works has just been notified that the Government of Checkoslovakia has ratified the proposal prohibiting the employment of carbonate of lead and sulphate of lead in any work connected with the painting of houses. This proposal was carried unanimously by representatives of the governments, proprietors and workmen at the Third International Conference of Labour, held at Geneva in 1921.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—E

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	2 15 3	Do. Bullnose	10 1 6
Do. Bullnose	3 8 3	Blue Wire Cuts	7 11 6

Best Stourbridge Fire brick:—

2½ in.	11 3 0	3 in.	13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
		Two Sides and one End	32 10 0
Headers	21 10 0	Splays and Squints	30 0 0
Quoins. Bullnose and 4½in. Flats	28 10 0		

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. "	2 5	4 in. "	3 7

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	" "
Thames Sand	15 6	" "
Best Washed Sand	15 6	" "
¾ in. Shingle for Ferro-Concrete	14 0	" "
½ in. "	15 0	" "
¾ in. Broken Brick	10 6	" "
Pan Breeze	5 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to 51/- alongside at Vauxhall in 80-ton lots.		£3	3 6
Ferrocrete per ton extra on above		0 10	0
Super Cement		4 8	0
Roman Cement		8 15	0
Parian Cement		5 15	0
Keene's Cement, White		5 15	0
" " Pink		5 10	0
Plaster, Coarse, Pink		3 0	0
" " White		3 12	6
" Fine		5 12	0
Sirapite, Coarse		3 9	6
" Finish		3 17	6
Grey Stone Lime		2 10	9
Chalk Lime		2 10	9
Best Ground Blue Lias Lime		2 13	6
Hair		17 0	0
Granite Chippings		1 12	0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
HOPTON-WOOD STONE.	
Delivered at any Goods Station, London.	
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over "	17/-
Sawn two sides "	27/-
Sawn three or four sides "	32/-
YORK STONE, BLUE—*Robin Hood Quality.*	
Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5¾
1¼ in. to 2 in. ditto, ditto "	1 3
HARD YORK—	
Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto "	6 0½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto. ditto "	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s. d.
Plain per ft. cube	6 6
Moulded " "	7 9
Cills " "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	24 0
× 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅞	21/-	1¼	33/6
⅞	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING. Inches.	per sq.	MATCHINGS (BEST). Inches	per sq.
1	26/6	⅝	17/6
1¼	33/6	¾	22/-
1½	38/6	1	26/-

Inches	BATTENS	s. d.	
¾ × 2		2	4 per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¾ in. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt.	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or	5 7 6
Staffordshire district	5 12 6
Ditto hand made ditto	5 17 6
Ornamental ditto	0 9 6
Hip and valley tiles (per dozen) { Hand made	0 9 0
{ Machine made	

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
" " Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅝ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2⅞ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¾	3½d.
4 in.	1/4	1/1¾	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7¾	1/5½	5d.
O.G. GUTTERS.			
3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5¾
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	10 6	18 2
6 in. " "	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	14 0 0	to	15 0 0
Staffordshire Crown Bars—good merchant quality	14 10 0	..	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	13 10 0	..	14 10 0

METALS (*Continued*).

	£ s. d.		£
Steel Bars, Ferro-Concrete quality, basis price	13 10 0	..	14
Hoop iron, basis price	16 10 0	..	17
" Galvanised	31 0 0	..	32
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	15 10 0	..	16
" " " 24 g.	16 10 0	..	17
" " " 26 g.	18 10 0	..	19
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26
Best Soft Steel Sheets, 26 g.	26 0 0	..	27
Cut Nails, 3in. to 6 in.	21 10 0	..	23
(under 3in. usual trade extras.)			

METAL WINDOWS—Standard sizes suitable for plete houses, including all fittings, painting coats, and delivery to job, average price abou to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.		
LEAD—Sheet, English, 4 lb. and up	35 10 0	..	
Pipe in coils	36 0 0	..	
Soil Pipe	39 0 0	..	
Compo pipe	41 10 0	..	
Old lead, ex London area, at Mills per ton	23 10 0	..	
Do., ex country, carriage forward per ton	24 10 0	..	

NOTE—Country delivery, 30s. per ton extra; lots 3 cwt., 2s. per cwt. extra and over 3cwt. and u cwt., 1s.6d. per cwt. extra. Cut to sizes, 2s. cwt.

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per

NEW RIVER PATTERN SCREW DOWN STOP COCKS UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	5 8/- per

NEW RIVER PATTERN SCREW DOWN MAIN FERR

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per do

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per do

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz

NEW RIVER PATTERN CROYDON BALL VALVES. S.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per

DRAWN LEAD P. & S. TRAPS WITH BRASS CLE SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per
8 lbs. S. traps	35/-	45/-	66/-	120/

COPPER—	£ s. d.		
Strong Sheet per lb.	0 2 3	..	
Thin " "	0 2 4	..	
Copper nails "	0 2 3	..	
Copper wire "	0 2 4	..	
TIN—English Ingots "	0 2 0	..	
SOLDER—Plumbers' "	0 0 11	..	
Tinmen's "	0 1 1	..	
Blowpipe "	0 1 3	..	

PAINTS, &c.

	£
Raw Linseed Oil, in pipes per gallon	0
" " " in barrels "	0
" " " in drums "	0
Boiled " in barrels "	0
" " in drums "	0
Turpentine in barrels "	0
" in drums (10 gall.) "	0
Genuine Ground English White Lead, per ton	56
(In not less than 5 cwt. casks.)	
GENUINE WHITE LEAD PAINT—	£
"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	77
Red Lead, Dry (packages extra) per ton	42
Best Linseed Oil Putty per cwt.	0 1
Filocol per cwt.	0 1
Size, XD Quality fkn.	0

[*Concluded on next page.*]

* The information given on this page has specially compiled for THE BUILDER and is copyr Our aim in this list is to give, as far as possible *average* prices of materials, not necessarily the hi or lowest. Quality and quantity obviously prices—a fact which should be remembered by who make use of this information.

CURRENT OF MATERIALS (*contd.*)

GLASS.

H SHEET GLASS IN CRATES OF STOCK ND IN SQUARES IN ORDINARY SIZES.

Per Ft.		Per Ft.
rths.... 3½d.	32 oz. fourths	8½d.
rds .... 4½d.	32 ,, thirds	10½d.
rths.... 5d.	Obscured Sheet, 15 oz.	4d.
rds .... 6½d.	21 ,,	5½d.
rths.... 6d.	Fluted 15oz. 6½d., 21oz.	9½d.
rds .... 7½d.	En'lled 15 ,, 5½d., 21 ,,	7½d.

ce according to size and substance for squares stock.

H ROLLED PLATE IN CRATES OF STOCK SIZES. Per Ft.

plate	4½d.
rolled	5½d.
rolled	5½d.
d Rolled, Oxford Rolled, Baltic, Oceanic, rctic, Stippolyte, and small and large lemish white	6½d.
o, tinted	9d.
l sheet	6d.
Rolled Cathedral	5½d.
do.	7½d.

Plate is same price as rough rolled.

VARNISHES, &c.

	Per gallon £ s. d.	
sh	Outside	0 14 0
.....	ditto	0 16 0
l	ditto	0 18 0
l	ditto	1 0 0
l Carriage	ditto	1 4 0
o	ditto	1 12 0
ish	Inside	0 18 0
Paper	ditto	0 18 0
l Cabinet	ditto	1 2 6
flatting	ditto	1 0 6
ng Oak	ditto	0 18 0
drying Oak	ditto	0 19 0
l Varnish	ditto	1 0 0
tto	ditto	1 2 0
tto	ditto	1 12 0
n Gold Size		0 12 0
x Japan		0 12 0
Mahogany Stain (water)		0 12 0
x Black		0 9 0
ack		0 14 0
(patent)		1 5 0
d Brush Polish		0 17 6
yers in Terebine		0 9 0
ack Enamel		0 7 0

EW BUILDINGS IN SCOTLAND.

mline.—CHURCH.—The Dean of Guild s granted permission to the Building ee of the Scottish Episcopal Church a permanent building in King's-place, n place of the temporary church.

.—SCHOOLS.—The School Committee Education Authority recommends the of a central school immediately, for ldren, to be erected on the site of the tern Poorhouse, the property of the .

rton.—HOUSING.—At a meeting of the on County Council the convenor that it was proposed to borrow £87,500 nprovement of insanitary areas in the istrict, by the erection of 236 houses, 500 for a similar improvement in the istrict, where they propose to erect s.

—HOUSING.—A Committee appointed C. to consider the insanitary areas scheme for the burgh has received or the erection of 32 houses on three ted in the town. The tenders work out £320 13s. 11d. for each house. It d to accept the tenders with a view to es being proceeded with at once in on for those against which closing ve been issued and are being issued. ncil have already erected 16 houses. now propose to modify the original f 241 houses to 175 slum clearance

.—HOUSING.—At the last meeting of he Public Health Committee reported her block of four houses is being erected Park under the housing scheme. e been passed for four houses at Twir- e for the Hawick Working Men's and Investment Co., Ltd., and two Easkdail-terrace for John Rae & Son.

olloch.—CLUB.—The Dean of Guild passed plans for new premises for the Men's Club to be erected facing the ad. The building will be built of roughcast.

NEW COMPANIES.

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

COLE (HANWELL), LTD. (192,774). Registered September 29. 133a, Uxbridge-road, Hanwell, W. 7. Decorators and builders and oil and colour merchants, and to undertake works of any kind and carry out the furnishing, fitting and equipping of houses, hotels or other buildings. Nominal capital, £1,000.

T. MOLYNEUX, LTD. (192,737). Registered September 27. The Fish Docks, Grimsby. Painters, decorators, plumbers and contractors, &c. Nominal capital, £2,500.

BURTON & WILLBOND, LTD. (192,674). Registered September 25. Trent-lane, Nottingham. Monumental and architectural stonemasons, builders, contractors, &c. Nominal capital, £3,000.

COX & COMPANY (HIGHBRIDGE), LTD. (192,524). Registered September 17. Church-street, Highbridge, Somerset. Brick and tile manufacturers and general merchants, heretofore carried on at Highbridge, Somerset, by Victor Jeffery Norris Cox, under the style of Cox & Company. Nominal capital, £5,000.

PARKS CONSTRUCTION, LTD. (192,604). Registered September 21. 210, Strand, W.C. 2. Builders, purchasers, sellers and operators of amusement parks and other public or private amusement and entertainment. Nominal capital, £1,000.

E. SUMMERFIELD, LTD. (192,503). Registered September 14. 36, Dale-street, Liverpool. Decorators, plumbers, gasfitters, glass and wood sign manufacturers, &c. Nominal capital £1,200.

ELLIOTT & TALLAMY, LTD. (192,540). Registered September 18. To carry on the business of builders and contractors, &c. Nominal capital, £500.

ARTSTONE, LTD. (192,535). Registered September 18. 62, London Wall, E.C. Stone substitute, mould makers, producers of artificial stone articles or other composite articles of all sorts. Nominal capital, £2,000.

WOODHAMS (BROMLEY), LTD. (192,534). Registered September 17. 141, Masons-hill, Bromley, Kent. Builders, contractors and decorators, being the business formerly carried on by John Latter Woodhams under the style of Messrs. J. L. Woodhams & Sons, at 141, Masons-hill, Bromley, Kent. Nominal capital, £6,000.

W. WILLIAMS, SONS, & CO., LTD. (192,719). Registered September 26. Builder, joiner and general contractor, now carried on by William Williams in West-street, Flookersbrook, near Chester, and elsewhere, under the name of William Williams. Nominal capital, £5,000.

PAUL RHODES, LTD. (192,698). Registered September 25. Park View Works, Cardigan-lane, Leeds. Builders and contractors, now carried on at Leeds by Paul Rhodes, and to carry on at Leeds or any other places the said business. Nominal capital, £10,000.

OSMOND KNIGHT & CO., LTD. (192,697). Registered September 25. 1, Broad-street-place, E.C. Contractors, builders, civil, electrical, mining, consulting and general engineers, &c., and distributors of ores, metals, minerals, chemicals and chemical products, petroleum and substances of every kind. Nominal capital, £1,000.

JOHN B. SHARMAN, LTD. (192,695). Registered September 25. 1a, Cavendish-street, Ramsgate. Builders and contractors, &c. Nominal capital, £2,000.

PATERSON & MOYLE, LTD. (192,656). Registered September 24. Finsbury-court, Finsbury Pavement, E.C. 2. Builders, contractors, builders' merchants, &c. Nominal capital, £1,000.

MINEHEAD TRADING CO., LTD. (192,679). Registered September 25. Timber merchant, coal, corn and forage merchant, builders' merchant and haulage contractor, now carried on by Herbert Henry Kind at Station Mills, Minehead, under the style of The Minehead Trading Company. Nominal Capital, £6,000.

HEAVY TRAFFIC: SCHEDULING ROADS.

IN a recent article on heavy traffic on roads (September 28) we noted that a correspondent informed us that the law was deficient, as under the Roads Act, 1920, a road can only be thus placed out of bounds when actual damage has taken place. As we observed in our article we had not at the time of writing the Act before us, but on consulting the Act we now think our correspondent, unless there is some decided case on the point, placed an unnecessarily narrow construction upon the Act. The material section appears to be section 7 subsection (4), which provides "The Minister may by order on the application of any county council after holding a public inquiry prohibit or restrict, subject to such exceptions or conditions as to occasional user or otherwise as may be specified in the order, the driving of vehicles of any specified class on any specified highway within the area of the council in any case in which it appears to him as the result of the inquiry to be proved that a vehicle of that class cannot be used on that highway without endangering the safety of the vehicle or the persons therein or of other traffic using the highway, or that the highway is unsuitable for a vehicle of that class."

We fail to see how this subsection can be construed to involve actual damage being proved before the order can be made, for quite apart from the first provision as to safety there is the second provision that the road may be proved unsuitable for a vehicle of the particular class.

As regards the first provision as to safety it would be a novel reading of a statute directed to preventing the safety of the public being endangered if an actual accident had in each case to occur to satisfy the tribunal. It certainly would not be a case of "safety first," but "injury first and safety afterwards." Similarly we assume it would not be necessary for a road actually to founder or a building to tumble down before the Minister could be satisfied it was unsuitable for a particular class of traffic.

TRADE NEWS.

The Midland Joinery Works, Ltd., of Burton-on-Trent, has issued a schedule of their prices for joinery, timber, and mouldings, which should be in the hands of every builder.

Bristol Dock Scheme.

Bristol City Council has adopted a proposal of the Docks Committee to spend £1,000,000 upon the construction of the eastern arm of the Royal Edward Dock at Avonmouth. The extension will be 2,400 ft. long and 400 ft. wide, providing a length of quay of 4,870 ft., and a water area of 21 acres. Parliamentary powers for dock extensions were obtained in 1918, but these have been postponed owing to economic conditions; the great amount of unemployment has decided the Committee to proceed with the work as it would find employment for 1,000 men for four years, and would mean about £3,000 being paid each week in wages.

Negotiations are to be entered into with the Unemployment Grants Committee with a view of ascertaining whether, and in what manner, the Government will be prepared to render financial assistance.

The Institution of Municipal and County Engineers

A South-Eastern District meeting of this Institution will be held at Chatham on October 26. The programme includes reception at the Town Hall by the Mayor (Ald. H. F. Whyman, J.P.) at 10.30, a visit to the Dockyard, lunch at the Sun Hotel, and a visit to Messrs. Aveling & Porter's engineering works at Strood. Members desiring to be present should notify the hon. district secretary, Mr. S. S. Gettings, at the Council Offices, Dorking. Tickets for luncheon (exclusive of wine), 4s.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.

		1½"	1¾"	2"
Two-panel square framed	per ft. sup	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		1"	1¼"
Deal wrot moulded and rebated	per foot cube		
Plain deal jamb linings framed	per ft. sup.	1/8	1/9
Deal shelves and bearers	"	1/5	1/7
Add if cross tongued	"	2d.	2d

STAIRCASES.

		1"	1¼"	1½"	2"
Deal treads and risers in and including rough brackets		2/1	2/4	2/9	—
Deal strings wrot on both sides and framed		1/8	2/-	2/2	2/8

		s.	d.
Housings for steps and risers	each		
Deal balusters, 1 in. × 1¼ in.	per ft. run.		
Mahogany handrail; average 3 in. × 3 in.	" "		
Add if ramped	" "		
Add if wreathed	" "		

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	
Sash fasteners	11½d.	Mortice locks	
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.		
Plain compound girders	"		
Do. stanchions	"		
In roof work	"		

RAIN-WATER GOODS.

		3"	4"	5"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7
Ogee Do. Do.	"	2/4½	3/1	3/10
Rain-water pipes with ears	"	2/9	3/7	
Extra for shoes and bends	each	4/4	5/11	
Do. stopped ends	"	1/11	2/4½	3/7
Do. nozzles for inlets	"	2/2	2/7	3/10

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.		
Do. Do. in flats	"		
Extra labour and solder in coated cesspools	each		
Welt joint	per ft. run.		
Soldered seam	" "		
Copper nailing	" "		

		½"	¾"	1"	1½"	2"
Drawn lead waste	per ft. run	10d.	1/6	1/9	3/1	3/10
Do. service	"	1/5	1/11	2/3	3/6	
Do. soil	"					
Bends in lead pipe	each					3/3
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6
Red lead joints	"	11d.	1/-	1/3	1/11	2/4
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6
Lead traps and cleaning screws	"				14/7	19/6
Bib cocks and joints	"	6/4	9/7	15/4	41/-	
Stop cocks and joints	"	15/4	17/2	25/8	64/-	

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.		
Do. Do. Sirapite	" "		
Do. Do. Keen's	" "		
Add sawn lathing	" "		
Add metal lathing	" "		
Portland cement screed	" "		
Do. plain face	" "		
Mouldings in plaster	per 1 girth		
One-and-a-half granolithic pavings	per yard sup.		

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.		
26 oz. Do.	" "		
Obscured sheet	" "		
⅛ in. rolled plate	" "		
¼ in. rough rolled or cast plate	" "		
¼ in. wired cast plate	" "		

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.		
Knotting and priming	" "		
Plain painting 1 coat	" "		
Do. 2 coats	" "		
Do. 3 coats	" "		
Do. 4 coats	" "		
Graining	" "		
Varnishing twice	" "		
Sizing	" "		
Flatting	" "		
Enamel	" "		
Wax polishing	per foot sup.		
French polishing	" "		
Preparing for and hanging paper	per piece	2/-	to

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS.

unications for insertion under this heading should ressed to "The Editor," and must reach him not han Tuesday evening.
otes *accepted.* † Denotes *provisionally accepted.*
otes *recommended for acceptance.*
otes *accepted subject to modifications.*

STON.—For the erection of 16 houses in d-avenue, for the U.D.C. Mr. E. A. Bush, or, Public Offices, Beeston :—
A. Whiting, Beeston.
J. Jewel, Nottingham.
T. Rice, Beeston.
Wiltshire, Nottingham.
H. Brough, Beeston.
R. Hofton, Beeston.
B. Whitton, Nottingham.
hitemore, Nottingham.
Perks, Long Eaton.
Williamson, Nottingham.
Wright, Nottingham.
Fletcher & Son, Beeston £5,280

MINGHAM.—For the erection of a new super- at Aston. Mr. Hy. W. Way Lovegrove, archi- pho Hill, Birmingham :—
o. Webb & Son, Ltd., Birmingham £14,340
(Revised tender.)

CKBURN.—The T.C. has accepted the tender Edmundson & Sons, Blackburn, for the erection ouses on the Intack site.

CKPOOL.—The Sites and Buildings Sub- ttee recommend Blackpool Education Com- to accept the tender of Mr. J. W. Lee, builder ntractor of Chorley, for the erection of the new tary school to be known as the Tyldesley School. It is understood that the contract s about £11,000.

DFORD.—For the erection of new mill s and a warehouse in Thornton-road, for J. Young & Co. :—
Briggs, Queensbery, near Halifax.

DLINGTON.—For erection of residence, Sands e Estate, for Mr. J. E. Storr. Mr. F. C. Johnson, ct and surveyor, St. John's-avenue, Brid- :—

T. Christie, Hull	£1,685	0	0
rkwell, Holmes & Co., Grimsby	1,530	0	0
Kneeshaw & Sons, Brid- lington	1,414	0	0
W. Martindale, Bridlington	1,345	0	0
E. Turner & Son, Ltd., Bridlington	1,256	2	6

KFASTLEIGH.—For extensions to the Town nd Institute, for the Committee. Messrs. an & Bridgman, architects, Paignton. Messrs. & Hamlyn, quantity surveyors, London :—
P. Bovey & Sons, Torquay £3,004

KFASTLEIGH.—For widening the Plymouth- West Mill and Pound House Hill, for the U.D.C. rveyor, Council Offices, Buckfastleigh, Devon :—

Doney & Son, Plymouth	£735	10	2
J. Steer, Plymouth	662	8	6
thergill Bros., Exeter	620	0	0
Budge, Plymouth	587	12	1
Stevens, Buckfastleigh	449	0	0

SETT.—For erection of house at Rowley, for Armstrong. Mr. G. T. Wilson, architect, 21, n-road, Blackhall, Co. Durham :—
hn Westgarth, Black Hill.

NHAM.—For installation of kitchen plant, , &c., for the Board of Guardians :—
rclay & Perkins £690

NBURGH.—For the erection of eight blocks ises) on the duo-slab system, for the T.C. :—
rey & Sons, Leeds £12,000

Y.—For the erection of a new Masonic hall :—
. Turner & Sons, Ltd., York.

TINGS.—Rock asphalte paving, for the Cor- n, in Queen's-road :—
ittenden & Simmons.

DON.—For widening and improvement of s-road, for the U.D.C. Mr. A. O. Knight, or, Town Hall, Hendon, N.W. 4 :—

H. Wheeler & Co., London	£11,140	0	0
Bell & Sons, Ltd., Tottenham	8,073	6	3
ads & Public Works, West- minster	8,048	16	3
Wm. Prescott & Sons, Lon- don Wall	7,756	15	9
Manders & Co., London	7,641	8	6
wlem & Co., Westminster	7,351	2	8
as. Carter, Golders Green	7,301	12	4
ward Farrow, Golders Green	7,101	7	9
J. Anderson, Poplar	6,961	17	7
n. Moss & Sons, Bloomsbury	6,428	0	0

L.—For ferro-concrete work, &c., in con- with extension of circulating water arrange- at the power house, for the T.C. :—
ibell & Son £19,587

L.—Erection of (*a*) two A2 type houses; and C3 type houses, on North Hull site, for the

bbings & Fell, Sutton-in-Ashfield—
(*a*) £320 per house; and (*b*) £350 per house.

DERMINSTER.—For reconstruction of St. 's Church, for the Reconstruction Committee :—
llins & Godfrey, Tewkesbury £12,897

LEADGATE.—For laying 2,400 sq. yds. of tarred slag footpaths in St. Ives-road, for the U.D.C. Mr. J. H. Couland, Clerk, Council Offices, Leadgate, Durham :—

Wm. Shepherd & Sons, Rochdale	£791	15	7
R. Noble & Co., Bishop Auckland	780	0	0
J. E. Walker, Leadgate	675	0	0
Thos. Swan & Co., Stockton-on-Tees	631	3	0
C. S. Bunch, Newcastle-on-Tyne	621	2	4
No Name	614	0	1
Dyson, Lindsley & Co., Chester-le-street	593	17	4
W. T. Wallace & Son, Newcastle-on-Tyne	555	12	0
S. Oake & Co., Hebburn-on-Tyne	553	4	6
Cleadon Grease & Oil Co., East Boldon	551	5	0
D. Crombie & Co., Sunderland	525	3	0
Tansley (1923), Ltd., Stockton-on-Tees	508	2	6
*R. Gallacher, Blackhill	498	8	4
Alston Limestone Co., Ltd., Newcastle-on-Tyne	483	18	6

LEEDS.—For the erection of two houses and shop at Crossgates, near Leeds, for F. Mitchell & Sons :—
*Thos. Morley & Sons, Leeds.

LEEDS.—For structural alterations to shop premises in Commercial-street, for Messrs. Alexandre :—
*B. Lawn, Leeds.

LETCHWORTH.—For making-up Common-view and North-avenue, for the U.D.C. Mr. G. T. Hill, Council Offices, Letchworth :—

Shearman Bros., Cambridge	£4,315	16	5
D. C. Pearce, Letchworth	3,868	4	10
J. Smart & Co., Ltd., King's Cross	3,728	16	3
G. H. Greasley, Leicester	3,554	16	2
R. Parker, Letchworth	3,300	16	2
*G. Morris Pugh & Co., Letchworth	3,137	16	4½

LITTLETON.—For the erection of a new super pumping station, to include an octagonal chimney 150 ft. high, for the Metropolitan Water Board :—
*John Laing & Sons, Carlisle.

LLANISHEN (GLAM.).—For supply of 23,500 yards of British standard cable in connection with the Llanishen lighting and power system, to the Cardiff Electricity Committee :—
*Enfield Cable Works, Ltd. £9,194 11 9

LONDON.—For alterations and additions to laundry at the Infirmary, Highgate-hill, for the St. Mary (Islington) Guardians. Mr. Edmund J. Harrison, architect :—

Builder's Work—			
H. G. Morgan, Holloway	£971	10	
J. A. Mather, Islington	821	0	
Fred Cousins, Holloway	796	0	
J. A. Hunt, Ltd., Holloway	749	0	
Stevens & Sons, Highgate	697	0	
S. Shaw, Barnsbury	691	0	
J. H. Goodman, Holloway	605	0	
*Leonard Lown & Co., Holloway	565	10	
Engineering Work—			
F. & J. May, Lincoln's Inn Fields	£1,447	5	
The Bridgwater Construction Co., Holloway	1,435	0	
*John Brown, London	1,300	17	

LONDON.—Supply of materials required in the reconstruction of the widened portion of Perry Hill, Catford, for the Lewisham B.C. :—

	Per cu. yd. s. d.
Thames ballast—	
W. H. Penfold	9 9
A. Manchester	9 6
W. Penfold	9 5
Supplies & Transport Co., Ltd.	9 3
*Fry Bros., Ltd.	8 6

Artificial stone paving (about 3,000 su. yds.)—

	s. d.		s. d.
Patent Victoria Stone Co., Ltd.	—	..	6 6
Croft Granite, Brick and Concrete Co., Ltd.	—	..	6 4½
Empire Stone Co., Ltd.	6 0	..	—
*Atlas Stone Co., Ltd.	—	..	5 11

Reinforcement fabric (about 7,000 su. yds.)—

	Straight. s. d.		Curves. s. d.
Johnson's Reinforced Concrete Engineering Co., Ltd.	1 2	..	1 2
Barb Engineering Co., Ltd.	1 0½	..	1 2
*British Reinforced Concrete Engineering Co., Ltd.	1 0½	..	1 2

LONDON.—For interior painting of St. John's non-provided school, Kennington, for the Managers :—

A. Coldman & Son	£1,155	18	5
W. Knight	1,090	0	0
*W. A. King, Brixton	1,050	0	0

LONDON.—For supplying and fixing heating apparatus at electric vehicle garage, for the Hackney B.C. :—
*Colley, Meikle & Co. £328

LONDON.—Supply of about 300,000 creosoted yellow deal paving blocks to the Hackney B.C. :—

	Per 1,000.
*Acme Flooring & Paving Co.—	
135 thousand, 9 in. by 3 in. by 5 in.	£17 2 6
10 thousand, 8 in. by 4½ in. by 3 in.	£12 5 6
155 thousand, 8 in. by 4 in. by 3 in.	£10 17 6

LONDON.—For the supply of 50 tons of pitch work to the Stepney B.C. :—

Forbes, Abbott & Lennard, Ltd.	£425	0	0
Smart's Tar Distillery Co., Ltd.	398	15	0
Crow, Catchpole & Co., Ltd.	383	18	2
Gas Light & Coke Co.	375	0	0
*Grindley & Co., Ltd.	362	10	0

LONDON.—For the improvement of the heating of the undermentioned schools, for the L.C.C. :—

(i) *Provision of Heating Apparatus.*

The Chaucer (Southwark, C.)—H. J. Cash & Co., Ltd	£634
Bloomfield-road (Woolwich, E.)—J. Sloper & Co., Ltd.	690
Burghley-road (Central and Elementary)—(St. Pancras, N.)—Heywood & Bryett	863

(ii) *Erection of Boiler Flues.*

Catherine-street (Shoreditch)—Whitbys, Ltd., High Holborn	290
Cranbrook-road (Bethnal Green, N.E.)—J. & C. Bowyer, Upper Norwood	416
Shillington-street (Battersea, N.)—Triggs & Co., Clapham	574
Goodrich-road (Dulwich)—W. J. Dixon & Son, Bermondsey	666
Surrey-lane (Battersea, N.)—Triggs & Co., Clapham	664

LONDON.—For supplying and fixing crane and gantry at electric vehicle garage, for the Hackney B.C. :—
*Herbert Morris, Ltd. £114

LONDON.—For alterations to urinal under railway arch in Leman-street, for the Stepney B.C. :—

Harris & Wardrop	£767
E. A. Roome & Co. Ltd.	671
W. Gladding & Co.	669
Geo. Barker	654
*Turnbull & Son	654

LONDON.—For repairing the roof of Tower Bridge convenience (central light, includes 4 new sections of paving lights and replacing defective glasses), for the Bermondsey B.C. :—

Geo. Slade & Co.	£550	0	0
W. J. Dixon & Son	460	17	6
Haywards, Ltd.	440	5	0
*John Greenwood Ltd.	426	0	0

LONDON.—For piping for boilers at Northern Outfall, for the L.C.C. :—

Babcock & Wilcox, Ltd., Renfrew	£1,580	0
The Stirling Boiler Co., Ltd., Glasgow	1,580	0
Aiton & Co., Ltd., Derby	1,302	15
*Dilworth & Carr, Ltd., Preston	1,156	0

LONDON.—For the supply of two tons of plumber's solder and ½ ton of tinm n's solder to the Stepney B.C. :—

T. & W. Farmiloe, Ltd.	£238	0
Hall & Co.	218	8
H. B. Barnard & Sons	217	0
*G. W. Neale, Ltd.	208	10

LONDON.—For supply of (*a*) Cornish boiler and (*b*) steel chimney, at Ratcliff Baths, for the Stepney B.C. :—
*J. Thompson, Ltd., Dudley: £270 and £165 respectively.

LONDON.—For one electrically-driven five-ton runway hoist for switchboard gallery at Limehouse, for the Stepney B.C. :—

Strachan & Henshaw, Ltd., Bristol	£795
Morris Herbert, Ltd., Loughborough	372
*Middleton Bros., Pudsey, Leeds	285

LONDON.—For alterations to general office at 27, Osborn-street, for the Stepney B.C. :—

Walter Gladding & Co.	£197	0
J. Jennings & Son, Ltd.	179	10
*G. Weston & Sons	175	5

LONDON.—For desks for general office, for the Stepney B.C. :—

J. Carter & Co.	£142	7	6
Shannon, Ltd.	140	15	0
*Cooke's (Finsbury), Ltd.	102	7	6

NEWCASTLE-UNDER-LYNE.—For the erection of public conveniences in Marsh-street, for the T.C. :—

J. Taylor & Son	£1,650
J. Micklejohn & Son	1,480
J. G. Taylor	1,464
Thos. Godwin	1,420
C. Cornes & Son	1,419
Jos. Cooke	1,400
S. Heath	1,367
*H. Howlett & Sons	1,350

NEWCASTLE.—For the erection of a Nurses' Home, for the B.G. Nineteen tenders were received. An additional £200 if the contract is carried out in two portions :—
*G. H. Manchlen, Newcastle £44,050

OSSETT.—For fencing and gates for new streets, for the T.C. :—
*W. Miller & Sons, Wolverhampton—Fencing 7s. 2d. per yard and gates £9 2s. 6d. per pair.

PONTYPOOL.—For erection at Pontypool Park of pavilion, for the Welsh National Eisteddfod of 1924
*L. H. Woodhouse & Co., Nottingham .. £3,850

RENFREW.—For installation of vertical retorts at Gasworks, for the T.C. :—
*Woodall-Duckham Vertical Retorts Co. £26,745

RHYMNEY.—For erection, for U.D.C., of 10 houses at Rhymney :—

James Lovatt, Rhymney	£3,990
*Richard Jones, Caerphilly	3,950

ROCHDALE.—For erection of open-air school at Brownhill, for the T.C. Borough Surveyor, Town Hall, Rochdale :—
*J. E. Rangeley, Rochdale.

ROTHESAY.—Erection of pavilion on the Esplanade for the T.C. :—
*W. Macfarlane & Co., Glasgow..... £6,856

SCUNTHORPE.—For the erection of new farmhouse and farm buildings at Brumby, for Earl Beauchamp, K.G. Mr. James Totty, architect, Rotherham :—
*T. H. Wilburn, Ltd., Scunthorpe.

SHEFFIELD.—For supply and fixing of electric passenger lift in Town Hall, for the T.C. :—
*Express Lift Co., London..... £855

SHEFFIELD.—For painting at Fitzalan Market, or the T.C. :—
*E. Hudson..... £350

SHEFFIELD.—Erection of conveniences at Abbeydale, Woodseats, for the T.C. :—
*H. B. Blythe, Sheffield..... £742 6 2

SLEAFORD.—For extensions of electricity mains, for the U.D.C., excavating and filling in to be carried out by local labour :—
*Callender's Cable Construction Co., Ltd., London £1,574 18 2
(Lowest of twelve tenders received.)

STAFFORD.—For erection of 20 houses on the Lammascote Estate, for the T.C. :—
*Morgan & Sons, Stafford : Four houses of the "V.T." class and two houses of the "Y" class—at £433 per house ; and four houses of the "O.P." class—at £448 per house.
*Joseph Cooke, Porthill, Stoke-on-Trent : 10 houses of the "U" class, at £450 per house.

STAFFORD.—For raising approach road to Doxey for the T.C. :—
*G. Sandy & Co..... £759 9 7

STAFFORD.—Construction of two electricity substations, for the T.C. :—
*F. Espley & Sons..... £588 10

SWANSEA.—For the erection of 18 parlour-type houses at Maesteg (including fences, &c.), for the T.C. :—
*Stephens & Davies, Swansea.. £10,540 4 4

WILLINGTON.—Erection of 30 houses, for the U.D.C. :—
*J. H. Armory..... per house £350

YORK.—For the erection of 50 houses on the Tang Hall Estate, for the Corporation :—
*Elsom, Doncaster £19,200

YORK.—For making-up various streets, for the T.C. :—

*C. Martin, Ltd.—			
Westwood-terrace (part).....	£651	11	9
*W. Birch & Sons, Ltd.—			
Back Sutherland-street (North)	300	0	0
Back Sutherland-street (South)	292	10	0
Cross back road between back Queen Victoria-street and Westwood-terrace	48	0	0
Cross back road between Westwood-terrace and Sutherland-street	101	10	0
Cross back road between Sutherland-street and Jamieson-terrace	113	0	0
Leake-street and Dundee-street	241	0	0

YORK.—For the demolition of old property and erection of new business premises, for Messrs. Marshall's, Ltd., successors to Marshall & Snelgrove, in Lendal :—
*Wm. Gott & Son, Leeds.

Sanitary Inspectors' Association.

The Northern Centre of the Sanitary Inspectors' Association held a meeting at Blyth recently. The assembly was welcomed by the Mayor of Blyth (Alderman John Goulding, builder and contractor), and amongst those present were Mr. W. Catcliff, of Newcastle, Vice-President ; Mr. R. J. Swaddle, Washington, Secretary ; Mr. Walter Smith, Northumberland County Council ; Mr. Thos. Cook, Ashington ; Mr. H. M. Coates, Mr. N. Park, Mr. J. W. Davison, Mr. J. Russell, and Mr. Chas. Irving, Tyne Port Sanitary Authority ; Mr. W. Irving, Blyth ; Mr. J. Fawcett, Blyth ; Mr. Robt. McKellar, Hebburn ; Mr. J. C. Corner, Newcastle ; Mr. J. R. McMillan, Backworth ; and others. The party paid a visit to the Blyth housing estate and the new arterial road to skirt the town, work on which has just commenced.


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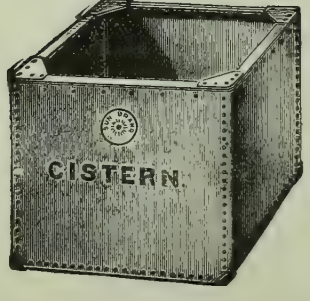
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BANK FAÇADES AND THEIR INFLUENCE.

only the liveliest intelligences in the commercial orld which realise the enormous importance to themves of the effect of the building in which they house eir hopes on the fleeting glance of the man in the street. this effect could be recorded its significance would be surprising. The design of the building is quite as t to the occupiers as their advertising. If it is a good will convey the purpose of the building unmistakably blic mind as definitely as a church or a dwelling-house. s effect will be negligible or adverse. But in visiting, in e of one's profession, dozens of banks, it is remarkable ly the design satisfactorily conveys to the mind the of the structure. There are banks which might be houses, there are banks which a man anxious to finish luncheon cigar with a suitable accompaniment might en for entering and ordering liqueurs; but even in tly improved period of architectural design it is still to come upon a design which completely "fills the r says to the man in the street, without the possibility , "I am a banking establishment."

s possibly because the rise of banking in this country has ce during one of the most hesitant and variable periods in the history of architecture; which has suffered from of phases and half-developed styles generally only understood except by the leaders of the passing It had the disadvantage of a time when the training unger members of our profession was about as bad d well be; but at the moment of writing we have ively recently entered a new road of professional we have no longer the excuses enumerated above. ng men now have the advantage of training in above that of our own youth, when the mundane e æsthetic to far too great a degree, and we have the f the increased importance and discrimination of ies admitting men to qualified membership of our art. efore, when we are better equipped, how can the f a building be expressed without resorting to, say, the f a certain French firm of tyre manufacturers in direct- sign of their elevations? How can we decorously passing glance?

ust first inquire as to what a member of the public In a bank, what is required of the banker himself r and quality? Briefly, before entrusting our fortune vings into the keeping of any man, we require f permanence and integrity. We shall require dignity ng of security in men to whom we trust our money. ng housing such men must, therefore, convey these It will require to inspire confidence, and to express rmanence, dignity, and honour, and it may have cording to its own individual importance. Let the ly these requirements as an acid test to the buildings and say how many fulfil the ideal. We cannot se qualities without scholarship, without taste and nd just proportion. How few of the buildings we day possess any of these attributes, and therefore fail d the attention which should be their due!

be said at once that those banking premises which actorily seem to fill the requirements are all in Re- r heavy Classic; but, although this be so, it may be that many other styles are possible. The qualities should be capable of demonstration in any style which is not barbarous provided the designer is great enough to accomplish it.

There will be many instances when Classic could not politely be used—in a strongly individual town like Chester, for instance. The problem has, however, been solved there with conspicuous success, and the result most certainly does convey the idea of a bank. So much for any bank as a unit. There is, however, something further now when banks are becoming huge organisations with innumerable branches. In order fully to satisfy the ideal it is necessary for the branches of one concern to have a "family" character so that they are readily recognisable as a "Jones" bank or a "Smith" bank. It is an advantage to a bank, and increases its importance in the eyes of its customers, if they, in passing through different towns, recognise readily the office of their bank. It flatters their choice of trust and adds to their confidence. Nor is it necessary to have them all like so many peas. Two sheets of manuscript by the same hand are at once recognisable, although their matter is different, and two paintings by a fine artist bear the imprint of personality although their subject may be different.

Nor is the desirability of catching the public eye in an unostentatious, but complete, manner of small importance. Experience teaches us that the public are greatly affected by externals. The psychological effect of an interior, for instance, on the mind of the person entering it is very far-reaching, and the exterior may attract his entry or discourage it. We know of one instance where a lady transferred a substantial account to a new bank "because it looked so safe," and although it may be said that the reason was a very feminine one, and that people should look rather to the balance-sheets and investment-tables of a bank than their premises, this is not done so consistently as might be imagined. Banks cannot advertise like drapers or big stores. In many cases their building is their one tangible advertisement, and one's idea of the stability and standing of the bank is influenced by it very greatly. There is also the man to be considered who at the moment has no banking account, but at any moment may have one—every one who looks at or enters a bank is in fact a potential depositor, and he will be very much affected in his choice of a bank by his impressions of the banks he has known. In short, a bank may make or mar its relative importance by the building it occupies, and as bank directors, like other members of the public, are not always well informed in architecture, it will rest very largely with the architect employed whether their building will add to or detract from their standing in their own world.

Although on this page technicalities are perhaps best avoided, it should be said that the choice of materials will affect very largely the impression given. We have seen designs completely ruined by the choice of an unsuitable material or colour. For work in a monumental spirit, and an important bank naturally has this spirit. Stone is the material which is most in favour, though terra cotta, we know, is frequently used.

In designing a bank, therefore, one cannot place too much importance to the design, however limited the means may be. It must be as solid and monumental as the means at disposal will admit. And this at least is true—that the finest banks have the finest buildings. One has only to consider the Bank of England to see how true this is.

NOTES.

Historic Value of Old Work.

When an old building appears to stand in the way of town improvement its artistic and historical value is necessarily a matter of concern which must be fairly established to justify retention. The most recent case of this kind is the Fort Clarence Arch at Rochester, which is a relic of military building of the Napoleonic era (1812). Much can be said in favour of retaining such objects of historic value, and it is for the citizens of Rochester to decide how far its significance justifies the small cost involved; but it is curious how hard a fight has to be made for the proper preservation of the artistic and historic values of our towns.

The Urgency of Housing.

Much appreciative sympathy will be extended to Councillor E. A. Savory, the chairman of the Bristol Housing Committee, in his energetic dealing with the housing question. In a speech delivered at Bristol last week he endeavoured to make clear the extreme urgency of the matter in Bristol, where, he maintains, 2,500 houses should be provided every year. Though at the beginning of the housing activities there were applicants for only 2,000 houses, there are now more than 7,000, and nowhere for the applicants to go. So urgent is the need and inadequate the means to provide for it, not only as to money but also as to the supply of adequate skilled labour, that Councillor Savory is bringing forward a scheme for bungalows at a cost of £195, to be built without the aid of either bricklayer or plasterer—bungalows which, he says, will last for 50 years, that can be built in three or four weeks, and can be let at 5s. a week. He does not decry any of the activities on foot, but maintains that some very cheap and simple form of building, such as he suggests, is absolutely necessary if there are to be enough houses for people to live in. We shall watch the experiment with interest and we hope that Mr. Savory will find adequate support for his timely efforts.



The Bank of England: The Old Dividend Office.

Tewkesbury Windows.

The preservation o fourteenth-century glass windows, whic hand of time have from the decay of the leadwork doubt to be desired, and we hope a result of the appeal for funds the required will be forthcoming. I always when we come to matters that the best way is ch making such repairs, and we ha injury done before now by such tions. With a mistaken idea of in the appearance, additions (such a edge of white glass surrounding th are sometimes added. Where the a for any such disfigurement is to we do not know, but instead of adhering to the masonry, it is such means to look as though from it altogether. We hear being added to the old glass at or cathedrals, which, if this is the very much to be regretted. Sor ago these windows in Tewkesbu encased in plate glass, but we h in the repairs now proposed to b taken this disfigurement to the ture will be removed, for when work is renewed it should b unnecessary. Stained glass, beautiful, is secondary to the fab and the effect of plate glass p fixed outside disfigures the mull is most unsightly. The risk of glass is not so great that it can preserved by such disfiguremen that no such protection was in until about forty years ago. present time, unfortunately, we n see this ugly addition protecting window which is not even a goo all, at the cost of the fine archi the church itself.

"An Almost Lost Art."

In an account windows given in we are told that unique both as ex an almost lost art," &c., thereb ing the superstition about se other mysteries which are su have been lost. There is no rea ever in this sentimental vie matter, and, far from any sec lost, we have probably much ex sources to aid us in our work to- are inclined to ask whether suc has any meaning at all; and it found decent burial with oth superstitions of like tendency, view is not only harmful to any judgment on the subject, but to contemporary work. Beca trialised stained glass is in inferior, that is not to suggest t glass carried on as an art is si similarly so. The best wi artists of to-day, though few, ca with the best windows of any talk of a "lost art" is only to



The Bank of England: The Lobby of the Court Room.

ve no knowledge with which to
s in any opinion about the matter.
resources available for the craft
ve probably advanced; in the
es available for the art we could
see greater developments.

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THIS exhibition of Early English painting, due so much to the initiative of Lord Lee of Fareham, pen at the Academy, should be exceptional interest, though not ng, as we should suppose, actual painting, which, being done on annot be removed to exhibitions. A selection of early work is shown which both for its treatment and subject matter will have plenty of instruction for us at a time when interest in the subject of mural painting is being revived. For there is much to be learned from this old work which, rightly interpreted, can be helpful to our present outlook, with its rather fumbling and theoretic approach of the subject of mural painting. It appears to us that the promoters fall into a rather persistent error in labelling the exhibition as the work of "primitives"—a comparatively recent term growing out of a rather superficial reasoning on the matter. An appellation which sees only one side to competence, and by inference conveys the idea that what can be acquired by any really intelligent art student is not primitive, while the work of these old masters is covered by such a word, conveys a very false impression. A more enlightened understanding of the matter reveals to us that in dignity of imagination, in the power to reach the level of the subject matter treated, these so-called "primitives" had a grasp which it would be well if we could emulate; and it seems to us a pity on such an occasion to give further currency to a very superficial interpretation of work which is noticeable for the extraordinary identity of means to ends, which setting out to interpret a great subject matter succeeded in stamping it with such vividness of representation.

Working by Rule.

AN illuminative comment on the work of an old-time architect occurs in the paper on Ligorio, by Mr. C. A. Harding, A.R.I.B.A., in the current issue of the R.I.B.A. *Journal*. He says: "In the buildings of Ligorio there is no suggestion that he ever attempted to seek for rules, though he was probably better versed in the details of Roman architecture than any other man of his day." It is one of the common fallacies of human reasoning that there can be found rules and regulations for producing anything, but the man who is born with the artistic instinct seldom takes much interest in the diagrams and arguments which are put forth to prove that many great works of art were manufactured out of rules.



Caterham School Memorial Hall Competition.
Design placed First: By MESSRS. KIEFFER, FLEMING & KEESEY. (*See p.* 640.)

GENERAL NEWS.

Professional Announcement.

Mr. B. J. A. Smith has commenced practice as an architect and surveyor at Newbegin, Hornsea, and would be pleased to receive trade catalogues.

British School at Rome.

On the recommendation of the Faculties of Painting and Sculpture of the British School at Rome, the Commissioners have awarded the Rome Scholarship in Decorative Painting to Mr. Alfred Kingsley Lawrence, a student of the Royal College of Art; and the Rome Scholarship in Sculpture to Mr. David Evans, a student of the Royal Academy Schools.

The Royal Institute of British Architects.

We have received the syllabus of the Royal Institute of British Architects for the Session 1923–24. The principal meetings are as follows:—November 5: Inaugural Meeting, President's Address, at 1, Wimpole-street, W.1. November 19: General Meeting, Mr. G. Topham Forrest on "The Rebuilding of Ypres" (Wimpole-street). December 3: Business Meeting, Election of Members, at 9, Conduit-street. December 17: General Meeting, Mr. Raymond Unwin on "Higher Buildings in Relation to Town Planning" (Wimpole-street). January 7: Business Meeting, Election of Members. January 21: General Meeting, Professor Percy Nobbs on "Architecture in Canada." February 4: General Meeting, President's Address to Students and Presentation of Prizes. February 18: General Meeting, Mr. Paul Waterhouse on "The Charing Cross Bridge." March 3: Special and Business Meetings; Election of Royal Gold Medallist; Election of Members. March 17: General Meeting, Mr. Hope Bagenal on "Planning for Musical Requirements." March 31: General Meeting, Mr. H. S. Goodhart-Rendel on "The Gothic Revival." April 14: General Meeting, Mr. D. F. Slothouwer on "Modern Dutch Architecture." May 5: Annual General Meeting. May 19: General Meeting, Mr. Sydney Perks on "London Town-Planning Schemes—1666 and After." June 2: Business Meeting, Election of Council and Standing Committee, Election of Members. June 23: Presentation of the Royal Gold Medal.

R.I.B.A. Medal for Schools of Architecture.

The R.I.B.A. Board of Architectural Education Medal for the best set of drawings submitted by post-graduate students exempted from the R.I.B.A. final examination, has been awarded to Miss I. M. Chambers, of the Architectural Association. Miss Chambers will receive the medal at the annual presentation of prizes at the R.I.B.A. The drawings prepared by Mr. C. H. Hutton, of Liverpool University, received high commendation.

R.I.B.A. Archibald Dawnay Scholarships, 1923.

In accordance with the terms of the will of the late Sir Archibald Dawnay, the Royal Institute of British Architects have awarded one Scholarship of £50 per annum to Mr. R. W. Donaldson, Liverpool University, and two Scholarships of £25 per annum each to Mr. R. H. Turner, Liverpool University, and Mr. A. E. Cameron, Architectural Association. Mr. C. H. Hutton, Liverpool University, who was awarded a Scholarship of £25 for 1922–1923, has been granted a renewal of his Scholarship for 1923–1924.

The scholarships are intended to foster the advanced study of construction and the improvement generally of constructional methods and materials and their influence on design.

Peers' War Memorial.

In accordance with the arrangement arrived at in the House of Lords in August last, the question of the site for the proposed Peers' War Memorial in the precincts of the Chamber was referred to a referendum of the Peers, which was to be determined by the middle of October. The result is now announced as follows:—For the site in the Princes' Chamber, 204; for the site in the Royal Gallery, 134.

EAST LANCASHIRE MASONIC HALL COMPETITION.

In a limited competition, where each competitor receives a solatory fee for his design, it is, of course, open to the promoters to make any rule they think fit when the award has been made; but it appears to us it is to be regretted from the point of view of the profession at large and possibly from that of unsuccessful competitors, that, in this instance, no designs were open to review but the winning one. This rule, as far as we can ascertain, was not the expressed desire of the competitors. The conditions, in fact, provided for the exhibition of the drawings, and it may therefore be possible in a future issue to give one at least of the designs submitted, when, on the return of the drawings, the reticence of the promoters will not interfere with their publication.

In these circumstances it is very gratifying to be able to say that the successful design is of such exceeding beauty of conception and adequacy of purpose that any of the other schemes submitted would have to be exceedingly good to better it. The authors of the winning design, Messrs. Thomas Worthington & Sons, are to be congratulated. The interior alone ensures that it will be an addition to the architecture of the district in the highest sense.

Particularly effective is the manner of entry provided. One will pass through a lobby of refined aspect into a crush hall, the dignity and solemnity of which is entirely appropriate and which is the dominant feature of the design. It is flanked by Ionic columns and has a coffered barrel ceiling. The perspective of the room leads the eye at once to the entrance of the main ante-room, which is raised above the general floor level and gives the religious sense which is the true aspect of freemasonry.

The principal ante-room, which is placed between the more important lodge room and the banqueting hall, strikes us as small when its importance is considered, but no doubt, as in most competitions, some amendments will be effected when the working drawings are made.

Competitors had to provide for the Masonic club, which had to be separate from the lodge itself, and this has been accomplished very cleverly in the design. The entrance is effected by a main staircase suitably retired from the crush hall and the club rooms grouped round the upper part of this hall. By this they are entirely isolated from the Masonic Rooms themselves. It seems rather unfortunate that the entrance door to the club is fixed cheek by jowl with the head of the stairs, but this again, no doubt, can be improved if desired at a future time. It is interesting to note the manner in which the condition calling for access from the club to the banqueting room is obtained—a private staircase is arranged between the crush hall wall and the service portion which leads straight from the club premises to the main banqueting hall below.

On the floor above a lodge and banqueting hall is provided (and here again we venture to suggest that the same remark applies to the ante-room), and on the front of the building sufficiently above the street for reasonable quiet to be obtained is the common room and museum. On the floor above a lodge is provided, and the rooms of the caretaker, where, by the way, the entrance to the bathroom is effected through the living room and scullery.

Speaking generally of the arrangement, Professor Reilly, the assessor, says:—"The successful architects have placed all the chief portions of the building each in the position best suited to it. They have proved, moreover, by the large scale drawings of the crush hall, chief lodge room and banqueting hall, that they can give to such apartments dignified and satisfactory expression. Internally, therefore, they may be said to have found a fine architectural solution to the complex problem presented to them, the practical character of which a closer study of their drawings will only amplify. The kitchen arrangements, for instance, are all very well thought out with admirable me receiving and checking goods and with of storage space."

Professor Reilly speaks highly of the el and we can fitly endorse his praise. W sider that the entrance itself might ha further emphasised, and that the junc the pavilions and the main entablature difficult to treat in practice if a good is to be obtained. An important lodge is also provided on the mezzanine floo all five separate lodges will be provid (Prof. Reilly) says of the elevation:—

"Externally it seems to me the winne been equally successful. By designing a but well-proportioned building and by back the central section they have given building a sedate and serious aspect making it gloomy. The fine plain wall s they have obtained give the building dignity. In appearance it is neither a c cial building on the one hand nor a mu one on the other. It suggests what i building for a dignified purpose, yet an and welcoming one. The rich frieze and which crown the central block, seem to only beautiful features in themselves indicate refinement and nobility in the of the building. This frieze and corn echoed by the long continuous stone l below the first floor windows, which ser architectural reason of binding the building together near its base, at the san providing a pleasant communal feature club windows."

The masons of East Lancashire wil every reason to be proud of their new ho it certainly conveys the spirit of good m

COMPETITION NE

Caterham School Memorial Hall, Hu

In this limited competition Mr. Hamp, F.R.I.B.A., the assessor, has m following award:—

First premium (50 guineas), Messrs. Fleming & Keesey, 83, Pall Mall, S.W.

Second premium, Mr. Hugh T. A.R.I.B.A., 11, Gray's Inn-square, W.C

A review of the designs appears on pa and the design placed first is illustra week.

"The Builder" Cost of Building Com

In our next issue we hope to give th of the assessor in Part II of *The Builder* Building Competition.

Shops, Ashton-under-Lyne.

For the T.C.—Designs for lock-up s the Market Hall. Premiums, £50, £30

Concert Hall and Public Baths, Newc

For the Corporation.—Designs for hall and swimming baths. Three prem £750, £250, and £100. Sending-in da ruary 1, 1924. (See advertisement this

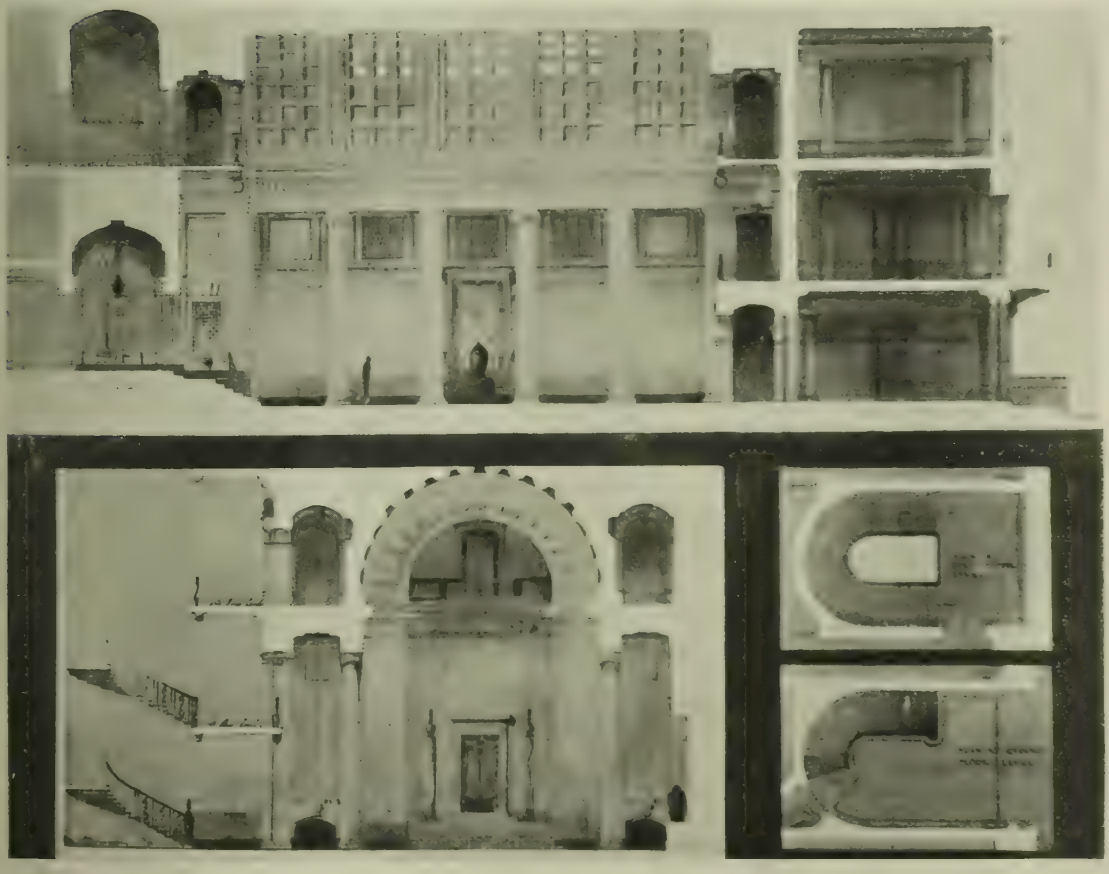
British Empire Exhibition.

Designs for (*a*) dining-room and hall; room in the Palace of Arts at the British Exhibition, 1924. (*a*) Premiums: 125 25 guineas; for the best model 20 gui Premiums: 100, 40 and 20 guineas; for model 20 guineas. The jury will cons Edwin Lutyens, R.A., Miss Ellen G. Sir Lawrence Weaver, Mr. P. Morley and Mr. Norman Wilkinson. Designs addressed to 20, Tavistock-street, W later than December 17.

Other Competitions.

Other competitions still open incl following (the dates given are, first the in date, and second the issue of *The B* which full particulars were given):—S College (Jan. 1, 1924; March 30). Gallery (Nov. 5; May 4). Dudley (Jan. 5, 1924; Sept. 14). Eastle Bishopstoke Assembly Hall — *Bat R.I.B.A.* (Dec. 3; August 24). Taun Memorial (Nov. 30; Oct. 5). Memori Missing (Jan. 1, 1924; Aug. 3). Memorial (Oct. 29; Oct. 12).





East Lancashire Masonic Hall Competition, Manchester.

First Premiated Design: By Messrs. Thomas Worthington & Sons. (*See p.* 636.)

CORRESPONDENCE

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

The Competition System.

SIR,—It is some three months since Mr. Robertson's article, "The Competition System," appeared in your Journal, and a sufficient period has now passed for his suggestions to take root in the minds of those to whom the regulation of competitions has been entrusted. The whole-hearted support readily given by a host of distinguished correspondents fosters the hope that ere long the fruit will issue in the form of a new scheme embodying his suggestions.

The jury system has everything to commend it. The only objection which at first sight appears to carry any weight is the question of cost; but surely this is only a matter of adjustment. High fees trebly levied is a bogey. Assessing ought not to be a "trade" asset of the architect. No architect desires to be professionally designated "Architect and Assessor," although it would appear that under existing conditions we are drifting that way. "Pupil farming" is a dying industry, and with its demise let us hope for that of super-fee-ed assessor.

Examiners of architectural schools and the R.I.B.A. perform their onerous duties as assessors without thought of profit and often with considerable loss. Although it would be unwise to render the same sacrifice in the case of competitions in practice, yet I do not believe there would be a lack of competent assessors as jurors when the question of fees had ceased to be alluring. The little extra required to cover the cost of a moderately fee-ed jury over that of a highly-fee-ed assessor does not present a real difficulty.

The pros and cons of the question have been so fully threshed out in your columns that there is little further to add. It is significant that the initiative has been taken by the head of an Architectural School, and has been supported by most of those who are so engaged. As Prof. Reilly has pointed out, assessing by jury is part of the everyday work of a school where its value is known by long experience. The breakdown of single judgment is more frequent than one knows. The method of working the jury system is a matter on which there can be differences of opinion; there ought to be none on the principle of it.

Manchester. ARCH. C. DICKIE.

Trafalgar Square.

SIR,—On April 20 last you were good enough to publish my design for the improvement of Trafalgar-square. I have recently been in communication with the Office of Works, and I have ascertained that the Government has a memorial scheme in hand for dealing with the square, and that it will probably employ an artist of its own selection at the expense of the public. The Government, with its usual secrecy, declines to say what the scheme is, and who is the favoured artist to be employed.

Trafalgar-square is a national asset, and whatever is done in the way of a memorial should, I think, be the subject of an open competition amongst sculptors and architects—not any particular one to be nominated direct by the Office of Works; but only public protest can prevent what looks like another example of unwarranted favouritism.

In a letter I addressed to the Secretary of H.M. Office of Works on August 31 last, I said that if the cost of the proposed memorial were to come out of the public funds there should be an open competition for the work.

WM. WOODWARD.

Parallel or Tapered Baths.

SIR,—I agree with the writer of the letter in your issue of the 12th inst. that tapered baths are on the whole preferable to those whose sides are parallel, as the latter certainly use more water. But parallel baths possess the advantage that they can be fixed with the side next the wall parallel thereto, whereas tapered baths cannot; in that tion they look unsightly and one half of apparent gain in floor space is wasted.

All these difficulties could be met by ta baths made with the foot square to o the sides instead of square to the axis present, so that they could be fixed wit side parallel to the side wall without thr the foot out of parallel with the end This would necessitate right and left patterns, but there would be no more diff in ordering a right- or left-hand bath th ordering a right- or left-hand kitchen ra

Lincoln. W. G. WATK

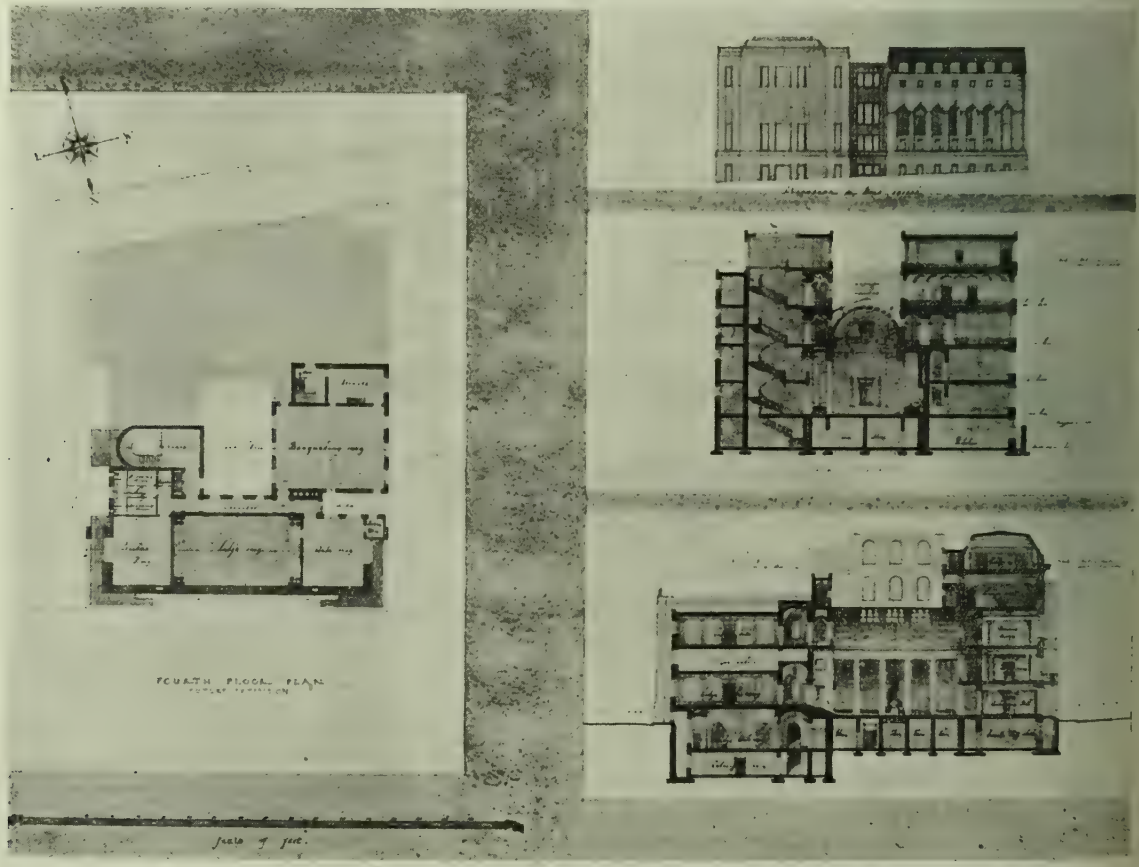
Town Planning.

SIR,—My attention has been drawn letter in your last issue and a paragraph of relating to the North of England Divisi the Town-Planning Institute. It was anticipated that this would attract attenti soon, but it is the intention of our divisi attempt to collect information for the g benefit, and, in point of fact, it will be i form of a questionnaire and will be sent to a local authorities in the division. Its succe failure will largely depend on the careful re of the questions and on the local officials sh sufficient interest to comply with the sugges

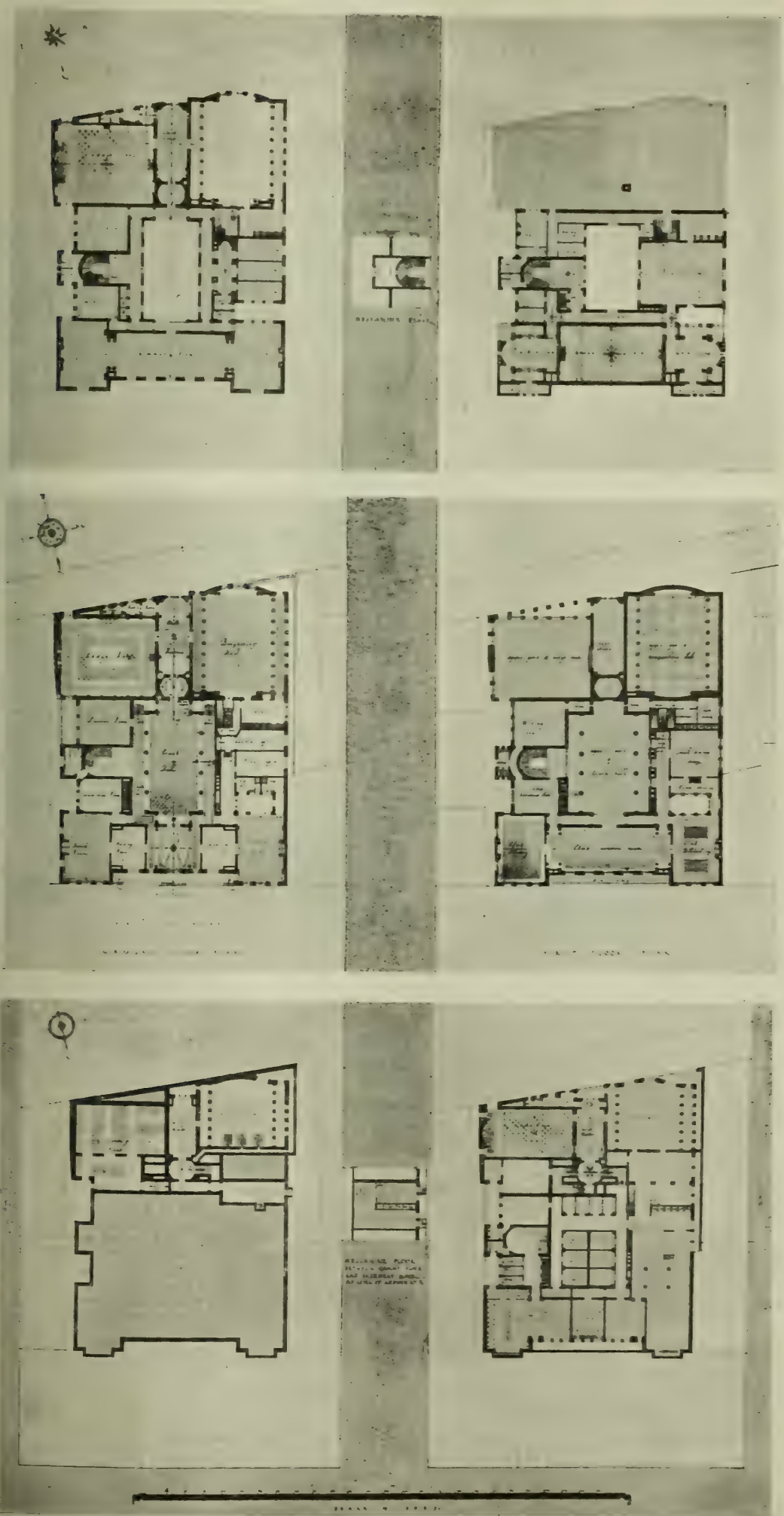
Your correspondent suggests that this s be done periodically, but there are som hundred local authorities in our area, and so would be a great task. Certainly, how those responding will receive the addi questions asked by officials themselves, an authority inquiring will have any inform it asks if we have been able to collect it.

It is easy to speak harshly of institute their lethargy, but bodies like the Town-Pla Institute have a very proper sense of di and the greatest care has to be exercised b any unusual step is taken, as their activit easily be misunderstood.

J. HEMBROW,
Hon. Sec., Town-Planning Instit
North of England Division.



East Lancashire Masonic Hall Competition, Manchester.
Design placed first: By MESSRS. THOMAS WORTHINGTON & SONS. (*See p.* 636).



cashire Masonic Hall Competition, Manchester. Design placed First: By Messrs. Thomas Worthington & Sons. (*See p.* 636.)

MEMORIAL HALL, WITH LIBRARY, CONGREGATIONAL SCHOOL, CATERHAM.

A LIMITED competition by nine selected architects for a new Hall, with adjacent Library Rooms, proposed to be built on a hillside site at the rear of the Caterham Congregational school, has just been determined. Mr. Stanley Hamp, F.R.I.B.A., acted as the assessor appointed by the School Committee. The plans have been on view in Farringdon-street, at the Congregational Memorial Buildings. Nothing could be more explicit than the conditions issued to the competitors, save in one incidental particular. The promoters intend ultimately to connect the existing school premises with this new Hall, and casually included this brief reference which has been differently interpreted by the competing architects. The words employed are these: "The buildings should be so placed that it can be possible to connect the main building by a new corridor to covered way from the present entrance door at the foot of main stairs (south end)."

Most of the competitors have endeavoured to furnish a completed independent building without incorporating the suggested covered way (chiefly consisting of a series of steps) as an integral part of their design. The minority took a more generous view, and realised the chance of producing a more ambitious edifice by embodying these adjuncts. This was done no doubt in good faith and with success, as the award is in their favour. The majority evidently concluded that the allusion to the corridor primarily was intended to fix the precise position of the south front of the new Hall. It is difficult to compare plans varied as these are by an initial discrepancy of this kind. We do not otherwise take an exception to the choice which the referee has made, and on the whole, perhaps, he could come to no other conclusion, although an element of doubt is reasonably allowable. It may be well to say that we have visited the site.

Only two out of the nine schemes show the arrangement of the bookcases and seats on the plans of the Library rooms, viz., Nos. 7 and 8. Both of these proposals are Renaissance in character. Nos. 8 and 9 are the only ones which rely on the attached corridor for essential features, as shown by their perspective views, and both were chosen either for the first or second place. No. 6 is the sole example providing a plain unbroken wall up against which the future covered way might be fixed without interfering with the lighting of rooms or design of the elevation.

The chosen design, No. 8, is the work of Messrs. Kieffer, Fleming & Keesey, 83, Pall Mall, S.W. A gravelled terrace forms a tableland on which to set the building with some consistent regard to its classical horizontal lines suggested by eighteenth-century precedents. The effect as seen in the perspective is picturesque and imposing, the principal features being the pedimented portico and open stone-built turret rising over the central entrance vestibule between the two transeptal library rooms. It has a domical roof terminating with a pineapple, after the approved method of the Wren period. This portico, with Doric columns and the turret behind the pediment, are not included in the estimate. Of course they could not be, as the provisional amount is restricted to £4,000. The required half-inch scale detail, however, is devoted to this handsome adjunct, which is introduced as part of the covered way through which the Hall is reached. The up the hill extends beyond it. To justify a monumental feature a vista in front requisite, but the trees growing on the slope render such a view impossible, road facing this south façade is out question. Big trees of much beauty gro very near the north end of the Hall s the carved swags over its three-light w scarcely ever would be seen. As a mat fact, this new block generally must be v either from 30 ft. to 40 ft. below, whe playground and swimming-bath road co by looking down between the trees from on the hill. A series of steps must b vided to lead up to the building, bu covered way as contemplated can o decided on later when funds permit.

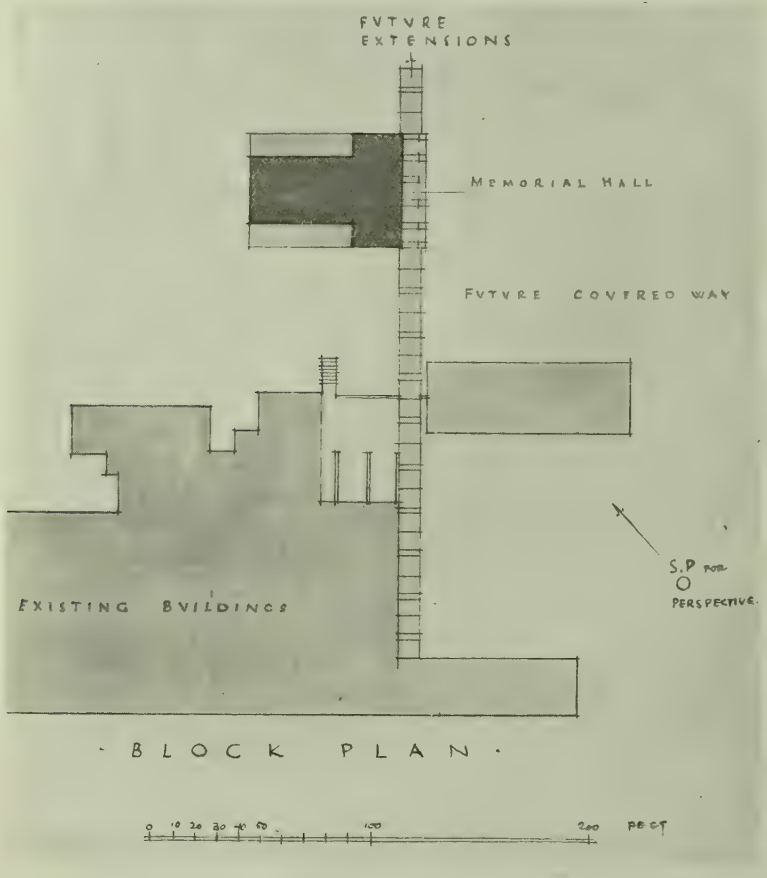
The plan of the selected design is lik or two others, but its Hall is unique a low-pitched roof and flat ceiling plaint fered. We reckon this section to be the expensive and the most suitable proposal library rooms, right and left of the ce hall, have fine architraved doorways lik into the Hall. The exterior is faced wi brick and covered with Roman tiles. angles have stone quoins, and the entire front is practically in masonry, it also in the portico.

No. 9 is placed second. It has a very general layout, but the library rooms i transepts give a more decided ⊥ shap room being 24 ft. long by 17 ft. 3 in. whereas in the chosen plan they are 20 ft. square. The section of the Hall is different, with a steep roof built up laminated trusses, the lower timbers c down to about 6 ft. above the floor. Th walls measure 12 ft. 6 in. high, and is no cornice. Six sloping buttresses tak thrust. There are three hipped dormers on each side of the roof for v tion and light. The north-end big c window in gable gives ample room beh display of slides or diagrams or scenery dramatic performances could well be he there are no retiring rooms and the H too small. This design externally capital Renaissance doorway with a head set under the eaves of the long unl roof slope. This is quite simple and nic when the covered way is built, as th spective makes clear, hipped roofs will forward with a flat between them, and covered way with a verandah front wil an essential part of the library and its windows.

No. 6 accommodates itself to the site, the Hall being handled in a dist manner with a lofty roof covering a segm plastered ceiling, with iron trusses con tion. The library rooms are kept low the vestibule leading to the Hall is set west corner. Its door balances insi Hall with another like it going into the ence library, which is reached throug reading room from the vestibule. The c way up from the playground can have i fixed against the plain wall on the sou already mentioned. There is a paraj round hiding the lantern lights ov library rooms.

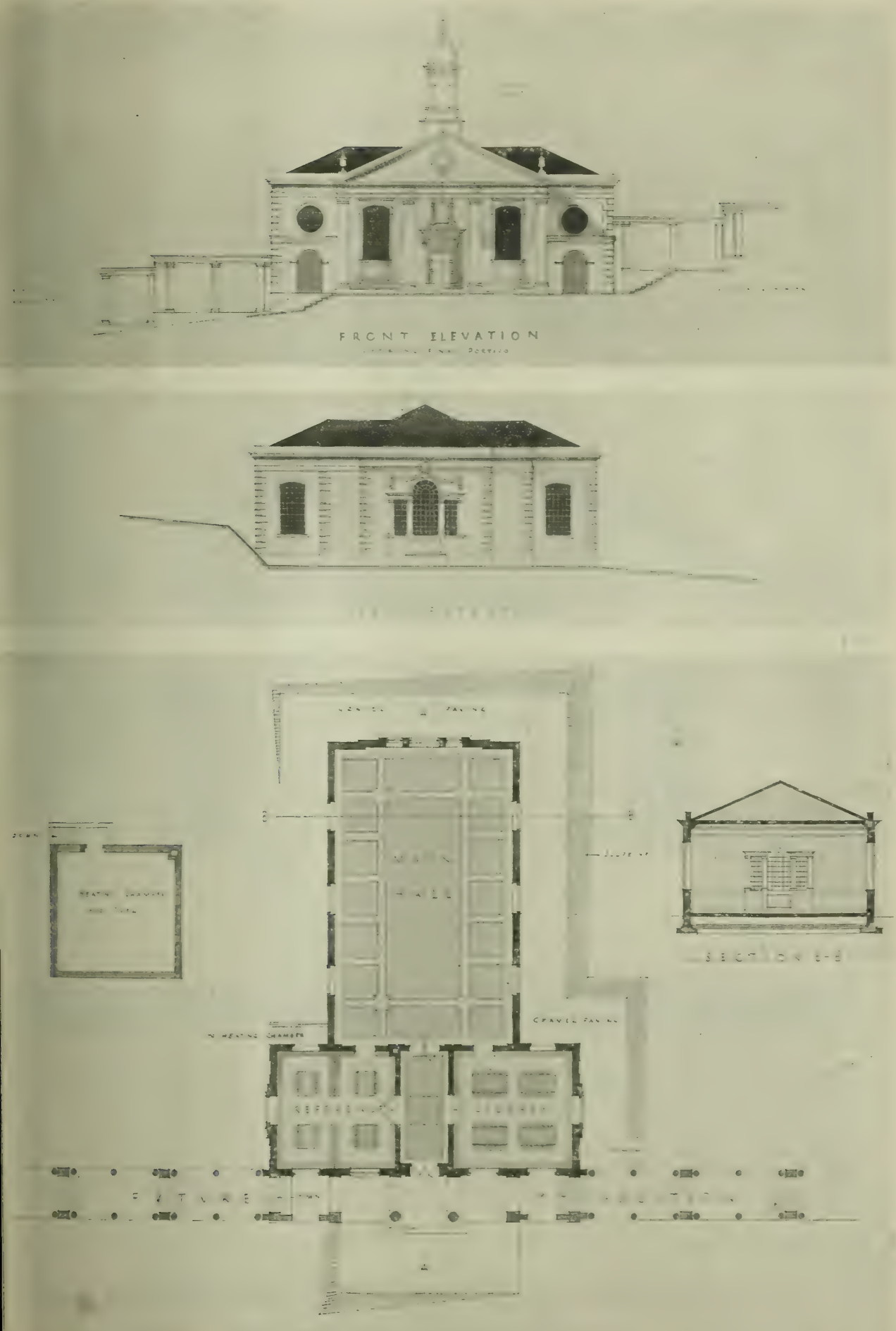
No. 7 has a projecting porch on the w end of a terrace, approached from the s way up the hill, and at the south end mental extension gives a platform in fr the Hall entrance. This has a bold pro tester hung on raking chains over the so no covered way could come there time without spoiling this fine portal. library rooms are at the north end of the from whence they look like a pair of r rooms.

No. 3 is one of the most suitable in respects. It has a big central porch side of the Hall, and set between the r rooms, measuring 26 ft. by 15 ft., pla wings to the south side of the Hall. kind of forecourt is, therefore, manag front, rather pretty and countryfied. N form was asked for and the seats clut the hall. The exit would be difficult.



Caterham School Memorial Hall Competition.

Design placed First: By MESSRS. KIEFFER, FLEMING & KEESEY.



Caterham School Memorial Hall Competition. Design placed First: By Messrs. Kieffer, Fleming & Keesey. (*See p.* 640.)



Caterham School Memorial Hall Competition.

Design placed First: By Messrs. Kieffer, Fleming & Keesey. (*See p.* 640.)

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LLUSTRATIONS.

s for the Manchester & District Bank, Liverpool.

TER.—Th's building conforms to the half-d condition existing in Chester, both in l new buildings. The site was, unfor-, rather small for the requirements of the hich would have been much improved by public space. The following is a list of ors who carried out the work: General tors, John Mayers, Sons & Co., Ltd., ; steelwork and strong-room, W. ald & Co., Ltd., Manchester; oak g, W. & T. Wood, Hartford, Cheshire; tings, Armitage & Wolff, Manchester; lighting and bells, F. J. Jones & Co., ; warming, Saunders & Taylor, Ltd., ster; strong room door and fittings, & Sons, Ltd., Manchester; electric lift, Bell & Co., Manchester; grates, &c., e Co., Ltd., Manchester; floor and wall Conway & Co., Manchester; leaded Villiams, Gamon & Co., Chester; locks r furnishings, N. F. Ramsey & Co., nam; wood carving, Earp, Hobbs & Manchester. The clerk of works was E. Fenna, of Willaston, Nantwich.

PORT.—These premises consist of an old nan house under Bank Hall, and it was to build out a banking room on the t the back and use the front portion of ling as manager's room, clerks' room, hall, and so on. The work was just ed when war broke out, and was ntly very much delayed in completion, he work having to be suspended until

llowing is a list of the contractors who out the work: General contractor, ry Bardsley, Stockport; oak panell-Bland & Son, Ltd., Salford; bank H. Shepherdson, Stockport; electric McLure & Whitfield, Stockport; , &c., Combined Concrete Co., Man-wood carving, Earp, Hobbs & Miller, er; electric lift, Waygood-Otis, Ltd., er; strong room door, Chubb & Sons, nchester; electric light fittings, Geo. Ltd., Manchester; wall tiling, Conway Manchester. Mr. H. Smith, of Man-was the clerk of works.

ORT.—The site is a long, narrow one treet, and the whole of the front is with a large portico built in Portland he following is a list of the contractors ed out the work: Brickwork, B. R. Sons, Southport; stonework, T. A. Southport; plumbing and decorating, ros., Southport; plastering, Thos. h, Southport; internal joinery, Dux-s., Southport; steelwork, fireproof c., W. Macdonald & Co., Ltd., Man-warming installation, G. N. Haden & nchester; steel windows, Humphries, & Ambler, Manchester; bronze windows and ceiling lights, Luxfer Co., London; electric lighting, Lightfoot Bros., Manchester; litholite stone, Pearson Bros. & Campbell, Liverpool; strong-room doors, Chatwood Safe Co., Bolton; safes and fittings to strong-rooms, Chubb & Sons, Manchester; electric passenger lift, Wadsworth & Sons, Bolton; marble work, J. & H. Patteson, Manchester; wall tiling, Conway & Co., Manchester; bank fittings, H. Shepherdson, Stockport; grates, &c., Well Fire Co., Ltd., Manchester; rubber flooring, Hooley-hill Rubber Co., Manchester; sanitary fittings, Musgraves, Ltd., Liverpool; staircase, balustrade and lift enclosure, George Wragge, Ltd., Manchester. The following work was carried out by the Bromsgrove Guild, Ltd., Bromsgrove, Worcestershire: The main entrance doors, bronze sliding doors, portable bronze gates, name tablets, electric light fittings (wall brackets), special furniture for manager's office, and all the door furniture throughout the building. Mr. J. E. Thorpe, of Waterloo, Liverpool, was the clerk of works.

The architects are Messrs. Francis Jones, F.R.I.B.A., and H. A. Dalrymple, A.R.I.B.A., of Manchester.

Bank at Southampton.

The new premises of the London Joint City and Midland Bank, Ltd., at Southampton, have recently been completed by Messrs. W. H. Gaze & Sons. The architects are Messrs. T. B. Whinney, Son & Austen Hall, of 8, Old Jewry, E.C. 2.

Barclays Bank, New Oxford Street.

This building, at the corner of Hart-street and New Oxford-street (No. 28, New Oxford-street), is the New Oxford-street Branch of Barclays Bank, Ltd. The architect is Mr. Dudley G. Marsh, of 38, Chancery-lane, W.C. 2. The work was executed by Messrs. Gilbert Seale & Son, of 22, Lomond-grove, Camberwell, S.E. "Atlas White" Portland cement was used on the exterior.

Bank of Liverpool and Martin's, Ltd.

This new bank, which is now in course of erection, is situated in one of the principal thoroughfares in Blackpool, on a site which was lately occupied by two shops which have been entirely cleared away. The ground floor is occupied by the bank proper, the upper floors being suites of offices. The front is in Darley Dale stone, and consists of a heavily rusticated base, rough axed on alternate courses. Over the base are four Corinthian columns supporting the entablature and pediment in which the bank coat-of-arms is carved, the whole being reminiscent of Italian work. The doors and windows are cased in bronze. The interior is treated in the Doric style, the order being in marble, while the walls above dado height are panelled in fibrous plaster. The fittings, panelling, doors, &c., are in French-polished mahogany, while the floors are fireproof and wood block covered (except to entrance vestibule and public space, which are mosaic). The architect is Mr. Walter Wade, Lic.R.I.B.A., of St. Anne's-on-Sea, and the contractors are Messrs. J. Parkinson & Sons, Ltd., Blackpool.

Premises for Westminster Bank, Ltd.

The illustration published this week represents the first sketch for a new branch of the Westminster Bank, Ltd., about to be erected in Vauxhall Bridge-road, S.W. The front is to be of Portland stone; a columnar treatment has been followed by desire. The builders are Messrs. F. G. Minter, of Putney. Messrs. Niven & Wigglesworth, FF.R.I.B.A., of 7, John-street, Bedford-row, W.C.1, are the architects.

Premises for the National Provincial & Union Bank of England.

Coutts & Co., Park-lane Branch.—In this work internal fittings and decorations were put into an existing building; specially selected "fiddle" grain mahogany quartered panels are used. The general contractors are Messrs. J. Simpson & Son, of Paddington-street, W.1; woodwork and fibrous plaster by G. & A. Brown, Ltd., Hammersmith-road, W.6; bronze grilles and plates by the Birmingham Guild, Ltd., of Berners-street, W.1; marble by Messrs. Fenning; heating by J. Slater & Co., W.1.

Ramsey.—This building is in course of construction. The materials used are old bricks from the building pulled down and Clipsham stone dressings. The old bricks are the local Eastern Counties white brick, which have now weathered to the pleasant olive grey with warmer tones of pinkish mauves characteristic of the Eastern Counties. The warmer-toned bricks have been picked out for the trim to windows. The general contractor is Mr. J. Cracknell, of Peterborough; lead lights and casements, Geo. Wragge, Ltd.; stone carving, G. & A. Brown, Ltd.

Platts-lane Corner.—This illustration shows the building before treatment and after. The front is carried out in "Atlas" cement, the construction of the building leaving no chance of using stone. The general contractors are F. Troy & Co., Ltd., N.W.3; woodwork and fibrous plaster, G. & A. Brown, Ltd.; "Atlas" cement to whole of front, G. & A. Brown, Ltd.; heating, Messrs. J. Slater & Co.

Llandilo.—This proposed bank is not yet built. Hand-made multi-coloured bricks and Portland stone dressings are proposed.

Mr. F. C. R. Palmer, F.R.I.B.A., is Surveyor, and Mr. W. F. C. Holden, A.R.I.B.A., Assistant Surveyor, to the National Provincial & Union Bank of England, Ltd.

Premises for the Manchester & County Bank.

Denton.—This bank is on the site of the old bank on the corner of Market-street and the Manchester-road. The materials are brick, faced with terra-cotta, by Shaws Glazed Brick Co., Darwen. The surface is flat, *i.e.*, it has no apparent glaze, and has the advantage of good graduation in tone resembling in tint and effect Portland stone. The general contractors were Messrs. Edwin Marshall & Sons, Ashton-under-Lyne. The reinforced concrete floors and roof are by the Combined Concrete Construction Co., Manchester. The interior walls are tiled, the work being done by Messrs. C. W. Williams & Co., Manchester, and the marble flooring was carried out by Messrs. Conway & Co., Manchester. The fittings were made from the architects' designs by Messrs. Hollingworth & Sons, Patricroft.

Fleetwood.—This bank is on the dockside, where it will deal with those requiring banking accommodation near the shipping. As extensions to the docks may at some time result in the removal of such buildings as these, the problem was to provide a building of sufficient appearance with a lower cost than is usual in banking. The walls are of stock brick faced with terra-cotta from the Leeds Fireclay Co. The roof is of reinforced concrete by the Combined Concrete Construction Co. The interior is treated with a dado to the frieze line. The general contractors were J. Cryer & Son, Fleetwood.

Messrs. Mills & Murgatroyd are the architects. (Mr. A. J. Murgatroyd, F.S.A., and Mr. J. Hembrow, A.R.I.B.A.).

Bank at Basingstoke.

Mr. J. Arthur Smith, F.R.I.B.A., is the architect of the new premises at Basingstoke for Messrs. Barclays Bank, Ltd.

MEETINGS.

Monday, *October* 29.

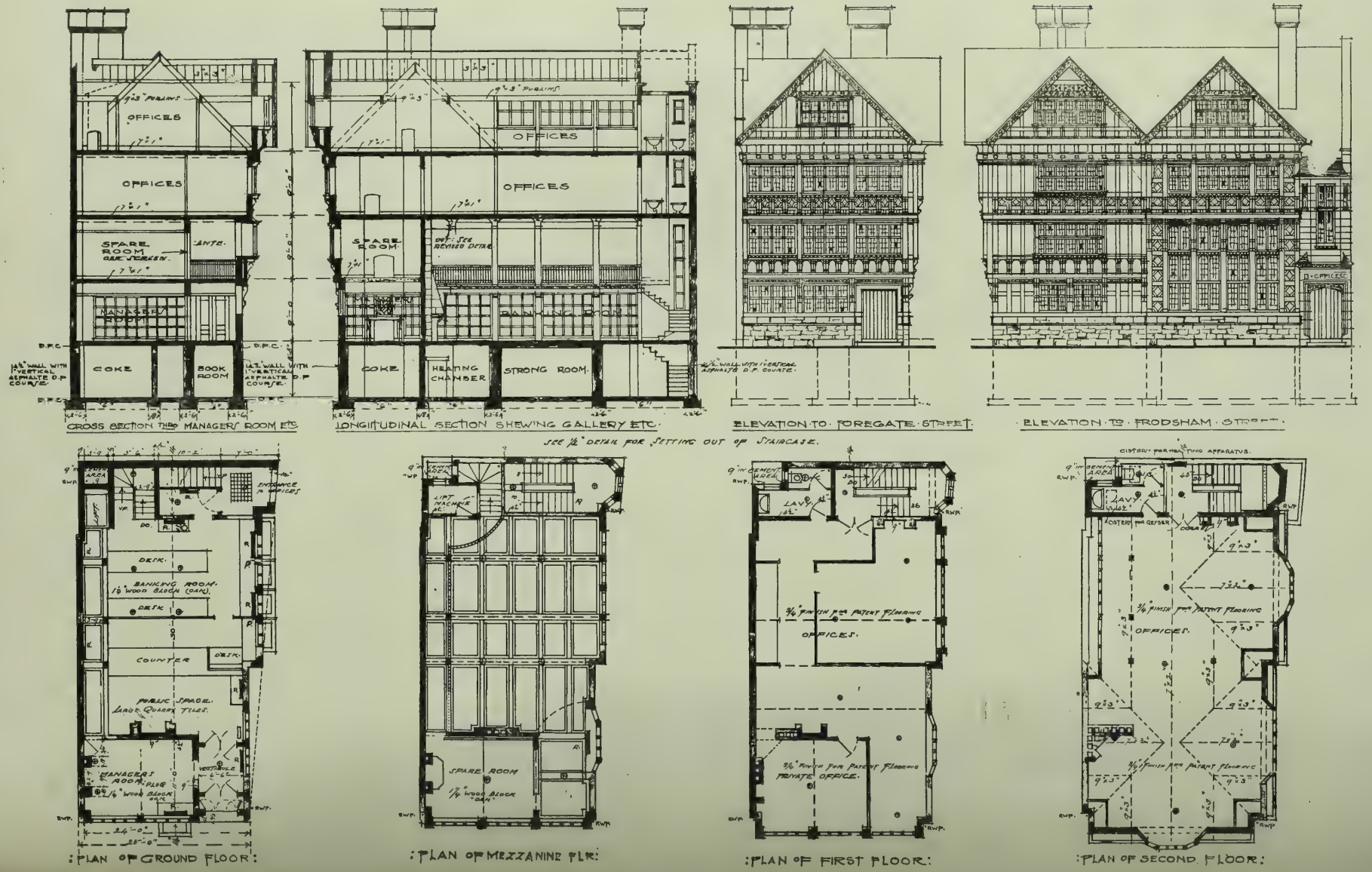
Architectural Association.—Mr. Gilbert H. Jenkins on "The A.A. Excursion, 1923 (Avignon)." At 35, Bedford-square, W.C.2. 7 p.m.

Wednesday, *October* 31.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Asiatic Architecture, 4000 B.C.—333 B.C.)." At Southampton-row, W.C. 6 p.m.

Thursday, *November* 1.

Auctioneers' and Estate Agents' Institute.—Mr. J. G. Head on "Evidence." At 34, Russell-square, W.C.1. 6.30 p.m.



Manchester and Liverpool District Bank, Chester.

Messrs. Francis Jones, F.R.I.B.A., & H. A. Dalrymple, A.R.I.B.A., Architects.



INTERIOR, PUBLIC SPACE.



GENERAL VIEW.

Manchester and Liverpool District Bank, Stockport.

MESSRS. FRANCIS JONES, F.R.I.B.A., & H. A. DALRYMPLE, A.R.I.B.A., Architects.



BANKING ROOM.

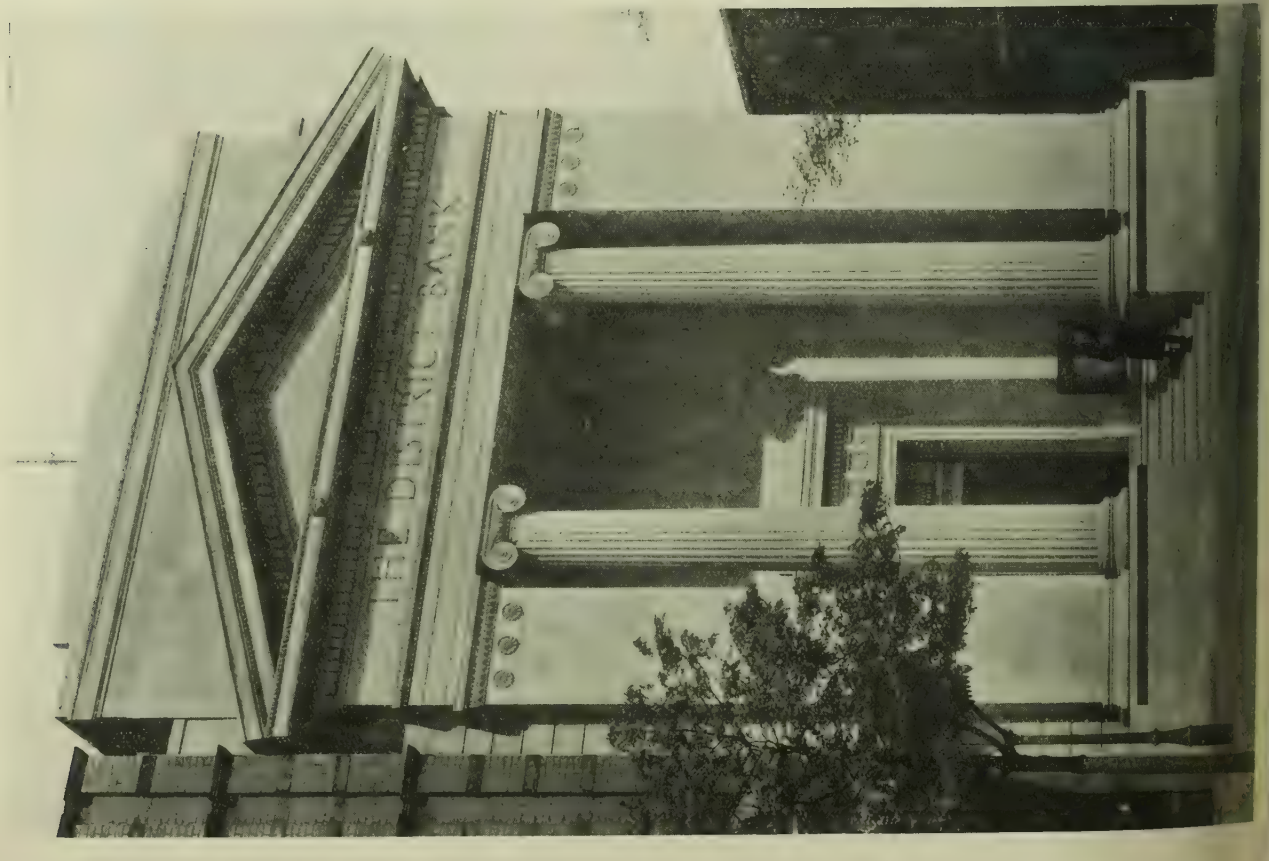


BANKING HALL.

Manchester and Liverpool District Bank, Southport.

Messrs. Francis Jones, F.R.I.B.A., & H. A. Dalrymple, A.R.I.B.A., Architects.




FEDERAL RESERVE BANK



Manchester and Liverpool District Bank, Chester.

Messrs. Francis Jones, F.R.I.B.A., & H. A. Dalrymple, A.R.I.B.A., Architects.



Top: GENERAL VIEW OF INTERIOR. *Below:* GENERAL VIEW FROM THE GALLERY.

Manchester and Liverpool District Bank, Chester.

MESSRS. FRANCIS JONES, F.R.I.B.A., & H. A. DALRYMPLE, A.R.I.B.A., Architects.



National Provincial and Union Bank of England, Platts Lane, Hampstead.

Mr. F. C. R. Palmer, F.R.I.B.A., Surveyor to the Bank, and Mr. W. F. C. Holden, A.R.I.B.A., Assistant Surveyor.





New Premises for the Manchester & County Bank, Ltd., Denton.

Messrs. Mills & Murgatroyd (Mr. A. J. Murgatroyd, F.S.A., & Mr. J. Hembrow, A.R.I.B.A.), Architects.



Banking Premises, Vauxhall Bridge Road, London.

Messrs. Niven & Wigglesworth, FF.R.I.B.A., Architects.

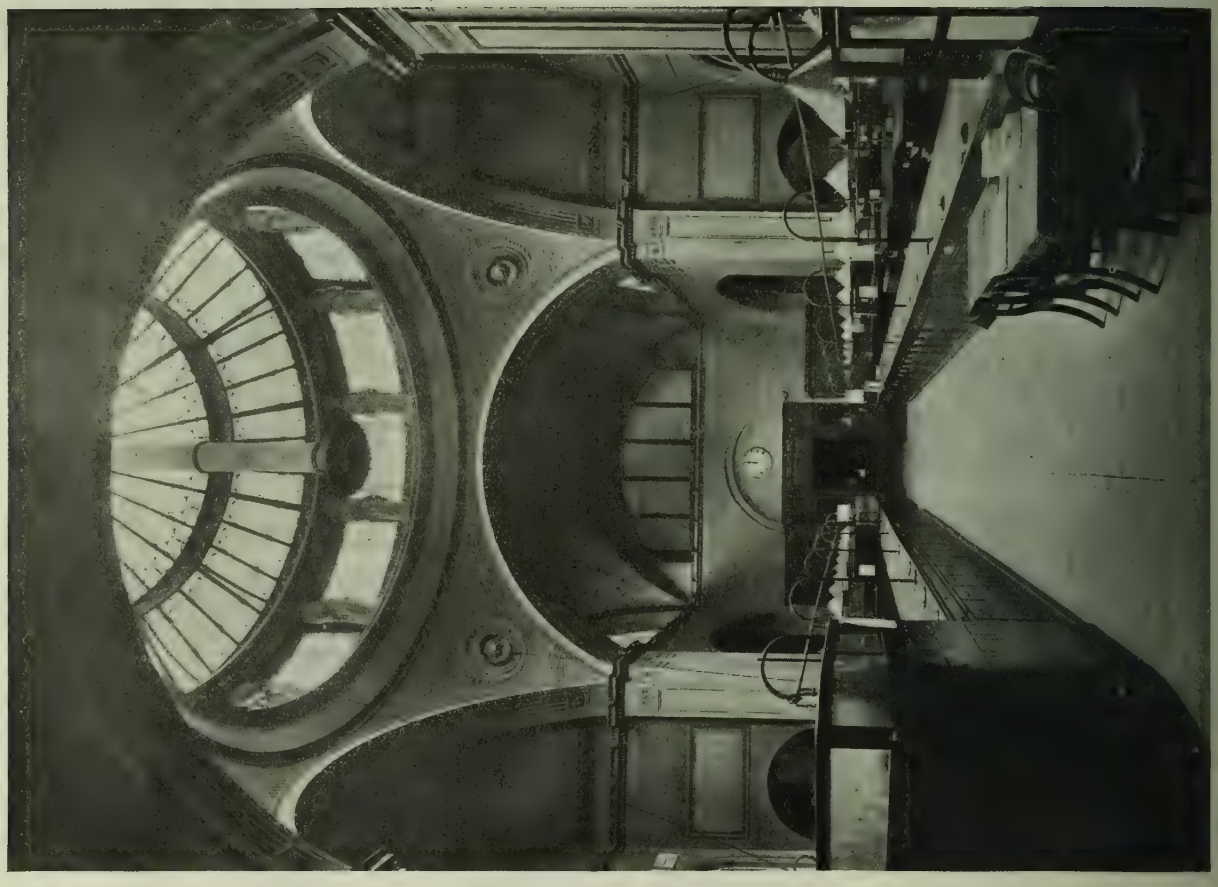


FIREPLACE SIDE OF COURT ROOM.

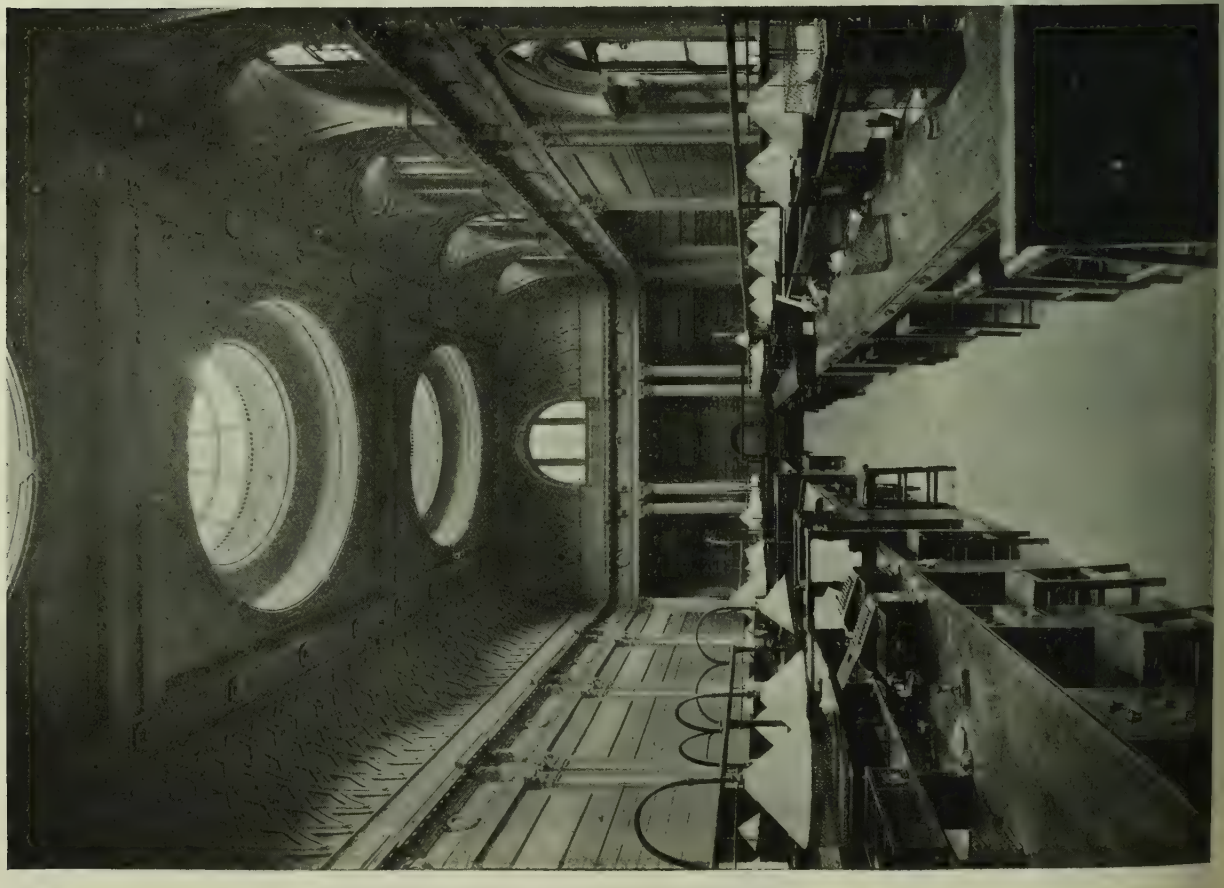


THE COURT ROOM.

The Bank of England.



THE CONSOLS OFFICE.



THE PRIVATE DRAWING OFFICE.

From a Drawing by Mr. Cecil Dain.





Barclays Bank, corner of Hart St. and New Oxford St., London.

Mr. Dudley G. Marsh, Architect.





Coutts Bank, Park Lane Branch, London.

MR. F. C. R. PALMER, F.R.I.B.A., Surveyor to the Bank; MR. W. F. C. HOLDEN, A.R.I.B.A., Assistant Surveyor.



New Premises for the Manchester and County Bank, Ltd., Wyre Dock, Fleetwood.

Messrs. Mills & Murgatroyd (Mr. A. J. Murgatroyd, F.S.A., & Mr. J. Hembrow, A.R.I.B.A.), Architects.



London Joint City and Midland Bank, Ltd., Southampton.

Messrs. T. B. Whinney, F.R.I.B.A., Son, & Austen Hall, F.R.I.B.A., Architects.



New Bank, Basingstoke.

MR. J. ARTHUR SMITH, F.R.I.B.A., Architect.

SECTION E-F
SECTION G-H
SECTION G-I
SECTION C-D
SECTION A-B
CEILING PLAN
BACK ELEVATION
FRONT ELEVATION
EAST ELEVATION
WEST ELEVATION
SECTION thro' YARD
No 14.
MEN'S LAVATORY
PUBLIC SPACE
CONSULTING ROOM
HOSMAN STREET
POST OFFICE
HEATING CHAMBER
COAL

E DESIGN AND PLANNING OF BANKS.

By J. HEMBROW, A.R.I.B.A.

SOME POINTS OF GENERAL APPLICATION.

not intended in this article to deal with
plicated problems of very large banking
gs. The head offices of banks have
wn special ideas and their own secrets.
rmore, such important designs are
given to architects of great experi-
o whom any information within the
f an article like this would be gra-
But there are many points in the
of branch banks (which may come to
chitect) on which information may be
especially to the younger man who is
hing this work for the first time, points
may be considered in the design of any
whatever its size.

site is very important. It should be a
uous one—as near the heart of business
ible. A corner site is best if it can
ained. One will frequently find in
towns that the four salient points of
in cross roads or square are occupied
l banks. They must all be near where
ney is. Small sub-offices are seen close
industrial concerns. One may be sur-
to find the local bank itself only a few
d yards away; but people will not go
than they can help even to a bank, and
ence of this sub-branch might mean the
a substantial account.

vo sites of equal commercial desirability
etter to choose that which is flattest.
hole of the ground floor to be easily
le must be on one level. In a windy
sed district a position should be chosen
the entrance will be least exposed to
winds. Even with a double vestibule
both doors are opened simultaneously a
wind will play havoc with the staff's
of which they nearly always have some
As a district develops the bank will
extend, and the site should be capable
mmodating a building readily extendable
unnecessary expense. A bank is as
of its expenditure as any other con-
nd more than many. A canal or river
s a neighbour may cripple the growth
banking hall—a steep slope may render
on expensive or impracticable, and re-
new site. But we will assume that a
s been chosen which is normally level
a corner.

counter length will be one of the most
nt items in the design. The site, there-
ill be usually longer than its width.
sites can be planned in general in two
Some directors prefer one, some the
The position of the entrance is im-
and with many banks overweighs the
ntage this choice of position brings.
st impressive position for the entrance
of course, at the corner, but this
the public space between the main
s and the counter.

ers sometimes object to this because it
nded that the teller should have the
r in such a position that the light falls
face. It is not comfortable, and it is
ndesirable from the teller's point of
have the customer in silhouette
what may be on a winter's afternoon
strong light shining directly into his
n these days of raids and "hold-ups"
er should have the advantage. It is
contended that the staff works most
ably from window light. If these
are held strongly by the directors of
k for whom an architect is acting he
rn to the type of plan where the
is at the front of the bank, placed in
tion farthest from the corner. The
disadvantage of this is that the
ntrance is in a less conspicuous
s impressive position, and is likely
passed unnoticed, particularly if
lding line forces the front of the
hind the old building line, as fre-
quently happens. The advantages are already noted, *i.e.*, the teller has the window light behind him, and the customer has the light partly from above and partly on his face. The window light is also too far away to be uncomfortable to the customer. A central entrance can sometimes be arranged, but it is usually uneconomical and has certain disadvantages in plan arrangement.

One entry from the street at least should have a single shallow step only. If the main entrance requires a flight or a number of steps the secondary entrance should not have more than one—bullion has to be wheeled into the bank and steps make the task laborious and undesirably long. If the site is such that bullion has to be brought in at a different level from that of the main floor a hoist should be provided.

The principal accommodation required to be provided in the ground floor is as follows:—

The entrance and vestibule. The public space. The counter and ledger desks, etc. The manager's room. The strong-room and the entrance lobby, and stairs to the caretaker's or manager's house above the bank. If a caretaker is not to be provided, the staff entrance will be required and the lavatories; the latter may sometimes be relegated to the basement, to economise ground-floor space.

The public space—*i.e.*, the portion in front of the counter—should be as wide and important in appearance as the area at disposal can make it. That required for desks, etc., is possibly too elementary to be treated here at any length, but having obtained comfortably the area needed for staff, the full result should be given to the space in front of the counter. The ideal width will naturally depend on the size and importance of the bank, but even in the smallest banks it should be ample.

Having set the counter line, the general working arrangement must be decided. In all but the tiniest sub-branches it is necessary to provide a manager's room. This need not be large. In a small bank the manager will only occupy it for interviews and doing any strictly private work he requires. He will have other accommodation in the banking chamber in the form of a private desk. This desk should be so placed that he commands a clear view over the whole bank. Where he is by himself or acts as his own cashier he should be placed so as to command the bank entrance. Apropos of this, it is wise to give him electric communication either with the police station, if he is near one, or with the caretaker, if one is on the premises, or, failing that, a reliable neighbour, so that in the event of his being held up by thieves he can give the alarm without being seen. If in the form of an electric bell, the switch should be one which will keep the bell ringing until it is switched off again by hand.

The position of the manager's room is of the utmost importance, and it should always be placed near an entrance or the main entrance—the latter preferably. There should also be a door from the manager's room to the vestibule, so that a customer may be let out without his friends seeing that he has been interviewed by the manager. So evil is mankind that they immediately conclude that the subject of the conversation is his overdraft, and in point of fact it is so in



VIEW IN PUBLIC SPACE.

Manchester and Liverpool District Bank, Chester.

MESSRS. FRANCIS JONES, F.R.I.B.A., & H. A. DALRYMPLE, A.R.I.B.A., Architects.



PART OF BANKING HALL.

Manchester and Liverpool District Bank, Southport.

Messrs. Francis Jones, F.R.I.B.A., & H. A. Dalrymple, A.R.I.B.A., Architects.

most cases! A customer may even change his bank if he has to run the gauntlet of his friends in coming from the manager's room.

Where there is sufficient length to the counter to allow of it there should be a way from the public space to the staff portion at each end. One of these entrances will be next to the manager's room, and can be made into a cubicle for private conversation, with a door to the manager, so that the customer can be ushered straight in if required. It will be found that the space taken by the manager's room will allow comfortably for the lobby and vestibule.

The strong-room, etc., must be ample; in the past the strong-rooms were never as large as the growing need required, and much needless expense has been incurred. Wherever possible the principal strong-room should be on the ground floor, and the floor of the strong-room on the same level as the bank. Bullion and heavy books have to be wheeled into it, and steps and slopes are a serious disadvantage. Where it is on another level a hoist must be provided.

The entrance to the strong-room should be in a direct line with the back of the desk behind the counter, or allow of an easy and straight run for the truck in every way possible. On the construction of a strong-room, although one could write chapter upon chapter, one would still fall short. Briefly it depends entirely on the importance of the particular bank. To the modern burglar any strong-room can be burgled. It is to be decided how many hours it is desirable to provide for. In a small lock-up bank, which is left unattended, one should provide for the amount of time the bank can be left unattended. It is reasonably possible to judge the time a burglar will take to break through the safeguards you provide. It might be possible to design a strong-room which would stand almost indefinitely prolonged attacks by burglars, but it would be so costly that patrols would be cheaper.

Blue Staffordshire brick strong-rooms we can only count on for a few hours. Each brick can be removed separately, and this condemns it so far as bullion is concerned. Even if laced together with steel rods, etc., unprotected these can be so easily cut by modern tools that they are not a serious obstacle.

It is necessary to combine those materials which give the greatest resistance to the modern burglar's tools in such a way that no spot is vulnerable to one weapon only. This immeasurably increases the difficulty to the thief in each case. For the ordinary strong-room, concrete and steel, mixed perhaps with some other metals (as far as may be afforded), will give the best result.

It is undesirable to use rounded smooth pebbles or stones that break with a smooth face: they can be picked out of the concrete with a cold chisel. If brick hardcore is to be used, only bricks of the type of blue Stafford, Accrington, Ruabon, or firebrick should be employed; ordinary bricks can be cut too easily.

A flat surface of steel exposed to a blow-lamp when its covering is cut away may be readily melted by an oxy-acetylene lamp. An edge of steel, protected on each side by concrete, is most difficult for the thief to attack successfully. The strong-room must be properly ventilated with one or more grids at the floor level and corresponding extract flues. These vents must be made so as to discourage the playful habit of Bill Sykes of dropping high explosive cartridges into convenient confined spaces. Such a strong-room will be proof against fire as well as thief-resisting. It should be remembered that strong-room doors are extremely expensive, and ample provision should be made in the preliminary estimate for this item.

Of late years it has become increasingly the habit of customers to leave parcels for safe custody with banks, and to deposit deeds, wills, etc., with them. Although the bank gets no revenue from this they oblige their customers, and the accommodation re for packages is often almost as great a for the actual strong-room requirements.

Book rooms and voucher rooms w required for the storage for perhaps ten accumulation. It is desirable to provi the cellar accommodation possible. An liary strong-room under the ground strong-room is often economical, or, concrete strong-room is supported by walls of blue brick, a useful book roo be made. A safe door will be require not so elaborate a one as in the case strong-room itself, as fire is the main here. A hoist to connect the ground with the cellar will be required in all t small banks.

The bank ceiling should be as high sible. A better angle of light is obtaine the result is more impressive.

Columns are very fine features fr architectural point of view, but they nuisance inside a bank, and should be a wherever possible.

Some banks tile their interior walls. is better, or, if too expensive, some plaster design—of which there are ma amples. Panelling in hard wood up to gives a very rich and suitable interior fi

In this country of eternal shadow, l very important. The windows are best as high as possible, but must not come the floor than the top of a desk back and 6 ft. from the pavement. Steel window be used, and they give more window than wood.

For floors, marble slabs in the public are very effective, and wood blocks good floor for the staff's portion.

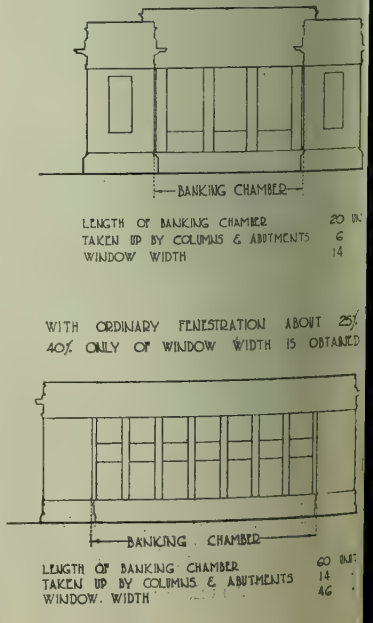
It is an economy of space to rece radiators.

It might be well to point out that t ing light is always best constructed glass roof well above the actual glass in the bank ceiling. The space betwe two should be heated in winter. In al where the writer has seen single lights down-draught and a considerable amo condensation has been caused. In mos they have to be altered. Although th seem an elementary point it is surprisin a number of these lights exist.

Treatment of Bank Elevations.

The design should convey a sense manence with dignity of conception and ment of detail.

The chief requirement governing th



l side of design in this country is light. greatest window area obtainable is de-ble. These are conflicting needs, but they be satisfactorily solved if sufficient care thought is exercised.

ssuming that the surroundings of the pro-d bank are such that any style may be ɔted, a columniated or pilaster treatment meet both these arbitrary necessities. lighter Doric order gives very happy lts.

avilions at each end of the elevation will mmodate entrances and such stairs, etc., nay be required. The banking chamber then have a wall the light area of which ıly broken by the width of the columns or sters. In perspective this treatment will the building the dignity and importance d for in so severe a building as a bank, we have both needs provided for.

ıe diagrams on the previous page show the tment in a one-story and a two-story ding. These are diagrams, and are inten-ally not designs, but are meant to suggest eans of gaining what is desired.

Where such styles conflict with the tradi-s of a town the architect must do the best an with his problem. It is fairly easy in black and white " scheme to gain ample t, but some other styles are difficult. It be found better in these circumstances to the correct architectural treatment in the e used, and provide for the loss of windows giving ample ceiling light or light from a e. There are some very excellent examples ıis method in existence.

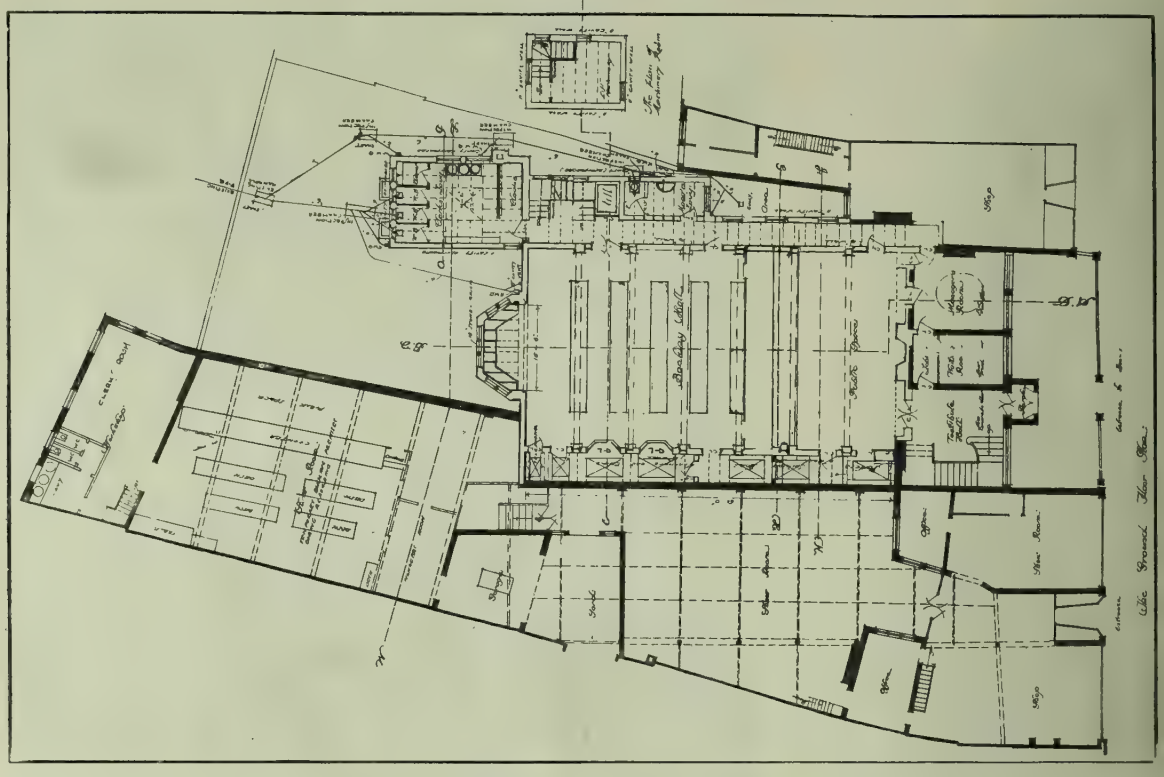
f course, it would not be desirable to ce banks to so stereotyped a form that become monotonous, but the individual tment of architects is so varied that it ld be almost impossible for this to come ıt. The writer is only putting forward his conclusions after experience. Where it been possible to test them they have ed effective from a practical point of view.

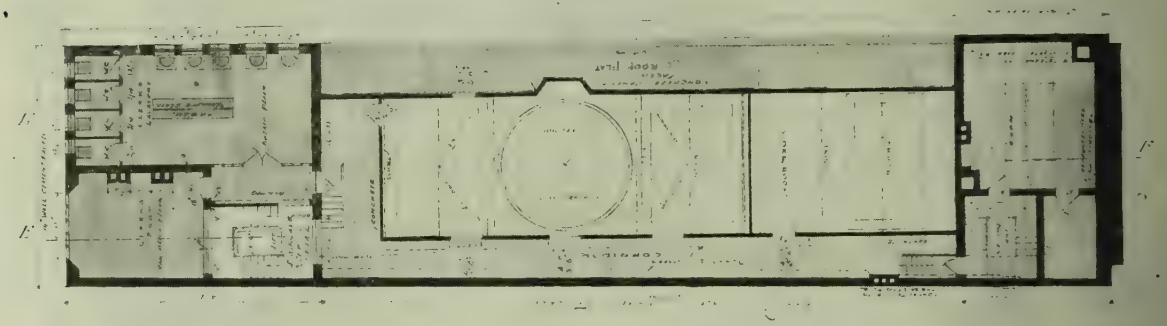


Coutts' Bank, Park Lane Branch, London.
Mr. F. C. R. Palmer, F.R.I.B.A., Surveyor to the Bank;
Mr. W. F. C. Holden, A.R.I.B.A., Assistant Surveyor.

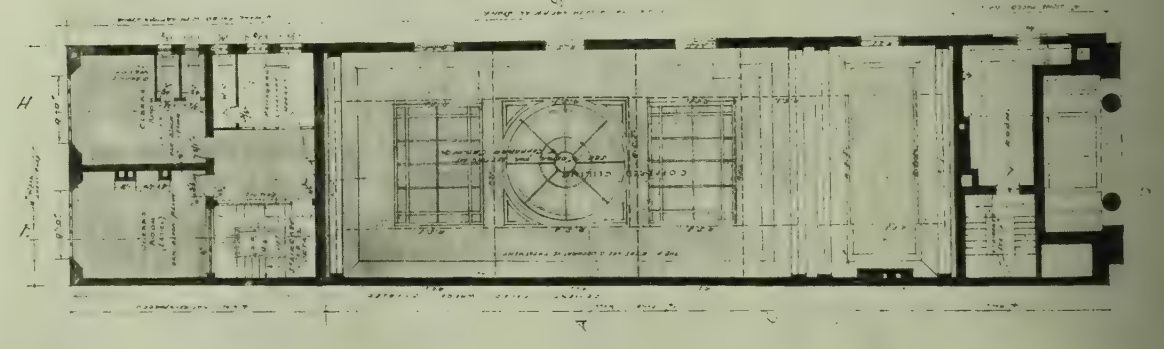


Bank at Ramsey. Mr. F. C. R. Palmer, F.R.I.B.A., Surveyor to the Bank; Mr. W. F. C. Holden, A.R.I.B.A., Assistant Surveyor.

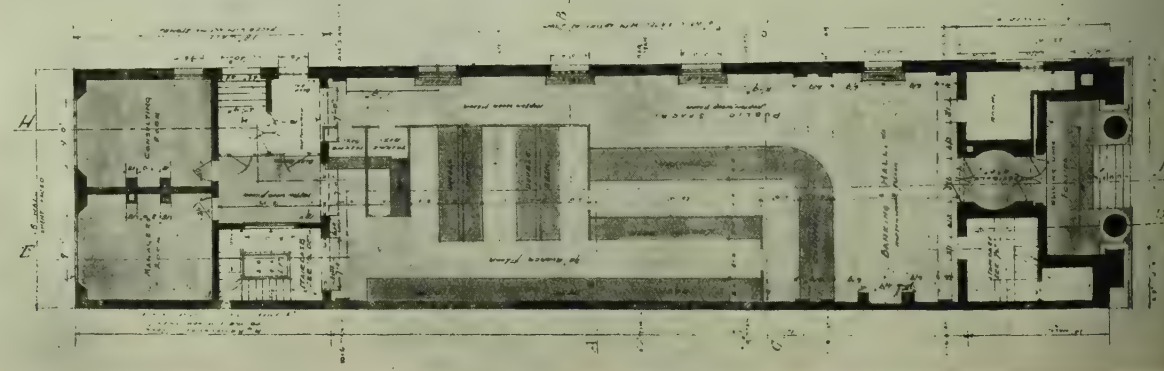




PLAN OF SECOND FLOOR



PLAN OF FIRST FLOOR



PLAN OF GROUND FLOOR

10 5 0 10 20 30 40 50 Feet



Bank of Liverpool & Martin's, Ltd., Blackpool. Mr. Walter Wade, Lic.R.I.B.A., Architect.



The Cashier's Room : Vienna Bank Union. Messrs. Neumann & E. Gotthilf, Architects. (*See p.* 659.)

CLIENTS' ROOM.

ARCHITECTURE IN VIENNA.

[Contributed.]

Previous to the world war Vienna occupied high position amongst the capitals of Europe, d this was principally due to the magnifint architecture of her palaces (mostly new), e opera house, theatres, museums, monuents, and churches.

Having become the capital now of a small public, it will be difficult to maintain the rious great buildings, especially as the loss productive power and taxable capacity, gether with the general falling off in instry, owing to the decrease of territory and population, has caused poverty. Nevertheless. Vienna is still an Imperial city, with two llions of inhabitants, but without an mpire. One industry seems not to have fered, and this is banking; there is no ubt that in that respect Vienna remains one the great financial centres.

What is, therefore, more natural than that architects should have devoted themselves excel specially in this direction, and the nk buildings, inside and outside, are excelt of their kind. Naturally, in bank buildgs, beauty had to be united with economy l utility, and from the photographs an idea y be formed of the form the structures have en. (We give the Vienna Bank Union and Credit Bank, and three examples of the blic business and reception rooms in some the great Vienna banks.)

The finest structure is doubtless the building of the Austrian Credit Society. The hitects are Alexander Neumann and E. chilf. The large business room is especially beautiful, entirely constructed in marble. was finished after the war.

The rooms where the treasures, etc., are t are heavily steel-armoured and take up a ble floor. There is central heating and ht by which fresh air is pumped into all ms by electric centrifugal regulators, by ch the air is changed and renewed every r. Tubes for sending parcels, etc., connect rooms. The building possesses large and light workrooms for the clerks, bank ours, drawing-rooms, directors' offices and rd rooms, a laboratory, and a large kitchen dining-rooms.

The building of the Vienna Bank Union is t 240 ft. long and of the same width. re are five floors above ground and three ter ground, which reach 60 ft. below the et level. For the daily cleansing of the dous rooms a vacuum process is employed.

Another very fine structure is the building of the Chamber of Commerce. This was built early in this century from the plans of Ludwig Baumann, architect, with the assistance of Josef Meissner, Pietro Palumbo, Karl Felsenstein, and Christof Stumpf, and was finished in February, 1907.

One of the most remarkable features of the buildings in question are the magnificent staircases of marble and the wide landings from which the various bureaux and rooms are entered; the entrance halls are also very imposing, and generally ornamented with statuary.

It is rarely that in any great city so many fine structures are contained in so relatively circumscribed a space as in Vienna. In spite of its age, Vienna is a modern city, and only a small number of architectural remains bear witness to its interesting and diversified history. Since new buildings have been erected on the site of Roman settlements, objects were unearthed which represent Vienna's oldest history.

Mediæval architecture is also but sparsely found, a fact to be explained by the many severe vicissitudes the city has undergone; the number of sieges and the destruction following in their wake did not tend towards the preservation of ancient structures. The solid wall that served as a protection against hostile attacks and which surrounded the inner town opposed a barrier to its growth, and it was only after the removal of the bastions and moats around the inner city, which took place in 1859, that the brilliant epoch of architectural development began.

Vienna's buildings present an embodiment of the history of architecture. Though there is probably not one left dating from Roman times, yet traces of that style are visible in the oldest structures—the dome of St. Stephen's, and especially in the church of St. Michael. More numerous, however, are the buildings dating from the Gothic era of splendour. The modern architecture employed during the last fifty or sixty years is more or less unique, and has produced magnificent commercial and bank buildings.



Chamber of Commerce, Vienna.

Ludwig Baumann, Architect.



Vienna Bank Union.

Messrs. Alexander Neumann & E. Gotthilf, Architects.

UNIVERSITY OF LONDON SCHOOL OF ARCHITECTURE.

Exhibition of Students' Vacation Work.

The exhibition of work done by students of the University of London School of Architecture during the summer vacation, now on view in the school, shows some interesting studies in black-and-white and colour, and many sheets of useful measured work. Amongst the measured work, Leonora F. M. Payne's drawings of the Bromley room at South Kensington, and the pulpit from St. Croce, Florence, show a sympathetic draughtsmanship and excellent quality of pencil line. E. Forster has studied one of the panelled rooms at the Victoria and Albert Museum with considerable care. E. Cicely Philip presents an elevational drawing and full-size details of "Dodo House," Chichester, which provide an interesting example of English brickwork at the close of the seventeenth century.

Ebberston Lodge, Yorkshire, is shown by D. M. Micklethwaite in a delicately rendered set of drawings, supplemented by an extensive study of the full-size details of mouldings. G. T. Nicholson and H. T. Brock Griggs have both reached a high level with their water-colour sketches. G. T. Nicholson treats his work in a frankly decorative manner, which shows strength and decision in the handling and arrangement of colour. Brock Griggs' water-colours strike a more naturalistic note, and his technique is fresh and original. Some of E. Forster's pencil sketches reach a high level of achievement, while his colour work is characterised by distinct charm.

On the whole the exhibition—as an exhibition of students' work—holds a strong promise for the future.

INSTITUTE OF BRITISH DECORATORS.

On Monday last the Incorporated Institute of British Decorators held its annual dinner at Painters' Hall, E.C., under the presidency of Mr. Felix de Jong (President). Amongst those present were Mr. J. Alfred Gotch (President of the Royal Institute of British Architects), Mr. E. J. Partridge (President of the Society of Architects), Professor Rothenstein (Royal College of Art, South Kensington), Professor F. M. Simpson, F.R.I.B.A., Mr. A. B. Cowtan (Deputy-Master of the Painters' Company), Mr. C. F. A. Voysey, Mr. R. C. Gleed, F.S.A., Mr. J. M. Clark (President, Surveyors' Institution), Mr. H. D. Searles Wood, F.R.I.B.A., Mr. J. M. Ross, F.R.I.B.A., Mr. J. Oakley, Mr. R. B. Mann, F.S.I., Mr. E. S. Underwood, F.R.I.B.A., Mr. W. Stewart-Greene (Past President), Mr. T. P. Bennett, F.R.I.B.A., Mr. G. G. Wornum, F.R.I.B.A., Mr. R. H. Vigor, Mr. I. T. McArtur (Past President), Mr. Ben Carter, Mr. I. R. Chappell (Past President), Mr. Godfrey Giles, Mr. A. Sage (Principal, L.C.C. School of Building), and Mr. Englefield (Secretary).

The loyal toasts having been proposed by the President and duly honoured, Professor Rothenstein proposed "The Worshipful Company of Painters." Some of them, he said, had very strong feelings on the subject of craft education. There was a common idea that artists liked artistic things, but they did not. Artistic things as a rule were amateurish things, and amateurishness was rotting the whole of the noble industries of this country, and people looked to institutions like the Painters' Company to prevent amateurishness. It was clear that the Painters' Company was not going to trust their apprentices to professors and art masters, but was going to ensure that those young people had a thorough education. He welcomed the idea that the Company was going to train those young people, and that the apprentices would get general and vocational education together, and that the vocational education would be so sound that art schools would not be wanted at all. No one could teach the kind of art he saw at the Exhibition at Holland Park. He hoped the trainees would be kept in the industry. He welcomed the idea that certain picked students would have the chance of competing in examinations of a practical kind, which would enable them to develop their education. But when it came to a question of scholarship he lamented the kind of work he had seen and which he had been expected to admire. It was very amateurish, and could not be anything else but amateurish when artists tried to teach the decorator his business. If decoration was to take its proper place in this country they must begin at the beginning, and if they were going to decorate in the higher branches they had first of all to mean what they said. At the present time the decorator was precisely the man who believed what he did not mean. He painted every kind of archæological and historical subject, which had absolutely no reference to the vision of our own day or to the ordinary requirements of the private house or the public building. They ought to get rid of the habit of saying what they did not mean. It was thinking in styles, which meant nothing to the present generation, which was robbing the craftsman of his inheritance, which was to express the ideals of his fellow human beings living in his own age. The artist was the servant of the public, but he could only be a good servant if the mistress knew how to give orders. At present people who employed artists and craftsmen did not know what to ask for. Not only should the young people in the decorating trade be educated in the technique of their craft, but they should also be educated in sincerity, which helped them to put on the walls of our public buildings an expression of the idealism which was common to all that was best in the decorating craft. He hoped the Painters' Company would do everything in its power to educate the public in sincerity.

In responding to the toast, Mr. A. Barnard Cowtan said the Painters' Company tried to help the craft of painting. From time immemorial its work had been for the advancement of the art of decoration. He recalled that from the time of Sir Joshua Reynolds the President of the Royal Academy had always been a member of the Court of the Company.

Mr. J. Alfred Gotch proposed "The Incorporated Institute of British Decorators." Nothing, he said, could be more fitting than that an architect should be asked to propose the toast of the decorators, for architecture and decoration had always gone hand in hand. He fully appreciated and sympathised with the aims of the Institute, especially in its Travelling Studentship. The Royal Institute of British Architects had its Owen Jones Studentship for the study of colour, so the aims of the two bodies were alike in that direction.

In reply, the President appealed to decorators to join the Institute. It was his hope that membership of the Institute would be looked upon as the hall-mark of the craft, that architects employing members of the Institute would know they could place confidence in their work.

Mr. E. J. Partridge, in proposing "The National Federation of Master Painters and Decorators of England and Wales," said the crafts were suffering from a shortage of apprentices. The National Federation had an exceedingly good example in instituting a system of apprenticeship for its industry. If apprenticeship were maintained in its proper sense in each trade he felt sure they might revert to the old system of apprenticeship, and he hoped they would all seek to enlarge its scope.

Mr. C. E. Campbell responded, and said it was the aim of the Federation to bring together the whole of the craftsmen in the trade for the good of the craft. They wanted all the craftsmen in the Federation, and particularly to forward the cause of education. The first duty was to educate the craftsman, for it was obvious that operatives were now working in the trades who ought not to be there. At present the Federation was responsible for the training of about 1,000 painters in various parts of the country. In conclusion, he pointed out the advantages which master decorators derived from membership of the Federation.

Mr. W. Stewart Greene proposed "The Guests," to which Mr. W. T. Plume (Editor of *The Builder*) and Professor F. Simpson replied.

Professor Simpson emphasised the necessity for harmonious relations between architect and the decorator. Without co-operation, he said, it was impossible for decorating work to be properly carried out. The architect could design a scheme of decoration, but he could not mix the colours, and it was in the mixing of the colour in the carrying out of the scheme that the architect was dependent entirely on the decorator. He recalled that he was a pupil of Bodley, who held that the mediæval painter began by using crude colours, and then toned them down with softer colours. Bodley's theory was that later all that colouring was whitewashed for sanitary reasons, and when the whitewash was afterwards cleaned off a gloss of some transparent colour was removed with it.

Mr. Cowtan proposed a toast to the Secretary (Mr. Englefield) and Mr. Archie Campbell, who briefly responded.



New Building of the Credit-Anstalt, Vienna.
Messrs. Alexander Neumann & E. Gotthilf, Architects.

THE LATE MR. H. T. DESCH.

Mr. H. T. Desch, who died recently, was only son of the late Henry Charles Desch, was born in London in 1849. He was educ in Northamptonshire, and returning to Lon at the age of 16 was articled to the late Cubitt Nicholls, as a quantity surveyor. A completing his articles he took a post as veyor in the firm of Messrs. Wm. Cubitt & remaining with that firm up to the time o death. He took a great interest in reinfo concrete work when first introduced into country, and on behalf of his firm carried several important contracts in this form construction in London and the provinces. behalf of his firm he was associated with carrying out of many important contract London, particularly around the Bank of land, such as the offices of the Comme Union Assurance Co., Lloyds Bank, New Mutual Life Insurance Co., Scottish Wid Fund, Scottish Provident, Bank Build Grocers' Hall, &c.; also Messrs. Verners I Mills at Victoria Docks, the Cunard Buil at Liverpool, and Mount Nelson Cape Town. Some four years ago, in rec tion of his services over such a long period directors of the combined firms of M Holland & Hannen & Cubitts, Ltd., appoi him a member of the Board. At the tim his death Mr. Desch had been associated the firm for some 52 years.

Mr. Desch is survived by his widow, two and a daughter.

LEGAL SECTION.

NOTES ON CURRENT CASES.

ecific Performance : Statute of Frauds.

E case Koenigsblatt *v.* Sweet, which we y noted August 31, is now fully reported , 2 Ch. 314), and as the Courts described ase as a difficult one, upon which there was cided case exactly in point, we will refer to greater detail.

e plaintiff was the would-be purchaser of leasehold houses; the defendants, Sweet his wife, the vendors. The action was ht by the plaintiff for specific performance e contract. Early in July, 1921, a draft act had been prepared and was ready for ture, and in that contract the sale was to the plaintiff and his wife. Negotiations however, broken off on some question as nom the deposit was to be paid. Subntly the defendants instructed their ors to re-open negotiations, the clause as posit was altered, and the defendant Sweet, for himself and his wife, signed the ssment, dated July 1, 1921. The engrossso signed contained the names of the iff and his wife as purchasers, but the date npletion was left blank. The defendant's ors, through Mr. Roe, their managing clerk ot into communication with the plaintiff's ors, who had eventually intimated that the act had been signed by the purchaser and arts could be exchanged, but when the r's solicitor attended to exchange the parts y 14 the part signed by the purchaser only ned his own name and not that of his wife. efendant's solicitor, Mr. Roe, assented to lteration and altered the part signed by fendant to conform to it, whilst filling in her blanks. In his evidence Mr. Roe said nsidered he had authority to alter the ent thus to a contract for sale to the ff alone and that in an interview during evious negotiations the defendant had im the plaintiff's wife was immaterial as y to the document and that after the ent had been signed (*i.e.*, on July 19, 1921) eration had been shown to the defendant had again repeated that as regards the she was nothing," and approved the other ions, but he had said he had a better offer sired to get out of the contract. On , 1921, the defendant instructed Mr. Roe eed with the contract with the utmost h.

ie Court of first instance the matter was thus: "It is said that there is no agreen writing or memorandum to satisfy the of Frauds, because there was no contract n July 14, as Roe (the solicitor) had no ty to make a contract with one purchaser d that even if there were such a contract the defendant on July 21, 1921, assented elimination of the plaintiff's wife, there signed memorandum to satisfy the of Frauds, because to satisfy the Statute morandum must record the terms of act existing when the memorandum is

the Court below and the Court of Appeal t an order for specific performance could . The case really turns upon the ratifiy the defendant of the document signed but altered by the solicitor after signait was held that until the time when the nt ratified the agreement in his interview ently to its alteration by Mr. Roe, who him that the alteration had been the document as signed by him xplained that the same alteration en made in the document signed plaintiff, there was no contract, contract was made by the ratification e defendant not only approved of the ns, but in effect agreed that the docuned by him should be a memorandum of ntract. (See the judgment of Lord Warrington.)" Lord Sterndale explained that ratification dates back and is equivalent to an antecedent authority and the point is really explained more fully by the trial Judge in his judgment as follows: The unauthorised acts of Mr. Roe could have been repudiated by the defendant or they could be ratified and adopted by him. He adopted them and ratified them, and this ratification relates back to the time when the acts were done and the position was just as if on July 14 Mr. Roe had in his possession a document containing all the alterations but signed by the defendant after the alterations were made.

Thus, according to this ruling, there was an agreement signed by the parties and consequently without question a memorandum to satisfy the Statute of Frauds.

Workmen's Compensation : Out of the Employment.

It is some time since a case was reported in the Court of Appeal which raises the point as to whether an accident to a workman has or has not arisen out of the employment, therefore we may note the recent case of Upton *v.* Great Central Railway Co. (*Weekly Notes*, July 28).

The applicant was the widow of a man in the employ of the respondents, and on the day of the accident he was employed on a water main some distance from Dunford Bridge Station, and the report, at present a brief one, states that his employment for the day would end when on his way home he arrived at that station. He had arrived at the station before the train came in, and when the train drew up at the platform he hurried across the platform and slipped and fell, injuring his knee; septicæmia set in, and subsequently he died from the result of his injury. The platform appears to have been wet, but the arbitrator had found as a fact that it was not slippery.

The Court of Appeal held that there was no special risk of location or otherwise, and no casual connection between the employment and the accident, and affirmed the decision of the arbitrator that the accident had not happened out of the employment.

As we have said, the case is reported only as a headnote, but no point seems to have arisen as to the termination at any particular spot or time of the employment, so the case turned solely on the question as to whether the accident arose out of the employment.

Two cases, Thom *v.* Sinclair (1917 A.C. 127; *The Builder*, June 22, 1917), and Dennis *v.* White & Co. (1917 A.C. 1917; *The Builder*, October 26, 1917) were especially referred to. We reviewed these two decisions of the House of Lords at some length on the dates referred to above, and we ventured to summarise their effect as follows: "If a workman whilst performing the obligations of his employment incurs a risk which the conditions of that employment involve, and sustains an injury from that risk, the accident arises out of his employment, and that whether the risk be common to mankind or not."

In Thom *v.* Sinclair the woman in her employment had to be at a particular place, a shed, and the unexpected fall of a wall near the shed was held to be an accident arising out of her employment. This is an example of what the Court of Appeal in the case under consideration called "location." In Dennis *v.* Sinclair a boy employed by a firm of builders as a part of his duties was sent on errands in the streets on a bicycle, and he was injured in a collision with a motor car. The House of Lords held he was injured in the course of and also out of his employment, as although such a danger might be one common to the public, his duties made it an incident of his employment.

The present case is distinguishable from both the above cases, for as regards location there was nothing unusual in the condition of the platform the man had to use, it was not even slippery, and his employment did not involve the accident which he sustained. It was not a risk incident to the employment, and all casual connection between the employment and the accident was absent.

In our Legal Section, September 28, we noted a case Moore & Co. *v.* Barkey on the onus of proof in cases where a workman is killed. It was contended by the employers that the man had met his death by a breach of the Coal Mines Act by relighting a lamp, but there was no absolute proof of this, and the man was working with a night-shift foreman who was also killed. The House of Lords held that there was a strong presumption that the accident arose out of the employment, and that the onus lay on the employers of proving that the man had added a peril by contravening a statutory regulation. The test approved by the House of Lords in three cases—Moore & Co. *v.* Donelly; Fife Coal Co. *v.* Sharp, and Fife Coal Co. *v.* Fyfe (1921 A.C. 329; *The Builder*, May 27, 1921)—was "Was it part of the injured person's employment to hazard, to suffer, or to do, that which caused his injury?" Where there is no evidence to enable this question to be answered, then according to the decision in Barkey's case, if there is a strong presumption that the accident arose out of the employment, then it is for the employers to displace this presumption. In the case Astley *v.* Evans (1911 1 K.B. 1036; *The Builder*, June 11, 1911) Lord Moulton laid it down that when the last acts of a workman are consistent with the view that a workman was engaged in following his employment then it is for the employer to prove any departure on his part from his duties, and although the case Moore & Co. *v.* Barkey is at present very briefly reported, it appears that the House of Lords adopted the view expressed by Lord Moulton when he was a Lord Justice of Appeal, and gave the judgment referred to in the Court of Appeal.

LAW REPORT.

Quantity Surveyor's Claim.

In the King's Bench Division recently, before Mr. Justice Bailhache, Mr. E. D. Nixon, F.S.I., claimed from the defendants £1,150 13s. 3d. for work done by him in preparing quantities in connection with a housing scheme which the defendants desired to carry out.

It appeared from the statement of Mr. Hurst, K.C., who represented the plaintiff, that in 1921 the defendants had acquired the Lesney Farm estate for a housing scheme. It was necessary that the matter should be expedited in order to obtain the grant from the Ministry of Health before the time allowed expired. The House and Town-Planning Committee, in March, 1921, passed a resolution authorising the architect, Mr. Booty, to require a surveyor to prepare the quantities. Mr. Booty finally agreed with the plaintiff that the quantities should be for seventy-nine houses of "No. 2 type," and the plaintiff was supplied with a plan and also a form of quantities for houses of "No. 3 type." He had to make the necessary alterations to suit No. 2 type. Mr. Booty was informed that the work would cost over £1,000. When the work was completed tenders were advertised for, and the defendants wrote to the plaintiff asking him to send in his invoice on the form supplied, to which the plaintiff replied by asking for the amount of the lowest tender, so that he could answer their request properly. This was not done, and the Council wrote stating that they had not accepted any tenders, and were not going on with the scheme, and further that they were not prepared to pay the plaintiff's account,

as they considered it excessive. In the whole of the correspondence there was no reference to the fact that the appointment of the plaintiff was not under seal; nor was there any charge of negligence. The learned Counsel contended there was no need for the appointment to be under seal, as the provision of the Public Health Act, 1875, did not apply to the case. The powers of the Council originated under the Housing, Town-Planning, &c., Act, 1919. The Housing of the Working Classes Act, 1890, was adoptive only, but the Act of 1919 was compulsory. The defendants had received the quantities and taken the benefit of the work, and ought to pay for it.

Mr. Nixon gave evidence to the effect that the scale of fees which he worked upon was that supplied by the Ministry of Health's Memorandum No. 31. Mr. Booty gave him the order at an interview. After he had examined the plan he found that it was not to scale, and that that and other matters made it necessary to alter the quantities. He called Mr. Booty's attention to them; some were amended, but others were left untouched. The inaccuracies were pointed out after the copies had been received from the lithographers. It was impossible to do so before, owing to the pressure of time, since it was desired to carry out the scheme with all speed.

Mr. John Atkinson, who was Clerk to the defendant Council at the time in question, gave evidence, and said that the scheme was never approved by the Ministry of Health. Tenders were advertised for, but the Ministry had issued a memorandum with instructions that the scheme was not to be proceeded with. The Council had built eighteen houses by direct labour.

Mr. Montgomery, K.C., for the defendants, contended that the plaintiff's claim could not be justified, as there was no contract under seal. Although under the Act of 1919 there was an obligation to build houses, this obligation did not exist until a scheme had been approved. In the present case this had never been done. When, however, the work was carried out under the Act of 1890 the only powers the Council had of entering into contracts was that provided by the Public Health Act of 1875, section 174, and a seal was necessary.

Mr. Justice Bailhache, in giving judgment, said that if the plaintiff was entitled to recover, then the amount must be according to the scale in the Memorandum 31, because it was the scale agreed upon. The plaintiff did all that could be expected of him, and the defendants made use of his work by sending the quantities to nineteen or twenty builders from whom tenders were received. As to the point taken that a Corporation must contract under seal, his lordship held that an Urban District Council were in the position of a Corporation on whom statutory powers were conferred, and although the defendants were acting under the powers conferred by the Housing Acts of 1890 and 1919, their right to enter into contracts was governed by the Public Health Act, 1875, and as the contract in the present case was for more than £50 it should have been under seal. He accordingly entered judgment for the defendants with costs.

The case reported above raises a point of great importance to those contracting with local authorities. In this case a quantity surveyor, acting under the instructions of the defendant's architect, had taken out quantities in connection with a proposed housing scheme under the Housing and Town-Planning Acts, 1890 and 1919. The scheme was not carried through by the defendants in its entirety after tenders, based on these bills of quantities, had been invited, the main part of the scheme being abandoned, and the defendants refused to pay the plaintiff's account, and in consequence he brought this action.

The only defence was that the contract was not under seal, and therefore the plaintiff could not recover under it, for although questions were raised as to the scale the Court held that the scale had been agreed, and therefore if the plaintiff could recover at all the amount claimed could be recovered, but the Court held that the absence of a seal to the contract was fatal to the claim as a whole. The Court, it is true, made some observations on the charges, but this was rather in connection with the fact that the plaintiff had done the work and had recovered nothing, and the Judge pointed out that this was a case of hardship. The judgment is not yet reported in the *Law Reports* in full, and we may refer to the case again later on, as it raises some very difficult questions of law which are of great importance to those contracting with local authorities. We will first refer to the judgment and then to the cases generally on the law. Section 1 subsection (1) of the Public Health Act, 1875, enacts "Every contract made by an urban authority whereof the value or amount exceeds £50 shall be in writing and sealed with the common seal of such authority."

It was contended by the plaintiff that in carrying out the housing scheme the defendants were not acting under the Public Health Act but under section 56 of the Housing of the Working Classes Act, 1890, and section 1 of the Housing and Town-Planning Act, 1919, but the Court held that by section 56 of the former Act the local authority was endowed with the powers contained in the Public Health Acts and, therefore, section 174 applied and the contract must be under seal. Section 56 provides: "Where this part of this Act (Part III) has been adopted in any district the local authority shall have power to carry it into execution (subject to the provisions of this part of the Act with respect to rural sanitary authorities), and for that purpose may exercise the same powers whether of contract or otherwise as in the execution of their duties in the case of the London County Council under the Metropolis Management Act, 1855, and the Acts amending the same, or in the case of sanitary authorities under the Public Health Acts, or in the case of the Commissioners of Sewers under the Acts conferring powers on such Commissioners."

The finding was thus that the contract in question related to matters in which the local authority derived its powers under the Public Health Act, and therefore the point which has sometimes been raised in other cases, that the section does not apply where the contract relates to some matter outside the execution of powers directly under the Public Health Acts did not arise. We dealt with this question in connection with two cases in our issue for July 11, 1913, to which we shall refer later on. The main case relied upon by the plaintiff was Lawford *v.* Billericay Rural District Council (1903 1 K.B. 772) but that case was distinguished by the Court on the ground that there the local authority was a rural district council, which is not within section 174 of the Public Health Act.

That case seems from the short report to have been cited for a double object, first as an authority that the powers were being executed outside the Public Health Act, which we have already dealt with, and, secondly, as showing that where a corporation has accepted the benefit of a contract a new contract will be implied to pay a *quantum meruit*.

As we pointed out in our article of July 11, 1913, there is considerable doubt whether this principle of implying a contract to pay on *quantum meruit* can be applied where the contract is directly controlled by the provisions of the Public Health Act, and the two cases we there cited seem to show that, where the powers of a local authority are derived directly under the Public Health Act, then the contract must be under seal and no *quantum meruit* will be implied. The first of those two cases was Hoare *v.* Kingsbury Urban District Council (1912 2 Ch. 452). The Council had entered into a contract with the owner of a building estate whereby, if the owner gave up a piece of his land to throw into a narrow road, the Council undertook to make up and adopt the strip as a highway. The Council failed to perform their part of the agreement and in an action for specific performance it was held that the contract should have been sealed under section 174 and specific performance could not be decreed. pointed out that an action for specific formance stood on a somewhat s footing.

In the second case, Douglass *v.* Rhyll District Council (1913 2 Ch. 407), an en had been employed by the Council to ma estimate and report in respect to certain in connection with a pier. He performe work and the Council repudiated the co but the plaintiff recovered on a *quantum* although the contract was unsealed, but ground that the Council were not acting the Public Health Act but under the Im ments Act, but the Court intimated tha they been acting under the Public Healt the defence would certainly have been sus since the decision in Hoare's case.

In Baker and Others *v.* Holme C Urban District Council (85 L.J., K.B. 7 a claim by Parliamentary agents for ca a local Bill through Parliament, it was he on an unsealed contract the plaintiffs cou recover where the contract was mad carrying out the purposes of the Public Act nor on a *quantum meruit*, but tha could recover on the action for debt crea a local Act.

It may be noted that under the case considering (Nixon's case) the Cour accepted the view that, where a local authority is acting under powers co by the Public Health Acts, then section the Public Health Act, 1875, requires th tract to be under seal, and in the absenc seal neither can the contract be sued up will a contract be implied to pay on a *qu meruit* even although the goods supplied been used or the services contracted for acc

There is considerable uncertainty in th on this subject and we have indicated s the many points which have to be cons by those entering into contracts with authorities, and all we can do is to advise who enter into contracts with such auth not to run the risks of deciding for then what the law may be, but where poss insist upon sealed contracts. Such form may be irksome to those seeking emplo but as the law stands no public authority raise the least difficulty in supplying a contract when contracting with parties the fulfilment of the duties contemplate refund both time and work and sho assured of remuneration.

EGYPTIAN TEMPL

Sir Banister Fletcher delivered a on the temples of the Egyptians, at the School of Arts and Crafts, on Wed last week. He described various types o impressive ruins, with all their mag majesty and mystery. Chief in interest w normal temples, each of which was desi be approached through avenues of cr sphinxes, past obelisks and royal stat diminishing stages of gigantic pylons courts, forests of columns in the "hy halls," to the mysterious hidden sanct which only king and priests might pe In the mysterious processions and hidd the people had no part. Thus their purpo and arrangement differ vastly from temple, Mahommedan mosque, or C church. Chief among them are the tem the east bank of the Nile, in the parts of known as Karnak and Luxor, including t Temple of Ammon, which surpasses all in grandeur and gradually grew by the a of successive kings, like an English ca Here we see the first trace of the story window," such a great feature in M churches centuries later. Chief among th Pharaohs who added to these mon structures appears Rameses the Great, r the greatest builder-king but perhaps t successful advertiser in the world, si advertisements have lasted to our tin

THE BUILDING TRADE.

STIMATING FOR SMALL BUILDERS.—VIII.

By J. H. BARNS, F.I.O.B.

Electric Light.

he small builder may find it necessary on e occasions to make an estimate for wiring electric light and similar work. There are y qualities of workmanship and many kinds iring, conduits, and fittings, and the three mples which are given below are a fair cation of the class of inexpensive work in mon use.

he first and cheapest would be the steel ing with the slip joints and grip fittings, although this will meet the requirements of Fire Insurance Companies, it is hardly good ugh for a good-class job, as nails may acci-tally be driven through the tubing. The duit boxes would not be of the inspection e and the wall switch would be fixed to a d-block and not a box. The next example be of ordinary simplex screwed tubing screwed fittings. The conduit fittings ld consist of inspection-boxes, &c., and the switch would be fixed to a box.

he third example is for electric light wiring rdinary wood casing. This form of carrying work is now rather out-of-date and it is particularly cheap, as the wood casing costs ut the same as screwed tubing. The conduit ngs, bends, tees, &c., would not be required his class of work as they would be in iron ing, and the labour would be higher than wed tubing. Wood casing has to be fairly tly mitred and so on, as it shows on the ace. The customary method of estimating comparatively small works would be to rge at so much per point, which could be e by averaging the amount of the material ired for each point somewhat similar to shown below. In the case of large works matter would have to be dealt with on a rent basis.

mple :—
electric light point with steel tubing and grip fittings with switch plate (no lamps or fittings).

	s.	d.
t. tubing	1	3
rds. 3/22 cable	2	7
duit fittings, boxes, &c.	1	0
switch and block	1	10
portion of cost of distribution board	1	0
portion of cost of main cable and tube and main switches and fuses ..	1	3
	8	11
our, say	8	0
	16	11
Profit and oncosts, 15 per cent. ..	2	6
	19	5

mple :—
electric light point as above, but in wood casing.

	s.	d.
. wood casing	2	9
ds. 3/22 cable	2	7
switch and block	1	10
portion of cost of distribution board	1	0
portion of cost of main cable and tube and main switches and fuses ..	1	3
	9	5
our, say	12	0
	£1	1	5
profits and oncosts, 15 per cent.	3	3
	£1	4	8

mple :—
electric light point as above, but wires to be run in brazed screwed tubing.

	s.	d.
20 ft. screwed barrel tubing	2	9
25 yds. 3/22 cable	2	7
Conduit fittings and inspection boxes, say three to a point, at 1s... ..	3	0
One switch and box	2	9
Proportion of cost of distribution board	1	0
Proportion of cost of main cable and tubing and main switches and fuses	1	6
	13	7
Labour, say	10	0
	£1	3	7
Add profits and oncosts, 15 per cent.	3	6
	£1	7	1

The latter example is a better-class job, and therefore the fittings cost a little more.

By way of comparison it may be noted that some gas companies will supply barrel and run to gas points at 10s. per point.

If main electric cables are required to be run in a building, the following are the rates for such work. These are based on the work being of an average class and in a new building, and for cables being run in heavy gauge conduits (usually called screwed tubing) with necessary draw-in boxes, &c., and cables of the 600 megohm per mile grade, English manufacture, N.A. quality :—

	£	s.	d.
7/22 Cables suitable for a load of approximately 10 amperes, and tube, per ft. run..			11½
Supplying and fixing one 15 to 20 ampere iron clad main switch and fuses, each	1	7	6
7/20 cables suitable for a maximum load of 15 amperes, per ft. run..		1	1
Supplying and fixing main switch and fuses. each	1	7	6
7/18 cables suitable for a load of 20 amperes, per ft. run		1	5½
Supplying and fixing main switch and fuses	2	7	6
7/16 cables suitable for a load of 30 amperes, per ft. run		1	9
Supplying and fixing main switch and fuses	2	19	0
19/17 cables suitable for a load of 50 amperes, per ft. run.. ..		3	2
Supplying and fixing main switch and fuses	3	10	0
19/16 cables suitable for a load of 70 amperes, per ft. run.. ..		3	6
Supplying and fixing main switch and fuses	4	5	0

The loads are based on 100 ft. run. Should this be exceeded, the next size of cable would be required to take the load. There is a drop of voltage on a long run of cable, and on, say, 100 ft. run this might equal 2 volts, and it is, therefore, necessary where more than 100 ft. run (or 200 ft. lead and return) of cable is required, to allow for this, which would necessitate using the next higher sized cable. A 600 megohm cable by an associated firm, being a better grade of material, would cost about 20 per cent. more than N.A. cable. If 2,500 associated cable were used, the cost would be about another 10 per cent. over cost of 600 megohm cable.

Most public authorities accept a cable equal to non-associated firms' cables, unless another quality is specified. Solid drawn tubing, which is the most expensive kind of tubing used for electrical work, costs about 30 per cent. more than screwed tubing, and would cause an increase on the overall prices (cable and tubing) stated by 20 per cent. for this quality of tube. The approximate cost of cutting chase and letting tube in flush to brickwork, and making good plastering would be 9d. to 1s. per ft. run. If the tubes were let in to surface only, and plastering made good the cost would be about 6d. per ft. run. If the wiring were being run in a dwelling house it is possible to reduce the cost of attendance on electricians, as the pipes may be run in the floor joists, &c. In that case the general attendance of other trades on electricians may cost about 1s. 6d. per point.

The builder's profit must be added to the above items.

The size of electric cable required for wiring a motor is about 2 amperes per horse power. Therefore, for a 5 h.p. motor a 10 ampere, or 7/22 cable would be required.

The cost of motors with starters and slide rails can be obtained from the various makers. The cost to fix a motor and starter would be about 15s., and this would depend upon the size of the motor, as two men must be sent to fix it, and if two men could lift the machine it could be fixed for the figure stated, but if it were a larger size and lifting tackle had to be supplied this would increase the cost. The cost of the concrete bed would have to be paid for separately, probably a medium sized foundation would cost about 20s., together with a template for holding down bolts, and it would probably be worth about 10s. to grout with cement the motor holding-down bolts and slide rails when fixed. The cost of lining up the motor so that the pulley should be in perfect alignment with the machine it is to drive would be an engineer's matter, and must depend upon the class of work which has to be done. In the case of mains only being run in a building the supply company would require distribution boards for various floors or suites. Then each tenant could have his own board and the company would seal it off when not in use. For these distribution boards the cost would be about 13s. 6d. each way (or suite of offices). The electric supply companies sometimes make a charge for bringing the main cable into the building, and the amount, if any, would depend on local circumstances.

Pembrokeshire Landowners' Association.

A Pembrokeshire branch of the Central Landowners' Association has been founded, with Mr. G. B. Bowen, Llwyngmair, as chairman and president, and Mr. Sackville Owen, hon. secretary. The branch has a membership of 200 landowners, representing an acreage of 130,000.

The Proposed New Severn Bridge.

The Glamorganshire County Council has received a letter from Sir Henry Maybery, of the Ministry of Transport, stating that he hoped the authority would support the scheme for construction of the River Severn bridge from Beachley (Mon) to Aust (Glos), and that an early start would be made to absorb some of the unemployed in the steel and iron trades. The G.W.R. Co. was prepared to promote a Bill for the necessary sanction for a jointly constructed road and rail bridge. The Ministry invited four representatives of the Glamorgan, Monmouth and Gloucester County Councils to confer with the Ministry and the G.W.R. Co. in November. The Council has appointed representatives and will support the scheme.

At a meeting held in London recently between Mr. Felix Pole, General Manager of the G.W.R., and representatives of the local authorities, agreement was reached to move for a joint bridge, the railway company to be invested with authority to select design.

THE DECORATORS' EXHIBITION.

STUDENTS' WORK

A Fellow of the Institute of British Decorators writes for us:—"For rather more than a quarter of a century the employers in the painting and decorating trade have been keenly interested in education, and have, through their local and national organisations, arranged competitions for apprentices, with money prizes, and gold, silver, and bronze medals. This sound but limited scheme accomplished much, but as it was an affair between employer and apprentice it did not go far enough. The painting and decorating trade has always sought to establish a good and friendly connection between employer and employee, and the outcome of this excellent understanding was the establishment a few years ago of the National Joint Education Committee, which from the date of its inception has been a great success. Under the control of this committee the work developed rapidly, employer and operative taking the chair during alternate years.

"The joint scheme is probably unique in industry, and some idea of its significance was obvious at the recent exhibition at Holland Park. The committee has its own secretary and staff, and the responsibility for providing funds is borne equally by the National Federation of Master Decorators and the National Painters' Society—the operatives' organisation. While this educational work is a craft affair, the public should appreciate the fact that its ultimate object is better service, better taste, better design, and a higher standard of craftsmanship. By organising these competitions, examinations and exhibitions the committee gives encouragement and a lead to every technical class and to every person desiring to raise his status, be he apprentice or journeyman. The fact is borne in mind that the better the apprentice of to-day is trained the better will be the craftsman of to-morrow. Of all the work the painting trade has undertaken for its own betterment and the improvement of its service to the public none is of more value than that which the National Joint Education Committee has been appointed to carry on.

"In the Preliminary Class of the students' exhibits, for those under 15 years of age, the subjects were free drawing, geometrical drawing and writing. The well-drawn example by A. Turner (London) seems to give all that can reasonably be expected at this age, showing as it did the ability to draw with directness and apply a wash cleanly and well without destroying the drawing. The work of the second and third prize winners was of quite a high type. It is understood that this is the first year for this preliminary section, and for a new section the work, though there is room for considerable improvement, is very creditable. In the writing (lettering) class much really creditable work was submitted, the letters being well drawn, but, no doubt through lack of practise, many did not seem able to apply the black with that directness that is required.

"In Class I (age 15–17) there are five sections, including a compulsory theoretical examination. The plain painting shows that a great deal of attention is given in the schools to the kind of work that 95 per cent. of operative painters are engaged upon. This work, by boys so young, is excellent and comparatively much better than that in any other class. The green panels of all the prize winners were excellent examples, and the competitors had mastered the difficulty of applying flat paint and varnish to advantage. There were, however, sections (and these appeared to classify themselves into schools or areas) where the preparation of the board was poor, and work indifferently done with poor material. The boys should have the best equipment and materials possible if they are to secure the greatest amount of good out of their training. The lettering for boys so young was very well done, and the drawing in this class is encouraging, though more experience is needed in regard to the application and value of colour. This, however, may not be altogether the fault of the boys; the experience of another year of practise will, no doubt, make a wonderful difference.

"In Class II the work generally is not of so high a standard as in Class I, though it shows a variety of work which, if conscientiously carried out, should give good results. One is glad to notice the colour schemes requiring boys to suggest plain colour treatment.

"The fact of the first and second prizes going to Leicester suggests that at this school colour is handled with understanding, as the result of sound instruction. It is realised that the subject is a difficult one for boys so young, but if right-guided practise is obtainable it should be of great value to the trade, in which colour is so all important. The candidates generally, though they place suitably contrasting colours together, fail to realise the importance of the room. The work of the winning candidates showed a masterly handling of both the paint and the varnish.

"The two subjects for lettering each set its own peculiar problems. The first prize was awarded to S. B. Gomersall (Morecambe) for two really beautiful examples. One noticed, however, that they were slightly weak in the width of the stroke. In both sets the execution was admirable. The lettering generally was good.

"The lettering on cartridge paper produced only a few good examples. One feels, ho that the student is severely handicapped the paper ground. The problem seems uns calling, as it appears to do, for treatmen poster materials; the question should c state what material should be used.

"Plant form resulted in few examp distinction. The candidates do not app know how to prepare these studies in th that is necessary if they are to be used aid in design. Much of the detail, even carefully drawn, is buried in colour and A comparison of last year's results di the fact that the winning candidate is the and he is to be contratulated on his conti success. A. Garner (Stockport) submitt cellent work, and should go far with a year's experience.

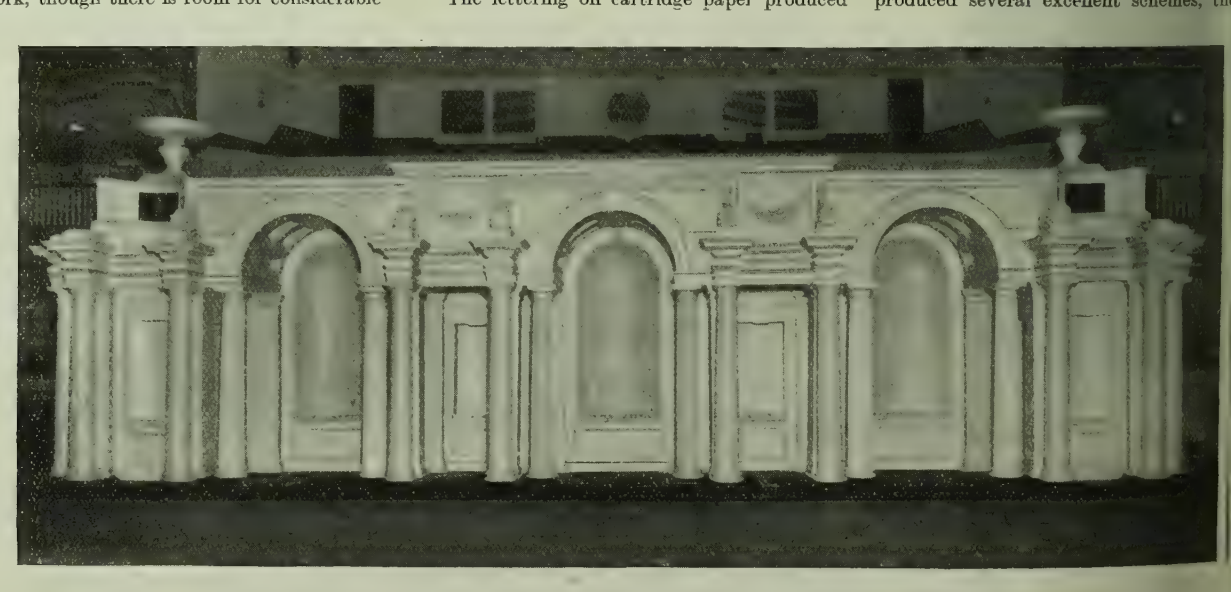
"Much of the work in the section for s ling was well executed but lacking in kno of design. The winning work, thoug sombre colouring, was well drawn and g its conception; the work placed secon exceedingly good, though rather too chopped up, the detail being small.

"In the graining section there was work that was clean and well-executed. would, however, like to see a more close re ship between the time test and the work d the student's own time. There were examples that were slavish copies rathe showing skill in the use and manipulat the tools. The above remarks apply equa marbling. The lining question places un sary difficulties in the way of the candi One cannot help thinking that a more su surface than paper should be used; ingenuity will be required to deal wit difficulty, but it should not be impossib question set as this is can never give th results.

"The colour matching set a really proposition and the results are very good wonder how many journeymen would do well? The students' example should nearly as possible the same size as the s given. F. Pilling gave an admirable se of carefully matched samples.

"In Class III (age 19-21) many really examples of work were produced. The books, which were few innumber, it is stood, were weak, but the cards showir evolution of Renaissance ornament were interesting. That by the first prize A. E. Holgate (Manchester) was very well as also that by L. G. Taylor (London) the of the second prize; the sketch book (w compulsory) should be a well-filled boo just a few sketches rushed through fo purpose of qualifying in the section; th no doubt whatever that the three w candidates rightly earned their reward.

"The coloured drawings for the villa produced several excellent schemes, the



Stand at the Decorators' Exhibition. Designed by Sir Edwin Lutyens, R.A.
[This stand was used by the British White Lead Makers for the display of waterproof sandpaper.]

g candidates producing excellent schemes. uld suggest, if they could obtain facilities r schools, they should execute a portion scheme full size. The candidate who ced combing had failed in the develop- of his elevation; his full-size detail a masterly understanding of the limits e of the steel combs in this type of work. nt form produced excellent work, g evidence of careful work, but the ng of the plants would be more helpful pictorial rendering of the subject. It be borne in mind that the sketches are minary to design. One could not help g that the candidates' numbers were ted in many of the sections, which goes to iat they are a hard-working lot of boys, the trade should strive to keep. It not be necessary for them to seek other not so closely allied to painting and ing.

ornamental painting competition was mpted by a large number of candidates. t prize was awarded to E. Provost (Leek) od piece of work in fine colour. J. L. (Huddersfield), who has proved his by his many successes, was awarded the prize; his work was excellent, as also t of C. J. Butcher (Southend).

words 'Historical Styles' were set for g on cartridge paper. The few examples od, and under the circumstances these tes did remarkably well, for many sign- of experience would much dislike a of this type. Mr. Brooke (Hudders- as again the winner of the first prize. ion produced some excellent specimens. he Rough Panel the students were set lt task, and acquitted themselves well. l be clearly understood that if a student re than he is asked for he may be defeat- bjects of the question; lines and other are unnecessary when used as a means ng the varnished edge, which should be ight. The third prize was not awarded. s IV, devoted to journeymen, generally work that is relatively not of a ndard. There are individual examples that the student is a clever craftsman, ill (London) and J. B. Topham (Harro- ning three prizes each out of 24. It is, possible they only entered in three each.

e ought to be a greater number of om journeymen painters, for they, as any, require to practise, especially in tions where there is less demand. The nting was not all tha it should have is to be hoped that amongst the many en who visited the exhibition there me who will realise that the system of boys will produce a much higher of journeyman craftsman whose ability may set a new standard of nt. Colour matching for journeymen an excellent innovation. One is filled piration by the examples of the now colour combing and scumbling; the f exhibits is gratifying, the quality of very encouraging. There are great real revival of colour treatment, which much to enliven the many surfaces ith meaningless treatment. The first awarded for a very simple and clean els, executed by H. J. Okill, who was cessful candidate in the plain painting ing sections. G. H. Hutchison (Man- nd Z. Sandford (Halifax) were second l respectively, both with good and kamples. There were several sets to would liked to have given prizes. e section for perspective sketches some examples were submitted—truly our en have much to learn.

ally, the impression one gained was younger the boy the better was the here was very little evidence of a know- he use of colour, or any real apprecia- e importance of sound preparation and erial. The National Joint Education e has a great task and an excellent y of training a type of craftsman who better service to the public. May the es quickly emulate its example."

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Plasterers Masons' Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Bedford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4	
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½	
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Cambridge	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Chelmsford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Colchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
E. Glam. (Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½	
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0	
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½	
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Great Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0	
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Ipswich	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Lancaster	1/6	1/6	1/6	1/6	1/6	1/8	1/6	1/1½	
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4	
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½	
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Luton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Norwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½	
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0	
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½	
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	0/11½	
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0	
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½	
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½	
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½	
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/6½	1/5½	1/1½	
York	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	5½	1/1½	

(For rates of wages in the Building Trade in Scotland, see page 666.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

OCTOBER 29.—**Bournemouth.**—REFRESHMENT ROOM.—Erection of a new refreshment room, &c., in the Upper Pleasure Gardens, for the T.C. Mr. F. P. Dolamore, Borough Engineer, Town Hall, Bournemouth. Deposit £1 1s.

OCTOBER 29.—**Brighton.**—ADDITIONS.—Additions to an existing building at Upper Roedale Farm in order to provide dressing room accommodation at Hollingbury Park, for the T.C. Superintendent of Parks and Gardens, at the Level, Brighton.

OCTOBER 29.—**Carlisle.**—TRANSPORT STATION.—Erection of administrative block, and first portion of transport station, &c., at Lowther-street. Mr. H. Foxall, Architect, 54, Lowther-street, Carlisle. Deposit £1 1s.

OCTOBER 29.—**Chepstow.**—BUILDING.—For completing, for Monmouthshire Agricultural Committee, the unfinished contract for house and farm buildings on No. 9 holding on the St. Pierre Estate, near Chepstow. Mr. A. Every-Clayton, County Land Agent, 2, Gold Tops, Newport (Mon). Deposit £1 1s.

OCTOBER 29.—**Durham.**—RE-ERECTION.—For the demolition of the stone erection known as "The Pant," in the Market-place, and re-erecting same at the Wharton Park, for the T.C. Mr. J. W. Green, City Engineer, Town Hall, Durham.

OCTOBER 29.—**Durham.**—SCHOOL BUILDINGS.—(1) Cassop Council School—Builder's work in connection with the alterations to out-offices and drainage and laying main drain. (2) Kirk Merrington New School—Erection of new school to accommodate 242 scholars. (a) General builder's work in preparation of site drainage, substructure, water supply and sanitation. (b) Superstructure of light construction, for the Durham C.C. Mr. F. Willey, F.R.I.B.A., 34, Old Elvet, Durham.

OCTOBER 29.—**Eccles.**—SWIMMING BATH.—Construction of new swimming bath, for the Baths Committee. Mr. T. S. Picton, Borough Engineer, Town Hall, Eccles. Deposit £3 3s.

OCTOBER 29.—**Featherstone.**—PAINTING.—For painting 16 houses and shop, &c. Mr. J. E. Booker, Snydale Villa, Streethouse, Pontefract.

OCTOBER 29.—**Ferryhill.**—PAINTING.—For the renovating of the Ferryhill Station Workmen's Club and Institute, Ltd. Mr. A. R. Chaytors, Secretary, Ferryhill.

OCTOBER 29.—**Haslemere.**—ALTERATIONS.—For alterations to Fire Brigade Station, for the U.D.C. Mr. C. A. Best, Surveyor, Haslemere.

OCTOBER 29.—**Nottingham.**—PAINTING.—For internal cleaning and painting at the offices of the City Treasurer, for the T.C. City Engineer's Department, Nottingham. Deposit £1.

OCTOBER 29.—**Paisley.**—HOUSES.—Erection of two blocks of buildings containing four houses each, for the County of Renfrew Second or Lower District Committee. Mr. J. C. Fraser, District Clerk, County Buildings, Paisley.

OCTOBER 29.—**Porthcawl.**—PUBLIC CONVENIENCES.—For erecting, for the U.D.C., in John-street, Porthcawl, public conveniences. Engineer's Department, Council Offices, Porthcawl. Deposit £2 2s.

OCTOBER 29.—**Redcar.**—HOUSES.—Erection of 20 cottages, for the T.C. Borough Engineer, Municipal Buildings, Redcar. Deposit £1.

OCTOBER 29.—**Renfrewshire.**—HOUSES.—Erection of two blocks of buildings containing four houses, at Howwood, for the C.C. Mr. Andrew Robertson, Master of Works, County Buildings, Paisley.

OCTOBER 30.—**Aylesbury.**—CONVENIENCES.—Construction of men's and women's conveniences, for the T.C. Mr. Wm. H. Taylor, Borough Engineer, Town Hall, Aylesbury.

OCTOBER 30.—**Helston.**—HOUSES.—Erection of 12 houses in Sanctuary-lane, for the T.C. Borough Surveyor, Helston.

OCTOBER 30.—**Mold.**—CONVERSION.—Conversion of the Market Hall into six shops and slipper baths, provision of ladies' lavatories, and alterations and additions to existing men's lavatories, for the U.D.C. Mr. R. Lloyd Roberts, architect, Earl-road, Mold.

OCTOBER 30.—**Spenborough.**—HOUSES.—Erection of 64 houses, for the U.D.C. Mr. Arthur Rothera, Surveyor, Public Offices, Hightown, Liversedge. Deposit £1 1s.

OCTOBER 30.—**Tipton.**—HOUSES.—Erection of 25 dwelling-houses on a site at Summerhill, and new streets, sewers, manholes, and storm-water drains, for the T.C. Mr. Wm. H. Jukes, Surveyor, Public Offices, Tipton. Deposit £2 2s.

OCTOBER 31.—**Brighton.**—TOWER.—For the erection of a hose-drying tower at the Fire Station, Preston Circus, for C.B. Borough Surveyor, Town Hall, Brighton.

OCTOBER 31.—**Burnley.**—HOUSES.—Erection of 32 parlour and 18 non-parlour type houses, for the T.C. Burnley District Society of Architects, 23, Nicholas-street, Burnley.

OCTOBER 31.—**Dewsbury.**—HOUSES.—Erection of a pair of semi-detached residences off Wakefield-road. Messrs. Firth, Son, & Blackburn, Architects, 22, Wellington-road, Dewsbury.

OCTOBER 31.—**Durham.**—PAINTING.—For painting schools at Stillington Mixed (external), Stillington Infants', Trimdon Grange Mixed (external), Seaton Snook Mixed, Preston-on-Tees, Haverton-hill Boys', for the Durham C.C. Mr. A. J. Dawson, Director of Education, Shire Hall, Durham.

OCTOBER 31.—**Kiltimagh.**—GOODS STORE.—Reconstruction of goods store at Kiltimagh Station on the Claremorris to Collooney Branch of the Great Southern & Western Railway. District Engineer's Office, Limerick. Deposit 10s. 6d.

OCTOBER 31.—**Mudeford.**—SCHOOL.—Erection of a Council School at Mudeford, near Christchurch, Hants, to accommodate 200 children, for the Southampton C.C. Mr. A. L. Roberts, County Architect, The Castle, Winchester. Deposit £2 2s.

OCTOBER 31.—**Near Christchurch, Hants.**—SCHOOL.—For the erection of a new Council school at Mudeford, for the County of Southampton. Mr. A. L. Roberts, County Architect, The Castle, Winchester. Deposit £2 2s by cheque, payable to "Hants County Council" crossed "Lloyds Bank, Ltd.; Capital and Counties Branch, Winchester."

OCTOBER 31.—**Normanton.**—HOUSES.—For the erection of two houses in Dalefield-lane, Normanton, Yorks. Mr. W. F. Copp, architect, Normanton.

OCTOBER 31.—**Peterhead.**—FOOTBRIDGE.—Erection of footbridge across River Ugie, for the Community of Feuars. Mr. G. Martin Gray, 2, Ross-street, Peterhead.

OCTOBER 31.—**Waltham Abbey.**—PAINTING.—For internal decoration of hospital, for the Joint Hospital Board. Mr. T. J. Tee, Clerk, Council Offices, Buckhurst Hill. Deposit 5s.

NOVEMBER 1.—**Halifax.**—PAINTING.—For painting interior of Borough Markets, for the T.C. Borough Engineer, Crossley-street, Halifax. Deposit £2 2s.

NOVEMBER 1.—**Lambeth.**—PAINTING, &C.—(1) Painting two underground conveniences; (2) erection of tool shed, store and mess hut at Vauxhall Park, for the B.C. Mr. O. Catlin, Borough Engineer, Town Hall, Brixton-hill, S.W.

NOVEMBER 1. — **Lydney.** — ALTERATIONS. — For alterations to Lydney Post Office. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s.

NOVEMBER 2.—**Aberystwyth.**—REPAIRS.—For carrying out of repairs and improvements to Nos. 21 and 22, Prospect-street, Aberystwyth, for the B.C. Mr. W. P. Puddicombe, F.S.I., Council Offices, Aberystwyth.

*NOVEMBER 2.—**Birmingham.**—HOUSES.—Erection of about 275 non-parlour type houses on Pelham-road, Cotterill's-lane and Everton-road, Alum Rock, under Contracts Nos. 138, 139 and 140, for the Public Works and Town-Planning Committee of the City of Birmingham City Engineer and Surveyor, City of Birmingham, The Council House, Birmingham. Deposit £1.

NOVEMBER 2.—**Carrecastle, Co. Mayo.**—SCHOOL EXTENSION.—For extension of Palmfield National School, for the Commissioners of Public Works. Particulars at School.

NOVEMBER 2.—**Durham.**—PAINTING.—For p and renovating schools in the Darlington and T Districts, for the C.C. Mr. W. E. Brown, Distric 63, Eastbourne-road, Darlington.

NOVEMBER 2.—**Leicester.**—DEMOLITION—For lition work in connection with new telephone ex Contracts Branch, H.M. Office of Works, King C street, London, S.W. Deposit £1 1s.

NOVEMBER 2.—**London, N.9.**—EXTENSIONS tensions to the Edmonton United Services Clu Registered Office, 99, Hertford-road, Edmonto Mr. J. W. Shaw Secretary, 99, Hertford-road, E ton, N.9.

NOVEMBER 2.—**Poole.**—RESERVOIR.—Fo supply of materials for and the constructio concrete covered reservoir, and laying and j cast-iron rising and leading mains for the Corp Mr. A. P. I. Cotterell, M.Inst.C.E., 17, Old street, Westminster, S.W.1. Deposit £5 5s.

NOVEMBER 3. — **Barrow-upon-Soar.** — PAIN Works of painting and general renovation at th tution at Mountsorrel, for the B.G. Mr. T. F Clerk, 36, Humberstone-road, Leicester.

NOVEMBER 3. — **Burntisland.** — PAINTIN FENCING.—For (1) painter work of 10 houses at Site, 2nd development, and of iron bar fenc Rossend and Haugh Sites, and (2) erection of v iron bar fencing and back boundary and fencing on Haugh Site, for the T.C. Mr. G. Campbell, Architect, Methil.

NOVEMBER 3.—**Dewsbury.**—BUILDINGS.—Co tion of main buildings and other appurtenant w connection with the construction of sewage works at Mitchell Laithes, for the T.C. Me Diggle & Son, 14, Brown-street, Manchester. £2 2s.

NOVEMBER 3. — **Hull.**—HOUSES. — Erect 26 houses, on the Cottingham-road Estate. T.C. City Architect, Hull.

NOVEMBER 5.—**Downham Market.**—FIRE-HOUSE.—Erection of a fire-engine house an veyor's office in the Council Yard, for the Mr. J. M. Jackson, Surveyor, The Chambers, Do

NOVEMBER 5.—**Newton-in-Makerfield.**—Hc Erection of 40 type "A" houses (in brick) at th Mesnes, Earlestown, for the U.D.C. Mr. J. A.R.I.B.A., Market Chambers, Earlestown.

NOVEMBER 5.—**Ormskirk.**—PORCH, &C.—Ere porch and painting at Cottage Hospital. Mr. architect, 43, Imperial Buildings, Exchang East, Liverpool.

NOVEMBER 6.—**Coventry.**—POST OFFICE SION.—Extension of Coventry Head Post Office Commissioners of H.M.O.W. Contracts H.M.O.W., King Charles-street, S.W.1. Depos

NOVEMBER 6.—**Dewsbury.**—WAREHOUSE.— of a six-storied warehouse and offices at D Mills. Messrs. Kirk, Sons & Ridgway, ar Market-place, Dewsbury. Deposit £1 1s.

NOVEMBER 6.—**Mountain Ash.**—ERECTION OF —For erecting, for the Mountain Ash Ec Committee, a Boys' School at Penrhiwceiber, children, with playgrounds, &c. Mr. W. H. W M.S.A., Town Hall, Mountain Ash. Deposit

NOVEMBER 6.—**Plymouth.**—HOUSES.—Erec 200 houses on five sites at North Prospect, for Mr. J. Wibberley, Borough Engineer, M Offices, Plymouth. Deposit £2 2 .

BUILDING TRADE WAGES IN SCOTLAN

THE following are the present rates of wages in the building trade in the principal to Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick Masons' layer Labour
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/-
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1½
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1
Galashiels	1/5	1/5	1/5	1/8	1/5	1/5	1/5½	1/2½
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1½
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/2½
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	10d. to 1
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	1/2½
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/-
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/2½
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½

* The information given in this table is copyright. The rates of wages in the various towns in Sco Wales are given on page 665.

VEMBER 6.—**Rainworth, near Mansfield, Notts.**—.—Erection of 48 houses at Rainworth, near ld, together with road works incidental thereto, Bolsover Colliery Housing Co., Ltd. Mr. Percy lton, architect, Furnival Chambers, Chesterfield. £1 1s., by a crossed cheque.

MBER 7.— **Barlby.**— SCHOOL.— For the erec- a Council School for the East Riding of York- unty Council. The County Architect, County everley. Deposit £2 2s.

MBER 7. — **London, S.E.2.** — PAINTING, &C.— aning and painting at Goldie Leigh Homes, Wood, S.E.2, for the Metropolitan Asylums Office of the Board, Victoria Embankment, Deposit £1.

MBER 7.—**Marshland.**—HOUSES.—Erection of ses, in pairs, in the Parish of Clenchwarton, R.D.C. Mr. L. F. Eagleton, architect, 38, King- King's Lynn. Deposit £1 1s.

MBER 7.—**Sutton.**—ALTERATIONS.—For alter- rk in forming engineers' office and workshop at ns Hospital, for Children, Banstead-road, for ropolitan Asylums' Board. Office of the Board, Embankment, E.C. 4. Deposit £1.

VEMBER 8.—**Ealing, W.5.**—FLATS.—Erection of in Bramley-road, for the Borough of Ealing r. W. R. Hicks, A.M.Inst.C.E., Borough r, Town Hall, Ealing, W.5. Deposit £2 2s.

MBER 10. — **Durham.** — PAINTING. — Painting, schools at West Herrington, Hetton-le-Hole High Usworth Domestic Centre, Springwell School Science Room, Newbottle Boys (only), Stile, Biddick, Washington Colliery, Hetton-le- irls' and Infants', for the Durham C.C. Mr. Tulip, District Clerk, Council School, New- Houghton-le-Spring.

MBER 10.—**Totnes.**—FLOORS, &C.—Taking up ying the whole of the boarded floors on the floors of the Totnes Housing Scheme; and for ith stone the front fence to Totnes Housing Messrs. Adshead & Ramsey, 46, Great treet, London, W.C. 1.

VEMBER 12.—**Conisbrough.**—HOUSES.—Erection n-parlour type houses in pairs, and 8 parlour uses in blocks of four, at Dayland's site, off d, Conisbrough, for the U.D.C. Mr. H. l, Surveyor, Council Offices, Conisbrough. £2.

VEMBER 12.—**Kingston-upon-Thames.**—EXTEN- For the erection of a laboratory and classrooms rammar School London-road, for the Borough. Surveyor's Office, Clattern Lodge, Kingston- ames. Deposit £1 1s.

VEMBER 12.—**Kingston-upon-Thames.**—WALL.— erection of a stone wall adjoining St. Peter's London-road, for the Borough. Borough r's Office, Clattern Lodge, Kingston-upon-

MBER 12.—**Oldham.**—HOUSES.—Erection of es, in pairs, for the T.C. Borough Engineer, all, Oldham. Deposit 10s. 6d.

MBER 12.—**Tyldesley-with-Shakerley.**—STABLES. on of stables, &c., in the Council Yard, for C. Mr. F. E. Jones, Surveyor, Council Offices, y. Deposit £2 2s.

MBER 12.—**Wombwell.**—HOUSES.—Tenders are the erection of 30 type "A" houses on a site King's-road, Wombwell. Mr. D. H. Roberts, "Cliffe House," Wombwell. Deposit £2.

EMBER 13. — **Ammanford.** — POST OFFICE. on of a new post office at Ammanford, Carmar- , for the Commissioners of His Majesty's Works. Contracts Branch, H.M.O.W., King treet, London, S.W.1. Deposit £1 1s. (cheques o the Secretary).

.TE.—**Dewsbury.**—HOUSES.—For the erection of semi-detached houses, top of Wakefield Dewsbury. Firth, Sons & Blackburn, A., 22, Wellington-road, Dewsbury.

DATE.—**Dewsbury.**—HOUSE.—Various works painter) in the erection of residence off Wake- , Dewsbury. Firth, Sons & Blackburn, A., 22, Wellington-road, Dewsbury.

DATE.—**Whitley Bay.**—PICTURE HOUSE.— of new pavilion picture house, Whitley Bay. Stienlet & Maxwell, architects, 14, Saville- reastle. Deposit £2 2s.

DATE.—**Whixley and Castley.**—FENCING.— nd erection of a large number of creosoted s and posts on the Whixley and Castley or the West Riding Small Holdings Com- County Land Agent, County Hall, Wakefield.

RNITURE, MATERIALS, etc.

ER 30.—**London.**—FIRE EXTINCTEURS.— fire extincteurs and charges to H.M. Office of Controller of Supplies, H.M. Office of Works, Charles-street, S.W.1.

ER 30.—**London.**—MATERIALS.—Supply to the General, India Store Department:—1, White , and ground in oil; 2, mild steel bars and mild steel plates and sheets, black and gal- lain and corrugated; 4, iron bars for Horsfall g machines. Branch 12, Belvedere-road,

ER 30.—**Maldon.**—ROAD MATERIALS.—Supply or basalt, Kentish flints and hardcore, to the Mr. C. J. Ennals, Surveyor, 6, Market Hall,

ER 31.—**Hove.**—KERBING.—Supply of 3,000 ft. anite kerbing to the T.C. Borough Surveyor Scott), Town Hall, Hove.

BER 1.—**Glasgow.**—MATERIALS.—For materials by Cleansing Department for six months. reig, Superintendent of Cleansing, 20, Tron- gow.

BER 1.—**New Romney.**—FENCING MATERIAL. to the T.C. of 39 four-hole posts, 4 in. × 6 in. rticed; 11 three-hole posts, 4 in. × 6 in. × 5 ft. ticed; 16 wire fence posts, 4 in. square at square at top, 5 ft. long (not morticed); gates; hanging post, 8 in. × 8 in. × 8 ft. ced); shutting post, 7 in. × 7 in. × 8ft. (not 7 spurs, 3 ft. 6 in.; 118 rails, 9 ft. long, d with ends sharpened. Mr. W. Lamacraft, k, Town Hall, New Romney.

NOVEMBER 5.—**Bognor.**—PIPES.—Supply of stone- ware socketed pipes, &c., to the U.D.C. Mr. J. Jubb, Clerk, Bognor.

NOVEMBER 5.—**Gravesend.**—CONCRETE PILES.—Sup- ply of 128 14 in. by 14 in. reinforced concrete piles, 27 ft. and 30 ft. in length, to the T.C. Mr. F. T. Grant, 4, Woodville-terrace, Gravesend. Deposit 10s.

NOVEMBER 5.—**Hipperholme.**—MATERIALS.—Supply of granite setts to the U.D.C. Mr. S. Dean, Surveyor, Council Offices, Hipperholme.

NOVEMBER 6.—**London.**—FENCING.—Supply to the Director-General, India Store Department, of posts and wedges for fencing, wrought-iron, and wire, 7-strand, fencing, galvanised. Branch 12, Belvedere-road, S.E.1.

NOVEMBER 7.— **Tooting, S.W. 17.** — DOORS, &C.— For the supply and delivery of 12 pairs of hardwood doors, frames and linings, to Tooting Bec Mental Hospital Extension, Church-lane, for the Metropolitan Asylums' Board. Office of the Board, Victoria Embank- ment, E.C. 4. Deposit £1.

ENGINEERING IRON AND STEEL.

OCTOBER 29.—**Salford.**—HEATING INSTALLATION.— For hot-water heating and hot-water service plant, for the Ladywell Sanatorium, for the T.C. Medical Officer of Health, Dr. Osborne, 143, Regent-road, Salford. Deposit £1 1s.

OCTOBER 29.—**Weymouth.**—STEELWORK.—Supply and erection of No. 18 cast-iron columns, No. 10 lattice girders, and No. 21 steel roof trusses, together with other steelwork, in the construction of a new concert hall, for the T.C. Mr. G. H. Whitaker, Borough Surveyor, Municipal Offices, Weymouth.

OCTOBER 31.—**Australia.**—ELECTRIC CRANES.— Supply and erection at Port Adelaide of four 7-ton electric coal-handling cranes, for the South Australian Harbours Board. Agent-General for South Australia, Australia House, Strand, W.C.2.

NOVEMBER 1.—**Dublin.**—STEELWORK.—Supply of steelwork for Bridges Nos. 812 and 819, for the Midland Great Western Railway of Ireland Company. Chief Engineer, Broadstone Terminus, Dublin. Payment 8s.

✱NOVEMBER 1.—**Lambeth.**—VARIOUS WORKS.—For (a) installation of electric lighting at the Coroner's Court and mortuary; (b) supplying and installation of low pressure hot-water heating apparatus at the Coroner's Court and mortuary, High-street, Lambeth; (c) cleaning and painting underground conveniences, one in Westminster Bridge-road and one in Vauxhall Cross; (d) erection of tool shed, store and mess hut at Vauxhall Park, for Lambeth B.C. Mr. Osmond Cattlin, Assoc.M.Inst.C.E., Borough Engineer, Town Hall, Brixton-hill, S.W.2.

NOVEMBER 1.—**Siam.**—BRIDGES.—Supply of super- structures of steel railway bridges to Siam State Rail- ways. Messrs. C. P. Sandberg, 40, Grosvenor-gardens, S.W. 1. Charge 28s.

NOVEMBER 2.—**Poole.**—WATER WORKS.—Supply of materials for and the construction of a concrete covered reservoir (5,000,000 gallons capacity) and laying and jointing cast-iron rising and leading mains, for the T.C. Mr. A. P. I. Cotterell, 17, Old Queen-street, S.W.1. Deposit £5 5s.

NOVEMBER 3.—**Reading.**—COMPRESSED AIR PLANT.— Supply of complete equipment of air compressing station at Manor Farm, for the T.C. Mr. G. Midgley Taylor, 36–38, Victoria-street, S.W. Deposit £5.

NOVEMBER 7.—**London.**—VARIOUS REQUIREMENTS.— (a) Supply of kitchen fittings and appliances at Tooting Bec Mental Hospital; (b) installation of a 20-ton weigh-bridge at the North-Western Fever Hospital; (c) installation of steam-heated "Decoudun" ironing machine at the Colindale Hospital, Hendon, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. Deposit £1 1s. each.

NOVEMBER 8.—**Karachi.**—WATERWORKS.—(1) Deep- well three-throw pumps in duplicate, with shafting, gears and other appurtenances, capacity of each unit, 9,000,000 gallons per 24 hours; (2) cast-iron well linings and gauge plates; (3) steel chimney shaft; (4) travelling crane, for the Municipality. Messrs. John Taylor & Sons, 36, Victoria-street, S.W.1. Deposit £5.

NOVEMBER 9.—**Ballinasloe.**—SUCTION GAS PLANT. —Supplying and erecting a suction gas plant to suit a 35 h.p. Crossley gas engine at Ballinasloe Mental Hospital. Dr. John Mills, Resident Medical Superin- tendent.

NOVEMBER 9. — **India.**—STEELWORK.—Supply of structural steelwork for wagon repair shop, Trichino- poly workshops scheme, for the South Indian Railway Co. Company's Offices, 91, Petty France, Westminster, S.W. 1. Charge £1.

NOVEMBER 10.—**Dundee.**—HARBOUR WORKS.—For removal of about 460 cubic yards of rock from the entrance channel of Dunure Harbour (tide work). Mr. John M'Crindle, Post Office, Dunure.

NOVEMBER 10.—**Seaton.**—SEA WALL.—Construction of 400 lineal yards of reinforced concrete sea wall and appurtenant works in connection with the improvement of the Western Esplanade, for the U.D.C. Mr. Gower Pimm, 72, Queen-square, Bristol. Deposit £2 2s.

NOVEMBER 12.—**Walton.**—PUMPING PLANT.—Eight water-tube boilers, piping, &c., at the Walton Pumping Station, for the Metropolitan Water Board. Mr. Henry E. Stilgoe, Chief Engineer, 173, Rosebery-avenue, E.C.1. Deposit £3 3s.

NOVEMBER 13.—**Liverpool.**—BOILERS.—Supply of three Lancashire boilers and fittings at the Public Baths. Chief Superintendent, Bath Department, 75, Dale-street, Liverpool. Deposit £1 1s.

NO DATE.—**Dundee.**—WEIGHING MACHINES.— Supply and erection of weighing machines of 20-ton capacity. Mr. George Baxter, City Engineer, 91, Com- mercial-street, Dundee.

ROAD, SANITARY, AND WATER WORKS.

OCTOBER 29.—**Doncaster.**—SEWER.—Laying 440 yards of 9 in. sewer in Rossington, for the R.D.C. Mr. W. R. Crabtree surveyor, Nether Hall, Doncaster.

OCTOBER 29.—**Margate.**—SEWER.—Supply of con- crete tubes and laying of an egg-shaped concrete sewer (5 ft. by 3 ft. 4 in.), for the T.C. Mr. E. A. Borg, Borough Engineer, 13, Grosvenor-place, Margate.

OCTOBER 29.—**Margate.**—WATER MAIN.—Supply and laying of about 4,260 ft. of 12 in. cast iron water main, and 7,740 ft. of 6 in. cast iron water main, for the T.C. Mr. E. A. Borg, Borough Engineer, 13, Grosvenor-place, Margate.

OCTOBER 29.—**Nuneaton.**—ROADS.—Widening and improving of the Coventry-road, for the T.C. Mr. R. C. Moon, Borough Engineer, Municipal Offices, Nuneaton. Deposit £2 2s.

OCTOBER 30.—**Farnham.**—SEWERS.—Construction of about 900 yards of sewers and manholes in Waverley- road, for the U.D.C. Surveyor, Council Offices, South- street, Farnham.

OCTOBER 30.—**London.**—DRAINAGE.—Providing and fixing about 1¼ mile of double line of cast-iron socket and spigot pipes, &c., and the removal of the double line of old 14 in. mains, in the Boroughs of East Ham and Woolwich, for the L.C.C. Engineer, Old County Hall, Spring-gardens, S.W. 1. Deposit £5.

OCTOBER 31.—**Baildon.**—SANITARY.—Conversion of eleven privies to cistern flush water closets at Oak-place, Tong-park, for the U.D.C. Mr. W. E. Bean, Sanitary Inspector, Council Offices, Baildon.

OCTOBER 31.—**Manchester.**—ASPHALTING.—For re- pairing playground asphalting at various Municipal Schools. Education Offices, Deansgate, Manchester. Deposit £1 1s.

OCTOBER 31.—**Morley.**—ASPHALTING.—For forming an approach road to the Secondary School in tar macadam. Mr. J. H. Willis, Clerk to the Governors, Town Hall, Morley.

NOVEMBER 5.—**Gravesend.**—SEWAGE SCHEME.— Ejectors and chambers for main drainage scheme of the U.D.C. Mr. F. T. Grant, Engineer, 4, Wood- ville-terrace, Gravesend. Deposit £1.

NOVEMBER 5.—**Pontypridd.**—PRIVATE STREET WORKS. —For carrying out private street works at Mound-road, Pontypridd, for the U.D.C. Mr. W. E. Lowe, Sur- veyor, Counci Offices, Pontypridd. Deposit £2 2s.

NOVEMBER 6.—**Annan.**—WATER WORKS.—Laying about 10½ miles of cast-iron pipes within the Annan district of the county of Dumfries, the construction of an intake, and other work. Messrs. Warren & Stuart, 94, Hope-street, Glasgow. Deposit £2 2s.

NOVEMBER 6.—**Chingford.**—ROADS.—Making-up of The Green Walk, Mornington-road, Mount View-road, and Park Hill-road, for the U.D.C. Mr. J. T. Griffin, Surveyor, Council Offices, 34, Station-road, Chingford. Deposit £2 2s.

NOVEMBER 6. — **Wednesbury.** — ROADS. — For the making up of Church-street, for the T.C. Mr. E. Martin Scott, Borough Engineer, Town Hall, Wednes- bury. Deposit £1 1s.

NOVEMBER 7.—**Hastings.**—ROADS.—For widening of roadways at junction of Old London-road and Robert- son's-hill, for the T.C. Mr. P. H. Palmer, Borough Engineer, Town Hall, Hastings. Deposit £2.

NOVEMBER 7.—**London, S.E.2.**—ROAD REPAIRS, &C.—For repairs to roads and tar paving at Goldie Leigh Homes, Abbey Wood, for the Metropolitan Asylums Board. Office of the Board, Victoria Em- bankment, E.C.4. Deposit £1.

NOVEMBER 14.—**Marlborough.**—SEWAGE WORKS.— For laying drains and re-construction of outfall drains, for the T.C. Messrs. H. Humphreys & Sons, 28, Victoria-street, S.W. Deposit £3 3s.

✱NOVEMBER 19.—**London, E.C.**—PAVING.—Repair- ing of the footways of London Bridge with York stone and the maintenance thereof for nine years, for the Corporation of the City of London. City Surveyor, Guildhall, E.C. 2, between the hours of 10 a.m. and 4 p.m. Deposit £2 2s.

Competitions.

(*See Competition News, page* 636.)

Auction Sales, Tenders, etc.

✱OCTOBER 30.—**Itchin Abbas, near Winchester.**— Messrs. Henry Butcher & Co. will sell at the Saw Mills, Duke's Lodge, Itchin Abbas, near Winchester, the plant, machinery, rolling stock, &c. Auctioneers, 63 and 64, Chancery-lane, London, W.C.2.

OCTOBER 30. — **London, E.C. 4.** — Messrs Isaac Edwards & Co. will sell by order of the Receiver, a Freehold Cornish Slate Quarry, known as The Tre- barwith Quarry, as a going concern and without reserve, in the London Auction Mart, 155, Queen Victoria-street. Auctioneers, Bank Chambers, Merthyr Tydfil.

OCTOBER 30.—**London, W.1.**—Messrs. Henry Holmes & Co. will sell, at Mortimer Hall, 93, Mortimer- street, Oxford Circus, W. 1, important building site, 14, 16 and 18, Great Titchfield-street, and 9a, Mar- garet-street, Oxford Circus, W. Auctioneers, 82, Mortimer-street, W. 1.

NOVEMBER 1. — **Newhaven.** — Mr. F. H. Clark will sell without reserve timber and builders' materials, at Railway Hotel Yard, Bridge-street, Newhaven. Auctioneer. Railway Wharf, York-road, Wandsworth.

✱NOVEMBER 6, 7, 8, AND 9.—**Rainham, Essex.**— Messrs. H. W. Smith & Moon will sell, by order of the Liquidator, the whole of the waterside, pile-driving, road, sewer, and building contractor's plant, machinery and effects, at "Ferro Works," Wennington-road. Auctioneers, 6, Great James-street, Bedford-row, London, W.C.1.

Public Appointments.

✱NOVEMBER 10.—**Bedford.**—Architectural Assistant required in the Borough Engineer and Surveyor's De- partment for a period of at least twelve months (subject to satisfactory performance of duties, &c.), by the Borough Council of Bedford. Borough Engineer and Surveyor, Town Hall, Bedford.

✱NOVEMBER 12.—**Mitcham, Surrey.**—General Assis- tant required by the Mitcham Urban District Council to act under the direction of the Engineer and Sur- veyor. Clerk to the Council, Vestry Hall, Mitcham, endorsed "General Assistant."

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations :—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERGELE.—At the last meeting of the Council Messrs. W. H. Jones & Son, Penybont, sent in a plan showing the lay-out for housing purposes of the land at Pentre Nehaf. The surveyor said the plan showed sites for 59 houses, including workmen's houses in blocks of four, and some semi-detached villas. It was proposed to apply for the £75 subsidy in respect of each of 20 houses proposed to be erected in the first instance.

ARDSLEY.—Plans passed :—Bungalow at Bradford-road, East Ardsley, for Mr. D. Knighton.

ASHTON.—Subsidies under the new housing scheme have been approved by the Council in respect of 16 houses in Abingdon-street, 18 in Montague-street, and 16 in Burlington-street, for the Co-operative Society, and in respect of four houses in Thornfield-avenue, to be built by Messrs. J. Ridyard & Sons, Ltd.

BARNARD CASTLE.—It is proposed to demolish the old business premises at the corner of Newgate-street and Market Place, Barnard Castle, to widen Newgate, and to erect new buildings, including a parochial hall and premises for the use of parish workers, on a building line set back considerably from the existing line. The architect appointed is Mr. R. Wylie, A.R.I.B.A., of Newcastle.

BARROW-IN-FURNESS.—It is proposed by the Education Authority to proceed with the erection of at least one wing of the new secondary school, and also the extension of the technical school.

BEOCLES.—Plans of a house in London-road, for Mr. G. A. Dunn; a bungalow near Ballygate, for Mr. V. O. L. Walpole, and for a house in Grange-road, for Mrs. A. R. Scott have been approved by the T.C.

BEDWELLTY.—The U.D.C. has applied for sanction to erect 100 houses.

BELFORD.—The R.D.C. has passed plans for five cottages for W. Tully & Son.

BIRKENHEAD.—Plans passed by T.C.: Two pairs of semi-detached houses, Bedford-drive; two pairs of semi-detached houses, and three houses, Lingdale-road North.

BOLTON.—Plans passed by T.C.: J. Chadwick & Bros., Ltd., two houses, Springfield-road; Rev. W. Leighton, Memorial Chapel, Pilkington-street; Dart Mill, Ltd., engine house and rope race, Alexander Mill, Wolfenden-street; A. Coward, two houses, Withinslane; George Partington, bungalow, Chorley New-road; Ashworth Bros., six houses, Thurstane-street; J. Latham, two houses, Regent-road; Crosses & Winkworth, Ltd., strong room, Lever-street; Jos. Rothwell and R. Hampson, two bungalows, Doe Hey-road; J. Simpson and A. S. Ryan, two bungalows, Doe Hey-road; John Archer, four houses, off Colenso-road; Leigh Bros., seven houses, Cloverdale-square; J. C. & F. Woods, lay-out plan, East Bank Estate.

BRAMPTON.—The R.D.C. has approved plans for the erection of a pair of semi-detached concrete block cottages, near Easby-lane, for Mr. C. H. Roberts, M.P., and a pair of houses of similar construction on Capon Tree-road, for Lady Mary Murray.

BRIDGEND.—Plans passed by U.D.C.: Four houses, Ewenny-road, Bridgend, for Mr. T. Davies; house and shop at Grove-road, for Mr. Lewis Edwards; two lock-up shops at Cemetery-road, for Mr. Richard Relsat; house at Grove-road, for Mr. T. King Davies; storm water sewers at Merthyr-mawr for Bridgend U.D.C. Plans of improvements to Rhiew Smithy for Mr. Ivor Thomas were deferred a month for amendment. The Ministry of Labour has sanctioned additional loans by Penybont (Bridgend) R.D.C. for carrying out Pencoed and Coychurch sewerage scheme providing labour taken from Exchanges. The Penybont Council has received estimate from Surveyor for Penyfai sewer scheme, at £2,500. The Penybont Council will put in hand at once erection of 12 parlour type houses and eight non-parlour type at Sarn, at total cost of about £7,200.

BRIDGWATER.—Plans have been approved for 29 houses for various private builders.

BRIGHTON.—The T.C.'s scheme for the improvement of certain portions of the Kemp Town area has been the subject of an inquiry by Mr. W. H. Collin, an Inspector appointed by the Ministry of Health.

BUILTH WELLS.—The County Main Roads Committee has received estimates for proposed new bridge at Builth. A reinforced concrete structure with masonry parapets is estimated at £10,000, and masonry bridge at £8,000. The Ministry of Transport is being interviewed on matter. It is also proposed to reconstruct the Erwood bridge.

BURNLEY.—The Maternity and Child Welfare Committee of the T.C. propose alterations to the house, 1, Colne-road, for adaptation as a nurses' hostel, and to adapt portions of Bank Hall Maternity Hospital to provide more accommodation.

BURY.—A meeting of the Unemployed Committee, held to consider work for the unemployed during the coming winter, resolved (a) that the Committee visit the Clarence reservoir to consider whether to recommend the Council to construct an open-air bath adjoining the reservoir, and (b) that the Mayor, Town Clerk, and the Borough Engineer interview Lord Derby's agent with respect to acquiring the plot of land between Wellington-road and Parkhills-road, on which the gravel mound stands. The B.C. have appointed a sub-committee to inquire into installing a system of central heating at the Union Offices. The Bury Paving Street, &c., Committee have approved plans for the erection of four bungalows in Ainsworth-road, 18 houses in Wellington-road, and 18 houses in Horne-street.

CAERPHILLY.—The U.D.C. is to acquire land for following works: (*a*) Near Mountain-road and King Edward-avenue for Council offices erection; (*b*) east of Cardiff-road for erection of public lavatories, &c.; and (*c*) near Station-terrace for construction of 'bus service waiting rooms and shelters, &c. The official investigator for the Miners' Welfare Fund Committee, London, has inspected sites for recreation grounds' laying-out at Senghenydd and Aber, near Caerphilly, on which it is proposed to spend £15,000. The secretary is Mr. William Morgan, Abertridwr.

CAMBRIDGE.—Plans passed by T.C.: House, Highworth-avenue, Mrs. B. A. D. McWillie, 160, Gwydir-street; two pairs of houses, Leys-road, Ginn & Son, 14, Victoria-road; house, Milton-road, Mrs. Holland Watts, 98a, Mill-road; offices and dairy, Abbey-street, Arnold Bros.; bungalow, Vinery-road, F. C. Watts, 6, Pretoria-terrace, Ditton-lane.

CARMARTHENSHIRE.—The Llandilo R.D.C. has received applications from 355 persons for subsidy assistance to build houses, and has decided to grant 100 persons assistance and has applied to Minister of Health for sanction to leave the Saron building site for the constructions. The County Standing Joint Committee is to improve and repair Llandilo Town Hall.

CATFORTH.—A sub-committee of the village club has been formed to carry out proposed extensions to their Institute. Plans have been prepared by Mr. W. D. Standen, architect, for the addition of two wings to the main hall, which was in the original building scheme, and the erection of folding doors between the billiard room and the main hall.

CHESTER.—Plans passed: H. G. Burley, 16 houses in Stocks-lane.

CHILE.—It is announced that S. Pearson & Son (Contracting Department), Ltd., have obtained from the Chilian Government the contract for the extension of Valparaiso breakwater. The extension will run for 700 metres in a south-easterly direction, and is to be formed of a mound of sand over quarry rubbish protected at the sides and on top by layers of stone. The cost of the work is £1,500,000, and the time allowed for construction is eight years.

CHORLEY.—The Chorley R.D.C. has instructed their Clerk to draw the attention of the County Roads and Bridges Committee to the dangerous condition of Skew Bridge, on the main Chorley to Bolton road, and to ask them to consider its reconstruction.

CLEETHORPES.—The Ministry of Health has approved a scheme prepared by the U.D.C. under the Small Dwellings Acquisition Act, and a start by way of experiment is to be made with ten houses.

COLWYN.—At the last meeting of the U.D.C. plans for 25 new private houses or bungalows were approved of, together with the plans of the engineer (Mr. W. J. Dunning) for the erection of 34 workmen's dwellings on the Church-road land at a cost of £17,667.

CONWAY.—The Ministry of Transport has held an inquiry into the Council's application to borrow £6,481, required for the purposes of widening the main road through Deganwy, and the construction of a new road through Maesdu to West Llandudno.

DARLINGTON.—Plans have been approved by the Darlington Corporation Streets Committee for the following 21 houses: Two in Fairfield-road; seven in Neasham-road; six in Westland-row; one in Cleveland-avenue; two in Brinkburn-road; two in Pierremont-road; and one on the Cockerton-green.

DISLEY.—The Licensing Justices have granted permission and approved plans for the structural alterations at the Crescent Hotel, for Messrs. Bell & Co., Ltd.

DODWORTH.—The old Silkstone Colliery Co., Ltd., propose to erect 200 houses in Dodworth for their own workmen. The Colliery Co. have asked the local Council what financial assistance they are prepared to give, and a special meeting of the Council has been called to consider the request.

DUBLIN.—Plans passed: New premises, 15, Chancery-street, for Mr. P. Mahon; new factory at 66A, South Circular-road, for Messrs. Twinem.

EDINBURGH.—Plans passed: Two semi-detached villas in Alnwickhill-road, for Mr. J. Duncan; villa at Allermuir-road, Colinton, for Mr. R. S. Fasken; double villa at Milton-road, Portobello, for Mr. J. Mackay; detached house at Craiglockhart-drive, for Mr. Thomas Miller; bungalow at Barony-terrace, Corstorphine, for Mr. J. T. A. Taylor; six self-contained houses at Hamilton-street, Portobello, for Mr. Thomas Harris; villa at Fernie Law-avenue, Colinton, for Miss T. M. Petre; bungalow at Allermuir-road, for Mr. John J. Wallace; detached house at Lanark-road, Colinton, for Mr. A. R. Woodall; and detached house and garage at Lanark-road, Colinton, for Mr. J. S. Cornfoot. The Education Authorities have had plans approved for the erection of a new technical school at Bellevue-Park, at an estimated cost of £30,000.

EGHAM.—The R.D.C. has instructed the Surveyor to prepare quantities for the erection of a dust destructor.

FISHGUARD.—The Council has adopted estimate of £1,321 for improving Cefn and Tregoes roads, and has applied for grant.

FLEETWOOD.—Plans passed by U.D.C.: Two houses, Rossall School, for the Corporation of Rossall School; 10 houses, Hollywood-grove, for Mr. F. Bradshaw.

GELLYGAER.—Mr. D. Pugh Jones, County Architect, has submitted to the Gellygaer School Managers plans for a new school at Tir-y-berth for 200 children. The plan was approved, with request that two additional classrooms be provided. In the course of discussion it was announced that Powell Duffryn Coal C had acquired Green Meadow Farm to erect 300 houses. The School Managers have appli new school to be built at Tirphil.

GLAMORGANSHIRE.—Mr. Geo. A. Phillips, Surveyor, has reported to the Main Roads Co that the survey necessary to construction of joint authorities' mining valleys linking roads completed and gradient lines chosen. A co of Council Surveyors to advance scheme was upon.—The Main Roads Committee has de associate with Monmouthshire County Co pressing on Ministry of Transport for large g construction of new main road through counties.

GLENDALE.—Plans passed by R.D.C.: Two at Waddhurst, for Mr. McGraw; house at Ry for Mr. Gibson.

GOODWICK.—The U.D.C. has passed plan bungalow for Mr. George Grace.

GRANTHAM.—It is proposed to rebuild a new Chapel at an estimated cost of £6,000.

HASLEMERE.—Police station, for Surrey C.C

HAULBOWLINE ISLAND (CORK).—It is believ Messrs. W. G. Armstrong, Whitworth & Co propose to establish a branch of their works

HOUGHTON-LE-SPRING.—The R.D.C. has a plans for 44 houses at Penshaw for the Lamb Hetton Collieries, Ltd.

HOYLAND.—The foundation stone has just b of the Assembly Hall and Institute in King-stree estimated cost of the building, which is in co with the Miners' Welfare scheme, is £7,500.

KEIGHLEY.—The B.G. has decided that an a be employed to advise them on the best m improving the accommodation for the hospit either by means of adding to the present nurse or erecting a new nurses' home.

KETTERING.—Plans passed by U.D.C.: premises, Horsemarket, for Mr. A. G. Wills; Cornwall-road, for Mr. G. Lawson; house, E street, for Mr. H. Hollings; offices and stor Falgar-road, for Messrs. H. P. Hodge, Ltd.: bu Cromwell-road, for Mr. E. Sumpter; two Britannia-road, for Mr. J. T. Chappell; ho Michael's-road, for Mr. W. Foster; two houses avenue, for Messrs. Shelton; house, Britannia-r Mr. C. Andrew; house, Naseby-road, for Mr Mutton; house, Neale-avenue, for Mr. O. H bungalow, Bath-road, for Mr. W. G. We house, Kingsley-avenue, for Mr. J. Neal; house avenue, for Mr. F. R. Daniels; two houses, avenue, for Mr. G. Sharpe and the Ketter dustrial Co-operative Society, Ltd.; house, W avenue, for Mr. F. A. Everton; house, Bath-r Mr. J. Bright; bungalow, Neale-avenue, for Oram.——The U.D.C. have granted a sub £100 per house for 39 houses to be built by enterprise, and are applying for sanction for houses under the Subsidy Scheme.

KIDDERMINSTER.—Plans passed: Shop an in Coventry-street, for Messrs. Cheshire & house in Stourport-road, for Mr. J. H. Maso houses in Stourport-road, for Mr. E. L. bungalow in Leswell-street, for Mr. A. K. Bell at Aggborough, for Mr. H. Moule; house in street, for Mrs. Hunt; houses (two lots) at Aggl for Messrs. Smith & Thompson; bungalow i port-road, for Messrs. Lacey Bros.; bung Stourport-road, for Mr. Burford; house borough, for Mr. Brookes; two pairs of hou five houses at Aggborough, for Mr. Willets; Stourport-road, for Messrs. Lacey Bros.; wor Crescent-road, for Mr. H. Turvey; house in Gr avenue, for Mr. Goodwin; house at Broadwa Mr. Perks; house at Stourport-road, for Mr. bungalow at Aggborough, for Mr. G. Lewis; Aggborough, for Mr. Fraser; and a bung Stourport-road, for Mr. Jagger.

LITTLEBOROUGH.—The D.C. has received of the Unemployment Grants Committee to th diture of £3,800 for the renewing of the mains district.

LLANELLY.—The B.C. has approved pla bungalow for Mr. D. Jones at Hickey-street, instructed the surveyor to submit plans and for a new reservoir, and to report on Gw water supply scheme.

LLANRHYDDLAD (ANGLESEY).—Messrs. Ltd., the famous stout brewers, are negotiat site in the district for a new brewery.

LONDON (LEWISHAM).—Plans passed b H. S. Mitchell, six houses, De Frene-road; Co., eight houses, Ashgrove-road; C. Cutler seven houses, Fairfield-road; W. Dod factory, Manor-lane; H. Groves & Son, house road; G. E. Neaum, bungalow, Peck-hill; F. & Son, house, Sydenham-hill.

LONDON (WANDSWORTH).—Plans passed by Mr. H. F. Buchan, eight houses, Magda Springfield; Messrs. Horlock Bros., house, Su grove, Southfield; Mr. G. H. White, house, road; Messrs. Chapple & Fulford, 24 houses foyle-road, and four in Greyhound-lane. Str Messrs. Humphreys & Allen, six houses, Gl road, Balham; Mr. G. Hill, two houses, St common North; Mr. H. S. Goult, 26 houses in don Park-road, Southfield; Messrs. H. Dak Ltd., bous , Howards-lane, Putney.

LONGRIDGE.—The Longridge Industrial Co-Society, Ltd., is proposing to erect a new store at Goosnargh (near Preston).

LOW STOFT.—Plans passed by T.C.: W. two semi-detached houses, Park Estate, Oulto R. Ransome, cottage, Yarmouth-road, Oulto Mr. Beckett, bungalow, Church-lane, Oulton Empson, house, Kirk Cliff.

MANCHESTER.—Garage in Gore-street at street, Gorton, for the Eagle Chemical Co., a Messrs. Thorpe & Collier, of Deansgate; front for Messrs. J. H. Squires, Ltd., at 80, H

(*Continued on page* 670.)

* See also our List of Contracts, Competitions, etc.

PRICES CURRENT OF MATERIALS.*

ng to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

	£ s. d.
1,000 Alongside, in River Thames up to London Bridge.	
cks	4 2 0
ard Stocks	3 17 0
0 0. Delivered at London Goods Stations.	
at	£ s. d.
ross	2 13 3
ved for	
	2 15 3
nose ..	3 8 3
urbridge Fire brick :—	
	11 3 0
BRICKS—	
White and Glazed	
ers ..	22 0 0
	21 10 0
Pull-	
nd 4½in.	
	28 10 0

Best Blue Pressed Staffs. 9 11 6
Do. Bullnose .. 10 1 6
Blue Wire Cuts 7 11 6

3 in. 13 2 0

D'ble Str'tch'rs 30 10 0
D'ble Headers 27 10 0
One Side and one End 31 10 0
Two Sides and one End 32 10 0
Splays and Squints 30 0 0

Quality, £1 per 1,000 less than best. Cream £2 extra over white. Other colours, Hard 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.
d. super	2 1
,,	2 5

3 in. per yd. super 2 9
4 in. ,, 3 7

	s. d.	
Ballast	10 6	per yard.
	14 9	,, ,,
Sand	15 6	,, ,,
hed Sand	15 6	,, ,,
ingle for Ferro-te	14 0	,, ,,
,, ,,	15 0	,, ,,
ken Brick	10 6	,, ,,
ge	5 6	,, ,,

delivered 2 miles radius Paddington.

delivered in London area in full van loads.

rtland Cement. British
rd Specification Test £2 18 0 to £3 3 6
longside at Vauxhall in 80-ton lots.
e per ton extra on above
ment
Cement
ment
Cement, White
,, Pink
Coarse, Pink
,, White
Fine
Coarse
Finish
he Lime
me
nd Blue Lias Lime
Chippings

	£ s. d.
	0 10 0
	4 8 0
	8 15 0
	5 15 0
	5 15 0
	5 10 0
	3 0 0
	3 12 6
	5 12 0
	3 9 6
	3 17 6
	2 10 9
	2 10 9
	2 13 6
	17 0 0
	1 12 0

acks are charged 1s. 9d. each and credited if returned in good condition within three s, carr. pd.
ge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
ONE—delivered in railway trucks at urne Park, Paddington, G.W.R., or Lambeth, G.W.R., per ft. cube	2 9½
delivered in railway trucks at Nine .. & S.W.R., per ft. cube	2 11½
P STONE—	
Whitbed, in random blocks of 20 ft. ge, delivered in railway trucks at Elms, L. & S.W.R., South Lambeth n, G.W.R., and Westbourne Park, ington, G.W.R., per ft. cube	4 4
delivered on road wagons at above ns, per ft. cube	4 5
sebed, 3d. per ft. cube extra. -½d. ft. cube extra for every foot over 20 ft. ge. and ½d. beyond 30 ft.	
WOOD STONE.	
ered at any Goods Station, London. dom blocks, up to 10 ft. cube. Per ft. cube	7/-
blocks from 10 ft. and over ,,	17/-
sides ,,	27/-
ee or four sides ,,	32/-
ONE, BLUE—*Robin Hood Quality.*	
ered at any Goods Station London.	s. d.
two sides landings to sizes (under uper.) Per Ft. Super	5 3
ed two sides, ditto ,,	5 9
two sides slabs (random sizes) ,,	2 1½
2½ in. sawn one side slabs sizes) ,,	1 5½
in. ditto, ditto ,,	1 3
RK—	
ered at any Goods Station London. random blocks Per Ft. Cube	5 6
two sides landing to sizes (under uper.) Per Ft. Super	5 4½
two sides ditto ,,	6 0½
two sides slabs (random sizes) ,,	2 10
ditto, ditto ,,	2 5
aced random flags Per Yard Super	7 11

ARTIFICIAL STONE.

in London Area in full van loads.	s. d.
per ft. cube	6 6
,, ,,	7 9
,, ,,	8 3

WOOD.

GOOD BUILDING DEAL.

per stan.	Inches.			per stan.
£34 0	3	× 6	£25 0
34 0	3	× 11	34 0
29 0	2	× 11	24 0
28 0	3	× 9	33 0
26 10	2½	× 9	33 0
26 0	3	× 4½	24 0
26 0	3	× 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11 £38 10 1 × 9 £36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	21/-	1¼	33 6
⅞	23/-	1½	38 6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26 6
1¼	33 6
1½	38 6

MATCHINGS (BEST).

Inches	per sq.
¾	17 6
⅞	22 –
1	26 –

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle			0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2 0 to	0	2 6
¾ in. do. do.	0	1 6 to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9 to	0	2 6
Cuba Mahogany	0	3 0 to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0 to	50	0 0
American Whitewood planks, per ft. cube	0	14 0 to	0	16 0
Best Scotch Glue, per cwt.	4	10 0 to		—
Liquid Glue, per cwt.	4	7 0 to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Hip and valley tiles (per dozen) Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
,, Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	16 10 0	⅝ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¼	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. ,,	1/9½	1/4	2 0½
3 in. ,,	2/1½	1/8	2 5½
3½ in. ,,	2/6½	1/11½	2/10½
4 in. ,,	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. ,,	3 6½	2 5½	3 3½
3 in. ,,	4 2½	2 8	4 0½
3½ in. ,,	4 7	3 3½	4 8½
4 in. ,,	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. ,, ,,	6 3	6 8	11 4
5 in. ,, ,,	7 6	11 6	18 2
6 in. ,, ,,	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.	£ s. d.
Common Bars	14 0 0 to	15 0 0
Staffordshire Crown Bars—good merchant quality	14 10 0 ..	15 10 0
Staffordshire "Marked Bars"	17 0 0 ..	18 0 0
Mild Steel Bars	13 10 0 ..	14 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 10 0	..	14 10 0
Hoop iron, basis price	16 10 0	..	17 10 0
,, Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	15 10 0	..	16 10 0
,, ,, ,, 24 g.	16 10 0	..	17 10 0
,, ,, ,, 26 g.	18 10 0	..	19 10 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24 10 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	21 10 0	..	23 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.		£ s. d.
LEAD—Sheet, English, 4 lb. and up	35 10 0	..	37 10 0
Pipe in coils	36 0 0	..	38 0 0
Soil Pipe	39 0 0	..	41 0 0
Compo pipe	41 10 0	..	43 10 0

NOTE—Country delivery, 30s. per ton extra; lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s.6d. per cwt. extra. Cut to sizes, 2s. cwt extra.

Old lead, ex London area, at Mills per ton	25 10 0	..	—
Do., ex country, carriage forward per ton	26 10 0	..	—

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

1¼ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz
8 lbs. S. traps	35/-	45/-	66/-	126/-

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	.. —
Thin ,, ,,	0 2 4	.. —
Copper nails ,,	0 2 3	.. —
Copper wire ,,	0 2 4	.. —
TIN—English Ingots ,,	0 2 0	.. —
SOLDER—Plumbers' ,,	0 0 11	.. —
Tinmen's ,,	0 1 1	.. —
Blowpipe ,,	0 1 3	.. —

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 3 7
,, ,, ,, in barrels ,,	0 3 9
,, ,, ,, in drums ,,	0 4 0
Boiled ,, ,, in barrels ,,	0 4 1
,, ,, ,, in drums ,,	0 4 3
Turpentine in barrels ,,	0 6 7
,, in drums (10 gall.) ,,	0 6 10
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	56 5 0
GENUINE WHITE LEAD PAINT—"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	77 0 0
Red Lead, Dry (packages extra) per ton	42 0 0
Best Linseed Oil Putty per cwt.	0 16 0
Filocol per cwt.	0 15 6
Size, XD Quality fkn.	0 3 6

[Concluded on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths....	3½d.	32 oz. fourths	8½d.
15 ,, thirds	4½d.	32 ,, thirds	10½d.
21 ,, fourths....	5d.	Obscured Sheet, 15 oz.	4d.
21 ,, thirds	6½d.	21 ,,	5½d.
26 ,, fourths....	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
26 ,, thirds	7½d.	En'lled 15 ,, 5½d., 21 ,,	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4½d.
3/16 Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon: £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal flatting	ditto	1 0 6
Hard drying Oak	ditto	0 18 0
Fine Hard drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 0
Knotting (patent)		1 5 0
French and Brush Polish		0 17 6
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

PROPOSED NEW BUILDINGS.

(*Continued from p.* 668)

West Gorton, architects, Messrs. Thorpe & Collier, of Manchester; alterations and additions to the "Crown," Inn, at 47 to 49, Lord-street, Cheetham, for Messrs. Groves & Whitnalls, Ltd., of Salford, plans prepared by their own staff; alterations and additions to the Ancoats Hospital, Upper Kirby-street, for the Board of Management, architects, Messrs. T. Worthington & Sons, of 178, Oxford-street, Manchester; alterations to boiler house at the Little Green Dye Works, Collyhurst-road, plans being prepared by the British Engine Boiler and Electrical Insurance Co., Ltd., Fennel-street; electricity substation for the Manchester Electricity Committee at Westbury-road, Crumpsall, plans being prepared by the City Architect; new church at Hazeldene-road, New Moston, for the Parochial Church Council, architects, Messrs. Preston & Morton, of 90, Deansgate; alterations and additions to store, Strand-street, Ancoats, for the Geigy Colour Co., architect, F. Edwards, of 9, Albert-square; erection of 16 houses in Clough-road, Hodge-street, Swinburne-street and Giltrow-terrace, Blackley, for E. Murphey, of 36, Kenjon-lane, Moston; conversion of house into house and shop, 155, Mount-road, Gorton, for Mr. P. Cash, architects, Thorpe & Collier, Manchester; garage at rear of 48, Slade-lane and Hictor-road, Longsight, for Dr. J. D. Byrd, architect, F. Fenn, of 19, Chapel-walks, Manchester; new store and meeting hall, Upper Brook-street and High-street, Chorlton-on-Medlock, for the Manchester and Salford Co-op. Society, Ltd., plans prepared by the Architectural Dept., C.W.S., 99, Corporation-street, also alterations to premises 90, Ladybarn-lane and Cedar-grove; erection of 30 houses in Sussex-avenue and Fog-lane, Didsbury, for R. Fleeson & Son, architect, S. Birkett, 25, Clyde-road, West Didsbury; 14 houses and bungalows, Omer-drive and Birnage Hall-road, Birnage, for J. T. Jackson; alterations to Chester-road Inn, Chester-road and Arundel-street, Hulme, for Messrs. Groves & Whitnells, of Salford, architects, Bramild & Smith, of 4, Cannon-street; salesroom and garage, situate 67, Wilbraham-road, Chorlton-cum-Hardy, for F. P. C. Holt, plans prepared by H. Booth, of 46, Chorlton-road; alterations to "Hope and Anchor," Owen-street, Hulme, and alterations to Town Hall Inn, 106, Clopton-street, Hulme, for Groves & Whitnalls, Ltd., plans prepared by own architects; 11 houses in Wellington-road, Withington, for A. Hartley, architect, J. H. Hall, of 1, Cooper-street, Manchester.

MANSFIELD.—Plans passed by T.C.: R. Ryley, two houses, Sutton-road; E. M. & A. B. Allcock, bungalow, Bottle-lane; Mrs. Houfton, house, Beresford-street; E. T. Haslam, house, Clifton-grove; G. & G. Haslam, two houses, Southwell-road; A. Brown, house and shop, stable, &c., Chesterfield-road and Bould-street; Dobb & Foster, bungalow, Meadow-avenue; C. Lucas, house, Southwell-road; Bradbury, house, Berry Hill-road; G. W. Mellors, bungalow, Kate Moody-lane.

MERTHYR TYDFIL.—The B.C. has decided to erect houses as follows: At Pantsallog 50, at Treharris 50, and at Aberfau 30.

NEWPORT (MON).—Lord Tredegar has presented a plot of land adjoining the pro-cathedral, St. Woollos, Newport, for the erection of a church hall by the church authorities. The work is to be put in hand at an early date.

NEWTON ABBOT.—Plans passed by the R.D.C.: Bungalow at Teign Harvey Farm, Stoke, for Mr. A. Smith; four pairs of cottages at Kingsteignton, for Mr. D. H. Howe; alterations at Little Wolleigh, Bovey Tracey, for Mrs. Ferguson; cottage at Pizwell, Cator Court, Widecombe, for Lord Clifton; cottage at Parke, Bishopsteignton, for Mr. W. Madge; house at Bishopsteignton for Mr. W. French; bungalow at Higher Gabwell, Stoke, for Mr. W. E. Gow.

NORTH EASTERN RAILWAY CO.—Amongst the works projected by the company in 1924 are the reconstruction of St. Olave's and Beccles swing bridges, £150,000; extensions at Frodingham, £38,000; new machinery for Doncaster shops; new boilers, conveyors, and other machinery at Immingham power station, £43,000; office accommodation in London; coal shipping staiths at North Blyth, £153,000; staiths at West Dunston; dock gates at Tyne Dock; Priory-yard sidings and other additional works at Hull, £79,000; new dredger bought for Hull, £35,000; marshalling yard at Dringhouses, York; renewal of bridges; new machinery for Darlington shops.

OSSETT.—Plans passed: House in Spa-road, for Mr. Walter Illingworth; new street, off Belgrave-street, for Dr. A. D. La Touche; house and shops in Dewsbury-road, for Horace Jennings; two houses and shops in Teall-street, for Mr. T. W. Bentley; detached villa in new road of Belgrave-street, for Mr. A. E. Mottram; wooden shed in mill yard at Flushdyke, for Messrs. J. Scarth & Sons, Ltd.

PAISLEY.—The Dean of Guild Court has granted permission to erect a tramway sub-station in Abercorn-street to Glasgow Tramways Department. Plans of a double villa to be erected in Gartmore-road were passed; while, on the application of Mr. John M'Eachran, builder, Glasgow-road, plans were approved for the erection of a bungalow in the same road.

PEMBROKESHIRE.—The Ministry of Agriculture has approved plans for the County Small Holdings Committee for erection of new buildings at Pallan, Chapel Farm (Ford), Castle Farm (Castlemartin). The Committee will also erect new buildings at Good Hope, Sealyham, when suitable site has been selected.

PONTYPRIDD.—The U.D.C. has decided to erect footbridges at Ynysynghorad (£450) and Trehavod (£400), and to carry out special works, sewers, fencing, &c., totalling £5,450, including purchase of motor lorry, estimated to cost £600.

PORTHCAWL.—The U.D.C. has decided to improve Newton-road at estimated cost £1,600, and has applied to borrow the money.

PORTSMOUTH.—Important extensions of the tramway system are proposed, estimated cost being £170,000.

PRESTON.—Plans passed by T.C.: J. W. Grange, four bungalows, Lytham-road; Messrs. Kendal & Heywood, two houses, Woodlands-avenue; R. Hothersall, six houses, Fermor-road; W. Holmes, bungalow, Ribbleton-avenue; P. H. S. Shepperd for J. Wignall, house, Holmrook-road; A. H. Dewhurst, six houses, First-avenue; F. Howorth for Messrs. Jones & Lees, two houses, Windsor-avenue; J. Taylor for the Ashton Building Co., Ltd., six houses, First-avenue and The Crescent; J. H. Jamieson, bungalow, Selborne-street; F. N. Pinder for C. Coupe, two houses, Selborne-street; T. Southworth, house, Holme Slack-lane; S. Seed, house, Fishwick-view; E. J. Andrew for G. Moorcroft, four houses and shops combined, two houses and garage, Arterial-road and Robin-street; F. Howorth for G. Jones, two houses, Windsor-avenue; F. Howorth for E. Cartmell, house, Woodlands-avenue; R. Hothersall for Messrs. Hothersall & Cunliffe, two houses, Woodlands-avenue; A. J. T. Ellison for Messrs. Holderness & Clarkson, two houses, St. George's-road; H. Heaton for W. Beetham, two houses, Maresfield-road; H. Heaton for R. B. Abbott, eight houses, Tiber-street and Wadham-road; H. Heaton for A. Spencer, two houses, Wadham-road; H. Heaton for A. Spencer, two houses, Oxford-street; T. A. Shelley, four houses, Frenchwood-avenue; J. Masheter, bungalow, Mellings Fold; F. Howorth for R. A. Tootell, house, Windsor-avenue; F. Howorth for C. H. Haycraft, six houses, Winmarleigh-road; W. Smirk, two houses, Winmarleigh-road; R. Cookson, house, Powis-road.

PUDSEY.—Plans passed: Two semi-detached and two other houses in Heath-grove, for Mr. Chas. A. Hall; extension of warehouse at Gibraltar Mills, for Messrs. Jas. Womersley & Sons; new scullery at South Parade, for Mr. A. S. Clough; house at Heath-grove, for Messrs. W. J. Kendall & Co.; and a house and garage at Mount Pleasant-road, for Mr. W. E. Bray.

RADCLIFFE.—The owners of the Coliseum Theatre propose to modernise and redecorate the building and to install a new and up-to-date system of central heating.

RAMSBOTTOM.—The Streets and Buildings Committee resolved that the plans, sections and estimates submitted for the improvement of the main road in Market-street and Bury-road, Edenfield, be recommended for approval, and that the Surveyor be authorised to advertise in due course for the 1,450 tons of granite setts which would be required for the scheme. The following building plans recommended for approval: Proposed conversion of No. 10, Scotland-place into two houses, for the Trustees of the late Sir John Grant Lawson.

ROCHDALE.—The Waterworks Committee decided to proceed with the laying of a seven-mile pipe-line from Warland Reservoir to the town, at an estimated cost of £56,300. Fifty per cent. of the interest on the loan for 15 years—half the term of repayment—will be contributed by the Government in view of the scheme finding work for the unemployed. The task will take a year, and it is expected that the number of men employed may reach nearly 100. Newhey Industrial Co-operative Society Ltd., are proposing to install electric light in their central premises.

ROTHERHAM.—Plans passed by R.D.C.: in Whinney-hill, Dalton, for Messrs. Holling bungalow on Moorgate-road, Whiston, Charles; and bungalow on Main-road, Mr. E. Stones.

ROTHWELL.—Plans passed: House in Robin Hood, for Mr. S. Hartley; and tw Royds-lane, for Mr. J. Bridges.

SADDLEWORTH.—The U.D.C. is being urg of unemployment, to erect a combined ref and disinfector station. A tender subm time ago by Messrs. Dawson & Manfield, Buildings, King-street, Manchester, was ac we understand this excluded certain build

SALFORD.—To provide work for local u the Ship Canal Company are considering of a new dock.

SEDGFIELD.—Plans passed by R.D.C.: Ferryhill, Mr. J. Carr; bungalow, Oat Stainton, Mr. J. Duff; two houses, Cor Mr. J. Teasdale.

SOWERBY BRIDGE.—Electricity is to be for gas at the Parish Church.

STALYBRIDGE.—The T.C. resolved that be made to the Ministry of Health for borrow a proportionate sum of £1,156 for t of road construction and other works in Sta For the relief of unemployment the T.C. ha apply to the Ministry of Health for sanctio £1,400 for laying out of the cemetery.

STANLEY.—Plans passed: Two houses lane, Leeds-road, for Mr. W. Heald; pa detached houses, near Asylum Gate, for M and pair of semi-detached houses in Lee Mr. Heald.

STOCKTON.—Plans have been passed by 20 cottages in Imperial-avenue, Norton, Blackett's Constructional Co., Ltd. The passed plans: Pair of semi-detached house road, Eaglescliffe, for Mr. F. W. Shopman,

SWANSEA.—The T.C. is to negotiate wit the construction of a marine drive from Langland, at an estimated cost of nearly £

TENBY.—In response to applications f sites the T.C. has applied for sanction to Maudlin Meadows and Broadwell Hayes owners.

TREDEGAR.—The U.D.C. has applied Welfare Fund Committee for grant towa version of Swan Pond at Bedwellty Park t swimming baths, at estimated cost of £3,0

TYNEMOUTH.—The Education Committe mending the T.C. to obtain sanction for £2 erection of Spring Garden Council School. provide for the erection of a public elementa accommodate 445 senior mixed scholars, an mixed and infant scholars. The Commit decided to appoint Mr. W. Stockdale, of N architect, and instruct him to prepare dra the proposed alterations and additions to Priory Schools.—Plans passed by T.C.: Se houses, The Crescent, Kenners Dene Estat Tasker, for Mrs. S. A. Fawdon: houses Hotspur-street and Argyle-street, Mr. W. for Messrs. B. Peel, Ltd.; five houses, Sa gardens, Mr. A. K. Tasker, for Mr. H. four semi-detached houses, Cleveland-ro Stockdale, for Mr. W. Bower; 18 houses lane and Windermere-terrace, Mr. W. St Mr. W. Bower.

UCKFIELD.—Plans passed by R.D.C cottages, Western-road, by Mr. E. A. Chilto Chapman & Sons.

WAKEFIELD.—Messrs. Moore & Crabtr gate Chambers, Queensgate, Bradford, ar tects for the rebuilding of Messrs. M. P. & Co.'s mill in Ings-road, recently destroy

WALTON-LE-DALE.—Funds are being ra erection of a new Wesleyan Sunday Schoo

WHITEFIELD.—The D.C. have resolved t tion be made to the Ministry of Health fo build houses on land belonging to the Cou lane.

WIGAN.—Funds are being raised by the of St. Matthew's Church, Highfield, to p walls, palisading, draining, making paths out the ground of their new burial groun the church, the estimated cost of which is

WILLESDEN.—Plans passed by U.D.C.: High-road, Kilburn, for Messrs. D. Mor house, 121, Wrottesley-road, Harlesden, Done, Hunter & Co., for Mr. E. Drown: garage, 106, Chatsworth-road, Cricklewo C. W. B. Simmonds; six dwelling-hou Way, Neasden, for Mr. James Easton; 17 to 67, Doyle-gardens, Willesden, for Mr Ball (Willesden), Ltd.; 20 houses, 91 to 10 116, Dewsbury-road, for Mr. A. Pearce.

WILMSLOW.—The District Branch of Legion are raising funds for the acquisitio and improvement of the Drill Hall, at property of the D.C. It is estimated tha cover the Club extension and £2,000 will to adapt the hall for social purposes.

WOLVERHAMPTON.—It was announced meeting of the Education Committee that posed to build two new schools and to rem at an estimated cost of £18,000.

FIRES.

CHORLEY.—Damage to the amount of caused by a fire on Saturday evening at Brickworks, near Chorley. A portion of th completely destroyed.

GLASGOW.—Considerable damage has b fire at the premises of J. Storrie & Co milliners, Queen-street.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

			s.	d.
and throwing or wheeling and filling carts, carting away to shoot—6 ft. deep	per yard cube		11	6
clay	"	"	1	0
every additional depth of 6 ft.	"	"	0	6
and strutting to trenches	per foot super		0	5
to sides of excavation, including shoring	"	"	1	0

CONCRETOR.

			s.	d.
cement concrete in foundation 1 to 6 ..	per yard cube		35	0
underpinning in short lengths	"	"	7	6
floors 6 in. thick	"	"	3	6
beams	"	"	4	0
ggregate 1 : 2: 4	"	"	10	0
hoisting not exceeding 10 ft. beyond the 10 ft.	"	"	3	3

BRICKLAYER.

		£	s.	d.
brickwork in lime mortar and Fletton				
ks	per rod	30	0	0
stocks	"	7	10	0
Staffordshire blues	"	22	0	0
Portland cement and sand	"	2	0	0

FACINGS.

or facing in English or Flemish bond for ry 10s. per 1,000 over the price of the com- n bricks	per ft. super	0	0	1¼

POINTING.

t struck or weathered joint	"	"	0	0 3

ARCHES.

nly to the price of ordinary brickwork :— ernal in half brick rings	"	"	0	0 10
stocks	"	"	0	1 9
and gauged jointed in putty camber or mental	"	"	0	6 0

SUNDRIES.

ourse in double course of slates breaking t and bedded in Portland cement	"	"	0	1 1
ordinary register grates and stoves	each		1	0 0
kitchener, including forming flues, &c., h all necessary fire bricks	"		4	15 0

ASPHALTER.

		s.	d.
h horizontal damp course	per yard sup.	4	3
uarter-inch vertical damp course	" "	9	0
n flats in two thicknesses	" "	6	6
llet	per foot run	0	3
and fillet 6 in. high	" "	1	3

MASON.

one templates fixed	per foot cube	12	6
one sills fixed	" "	21	6
one and all labour fixed	" "	10	6
d stone fixed	" "	19	6

SLATER.

16 in. × 8 in. 3 in. lap, including nails....	per square	72	9
20 in. × 10 in. Do. Do.	"	80	9
24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

med in plates	per foot cube	5	3
o. joists	" "	5	9
o. roofs, floors and partitions	" "	6	3
o. trusses	" "	8	3

		¾"	1"	1¼"	2"
ugh close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
ntering for concrete floor, in- ding struts or hangers ..	"	50	0
to beams	per ft. sup.	1	0
for arches	"	1	6
boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
lges shot	per sq.		49/-	58/-	67/-
ngued and grooved	"		54/-	65/-	72/-
atchings	"	45/-	55/-		
d skirting, including back- gs and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

			s.	d.
d-a-half moulded sashes or casements	per foot super		1	10
Do. Do. Do.	"	"	2	1
r fitting and fixing	"	"	0	4

sed frames with 1 in. inner and outer ings, 1½ in. pulley stiles tongued to linings, rd wood sills with 2 in. moulded sashes in uares double hung, double hung with pul- ys, lines and weights; average size | " | " | 3 | 9 |

DOORS.

		1½"	1¾"	2"
anel square framed	per ft. sup	2/1	2/4	2/6
panel Do.	"	2/5	2/8	2/11
anel moulded both sides	"	2/8	2/11	3/2
panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and	
Casement stays	1/2	making good	19/-
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	51	0
Do. Do. in flats	"	49	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

	½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run 10d.	1/6	1/9	3/1	3/10	
Do. service	" 1/5	1/11	2/3	3/6		
Do. soil	"					6/2
Bends in lead pipe	each				3/3	8/2
Soldered stop ends	" 1/2	1/8	2/1	2/10	3/6	
Red lead joints	" 11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	" 2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"			14/7	19/6	
Bib cocks and joints	" 6/4	9/7	15/4	41/-		
Stop cocks and joints	" 15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	" "	2	6
Do. Do. Keen's	" "	3	6
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1¾
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

*These prices apply to new buildings only. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A ntage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and free 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

NEW BUILDINGS IN LONDON.

Theobalds - road. — REBUILDING. — Messrs Whitbys, Ltd., of Eagle-street, W.C.1, are rebuilding part of some workshops in Theobalds-road. The architect is Mr. E. Drummond Roberts, of 114, Wandsworth Bridge-road, S.W.6.

Ilford.—COTTAGES.—Seven tenements, containing 14 flats, are being erected at Perth-road, Ilford, by Messrs. O. P. Drever & Son (Kettering), Ltd., of 141, New Bond-street, W.1. Messrs. Broadbent & Stephens, Ltd., are the sub-contract ors for the slating, and Messrs. Arnold & Co. for the electric lighting. The work is being carried out under the direction of Mr. H. Shaw, Borough Surveyor.

Ilford.—BANK ALTERATIONS.—This work comprises extensive internal alterations and the provision of a stone front, upon the completion of which the premises will be occupied as a branch of the National Provincial and Union Bank of England, Ltd. The general contractors are Messrs. Hammond & Miles; the Portland stone is being supplied by the Bath and Portland Stone Firms, Ltd., and the bank fittings by Messrs. J. P. White & Sons, of Bedford. The architect is Mr. F. C. R. Palmer, F.R.I.B.A.

Burdett-road, E.—ALTERATIONS.—Messrs. L. & W. Whitehead, Ltd., of 2, Portland-place North, Clapham-road, S.W.8, are carrying out alterations at the "Royal" Hotel, Burdett-road, E. The work consists of altering and remodelling the bars, dividing rear portion of premises for separate occupation, and contingent repairs and decorations. The architects are Messrs. Wm. Bradford & Sons, Carlton Chambers, 12, Regent-street, S.W.1.

Ilford.—INSTITUTE.—Messrs. Whitbys, Ltd., of Eagle-street, Holborn, W.C.1, are reconstructing the institute attached to Ilford High-road Wesleyan Church, at a cost of about £4,000. The architect is Mr. S. Phillips Dales, of 63, High Holborn, W.C.1.

NEW BUILDINGS IN SCOTLAND.

Glencraig.—HOUSING.—The Kirkcaldy District Committee of the Fife County Council has received the Board of Health's approval of the acceptance of the tenders for the erection of 38 houses at Glencraig amounting to £13,252 17s. 1d., subject to certain conditions.

Greenock.—BATHS AND FIRE STATION.—Plans have been prepared for swimming baths and a new fire station at the corner of Rue End-street and Dellingburn-street, Greenock.

Bonnyrigg.—HOUSES.—The T.C. has decided to erect a tenement of 16 houses of three rooms and eight houses of two rooms. The site proposed is in Polton-street.

Ayr.—HOUSES.—The T.C. are going to apply to the Board of Health for sanction to erect 50 houses.—The Dean of Guild Court has passed the following plans: Double cottage in Ashgrove-street, for Mr. R. Stewart, George-street, estimated cost £1,600; two houses in King-street, for Mrs. M'Mahon, King-street, £1,000; cottage in Ardlui-road, for Miss King, High-street, £1,100; cottage in Ardlui-road, for W. Govan & Sons, Prestwick, £1,400; and six houses in Bellesleyhill-road, for Mr. Clark, Ayr, £4,800.

Edinburgh.—OFFICES, &C.—The Dean of Guild Court has passed the following plans: Mr. D. Alexander, offices and sheds at West Savile-terrace; H. W. Brierly, a bungalow and garage at Bonaly, Colinton; Mr. W. Peterkin, bungalow at Brumbrae-road, Corstorphine; the trustees of T. Thomson, workshops at Straiton, Loanhead; the Portobello Co-operative Society, bakery at Tower-street, Portobello; Mr. D. M'Bain, four cottages at Longstane-road; and eight houses at Clark-avenue, for the Corporation.—The Housing Committee recommends the Corporation to build five-roomed houses to sell to tenants on the instalment plan.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.
* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

BRADFORD.—For the erection of 48 houses, for the Corporation, on the Scholemoor housing site:—

‡Thomas Obank & Sons, Thackley	£17,708

BRIDLINGTON.—For erection of 20 houses, for the T.C. Borough Engineer and Surveyor, 1, The Crescent, Bridlington:—

*C. Sprakes & Sons, Doncaster	
Per pair	£786 18 4
Extra drainage	84 5 6

CHAPEL-EN-LE-FRITH.—For construction of sewage disposal works, comprising detritus tanks, storm water tanks, sedimentation tanks, bacteria beds, humus tanks, and roughing filter, together with laying of about 3,355 lin. yds. of 12 in., 9 in. and 6 in. stoneware pipe sewers, and about 188 lin. yds. of 10 in. steel tubes on piers, including river crossing, construction of manholes, and other appurtenant works, at Bamford, Derbyshire, for the R.D.C. Messrs. Brady & Partington, Town Hall, Chapel-en-le-Frith:—

C. Collins & Co., Radcliffe	£12,052 10 0
Wm. Storrs & Sons, Stalybridge	11,987 6 0
J. J. Blackburn, Manchester	10,670 0 0
Edmund Taylor, Ltd., Blackpool	10,502 16 6
R. & T. Howarth, Rochdale	10,458 10 1
Hussey & Egan, Birmingham	10,096 14 4
H. & E. Andrews, Sheffield	9,689 18 11
Chas. Wade, Luddenden Foot	9,463 16 0
Gibson & Gibson, Middlesbrough	9,220 3 9
The Carter Helsby Construction Co., Sheffield	9,065 17 5
John E. Nadin & Son, Sheffield	9,029 5 6
Thos. Roper & Sons, Ltd., Sheffield	8,963 0 0
T. Patrick, Lidget Green, Bradford	8,728 16 6
Waddington & Son, Sheffield	8,318 3 1
Western Construction Co., Falmouth	8,261 8 11
*Hayes & Son, Heaton Norris	8,048 1 6

CHESTER.—For road and sewage works on Heath-lane housing site, for the T.C. Mr. C. Greenwood, City Engineer, Town Hall, Chester:—

*W. H. Worthington, Ltd., Manchester	£2,541 8 1

CROYDON.—For alterations to an existing building at Ham Farm, for the purposes of a sub-station, for the T.C.:—

Truett & Steel	£145 15
D. Waller	140 0
*R. Mansell	137 0

DORCHESTER.—For erection of engine-room, for the T.C.:—

*C. E. Slade	£830

FULHAM.—For re-making the roadway at the Workhouse, for the B.G. Mr. E. J. Mott, 129, Fulham Palace-road, W.6:—

R. Merton Hughes, W.6	£781 0
The Limmer and Trinidad Lake Asphalte Co., Ltd., S.W.1	750 0
A. C. W. Hobman & Co., Ltd., Bermondsey	637 0
*Thomas Adams, Wood Green	558 18
Campbell, Kenyon & Co., Ltd., Acton	550 0
G. K. Waghorn, Parsons Green	550 0

GLASGOW.—For construction of roads and sewers at Knightswood, for the T.C.:—

*A. M. Cochran & Co.	£34,610 11
*Wilson, Kinmond & Marr	35,834 10

GLASGOW.—For enclosing ground at Riddrie sub-station, for the T.C.:—

*John Train & Co.	£205

GLASGOW.—For heating and ventilating installation at Partick Library, for the T.C.:—

*G. N. Haden & Son	£855 19 3

GLASGOW.—For heating installation at Elder Library, for the T.C.:—

*H. Twaddle & Son, Glasgow	£299 10

GLASGOW.—Supply of 1,515 tons of cast-iron water pipes to the T.C.:—

*Macfarlane, Strang & Co.	£15,679 1 6

GLASGOW.—For erection of hall at South Govan, for the T.C.:—

Excavator, brick, mason, &c., works—	
*Hunter & Clark	£11,270 12 7
Carpenter, joiner and ironmongery works—	
*John M'Donald (Contractors), Ltd.	6,207 5 5
Steel and smith works—	
*Redpath, Brown & Co., Ltd.	1,127 9 1
Glazier work—	
*Henderson & Caldwell	115 10 0
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*William Crawford	576 15 0
Plumber work—	
*James Somerville, Govan	1,155 3 11
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*H. S. Bathgate	976 8 10
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*John Youden & Son, Ltd.	2,196 11 8

GRIMSBY.—Supply and erection of ... Barrett Recreation Ground, for the T.C.:—

*J. Duke, Ltd., Grimsby	£

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*Mitchell Bros., Sons, & Co., Ltd., Glasgow	£

HUNSWORTH.—For sewage extension... Marsh, for the U.D.C.:—

*W. H. Jowett & Co., Cleckheaton.	

KINGSBRIDGE.—For additions to Cat... for the U.D.C. Mr. J. Hole, surveyor, Kin...

Willcocks & Sons, Buckfastleigh	£1,108
W. Blake, Kingsbridge	995
*H. H. Wingate, Kingsbridge	851

LEEDS.—For the erection of a boys' ... school at Roundhay, for Leeds E.C.:—

*Hy. Atkinsons & Sons, Ltd., Leeds.	

LIVERPOOL.—For the erection of ... premises in Church-street, for Messrs. C. & ... Ltd. Messrs. North, Robin & Wilsdon, ar...

*Wm. Moss & Sons, Ltd., Loughborough	

LOCH KATRINE.—For (1) the raisin... Katrine Outlet Works and (2) the raising ... basins to tunnels at upper end of aqueduc... Katrine, for the Glasgow T.C.:—

*John Smellie	£25,34

LONDON.—For external painting of fi... Group 8, for the L.C.C.:—

William Bailey, East Greenwich	£3,666
F. Cottrell, Ltd., Crouch-hill	1,640
C. P. Roberts & Co., Ltd., Hackney	1,505
Whitbys, Ltd., High Holborn	1,473
Cole, Loasby & Co., Bloomsbury	1,379
Stevens & Sons, Crouch-hill	1,127
F. & T. Thorne, Isle of Dogs	1,059
J. & C. Bowyer, Ltd., Upper Norwood	995
Vigor & Co. (Poplar), Ltd., Poplar	878
Triggs & Co., Clapham	815
*Arthur H. Inns, Ltd., Bishopsgate	732

ONDON.—Repair of stonework and brickwork he Bethnal Green fire station, for the L.C.C. :—
J. Groves & Sons, Tottenham £384
Walter Lawrence & Son, Ltd., Enfield.. 322
L. H. & R. Roberts, Hackney..... 257
Fred & T. Thorne, Isle of Dogs..... 242
Cole, Loasby & Co., Bloomsbury..... 235
Ashby & Horner, Ltd., Aldgate..... 228
J. & C. Bowyer, Ltd., Upper Norwood 225
John Marsland & Sons, Ltd., Westminster 187
Whitbys, Ltd., High Holborn..... 175
C. P. Roberts & Co., Ltd., Hackney.. 168
Triggs & Co., Clapham..... 158

ONDON.—For the installation of hot-water ratus at the Plumstead fire station, for the L.C.C. :
Palowkar & Sons, E.C. 4 ..... £271 0
James Gray, Ltd., S.W. 123 0
The London Plenum Heating Co., S.W. 1 ..... 106 0
J. & F. May, W.C. 2 ..... 83 0
J. T. Meredith & Co., Ltd., S.E. 1.... 46 10

ONDON.—For installation of hot-water supply ratus at the North Kensington fire station, for L.C.C. :—
T. Laurie Price & Co., Ltd., Chancery-lane W.C. £144 5
Young, Austen & Young, Strand, W.C. 137 10
Beaven & Sons, Ltd., Victoria-street, S.W. 110 15
Strode & Co., Regent's-park... .. 109 10

ONDON.—Repair to the brickwork, &c., at the h Kensington fire station, for the L.C.C. :—
John Marsland & Sons, Ltd., Westminster £356 0
Lole & Co., Chelsea 237 0
C. H. Boyd & Son, Ltd., Paddington 222 0
J. & C. Bowyer, Ltd., Upper Norwood 147 0
Triggs & Co., Clapham..... 137 0
Whitbys, Ltd., High Holborn..... 133 10
H. Brown & Son, Harrow-road, W. 129 0
Lister & Co. (Builders), Ltd., Snowhill, E.C..... 125 0

NDON.—For relaying the granite pitching of the ern and southern approaches to Tower Bridge, e City Corporation :—
S. Kavanagh & Co..... £3,926
W. Griffiths & Co., Ltd..... 3,732
G. & J. Anderson 3,650
John Mowlem & Co. 3,554

LDON.—For erection of 16 houses in Cherry en-road, for the T.C. Borough Engineer, Muni- Offices, Maldon :—
F. H. Sherling, Maldon £7,380
C. Blade Wenden, Witham..... 7,200
F. D. Dean, Witham 7,032
W. Watson, Chelmsford 6,784
A. Baxter, Maldon 6,451
F. G. Hawke & Sons, Chelmsford... 6,400
G. Gould, Jun., Burnham-on-Crouch.. 5,880
S. T. Annereau, Westcliff-on-Sea 5,550
Concrete Products, Ltd., Chelmsford.. 5,120

NCHESTER.—For the erection of the City's Memorial in St. Peter's-square :—
The Nine Elms Stone Masonry Works Co., Ltd., London.

NCHESTER.—For alterations to 46, Fountain , for the Auctioneers' Institute. Messrs. Halliday, son & Agate, architects, 18, John Dalton-street, hester :—
Matthews (Builders), Ltd., Manchester.

NCHESTER.—For new office block and shop ses in Market-street. Messrs. Halliday, Paterson ate, architects :—
. & W. Smith, Manchester.

work—J. Booth & Sons, Bolton.

RGATE.—For private street works (*a*) North- way ; (*b*) Wellclose-square, for the T.C. Borough yor, 13, Grosvenor-place, Margate :—

	Wellclose-square.		*Northdown-way.*	
eton & Cochrane				
d. East Malling ..	£260 7 11	..	£1,067 11	1
rd & Newby, msgate	—	..	1,236 0	0
Bell & Sons, Ltd., ttenham	—	..	1,222 0	0
Ross & Co., West- te	505 12 9	..	1,721 0	0
Cooper, Margate	301 0 0	..	1,110 0	0

METROPOLITAN ASYLUMS BOARD.—The following tenders have been received by the Board :—

Eastern Hospital—Alterations to provide washing and changing rooms—
Joseph Darch, Ltd., London.... £349 0 0
—. Munro, London..... 337 0 0
W. M. Brand, London..... 330 0 0
C. H. Boyd & Sons, Ltd., London 296 0 0
*W. S. Sharpin, Bow..... 247 0 0

East Cliff House, Princess Mary's Hospital for Children—Installation of electric light—
Farndons Power & General Electrical Co., Ltd., Stratford, E. 400 3 10
The Kent Coast Electrical Co., Broadstairs 400 0 0
W. J. Ayling, London..... 385 6 0
The Building Equipment Co., Ltd., Piccadilly, W..... 324 2 6
Stribling & Setterfield, Margate.. 290 15 5
Symper & Evershed, Harrow.... 289 0 0
Edmundsons' Electricity Corporation, Ltd., Westminster.... 286 6 9
David Henderson, Glasgow..... 280 0 0
C. F. Powell & Co., Eastbourne.. 270 0 0
Edward Wolf & Co., High Holborn 264 0 0
H. A. Neale & Co., London..... 256 13 9
Philpot & Sons, Canterbury.... 247 10 0
Margate District Electrical Co., Ltd. 245 0 0
W. J. Cannon & Co., Margate.... 240 0 0
Toy & Winslow, London..... 235 0 0
A. Dean & Co., Ltd., London.... 234 16 6
G. E. Taylor & Co., London.... 225 19 7
A. Higginbotham & Sons, Idle.. 215 0 0
Albert S. Palmer, Margate..... 200 0 0
G. Sparrow & Co., Brixton, S.W. 171 2 5
Guild Housing, Ltd., Acton, W... 164 0 0
J. H. Piggott, Broadstairs..... 158 0 0

Tooting Bec Mental Hospital—Supply and delivery of two foul linen washing and disinfecting machines.
The Cherry Tree Machine Co., Ltd., Blackburn £385 0 0
Harry Aublet & Co., Ltd., London 330 0 0
D. & J. Tullis, Ltd., Kingsway, W.C. 280 0 0
Manlove, Alliott & Co., Ltd., Westminster 270 0 0
*T. Bradford & Co., High Holborn 254 10 0

South-Western Ambulance Station—Rebuilding wall.
Douglass, Halse & Co., Ltd., Woolwich £970 0 0
Chappell Bros., Balham High-road, S.W. 970 0 0
Joseph Darch, Ltd., Whitefriars-street, E.C. 897 0 0
W. S. Sharpin, Bow, E. 892 0 0
Rice & Son, Stockwell-road, S.W. 700 0 0
H. A. Thomas & Son, East Dulwich-grove, S.E. 558 16 0
*J. Hocking & Co., Charlton, S.E. 533 0 0

Tooting Bec Mental Hospital Extension—Patent glazing for covered ways.
Mellowes & Co., Ltd., London .. £1,273 14 8
The British Luxfer Prism Syndicate, Ltd., Finsbury, E.C... 1,187 0 0
W. Edgcumbe, Rendle & Co., Ltd., London 1,141 19 7
W. H. Heywood & Co., Huddersfield 1,100 0 4
Helliwell & Co., Ltd., Brighouse 1,059 15 3
The Pennycook Patent Glazing and Engineering Co., Ltd., Glasgow 1,057 16 6
Henry Hope & Sons, Ltd., Halford Works, Smethwick.... 1,022 0 0
Wotton & Son, Poplar-walk, Croydon 1,020 0 0
*The Standard Patent Glazing Co., Ltd., London..... 1,012 1 2

NORMANTON.—For the erection of 24 w.c.'s at Wakefield-road, for the Public Trustee. Messrs. Dalton & Spencer, 25, Bond-street, Leeds :—
E. Wooller & Son, Leeds £1,092 14 4
H. Braithwaite & Co., Ltd., Leeds 1,052 7 6
J. N. Thorpe, Normanton..... 1,010 0 0
*Cliffe Bros., Normanton 984 0 0

PEMBROKESHIRE.—For constructional and repair work, for the County Small Holdings Committee :—
At Iveston—
Hughes & Betty, Neyland £1,890 2 0
George Jones, Monkton 1,840 9 3
Davies & Morgan, Pembroke .. 1,684 0 0
S. G. Thomas, Pembroke (orig.) 1,441 5 6
*Amended..... 980 8 6
At Dinant—
Davies & James, Haverfordwest £1,075 0 0
Thomas Harris, Neyland 874 0 0
Lee & Bracher, Nolton 820 0 0
W. H. Fortune, Haverfordwest 698 8 6
James John & Morgan Bros., Haverfordwest (original) .. 676 0 0
*Amended..... 631 0 0
At Sealyham Estate—
Michael & George, Cilgerran.... £3,452 0 0
T. James, Welsh Hook 3,194 4 0
James George, Fishguard 3,164 0 0
Thomas Griffiths, Letterston .. 3,154 0 0
James John, Haverfordwest .. 3,006 10 0
T. Harris & Son, Neyland 2,898 0 0
W. J. Thomas, Letterston 2,688 0 0
W. H. Fortune, Haverfordwest 2,471 7 9
*Amended tender 2,278 16 3
At Rose Cottage, Trefuynt—
E. W. Griffith, Tenby £860 0
M. Young, Narbeth 830 0
T. Harris & Son, Neyland..... 731 14
Hughes & Betty, Neyland..... 637 5
E. Parry & Son, Templeton..... 508 0
*E. Parry & Son (amended)..... 473 0

SCARBOROUGH.—For the erection of a private residence in Stepney-road, for Mr. Milner :—
*Thos. Morley & Sons, Leeds.

SEACOMBE.—For the construction of a new landing-stage at Seacombe, for the Wallasey Council:—
*Cleveland Bridge & Engineering Co... £55,293

SHIPLEY.—For the erection of 16 houses, for the Shipley U.D.C., at Windhill :—
*J. Pitts & Sons, Ltd., Shipley.. per house £391
(All trades.)

SMETHWICK.—For covering in second-class swimming bath with a portable maple floor. Mr. Alex. Hosken, Borough Engineer and Surveyor :—
*G. & H. Marshall £529

SOUTHEND-ON-SEA.—Supply and fixing of 5 ft. unclimbable iron fencing on portion of Priory Park, for the T.C. :—
*T. W. Palmer & Co., Merton Abbey.... £500

SOUTHEND-ON-SEA.—For making-up (*a*) Branksome-road and (*b*) Christchurch-road, for the T.C. :—
*W. Iles, Southend—(*a*) £2,855, (*b*) £620.

SOUTHEND-ON-SEA.—Erection of dressing-rooms at Victory Sports Grounds, for the T.C. :—
*B. H. Davey, Southend..... £1,817

SOUTHWICK.—For sewer extension in proposed new road at Fishersgate, for the U.D.C. :—
P. Payne, Shoreham £194 0 0
J. Parsons & Sons, Hove.... 167 12 0
‡E. H. Curd, Shoreham..... 130 0 4½

SOWERBY BRIDGE.—For erection of five houses in Albert-road, for the U.D.C. Mr. J. Eastwood, Council Offices, Sowerby Bridge :—
Mason and bricklayer—
R. Hitchen, Sowerby Bridge.
Carpenter and joiner—
V. Parson, Sowerby Bridge.
Slaters and plasterers—
T. Dyson & Son, Sowerby Bridge.
Plumbers and glaziers—
Albert Booth, Sowerby Bridge.
Painters—
Hitchen & Thomas, Sowerby Bridge.

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STROMNESS.—For erection of new pier in reinforced concrete. Mr. Jas. A. Liddle, Pentland Engineering Works, Gorgie, Edinburgh. Quantities by engineer:—

Brebner & Co., Edinburgh	£12,378	0	0
Kinnear Moodie & Co., Ltd., Westminster	11,500	0	0
Gray's Ferro-Concrete Co., Ltd. Glasgow	10,857	18	6
The Yorkshire Hennebique Contracting Co., Ltd.	9,948	3	0
McBride & Co., Ltd., Port Glasgow	9,172	6	8
*Saxild & Partners, Westminster	7,266	4	9

STROMNESS.—For the construction of a steel and concrete pier, near to Scapa Flow, for Messrs. Thornley Bindes, Ltd., London:—

*Saxild & Partners, London £18,000

SUNDERLAND.—For repairs to outside of St. George's Presbyterian Church. Messrs. W. & T. R. Milburn, 19, Fawcett-street, Sunderland:—

J. T. Fatherly & Co., Newcastle-upon-Tyne	£790	0	0
Tattersall & Sons, Middlesbro'	664	0	0
J. W. White, Sunderland	550	0	0
J. & T. Parker, Sunderland	530	11	0
J. Carter, Sunderland	490	0	0
—. Bidder, Manchester	457	14	1
*D. & J. Rankin, Sunderland	456	0	0

TENTERDEN.—For erection of detached house Appledore-road, for Mrs. C. A. Winchester:—

Noakes & Co., Eastbourne	£998	0	
R. Bridge, Tenterden	990	0	
W. P. Woodgate,	945	0	
*Elliott & Sons, Tenterden	926	5	

TIVERTON.—For the construction of an open-air bath in reinforced concrete, for the T.C. Mr. J. Siddalls, Borough Engineer, Town Hall, Tiverton:—

Monnoyer Construction Co., London	£3,299	13	0
Gray Ferro-Concrete Co., Glasgow	3,193	8	0
G. Pollard & Co., Taunton	3,062	15	4
Humphreys, Ltd., London	2,845	0	0
Crawford Bros., Havant	2,669	3	6
E. Harris & Sons, Clyst Hydon	2,515	0	0
Fothergill Bros., Exeter	2,388	12	2
J. Grater & Sons, Tiverton	2,164	12	5
*W. H. Smith, Torquay	2,052	10	4

VENTNOR.—For alterations to fire station, redecking pier promenade, extension of main sewer, and laying down four hard tennis courts, for the U.D.C. Mr. D. V. Howard, Surveyor, Town Hall, Ventnor, I.W.:—

Renewing joists and decking at Royal Victoria Pier—

H. Linington, Wroxall	£2,375	0	
A. Sims, Ventnor	2,298	10	
H. Ingram & Sons, Ventnor	2,288	0	
F. Bevis, Ltd., Portsmouth	1,940	0	
*W. H. Bishop, Newport, I.W.	1,825	0	

Extension of main sewer, Whitwell-road—

F. Bevis, Ltd., Portsmouth	£800		
J. Rousell & Son, Ventnor	789		
H. Linington, Wroxall	755		
H. Ingram & Sons, Ventnor	752		
*A. Sims, Ventnor	729		

Four hard tennis courts, &c., St. Boniface-road—

F. Bevis, Ltd., Portsmouth	£4,250	0	
H. Linington, Wroxall	3,300	0	
H. Ingram & Sons, Ventnor	3,273	0	
*A. Sims, Ventnor	3,249	10	

WESTCRAIGS.—For improvement of bridge. Mr. W. A. Chapman, Road Surveyor, Airdrie:—

Mason work—

R. Walker, Airdrie	£904	10	0
R. Paterson & Son, Airdrie	640	0	0
Murdoch Mackenzie, Ltd., Motherwell	631	0	0
*Z. Pope & Co., Cleland	569	5	0

Steel work—

P. & W. Maclellan, Ltd., Glasgow	208	8	11
Orr, Watt & Co., Ltd., Motherwell	203	4	4
Motherwell Bridge Co., Motherwell	185	0	0
A. Lindlay & Co., Ltd., Motherwell	173	7	6
*Wm. Bain & Co., Ltd., Coatbridge	167	16	3

YEADON.—For extensions to Westcroft Mills, for Messrs. Bland & Sons:—

*J. & P. Obank, Idle.



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JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

L. CXXV.—No. 4213. NOVEMBER 2, 1923

CONCERNING COMPETITIONS.

THERE appears to be a general consensus of opinion among architects in all parts of the Empire that the present system of judging public competitions is defective, and that the whole question of the conditions and method of assessing such competitions should be reviewed fairly and impartially in the light of recent experience, and an endeavour made to find a method which shall be more in accordance with modern requirements.

It is somewhat singular, in view of this general interest in the subject, that those who have recently expressed their views (in our columns and elsewhere) do not appear to be acquainted with the paper on *The Evolution of the Architectural Competition*, read by Mr. H. V. Lanchester at the R.I.B.A. on January 7, 1915. For this reason we propose in our next issue to give a summary of the paper, which we feel will be welcomed by our readers as an impartial review of the whole subject by one who has considerable experience, both as competitor and as an assessor. It is not without reason that Mr. Lanchester opened his survey with an extract from the introduction to the seventh book of Vitruvius, although it deals not with architecture, but with the kindred art of poetry. The passage is well known, and recounts how Aristophanes (who had previously spent much time in the celebrated library at Alexandria) assisted the judges appointed to make awards in a contest of poets. When the judges were required to decide, although them agreed to award the first prize to the competitor who had most pleased the assembled multitude, and the second prize to some other candidate. The opinion of Aristophanes was required, he observed that the best poet had pleased the people least. So convincingly was he able to prove his contention that the two competitors applauded by the people had stolen their verse from existing works, that not only did they forfeit the prize, but the king ordered them to be proceeded against for theft, and dismissed them with ignominy.

At first sight it might appear that the application of this illustrative story to modern architectural competition is not very close. Considered more carefully, we feel that it goes to the heart of the matter; we observe, firstly, that the judges based their (proposed) award, not on knowledge, but on their own judgment, but on popular approval; secondly, that the competitors applauded by the multitude relied, not on their own ability, but on a skilful plagiarism of the work of others, selecting, no doubt, those who had been successful at previous contests; thirdly, that the courageous action of Aristophanes (though at first received with surprise and distrust) eventually obtained the support of the king and the populace, because it was seen to be based on knowledge, and was supported by an impartial survey of the relative merits of the work of competitors in its relation to the conditions of the competition.

This exactly expresses what we feel to be the chief difficulty in public competition of the present day. A good case can always be made out for the assessing of all competitions by a single man, but the justice of their award will ultimately depend on the knowledge, experience and courage of the assessors, on the manner in which they have drawn up the programme or "conditions," and on their elimination of all competitors who have not complied with these conditions. So long ago as 1829 a committee appointed by the R.I.B.A. to consider the matter expressed the view that "whatever the conditions may be they ought to be clear and explicit, that the competitor may know precisely and unequivocally upon what he has to rely. Whenever it may be expedient to lay down definite instructions they ought to be strictly adhered to, when judgment is to be founded upon them, and every design rejected which shall not be found to conform to them."

It is evident that if this pronouncement had been strictly observed by assessors their awards would not so frequently have been received with a considerable volume of hostile comment, and, in all probability, there would have been no great demand for a change in the existing system of a single assessor nominated by the President of the R.I.B.A. We can all call to mind competitions which have been satisfactorily assessed and in which the awards have been endorsed by a majority of the competitors themselves, but because the award has been accepted as a fair and impartial one it does not come into so much prominence as in those cases where criticism of the assessor's judgment can be justified.

At the present time the difficulties of the single assessor are increased because—under the existing system of nomination—he is frequently one of those who belong to what we may call "the Elder Statesmen" of the pre-war period of architecture, and "whose outlook," as a correspondent expresses it, "and habit of thought in architectural composition are along entirely different lines from that of the younger generation, who form the majority of the competitors. He is, consequently, incapable of drawing up a programme in such a form as to fire the imagination of the younger architect, and is handicapped in his judgment of the work sent in by not being in touch with the new ideals which to-day show such well-marked lines of cleavage from the accepted standards of pre-war days."

It appears that the jury of assessors is preferred by all, or nearly all, of those who have taken part in the recent correspondence in our pages to the system whereby the decision in any important public competition is left in the hands of a single architect. It is noteworthy that for other important architectural contests, such as the Rome prize, the awards made in the schools of architecture, and in the architectural "ateliers," there could be no suggestion of a single assessor, so firmly is the principle of the jury established. This is largely due to the excellent work of the Beaux Arts Committee, which has consistently advocated the advantages of the jury system for many years and has demonstrated the fact that it is a workable scheme.

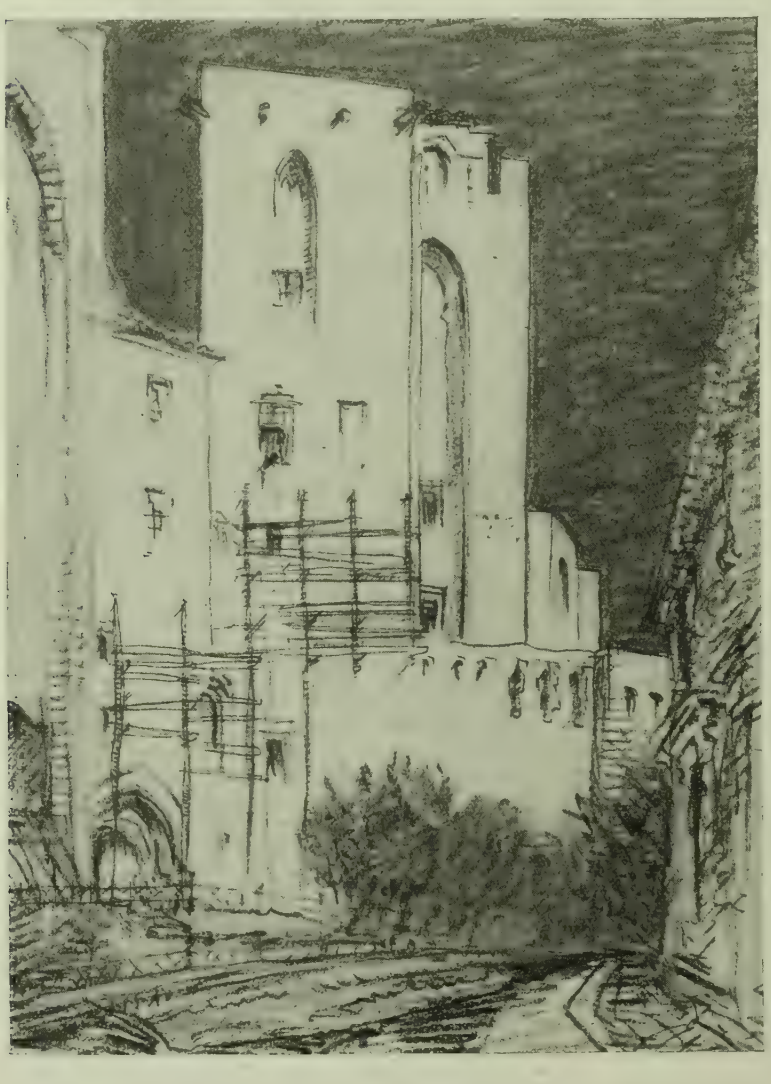
We feel, therefore, that in the interests of the profession, the Institute (whose powerful influence has so often been wisely and successfully used to obtain from promoters of architectural competitions conditions such as have generally inspired confidence in competitors themselves) should, in the light of recent experience, review the whole question of the regulation of competitions. The matter might possibly be referred by them to an impartial body, such for example as the recently constituted *Franco-British Union of Architects*, whose members comprise many distinguished architects well acquainted with the merits and defects of the various systems of assessing competitions both in England and France. Any report by such a body would have considerable weight and would, no doubt, be of assistance to the Institute, to whom the whole profession looks for a clear statement on this difficult question.

NOTES.

Lack of Skilled Labour. With a building programme in Birmingham extending over twenty years there seems little likelihood of unemployment there, yet Sir Montague Barlow—as we report on p. 695—had to deplore the lack of skilled building workers, as pointed out to him by a deputation from the Birmingham City Council on Tuesday. The lack of bricklayers obviously affects directly the employment of labourers, who number 2,000 out of the 2,300 unemployed building workers in Birmingham. The lack of a continuous supply of trained apprentices is a serious matter and we think parents are much to blame in overlooking the advantages possessed by the skilled mechanic. It is surely a curious fact, notwithstanding the promise of long-extended activity in building work in Birmingham, that no definite steps are taken to provide an adequate supply of the needful workers.

Preservation of City Churches. Nothing could be more untrue, says the City Churches Preservation Society, than the statement that the City churches are no longer able to fulfil the purposes for which they were built and are therefore of no further use. Many of them minister to a far larger day population than when they were built, and surely all of them are capable of being put to good use. We do not think the case for providing churches for suburban use out of the sale of City churches is clearly established. It is easy to destroy a number of old sacred buildings, but we venture to think there is a large and potent opinion against such a course.

Architecture for the General Public. There is probably no better way of gradually improving the prospects of architectural design than a more extended and intimate knowledge of it by the general public, and we are therefore glad to see attention again directed to this consideration. In a reprin paper read in 1906, Sir Banister F urges a definite acceptance o general architectural study in the lum of students' work, whethe aim to practise as architects Everyone knows how the rem building all the world over remai as vivid pages of the world's Whilst no realisation of fine ora singing and no triumph of d art remained to us from all the doings up to a few years ago, we realise the values of ancient archi art, both on the ground and b from China to Peru. The chara peoples is indelibly stamped upo buildings, and some day the wid worship of the dollar will be ine illustrated by our precedents a remains of present-day structure cannot do better than quote a pa of the writer's remarks, as f "Architecture has been the press of all periods. Architect more particularly entitled to the at of the general student than an of the Fine Arts; because it ca action so many and such varied b of mechanical labour, and b operating thus extensively upon in it also promotes national pro Hence the dissemination of a tast amongst the middle as well as th opulent classes of the State is n sound national policy, but also im as likely to lead to more direct ar obvious artistic results."



The Palace of the Popes, Avignon.
From a Sketch by Mr. Stanley Hamp, F.R.I.B.A. (*See p.* 693.)

British Museum Lectures. These lectures on excavations, contin Miss Clare Gaude sustain the interes which they were inaugurated. by the admirable photographs sh the screen, the audience is give an intimate contact with ancient tions, which reveal in their deta that is of interest to the preser such as the photographs from t Sumurian period illustrating the the expansion joint in buildin Sumurians, in the mounds on w cities were built (from 40 to 70 f used sunbaked bricks in the cer kiln burnt on the outside, and b drains in horizontal courses with radiate arches, and for the smalle large bricks were placed in a tria in pitch. To preserve the ced beams they soaked them in and we may observe how effect soaking was in their being able the death watch beetle for su periods of time. The lecturer d how at Ashur some vaulted c of burnt brick were found wit doors, which proved to be the t the kings; these were found to h

lered in ancient times, as, indeed, most of the Egyptian tombs. Photos of the fortifications at Ashur, rated by the Germans before the are said to have influenced the ing of the Hindenberg line, the ans making use of the knowledge acquired. Whether so or not, one to see that human nature at any in the oldest civilisation or in that day, reveals much that is common civilisation.

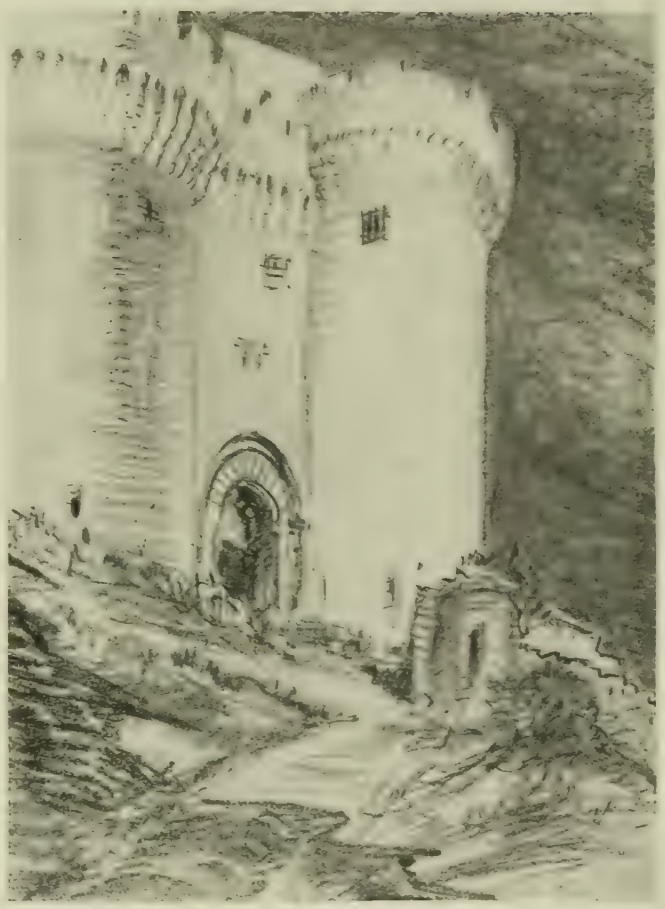
Wealth.

In the difficulties of the time there is a call for the creating of new wealth, and ave heard attention directed but tly to the necessity of doing so. is plenty of scope, which should l particularly to the more thought- us in raising the standard of our tries, as well as the extent of them. is an opportunity for a commercial macy in securing that our industrial re the best in the field, and in order ieve that there must be appreciation e need for more experiment, more ture. The timidity that holds to ld commercial ways is unequal to ask of penetrating our industries new values, and will, we hope, be seded by a spirit of more enlighten- which recognises to the full the tance of art to industry, and under- s something of the best means of g them closer together. In such a we may so increase the esteem for dustrial art that it will derive that macy which merit confers on it, reate the new wealth we so much

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The oration f uman lues.

It is not perhaps sufficiently recognised that there is a waste of resources under the pressure of industrialism, which withstands progress, hat to increase the percentage of n value—in fact, to get more out nan than the 20 per cent. of indus- m—is a sound economic proposition. resent state of things is as though d a factory full of machinery and ted to use more than a quarter of When stated, it appears almost l that this waste of human values l continue without more notice called to it. Our industries need the ment of this unused source of new n. and freeing labour to a more gent use of itself will do more than rther entrenching of industrialism present lines. The question, there- s of concern for all of us, as to what cations are possible to industry in to increase the percentage of human in each man, which liberates more n to intelligent labour. And in finding the solution, we should also find what was missing in order to restore art to industry.



Entrance to the Chateau, Villeneuve, Avignon.

From a Sketch by Mr. Stanley Hamp, F.R.I.B.A.

Stowe Avenue.

The public-spirited action which intervened at the time of the sale to delay the passing of Stowe-avenue is now, due to the liberality of old Etonians, likely to succeed in preserving these beautiful trees, which will become the property of the school, though the chief credit is due to Mr. Williams-Ellis in the first instance, who, by his generous thought for the public welfare, saved them from destruction. With so many of our finest country places changing hands, every care should be taken that, under the new conditions, their features, which are so much a part of our inheritance of beauty, should be spared, endowed as they are with so many associations. Though it would not be fair to suggest, as is too readily assumed, that we are more neglectful of preserving the past than our predecessors, for discoveries are often enough made showing traces of earlier beautiful architecture replaced by the fashion of a later time, it would be truer to say that at all times there has been vandalism and that the present age has to set a better example. One may cite here, as an instance of that violation of the past carried on to present times, the case of Winchester College Chapel, which, from the time of the barbarous removal of the Grinling Gibbons' panelling, has been subject to one restoration after another in a restless spirit of change.

The A.A. School.

An admirable quarto pamphlet has been issued illustrative of the work of the Architectural Association School of Architecture, in which the many-sided activities and advantages of the School are graphically set forth. The frontispiece is appropriately a reproduction of the School Diploma granted to those who have passed the five-year course, followed by six months in an architect's office. It should be remembered that admission to the school is not confined strictly to architectural students, but is extended to those entering any of the arts, professions, or businesses connected with building. The twenty-five pages of illustrations of students' work, including two well produced pages of colour work, will be found worthy of note.

GENERAL NEWS.

Professional Announcements.

Mr. F. P. Ferguson, architect and surveyor, has opened an office at 38, High-street, Buckingham, and will be pleased to receive manufacturers' catalogues.

Mr. R. Gerrard Forbes, M.S.A., architect and surveyor, of 540–543, Abbey House, Victoria-street, Westminster, S.W.1, would be pleased to receive trade catalogues.

Mr. Thomas Gibb, M.S.A., has taken into partnership Mr. Edwin Smith, A.R.I.B.A., P.A.S.I. The firm will practise as Gibb & Smith, architects and surveyors, at Post Office Chambers, Port Talbot (telephone 70), and Borough Chambers, Neath (telephone 329).

Appointments.

Mr. Arthur Storer, engineering and town-planning assistant to the county borough of Grimsby, has been appointed building inspector to the Borough of Chesterfield. There were 137 applicants for the post.

Mr. Percy Parr, of 30, Merches-gardens, Cardiff, who, for the past three years, has been an assistant to the City Engineer at Cardiff, has been appointed senior engineering assistant to the Rotherham Corporation. Mr. Parr came to Cardiff direct from the Manchester University, where he took his B.Sc. degree with honours.

Mr W. H. Gibbons, teacher of building construction at the Altrincham Technical School, has been appointed one of nine building construction teachers to confer with the Lancashire and Cheshire Institute on their building construction syllabus.

Honours and Presentations.

The highest honour it is in the power of the architectural profession in France to bestow, the Grand Medaille de Société des Architectes diplomées par le Gouvernement Français, has been awarded to Mr. John W. Simpson, Past President, Royal Institute of British Architects joint architect of the British Empire Exhibition, and author of "Essays and Memorials," recently published.

Mr. T. F. Harvey, for 27 years engineer and surveyor to the Merthyr Tydfil Board of Health and Town Council, and since 1912 the waterworks engineer to the Council, was the recipient of an illuminated address from the Council in appreciation of his 37 years' service, at a meeting held on October 23. Mr. Harvey has been transferred to the Taff Fechan Joint Water Board, to whom he will act as engineer.

At the General Purposes Committee of the Huddersfield County Council it was resolved to invite Alderman Joseph Berry (of Joseph Berry & Sons, architects, surveyors and valuers) to accept nomination for the office of Mayor of Huddersfield for the ensuing year. Alderman Berry accepted the invitation amid applause. The election will take place on Mayor's Day, November 9. Ald. Berry entered the Town Council in 1899; was made an Alderman in 1912 and a Justice of the Peace in 1920.

"Anne Hathaway's Cottage."

Messrs. W. H. Smith & Son inform us that the building they have restored at Stratford-on-Avon is not Anne Hathaway's cottage, as stated in our issue for October 19. The building referred to is No. 1, High-street, Stratford-on-Avon, which is some considerable distance from Anne Hathaway's cottage.

R.I.B.A. Inaugural Address.

On Monday next at 8.30 p.m., the President of the R.I.B.A., Mr. J. Alfred Gotch, F.S.A., will deliver his inaugural address, and the portrait of the Past-President, Mr. Paul Waterhouse, which has been painted by Sir William Orpen, R.A., will be unveiled and presented to the Royal Institute, and the R.I.B.A. medal and diploma for the best London building completed in 1922 will be presented to Mr. W. Curtis Green, A.R.A., for Wolseley House, Piccadilly. The meeting will take place in the hall of the Royal Society of Medicine, 1, Wimpole-street, Cavendish-square.

St. Paul's Cathedral.

At the invitation of the Northern Architectural Association, Mr. Mervyn Macartney, B.A., Surveyor of the Fabric of St. Paul's Cathedral, delivered an address at Armstrong College, Newcastle, on the history of the building of St. Paul's and upon recent works of repair and restoration. After discussing the first building of the cathedral and the vicissitudes through which it passed subsequently, he described the reconstruction by Sir Christopher Wren, a work which occupied thirty-six years. Mr. W. T. Jones, of Sunderland (President of the Association), occupied the chair.

Littleton Pumping Station.

Occupying altogether a site area of over 20,000 square feet, the new pumping station at Littleton is designed to house the largest single pumping plant yet installed by the Metropolitan Water Board. The designs for the new buildings were prepared by the architectural staff of the Metropolitan Water Board, under the direction of Mr. Henry E. Stilgoe, M.Inst.C.E., the Chief Engineer. An inclusive contract for the whole of the structural work, to cost £70,312, has been placed with the firm of John Laing & Son, Ltd., of Lincoln House, High Holborn, W.C. 1, and Carlisle, Liverpool, and Cardiff.



The International Labour Office of the League of Nations, Geneva.
M. EPITAUX, Architect. (*See also p.* 683.)

Subsidies to Builders.

Mr. A. J. Bennett, M.P., has received a letter from Sir William Joynson Hicks, the Minister for Health, on the attitude department with respect to the grant subsidy to those builders who comm operations prior to the passing of th "In my letter of October 8," says the M "I think I went as far as I can to meet t of those builders who, although the commenced building on the faith of an ass from the local authority that they would assistance, were not strictly entitled to s because the local authority did not prior approval to their scheme of assis I do not think it possible to lay down terms what constitutes an assurance local authority, though I am clear that it be something more than the mere or approval of the plans under the by-laws. ther, I must be satisfied that the builde ceeded on the faith of the assurance giv him and could not have done so but fo assurance. I am prepared to have full sideration given to any cases on their m and I would suggest, if you have any s cases of difficulty in mind, that the local a ity concerned should send full particul the department for consideration. It course, possible, though very unlikely, t local authority's scheme for giving assi under the Act may relate to only one hou

The £371 House.

The following tenders submitted fo erection of houses by the Braintree Council, were accepted, the figure in eac being per house:—Great Coggeshall: M Birkin, Coggeshall, £386 10s. Little Cogge Messrs. Belsham & Son, Kelvedon, £3 Rivenhall: Mr. P. C. Sayer, Great To £371 10s. Terling: Mr. B. Wenden, Wi £395.

City of London and Housing.

Mr. W. H. Savery, Chairman of the S Housing Committee of the Corporation, s ing on Tuesday at the Guildhall, alluded t failure of the Addison Housing Act. H that the City had handled £3,000,000 o account, and would be fortunate if it g with a loss of £2,000,000. With the new ing Act he said he thought his Committee have little to do. He had been throu carefully, and so far as he could see th ceedings under the Act were such that who decided to build might get his s through in time for his grandchildren to the house.

Northern Polytechnic Institute, Hollov

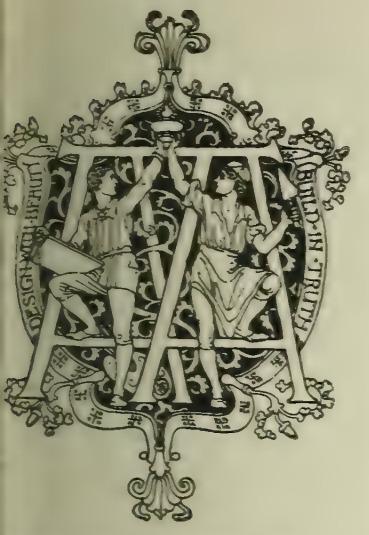
Mr. H. St. John Harrison, A.R.I.B.A been appointed to the staff of the Ev School of Architectural Design at the No Polytechnic. It will be remembered tha Harrison won the Victory Scholarship in and the Pugin Studentship of the R.I.B 1920. Previous to these he obtain Travelling Studentship in 1913, the Travelling Studentship (Newcastle) in and the British Institution Scholarship in

British Empire Exhibition, 1924.

At the request of the authorities of the E Empire Exhibition, the Royal Institu British Architects have undertaken, wit assistance of the Architecture Club, to ar an exhibition of modern architecture at bley. The exhibition will be open from 19 to June 28, 1924, and will consist of p graphs and models of buildings erected recent years from the designs of living arch Space has been allotted to the Dominion Dependencies overseas. A joint comm of organisation under the chairmansh Mr. Maurice Webb, F.R.I.B.A., is alrea work.

Competition News.

Competition news is on p. 679.



e Architectural Association held its first
ng of the 1923–4 Session at 35, Bedford-
e, W.C.2, on Monday last. Mr. E. Stanley
. F.R.I.B.A. (President), occupied the

Election of Members.

er the minutes of the previous meeting
been taken as read and signed, the
man announced there were fifty-three
nations for election to membership, and
llowing were elected members :—
. H. Grayson. Mr. E. G. Tapsell.
. J. Carter. Mr. R. J. Masey.
Mr. H. S. Tanburn.

Reinstatement of Members.

reinstatement of the following members
nnounced :—Mr. O. C. Little, Mr. J. H.
ce, and Mr. Shirley Knight.

Musical Evenings.

Chairman also announced that a series
embers' musical evenings will be held
g the winter months. The first of the
will be under the direction of Mrs.
ester, and will be held on Friday,
nber 9, at 8 p.m. Dinner will be served
al.

THE EXCURSION TO AVIGNON.

Gilbert H. Jenkins, F.R.I.B.A., then
n address on "The A.A. Excursion, 1923
non)," illustrated with a well-chosen
on of lantern slides showing views in
on, Villeneuve, Arles, Uzês, Nimes, San
, Mont Majour, La Baux, and the Pont du
at Nimes, which the lecturer briefly
ed. In connection with the slides he
ave historical notes and legends.

he course of some general remarks on the
he said the decision to make Avignon
eadquarters of this year's excursion was
rrived at after the canvassing of several
le centres, suggestions, ranging from
n to Spain, being carefully considered.
tally settling upon Provence the Council
a particularly happy choice. Last year,
after a lapse of nine years it was decided
ive the annual excursion, the Association
to Holland; there, under the grey skies
rthern Europe, the members saw the
ecture of the future—possibly it would
re correct to say "futurist" architecture.
rear provided a complete contrast, both
al and mental. Provence knew nothing
w movements in art, but was steeped in
story of the ancient civilisation of Greece
Rome, its overthrow by the northern
s, the ascendency of the Roman Church,
ruggle to hold Europe against the Saracens,
se of the power of the barons, the wane
supremacy of the Holy Roman Empire,
he final welding of the various lordships
he kingdom ruled by the great house of
t.

the Grecian civilisation little work of note
ved. Here and there a fine statue had been dug up, the most celebrated being the Venus of Arles, found there in 1651 and now in the Louvre. In the museum at Avignon there was a headless figure of pentelicon marble, Greek sculpture of the best period, the draperies reminiscent of the work of Phidias. A few fine terra-cotta vases, sculptured slabs from tombs, and inscription tablets practically completed the list. However, the tradition and the race carried on, and even to-day the women of Arles were noted for their Grecian type of beauty.

The Romans had left a very different mark of their sojourn. It would be difficult outside Italy to find a country richer in remains of their works. That stupendous aqueduct, the Pont du Gard, which carried the water supply of Nimes across the gorge of the Tarn, was probably the finest in Europe; the two amphitheatres at Arles and Nimes were among the few that were still in use for their original purpose, the slaughter of wild beasts for the amusement of the populace. There were two almost perfect examples of temples at Nimes and Vienne, and enough remained of the theatre of Arles to enable the spectator to form an idea not only of the plan and general arrangement of the building but of its luxurious decorations.

At Arles the cemetery (*les Alys camps*) had yielded many fine sculptured memorial slabs. The best of these had gone to the Louvre, others had been placed for protection in the local museum, where there was a fine collection of carved and sculptured fragments from Roman buildings. The remaining tombs had been effectively placed in two lines between the trees in a beautiful poplar avenue leading to the ruined Romanesque church of St. Honorat.

Rich as the country was in Roman antiques it was richer still in Romanesque and mediæval work, ecclesiastical and secular. Of the former, the cathedral church of St. Trophime would probably be counted the gem, whether for its wonderful sculptured porch and cloister, or for its extraordinary simple and severe vaulted interior. Not only was there no carving, but not even a column or moulding of any kind to break the severity of the square recessed piers as they rose from the floor, and the arches of the arcade were similarly treated. At St. Gilles, across the river, the triple porchway was even finer. Built at the beginning of the thirteenth century, it was the prototype of those magnificent cathedral portals which were one of the chief glories of French Gothic architecture. In the work at St. Gilles it was evident that the builders—like Alfred Stevens—"knew of but one art," and the sculptures, while kept in perfect subordination to the architectural composition, were in themselves exceedingly fine, whether seen as interesting masses and forms contrasting with the columns and arches and patterning the spaces and mouldings, or closely examined for all their beauty of detail. Either the architect was also a sculptor or the two artists had that perfect sympathy with each other's work which was so rare, but which, when it occurred, produced those gems of architecture which were "a joy for ever."

The cathedral at Avignon was a good type of the local Romanesque work, with its low-pitched stone roof, tower with stone bell lantern, simple open porchway, and barrel vaulted interior.

Had the excursion been in search of a centre in which to study French Gothic, it was certain that Avignon would not have been chosen, and yet the city presented a more complete picture of a Gothic city than could be found in Northern France, with its three miles of fortifications, its ruined bridge with a chapel built on one of the piers, the great tower of Phillipe le Bel guarding the approach, and—crowning the whole—the great fortified Palace of the Popes, with the houses huddled in narrow streets beneath it. That impression was deepened when one looked across the river to Villeneuve-lez-Avignon and saw the hilltop filled by the great fortress of St. André, dominating the landscape, and looking as perfect as when it was erected.

There was little notable Gothic church work to see in Provence, most of the churches being either Romanesque or Renaissance, but the palace at Avignon helped to fill the gap, as within its impressive exterior there were two fourteenth-century vaulted halls of unusual scale, each being nearly 200 ft. long and over 60 ft. wide, the lower one vaulted in two spans with clustered centre columns and the upper in one.

Of Renaissance work there were two notable examples—the public garden at Nimes and the Cathedral of St. Theodore at Uzes, both memorable works.

Altogether, the excursion was a brilliant success, and the members who had the joy of participating in it would, he was sure, join him in a hearty vote of thanks to their Secretary Mr. Yerbury.

A hearty vote of thanks to the lecturer was proposed by Mr. W. H. Ansell and seconded by Mr. Robert Atkinson. The latter said he thought the 1923 excursion was one of the most successful the A.A. had had; the beautiful climate of the South of France, the wonderful old buildings—particularly the Roman remains—and their romantic situations were an extremely welcome change from work in London.

Mr. A. E. Willetts and Mr. Stanley Hamp also spoke, and the vote of thanks was carried with acclamation.



Avignon. From a Sketch by Mr. E. R. Jarrett.

CORRESPONDENCE.

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Confederation of the Arts.

SIR,—I would like to see the Charing Cross scheme linked up with, and supported by, the movement for the confederation of the arts, which already has the co-operation of the National Federation of Professional Workers, representing half a million people, and is represented on the Council of the International Confederation of Intellectual Workers, which, in its turn, co-operates with the League of Nations Commission for Intellectual Co-operation.

The Charing Cross scheme provides a site for a building on the south side of the river which could become an outlook tower (for research and study), a central market-place, and an office building on a scale similar to the L.C.C. building.

We have outgrown our galleries, and the art societies are all badly housed or not housed at all. The R.A., even, has outgrown Burlington House. There are in the United Kingdom over 400 art societies who would welcome such a scheme, which (although independently conceived) is really now seen as a development of Mr. Lewis Hind's dream of a palace for all the arts, combined with Professor Geddes' outlook tower. Brussels has its world palace; New York has a scheme prepared for (1) a university of all the arts, (2) an outlook tower, (3) a palace of the arts. Venice has its palaces for international institutions; Paris has spacious art galleries. London badly needs such a place—indeed, the Empire needs it. And why confine it even to the Empire? It should be a world centre, with congress hall, and hostel for visitors.

How to pay for such a place? It is easy.

All who use the galleries and offices would pay rent, as in any other big office building. And every member of the co-ordinated societies would pay £1 a year. There are a million art workers in the United Kingdom of various kinds, and if each paid only £1 a year this would provide an income adequate to put up and to run the building. Office rents would provide additional money, and all the societies would be better housed and have better selling and exhibiting facilities than they now have. Moreover, under one roof, however divergent their individual ideas, they could work out a combined publicity scheme which would provide cheaper and much better publicity than is possible in their present scattered position. A real saving to all art societies and bodies of professional workers would ensue. *They would spend less and get more.*

Many international bodies have centres, and even headquarters in London, and the building would serve as offices for these too. It would also contain workshops for various handicrafts, who would thus be on the same spot as their market.

And I see no reason why the building should not radiate round the National Theatre and Hall for Music, Lectures, cinema experiments, &c., with restaurants and dancing. The Empire which can spend 10 millions on an exhibition at Wembley can surely pay for a permanent exhibition centre and international meeting-place at Charing Cross, as I have outlined.

I believe if the spirit to build such a place in connection with the Charing Cross scheme is aroused that it could not only be paid for, but actually be made to pay. It is no idle dream, but a business proposition.

AMELIA DEFRIES.

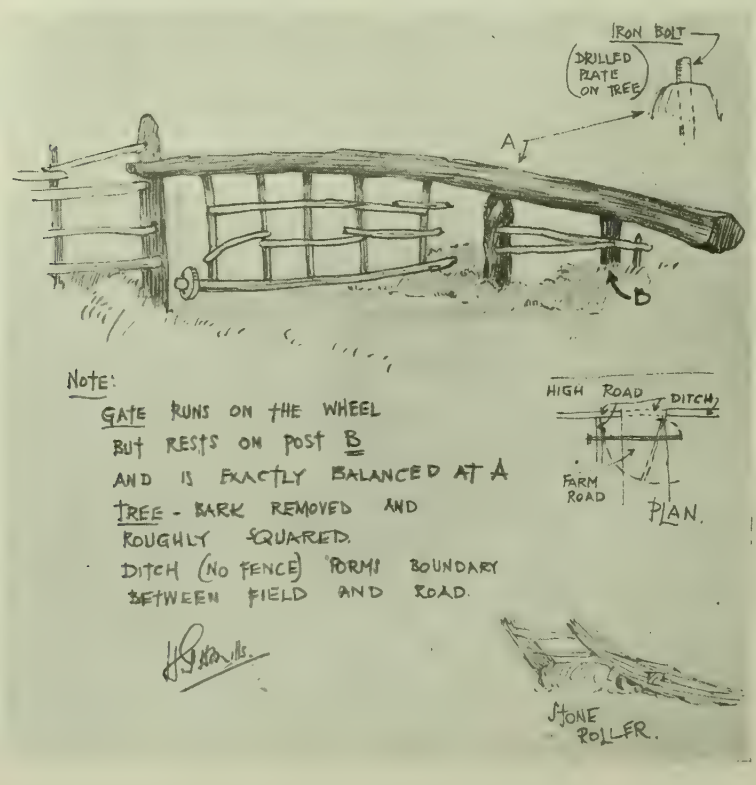
Royal Institution,
Albemarle-street, W.

Field Gates.

SIR,—The enclosed sketch, which I made in France, may be of interest to you or to your correspondent, Mr. A. E. Reveirs-Hopkins, whose letter appears in your issue of the 19th ult. You will observe that in this case an iron dowel is let into the gate-post, the tree being slotted and provided with an easy-fitting drilled plate.

An interesting detail is the wooden wheel on which the gate moves easily and rests when open, and the post which takes the weight of the gate when closed, the balance being so nicely adjusted that very slight effort is required to lift before opening. My notebook contains some interesting details of unworked wood construction in cottages, roofed walls, &c.

H. GRAHAM H. MILLS.



(See letter on this page.)

Architects and Suppliers.

SIR,—A practice has grown up rec specialist firms, having information architect is busy, using the telephone business, and it has occurred to me th cannot realise they are only annoying a patron. For an architect who is only to because he is busy, to be taken aw his work by a request to speak to Mr. who then proceeds to explain that he re a specialist firm, seems to me to be the of good business procedure; and when happened in a few cases, a junior is first in to get through to the architect per and then has to find his senior, the cannot possibly lead to business with mally constituted man. I hope they w the hint. "CITY ARCHIT

Purification of Rain-water for Drinki

Messrs. F. M. Thompson & Sons, Ltd., contractors, of 14, Victoria-street, West London, S.W. 1, write: "We are desi obtaining some information on the que storage and purification of rain-wa drinking purposes. We should feel through the medium of your journal, if your readers could refer us to any publi dealing with this question."

Other Letters.

Correspondence is also given on p and 703.

THE ROYAL INSTITU OF BRITISH ARCHITE

Notes from the Minutes.

Following are notes from the minutes Council Meeting held on October 15

Examinations.—The following certific "Second Examinations" approved b Board of Education were accepted standard of general education requi applicants for the Probationership R.I.B.A.: The Higher School Ce Examination of the Oxford and Ca Schools Examination Board; the Higher Certificate Examination of the Oxford D for Local Examinations; the Higher Certificate Examination of the Ca Local Examinations and Lectures Syn the Higher School Certificate Examina the University of Bristol; the Higher Ce Examination of the University of D the Higher School Certificate Examinatio University of London; the Higher Certificate Examination of the Northern sities Joint Matriculation Board; the Certificate Examination of the Central Board. The five years' (B.Arch.) course School of Architecture, McGill Universi recognised as exempting from the F Final Examination under the usual con The Silver Medal awarded for the best designs submitted at the Annual Exhibi Post-Graduate Students exempted fr Final Examination, was awarded to Mr Chambers (A.A.); Mr. C. H. Hutton (Li University) was highly commended.

Membership.—The applications of twe candidates for the Fellowship and thi candidates for the Associateship were ap

Reinstatement.—Mr. C. F. Whitcom reinstated as an Associate.

Water Fittings.—Mr. Percival M. was appointed to represent the R.I.B.A Conference held on October 17.

City Churches.—Mr. H. M. Fletch appointed to represent the R.I.B.A. at a to be held in the Mansion House on Nov to consider a scheme for the extended us City Churches by lay speakers, musici singers.

Hough End Hall, Manchester.—It was to support the efforts of the Prese Committee.

Whitgift Hospital.—A grant of ten was made towards the expense of oppos Croydon Corporation's Bill.

BUILDING BY-LAWS.

he course of a paper, entitled "The
of Building by By-laws and other
of Local Regulation," read before the
ol Architectural Society, on October 23,
N. C. Shelley, M.A., B.C.L. (Barrister-
), said reformers must have some object
hich to concentrate attention, or their
would become diffuse and idle, so he
attention to three recommendations of
nmittee of 1918. First, he would put a
ion made by the Committee, after every
had given his adhesion to it: that all
should cease to operate at ten-year
ls. That was really a corollary of the
given to the Minister to revoke obstruc-
-laws; it involved, however, no action
ould be construed as derogatory to local
nent or democratic principles. As
mittee said, that might involve no more
fresh compliance with the statutory
ies; on the other hand, there would be
al tendency for changes to be made in
ection of approximating to the model
o that a national code of by-laws would
).

d, he invited attention to paragraph 39
Committee's Report, where they used
ds: ". . . if a builder does not secure
sing of his plan either he must alter it,
considers it complies with the law and
repared to alter it, he can go on with
ding, and leave the local authority to
e him or to take such other steps as are
iate on the footing that he has been
f an infraction of the law. It is true
nay apply for a *mandamus* to compel the
of his plan, or probably he may, as the
ee are advised, apply under Order XXV,
of the Supreme Court Rules for a
tory judgment or order" that the plan
with the law, but to go to the High
or such a purpose is not a practical
or the ordinary man. In most cases of
even though the builder may be
and satisfied that there is no lawful
for the rejection of his plan, he will
o comply with the local authority's
of the law, and even with their extra-
hes, rather than have the trouble and
of proceedings in the Courts, which,
ted, can, unless taken in the High
ly take place after he has incurred the
of putting up the building or so much of
l serve to raise the issue. Moreover,
authority, whilst they are required to
or disapprove within one month a plan
d to them and cannot in law dis-
effectually unless the plan contravenes
or other legal provision in force in the
are not bound to specify the reason of
approval, and do not always do so.
sometimes be that the unwarranted
of a plan is due to a genuine mistake as
the law requires, or it may be based
t the other party considers a perverse
tion of the law, or merely on the
of the authority," or on what one
alled "unwritten by-laws, existing only
nd of the surveyor."

f the Committee's recommendations
was:—"That a local authority who
plan should be required to specify in
he particular respect in which its
ut would be illegal."

re he saw of the day to day adminis-
the law of building, the more he was
of the absolute injustice of saying to a
ur plan is disapproved," or even of
Your plan is disapproved for non-
e with the law," without telling him
(Public Health Acts, by-laws, or as the
be) was contravened. It gave the
chance. The law of building was
complex; it could and should be
—he hoped before the present Parlia-
ed it would be simplified—but even
Clerk and Surveyor to the local au-
d an enormous advantage in know-

ledge of the law over the architect or builder, and even over the solicitor in private practice, and every local authority ought to make it its invariable practice to inform the architect or builder, who found his plan disapproved, what precisely was the reason.

Few things would do more to reduce complaints; few would do more to educate the building community as to the requirements of the law under which they worked—and, since the local authority must know why the plan was rejected, and could not reject it except for some reason recognised by law, the trouble involved would be negligible. Many local authorities already did it, and it would be no hardship upon any to require all to do the same. That was the second reform which they might consider.

Once get definite statements of the reasons why plans were rejected, and they had the way clear for a third reform, if Parliament saw fit to enact it, namely, the creation of machinery, less costly and inconvenient than now existed, for determining which side was right—whether the local authority or the builder had correctly interpreted the law. One suggestion made by the Departmental Committee to that end was to empower a Court of Summary Jurisdiction to make a declaratory order, on the application of either side, so that the builder should not be put in the dilemma of having to do as the local authority required, or else to go ahead and see if he was prosecuted, and, if so, to risk having his building pulled down after it had been erected.

Another suggestion to the same end was that the local authority and the builder should be able to agree upon a case for the Minister's opinion, or, rather, to empower the Minister to decide a case authoritatively if both parties so desired, for already they could and sometimes did agree to state the point at issue, and they could and did express opinions in the confidence that both sides would honourably accept the opinion so given by request. But to round that off and put the procedure on a statutory footing an amendment of the law would be required.

That was a point which might be considered also, whether such a statutory jurisdiction would be helpful to them.

In conclusion, he explained briefly the scope of the three model series, and builders' attitude towards them.

The rural series, issued first in 1901, contained elementary requirements for purposes of health. He did not suggest that areas which had got on comfortably hitherto without any kind of by-laws should have even a series of the rural scope; there were plenty of places where building was safe enough with no control of any kind. But for areas of a rural type where some control was thought essential the rural model should suffice.

At the other end of the scale was the full urban series, designed to be adequate for the largest towns and thickly-populated areas with industrial development, in which the local authority maintained a qualified staff and desired to exercise detailed control over every kind of building. Then, between the two, came the intermediate series, issued first in 1905. The chief difference from the full urban was that it had no clauses as to the walls of factories and warehouse buildings. It was meant for areas requiring something fuller than the rural type—that was, something more than health provisions merely—something as to fire prevention and stability in which, nevertheless, the local authority felt it to be a needless expense and source of trouble to investigate every detail of construction of factory and warehouse buildings. That was the model which, on the whole, was best suited to the average town or urban district. It omitted nothing really necessary, but it looked to the enlightened self-interest of the factory-owner to protect himself by employing a competent architect or engineer, so that the local authority's surveyor need not spend time upon such buildings.

Parliament itself had excluded railway buildings from the local authority's control; even in the urban model by-laws they excluded others to which the same general considerations were applicable—gas works, waterworks, and so forth, in which (even when not belonging to the local authority itself) practical experience showed that stability and protection against fire would be secured. So in the intermediate model they took that a step further, and invited the local authority to release its grip upon the structure of the walls of factory buildings of all kinds.

Local authorities had hardly grown used to the idea as yet; there was a tendency till recently for them to say, if they had an urban district, that they must have by-laws covering every kind of building in every possible respect. But to-day the tide had turned, and there were signs that local authorities in all parts of the country were, in that and other ways, willing to take a less drastic view of their duty in controlling building.

Where they could make a case in local circumstances for using to the utmost the powers Parliament had given them, it was not for them to say they should not. But wherever they were willing, by following a less exacting type of model or by dropping requirements which had proved unnecessary, to strike off further shackles from their professional activities, they would find every help from the legal profession.

In every way that the law allowed, and by amendment of the law if necessary, it was most desirable to secure that justice should not only be impartial but shall be prompt, inexpensive, and readily available. In the matters discussed that evening justice was often hard to get. That was not the fault of the courts or of the local authorities. It flowed from the procedure under which both worked, and from the nature of the problems for decision. Any amendment in the system of dealing with those problems by which the private citizen who desired to exercise indubitable rights should be able to do so without delay or incurring unnecessary cost deserved the earnest consideration of all thoughtful men.

COMPETITION NEWS

"The Builder" Cost of Building Competition.

The assessor in Part II of this competition, Mr. Henry Vale, F.S.I., has made his award, as follows:—

First Premium, Type "A" Houses (£75).—Mr. G. W. Roe, Wolverhampton.

First Premium, Type "B" Houses (£75).—Messrs. Shilton & Co., Ltd., Coventry.

(Further notes on this competition are given on p. 696.)

College Chambers, Cambridge.

The assessor, Mr. C. L. Gill, F.R.I.B.A. (Messrs. Richardson & Gill), in the competition for extensions to new college chambers, King's College, Cambridge, has made his award, the winning design being by Messrs. L. B. Budden and H. J. Rowse, AA.R.I.B.A., of Liverpool.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Singapore College (Jan. 1, 1924; March 30). Hull Art Gallery (Nov. 5; May 4). Dudley Memorial (Jan. 5, 1924; Sept. 14). Eastleigh and Bishopstoke Assembly Hall — *Banned by R.I.B.A.* (Dec. 3; August 24). Taunton War Memorial (Nov. 30; Oct. 5). Memorials to the Missing (Jan. 1, 1924; Aug. 3). Shops at Ashton-under-Lyne (Oct. 26). Newcastle Concert Hall (Feb. 1, 1924; Oct. 26). British Empire Exhibition Decoration (Dec. 17; Oct. 26).

CHISWICK RIVER EMBANKMENT AND PROMENADE COMPETITION.

THE exhibition of the competitive plans for this big scheme has been held during the past week in Chiswick Town Hall at Turnham Green. It was understood early in the year, from the Press reports of the Council's proceedings, that the Chiswick Surveyor had prepared plans for the laying out of this project. However, a debate ensued, when councillors given to plain speaking urged the advantage of designs being obtained from architects well known as experts in laying out estates and familiar with up-to-date town planning. This reasonable demur upset the original proposal, and a public competition, accompanied with proportionate premiums, was started. Its progress forthwith met with a setback when the Royal Institute of British Architects objected to the conditions issued by the Town Clerk. An endeavour was made by negotiating to secure amendments of the official clauses at variance with the Regulations of the Competitions Committee of the R.I.B.A.; but all these efforts were unavailing, and Members and Licentiates declined to submit designs. The occasion was of importance considering the splendid opportunity presented by the unusual beauty and spaciousness of this almost unequalled reach of the winding Thames. Its bank skirts the 185 acres of famous land historically known as "The Duke's Meadows," recently purchased by the Chiswick District Council from the Duke of Devonshire to provide sites for a housing scheme, two playing fields, and other amenities, besides preventing the threatened erection of vast gas works over the same property.

The present immediate project includes a public promenade over half a mile long, extending from the Penstock House (west of the Sewage Works) to the London & South-Western Railway bridge spanning the river at Barnes. This loop line, going to Chiswick Station at Grove Park, on its way to Waterloo, bisects the estate, and the proposed embankment and promenade are to occupy the frontage of the eastern moiety. Adjacent to the projected promenade a considerable strip of land is to be devoted to lime tree avenues and drives fit for motors, if not for trippers' charabancs bringing folk to this new pleasure resort, with its bowling greens and a whole series of tennis courts. To the rear of this park-like lay-out are several acres of building sites beyond which industrial factories will probably reach eastward. A considerable area is low-lying and swampy, often subject to floodings in storm times and spring tides. To some extent the foreshore now to be raised was partially improved some sixty years ago by depositing mud and rubbish removed during the construction of the embankment from Westminster to Blackfriars. The foreshore of the Duke's Meadows consequently varies with differing levels; therefore, to ensure a reliable embankment, the best talent available is required, and no half-and-half measures will suffice.

Three premiums were offered, and the General Purposes Committee went ahead regardless of the R.I.B.A., and thus obtained twelve sets of plans upon which they made their award. The first premium of one hundred guineas was accorded to plans marked "Ubique," by Mr. A. B. Elliott, 7, Wilton-avenue, Chiswick. The second premium of fifty guineas was given to the design designated "No. 37," the author being Mr. G. T. Morris; and the third of 25 guineas, to a scheme marked "C. E. A.," sent in by Mr. J. W. Powell.

The estimated cost ranges from £19,000 to £25,000, but preliminary calculations for such problematical undertakings can only be approximate, with allowances for contingencies.

We take no exception as to the choice thus arrived at from these three schemes, not one of which reaches the standard demanded. This opinion is seemingly shared by the promoters, because we saw the following semi-official remark in Friday's issue of the *Chiswick Times*: "We understand that the Council will not necessarily adopt the winning design only, but that the best points of several may be taken and woven into a satisfactory whole." It is not stated who the adapter or "weaver" is to be. Such a task must be an undesirable enterprise, and in any event we beg leave to suggest that it is not the way that capable architects undertake important public work, neither can it be the best method of obtaining real values at the expense of long-suffering ratepayers. Herein consist the chief reasons for a protest.

The accompanying reproduction of the first premiated plan shows the segmental curve of this foreshore site. The carriage drive, with its lime avenue, is to be approached seemingly from the west, under the railway, close to which the new boathouses are to be built. The road is well elevated, and at the eastern extremity has a roundabout turning place. The situation would be pleasant at the top of the grass-sloped bank varying in contour in conformity with differing levels. At the base, using the word in a general sense, a paved promenade faced with iron posts and rails (presumably fixed to a substantial river wall) stretches for over half-a-mile with a river approach in the centre, facing the bandstand, intended for landing visitors brought by small craft, though no proper landing-stage is provided. This stone-built stairway, set out in two flights, extends to the low water level to accommodate the tide. No lamps appear in the drawings. The conical-roofed bandstand gives an indication of the design. The irregular turfed dancing space adjacent is quite inadequate, being ill adapted to that exercise. The sward is contrived regardless of the encircling pathways, and the pair of diagonally set shelters cut up this little rendezvous. Two more shelters occur right and left, some distance away, and another stand where the motors turn to the rightabout. Surely police on point duty will be needed. The grass-covered terraces, rising with slight steps formed in the turf, are arranged one behind the other to allow spectators standing quietly in rows to see over the heads of those in front. This is the acclaimed merit of this scheme, giving such a splendid space to accommodate more than 20,000 persons to see the Boat Race when Lent comes round. Little imagination, however, is needed to realise what must happen every spring (to these neatly contrived little variations in the lawn levels) after the stampede of struggling sightseers is over, and the Boat Race day is past. The iron rails and posts will serve doubtless for many to cling to, and the dwarf ragstone walls introduced by Mr. Elliott at the edges of the sunk tennis courts and roads will furnish a long line of advantage to stand on, and specially the wooden slab seats placed at intervals to cap these walls, and intended for weary pedestrians to sit and view the games in progress. It may, however, be appropriate to remark that the ragstone wall already carried out in part by the Chiswick Works Department at Strand-on-the-Green (in spite of the combined protests of the Royal Academy, the R.I.B.A., and Society for the Protection of Ancient Buildings last spring) is identical with those here adopted for this strand on the Duke's Meadows. Where the present refuse heap stands the author intends to provide a putting green, and hard by the loop line to Barnes Bridge he has shown three double boat-houses, with a proper slipway down to the river edge. The public convenience and chalet included in the first set of conditions have been omitted in the programme.

The second premiated scheme, "Mr. G. T. Morris, consists of wavy tions of curves meandering endless wider roads in places to allow motors The lawns are segmental in shape mingled with shrubs and paths. The vous in the midst has a tall bandvironed with lawns oddly elliptical, shapes for dancing. Two sets of tennis courts, accompanied in each a hardcore court, are well arranged are two bowling greens near the House. Small dwarf hedges divide from the promenade. After the Boat Race day depart one can co how the countless little plots of grass with acute angles must be trodden recognition, to say nothing about th and bulbs, if any. The rows of trees of the embankment, in both these schemes, would be much in request enthusiasts climbing up for a good the race. Boathouses are similarly by Mr. Morris as in Mr. Elliott's pla

"C. E. A.," by Mr. J. W. Pow the third premium. He has provided for joy rides, the plan being parcelled a patchwork of paths traversing the all directions. An extensive pergola opportunities for endless fun by clim the columns and piers to see the Ox Cambridge crews. "The Retreat," l the centre piece, is, we presume, a ba There are no tennis courts nor gam but ample shelters and retiring spa distinctive provision, quite appropri water-logged site, consists of lagoons ing toy boats. This design is shown tively by eight sheets of drawings s a very diligent manner. The lago perhaps, is the one point to "be t woven into a satisfactory whole."

The remaining nine proposals are less lacking in interest, and all are an in treatment. There is not a distinc worthy of execution to be found an whole dozen.

Explaining the Housing Act.

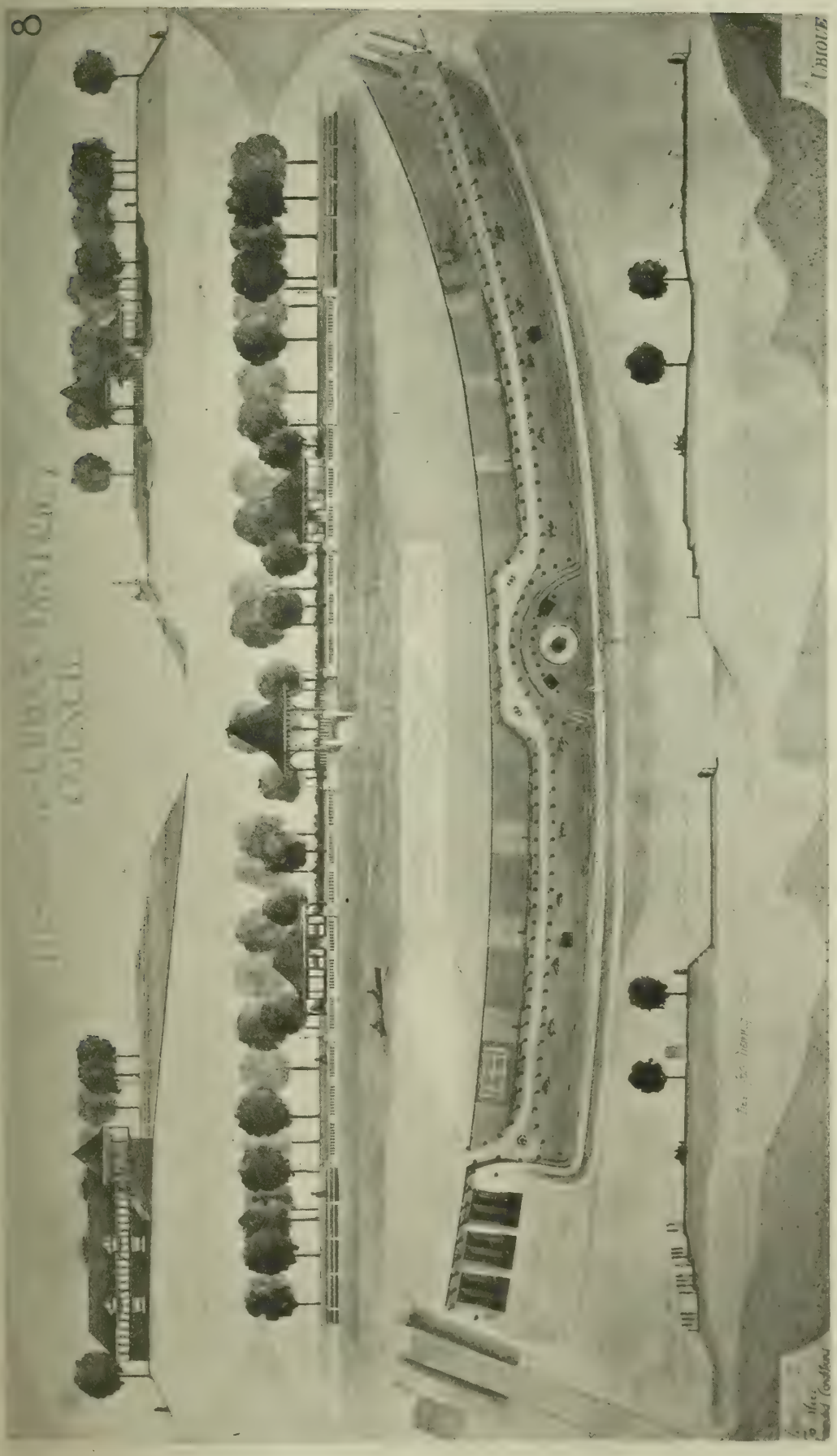
In order to make the public famil the provisions of the new Housing Penybont Council is holding a series meetings in its area, at which the officials and members explain the A

The Chemistry Section at the British Exhibition.

A sum of £100,000 is to be spent chemical section of the British Empi bition, at Wembley, next year. It is t 40,000 square feet in the Palace of I and it will be built in such a way as a self-contained hall within the Palac intended to present to the public a picture of the present state of the Chemical Industry. No important firm industry will be unrepresented, ar exhibits will number over a hundr

London Survey Committee.

The annual joint publication of the County Council and the London Surv mittee for 1923, which will be issued weeks, should prove one of the most in volumes of the Survey of London. It c the first volume of the Parish of St Bishopsgate, and has been compiled Alfred W. Clapham, F.S.A., and Miss M. A full description of the church of St. H its monuments, with detailed drawi photographs of the details of value, fo historical account of the Nunnery of S and the parish church. Certainly no bu the city exceeds this in interest, and vantage has been taken of the recent di during building operations in St. Hele to bring the account up to date. Th publications are issued gratis to subsc the Committee (address: 27, Abingdo Westminster, S.W. 1), and a limited are on sale at £2 2s. to the public.



Design for Riverside Promenade at Chiswick.

First Premiated Design. By Mr. A. B. Elliott. (*See p.* 680).

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ILLUSTRATIONS.

Dundee City Hall.

Intimation of a gift of £100,000 by the late Sir James K. Caird, Bart., for the erection of a City Hall and Council Chambers for the City of Dundee, was made on April 9, 1914.

The foundation stones were laid on July 10, 1914, by King George and Queen Mary.

The Hall and Council Chambers occupy a site a large part of which was formerly the Greenmarket, a densely populated area.

The height and weight of the buildings, the unequal nature of the site, and the nearness to sea level necessitated the use of reinforced concrete piles, and the skeleton of the building, also of reinforced concrete, is carried on these piles. There are sill beams between the heads of the piles carrying the main walls. Many of these piles rest on the walls of the old docks.

The superstructure is entirely carried on a reinforced concrete framework which supports walls, floors, staircases, balcony, gallery, organ chamber and roof, and this framework has been so arranged that throughout the whole area of the hall there are no columns to obstruct vision. Much of this structural work has been tested up to twice the load it will be required to carry, so that there is no doubt as to the strength of the building.

The main roof is supported on steel trusses of 84 ft. span, and the disposition of these trusses is reflected in the design of the ceiling and walls of the hall interior. The steel roof was erected by means of cranes on a travelling scaffold, which was wheeled from one end of the hall to the other as the erection of the roof work proceeded. An integral part of the roof is the metal ventilation duct, 10 ft. wide by 6 ft. high with outlets to openings in the ceiling. There are 40,000 rivets in the metalwork of this duct. Above the ceiling also are the winches for lowering the electroliers down to the floor level for cleaning. When in position these electroliers hang by chains as well as by a steel cable.

The ventilation and heating is on the balanced plenum system. At the inlet chamber there is a complete series of air filters and washing apparatus, and the filtered air is driven by a large fan with a 20 h.p. motor through the heating battery into the duct already mentioned, and into the hall through the ceiling openings. The foul air is extracted through openings in the steps of the balcony and gallery, and in the wall under the balcony ceiling. The side walls of the hall are hollow up to the sills of the windows, and thus a maximum area of foul air upcast shaft is gained. A ring duct under the windows collects the foul air, and it passes through the exhaust fan out to the open. The hall is thus heated by the ventilating air. The Marryat Hall, the corridors and the retiring rooms are heated by radiators. There is a bioscope room at the back of the hall. There is a kitchen above the Marryat Hall which, by means of lifts, serves both this lesser hall and the Lord Provost's room below.

The floors in the hall are wood, covered in the passages with cork carpet; the corridor floors are terrazzo with marble insets and Roman mosaic bands; the main entrance vestibule is floored with marble. The wood finishings of the hall are mahogany, darkened and dull polished. The window sashes are steel. Automatic fire detectors are installed all over the building, and there is a complete installation of fire hydrants and extincteurs.

The hall occupies the entire south frontage of a future square in the heart of the city. The two wings yet to be built form the east and west sides of this square, and the north side is open to the High-street. In the future the hall will have its entrance from this square, and the colonnade will be the dominating feature of the square. Statuary groups are proposed for the large pedestals te the steps, and these groups will be on line of each of the footways of th There are ten Doric columns in the each 4 ft. diameter and 32 ft. hi square pillars terminating the colonn the background for the statuary gro doorways are plain with circled heads stone panelling, the rustication and th cast by the circular recess being i with the colonnade.

Through the three doorways in the the front is reached the main entrance a hall 60 ft. long, 24 ft. wide and 2 floored with marble and enclosing stairway.

The corridors are carried around t of the hall. At the four corners of th are staircases leading to exits, and corridor has a means of exit at b From the north corridor the wide mai the balcony are reached. Adjacent upper and lower north corridors are room suites, four in all. The corr designed with deep mahogany base, pla broken with pilasters, and the ceiling and moulded. The total area of the space is nearly a quarter of an acre.

To the hall itself there are 16 do from the lower corridors into the area a the upper corridors to the balcony an and 2 of the doorways on the lower convenient to the platform.

The dimensions of the hall are as f Length, from façade of organ to b 230 ft.; breadth, 82 ft.; height from 50 ft. The hall is seated with tip-u upholstered in grey corduroy. The 1 ft. 8 in. wide, and the rows nearly 3

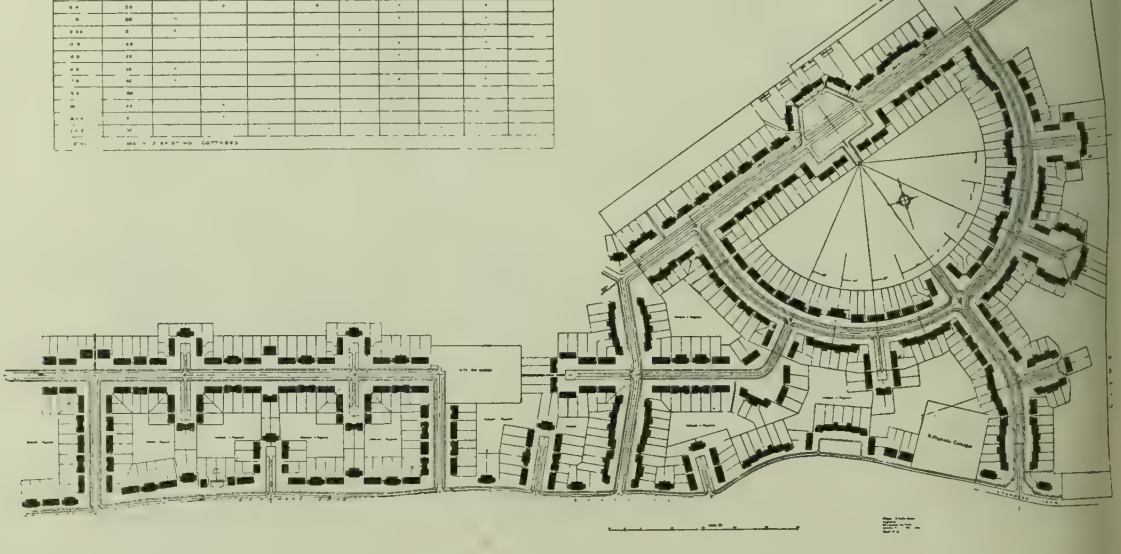
Mr. James Thomson, F.R.I.B.A., Architect, was assisted by Mr. Vernon A.R.I.B.A., who had general charge of including the decoration of the hall James M'Lellan Brown, A.R.I.B.A., charge of the Council Suite and Publi by Mr. Percy Tomey, engineer for the concrete work, and by Mr. John Darg works.

The hall was opened by H.R.H. the Wales.

Winchester (Stanmore) Housing S

The Prince of Wales is again sh interest and concern for housing by he is paying on November 7 to the W Stanmore Estate.

The Stanmore housing scheme is a to the keenness and judgment of the W



City of Winchester Housing Scheme: Lay-Out.

MR. CURTIS GREEN, A.R.A., F.R.I.B.A., Architect.

ation. To have conceived the scheme rried out the first part of the programme, ting to 556 houses and eight shops in its v, in face of all the difficulties such an ise involves, is creditable to the authori- Not only are the houses built, but they are f brick and roofed with tiles in keeping he city. Moreover, all the houses are d, and would-be tenants fill a long list. It is not, unfortunately, all that ilding Committee had wished and would ıd but for the economies and restrictions d by the Ministry of Health; all housing s were subject to the ruthless pruning of partment. It can only be said that it is noticeable here as in some other estates.

site acquired by the Corporation is ched from Airlie-road; it is bounded by v-road on the west, on the east by the and South Western main railway line, the south by Stanmore-lane. The land ther steeply from Romsey-road to the . A special siding was built to deliver terials by rail on to the site; the con- s for the roads and houses, Messrs. ay Bros. (London), Ltd., continued the d served the whole of the lower part of e with their own locomotive, with the assistance of jubilee rails. The upper the estate could not be reached by these and the haulage was eventually done by nd cart.

area of the site is about 110 acres, of about 53 acres have now been built iving about 10 houses to the acre. The are small, but the lay-out allows for ent allotments adjoining each group of The subsoil is chalk.

ay-out plan was designed by Mr. William luring the last year he was in practice; ises were designed by Mr. Curtis Green, F.R.I.B.A., and the work carried out is superintendence. The lay-out was not matter, for at the time the military ties were in possession of the centre of , and this area had to be preserved for Recently they have retired, and this ace is now being laid out as a recreation The roads, sewers and house drainage igned and built to the requirements of istry of Health.

ıe types of the houses sanctioned by the of Health are to be seen, ranging from ise with a parlour and four bedrooms without a parlour and only two bed- The present inclusive rents are 11s. 6d. k for a two-bedroom house, from 12s. 3d. 9d. per week for a three-bedroom vithout parlour, and from 14s. 6d. to per week for a three-bedroom house rlour. The houses are built of brick, in. hollow walls, and roofed with tiles n colour and of the quality obtainable ne to time. The houses range from the letached cottage to blocks of six.

house has a bathroom, those that are having their own hot-water supply; he bathrooms are on the ground floor water is drawn off from the copper. n is made for gas cookers and gas .

spects of the rooms and offices have all idied so that no houses of the same plan both sides of the same street. All the odation required is within the walls of se, and there are no "back elevations." ly every case a back porch is provided, h are placed the doors to the scullery, . and the fuel store, an arrangement ves the appearance of three external hields the w.c. door, forms a convenient or boot brushing under cover, and the scullery door to be left open in bad . In most of the houses the first floor and over those on the ground floor, and s be of brick instead of studding. All rs, windows, stairs and chimneys were dised.

economies insisted on from time to time Ministry of Health involved in the first e elimination of all the specially-designed t the crossing or junction of the various roads, which reduced the number of designs beyond what was desirable in a scheme of this size; all porches were omitted, and the scantlings of the joinery and the quality of the timber were reduced beyond what is generally considered good practice.

At one period the authority insisted upon the use of coke-breeze mortar; this was abandoned eventually, as it did not stand the weather.

The clerk of works was Mr. G. W. Cowrie.



BUST OF SIR JAMES CAIRD AND RECORD TABLET IN NORTH CORRIDOR FACING MAIN ENTRANCE.

Caird Memorial Hall, Dundee. Mr. J. Thomson, F.R.I.B.A., City Architect.

International Labour Office, Geneva.

This building is being erected in Geneva to house the International Labour Office of the League of Nations. The money for the building was voted at the Assembly of the League of Nations last year in view of the fact that there was no suitable building in Geneva for the office, and that it was housed in a school building some distance from the town, quite inadequate and unsuited for the purpose. The foundation-stones were laid on October 21.

A competition for plans was held among Swiss architects and judged by an international jury, which included Mr. E. P. Warren, F.R.I.B.A. and the designs illustrated are those by the successful architect, M. Epitaux, of Lausanne.

The jury made recommendations as to slight alterations in the plan, affecting somewhat the elevation towards the lake. The estimated price is equivalent to about £100,000.

A summary of the assessors' report will be given in our next issue.

MEETINGS.

Monday, *November* 5.

Royal Institute of British Architects.—Inaugural Address by the President, Mr. J. A. Gotch. At 1, Wimpole-street, W.1. 8.30 p.m.

Wednesday, *November* 7.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Greek Architecture." At Southampton-row, W.C.1. 6 p.m.

Institution of Heating and Ventilating Engineers.—Mr. F. G. Whipp on "Some Common Faults in Fan Design and Application." At Engineers' Club, Coventry-street, W.1. 7 p.m.

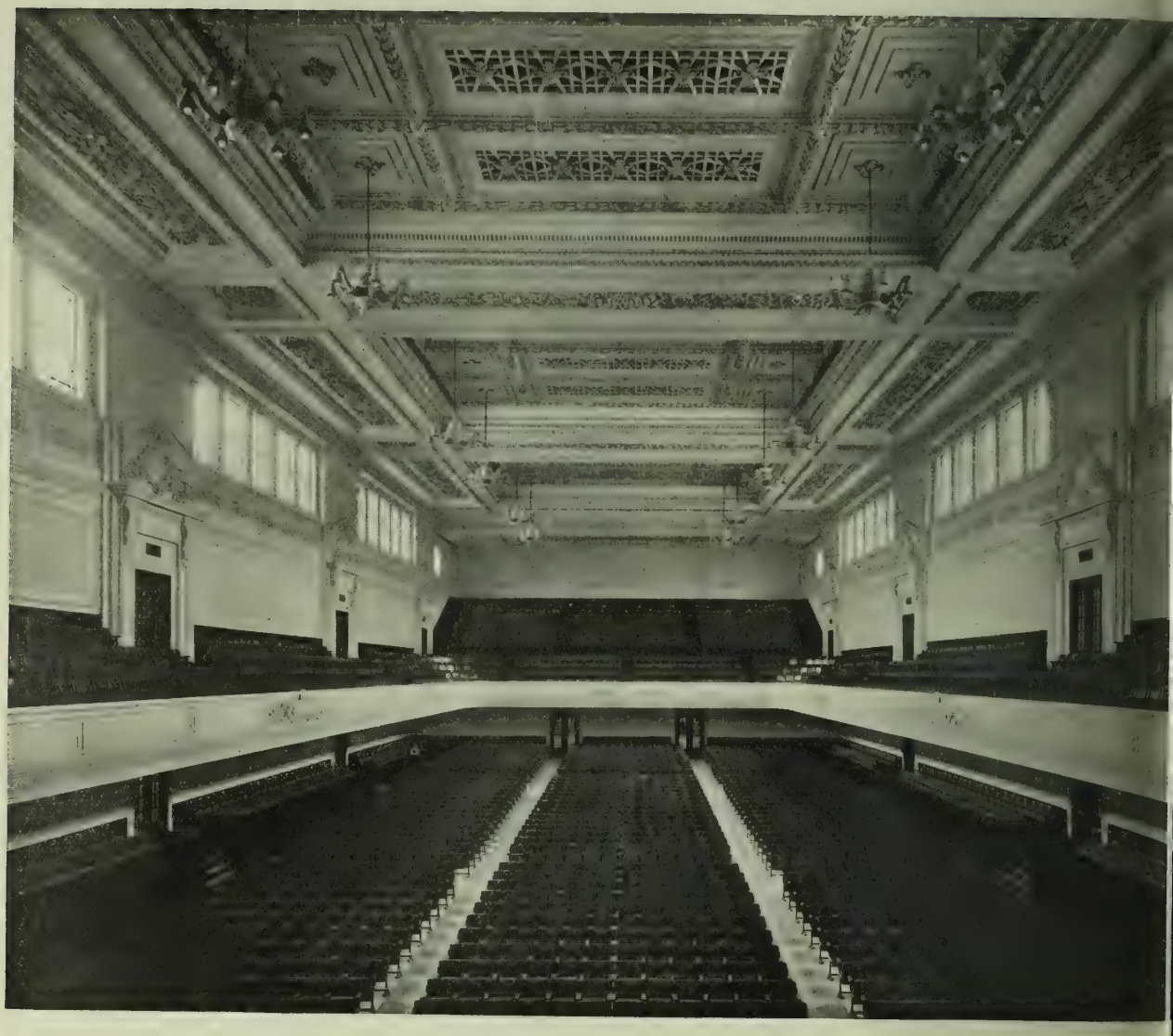
Royal Archæological Institute.—Mr. A. Vallance on "Criticism of Thirteenth-century Architecture." At Burlington House, Piccadilly, W. 5 p.m.

Reading Society of Architects.—Mr. Paul Waterhouse on "The Roman Point of View." At University College, Reading. 8 p.m.

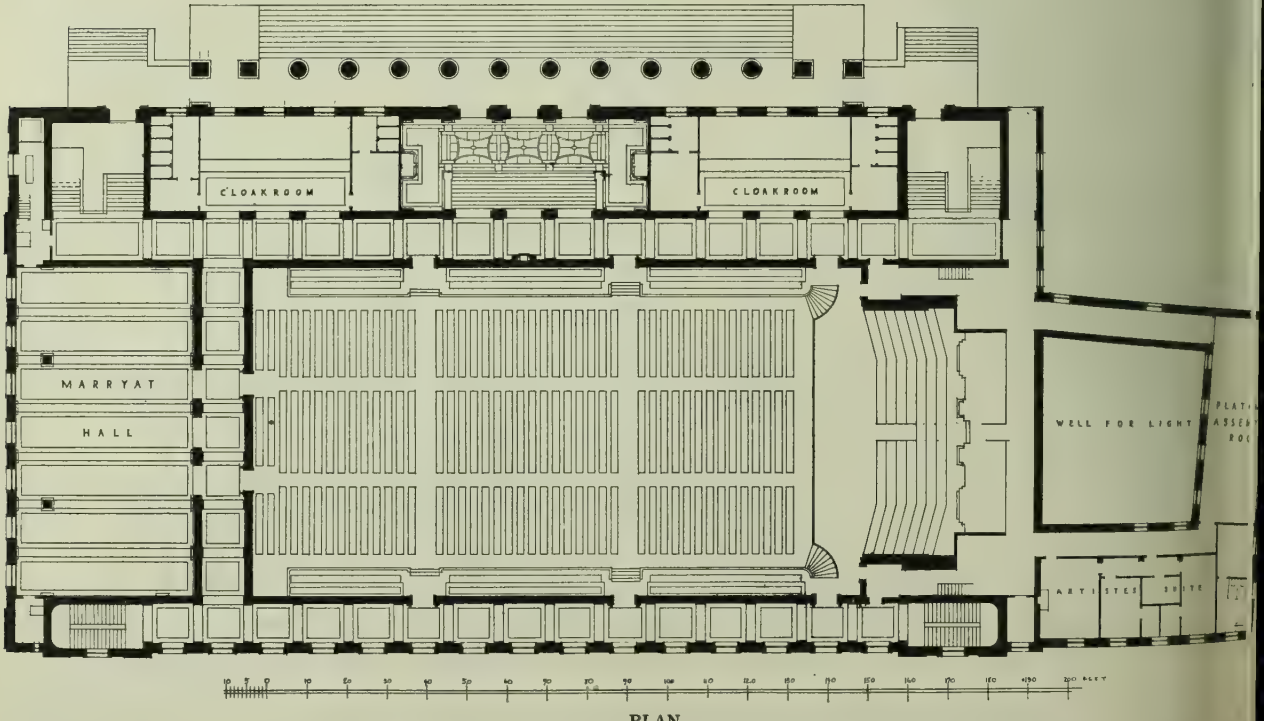
Royal Society of Arts.—Lord Askwith on "Exhibition." At John-street, W.C.2. 8 p.m.

South Wales Institute of Architects.

The first of the winter season lectures, under the auspices of the South Wales Institute of Architects (Central Cardiff Branch), was delivered at the Engineers' Institute, Cardiff, by Mr. J. A. Gotch (President of the Royal Institute of British Architects), on October 18.



INTERIOR : LOOKING WEST.



PLAN.

Caird Memorial Hall, Dundee. MR. J. THOMSON, F.R.I.B.A., City Architect.



THE MARRYAT HALL : LOOKING WEST.



MAIN ENTRANCE VESTIBULE.

Caird Memorial Hall, Dundee. MR. J. THOMSON, F.R.I.B.A., City Architect.



BOARD ROOM.



THE COUNCIL CHAMBER.

Caird Memorial Hall, Dundee.

Mr. J. Thomson, F.R.I.B.A., City Architect.

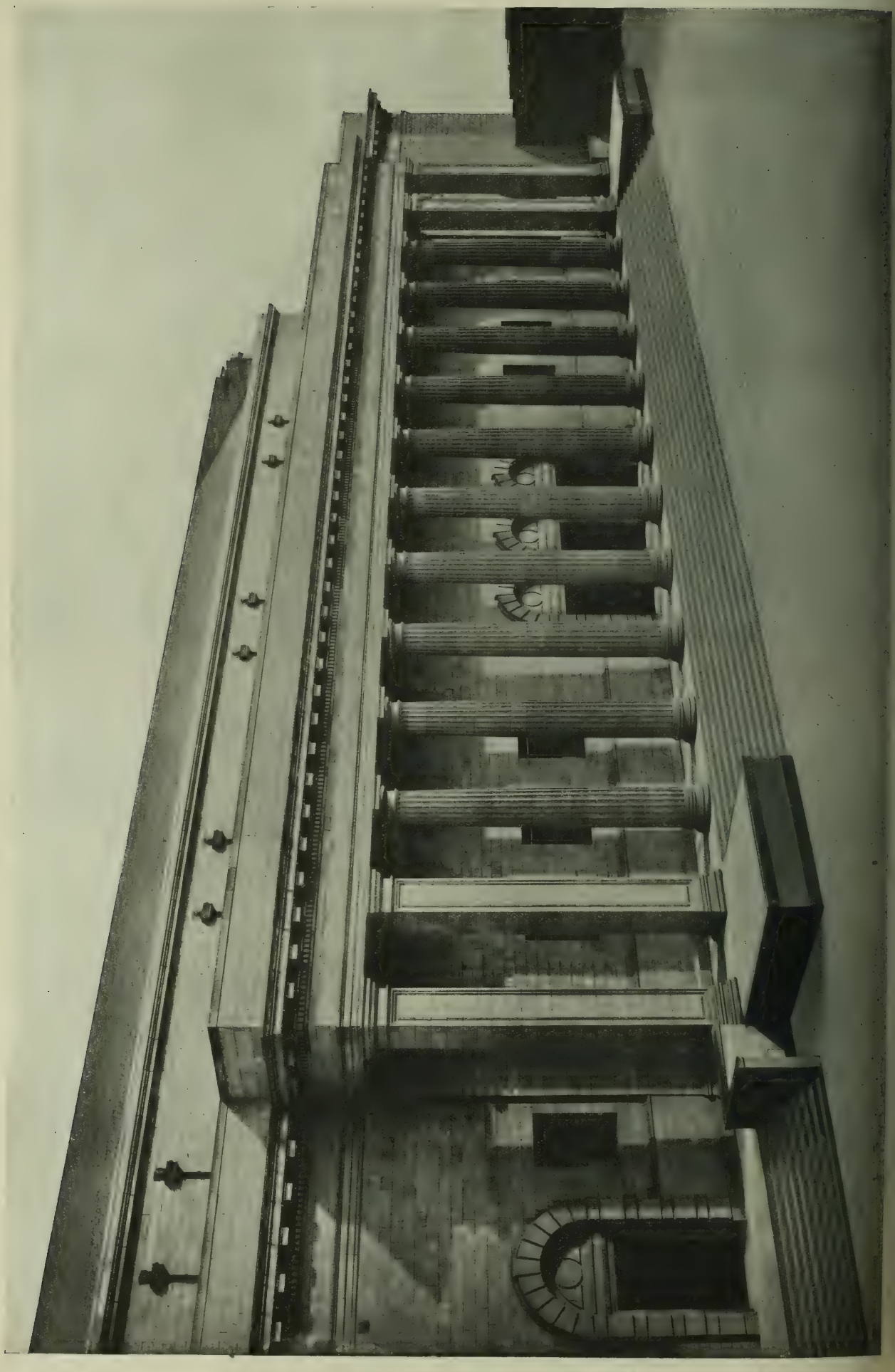




THE MARRYAT HALL.

Caird Memorial Hall, Dundee.

MR. J. THOMSON, F.R.I.B.A., City Architect.





INTERIOR : LOOKING EAST.

Caird Memorial Hall, Dundee. Mr. J. Thomson, F.R.I.B.A., City Architect.





PARLOUR COTTAGES WITH THREE BEDROOMS.

City of Winchester Housing Scheme.

MR. CURTIS GREEN, A.R.A., F.R.I.B.A., Architect.



Top: NON-PARLOUR AND PARLOUR COTTAGES WITH THREE BEDROOMS. *Bottom:* NON-PARLOUR COTTAGES WITH THREE BEDROOMS.

City of Winchester Housing Scheme.

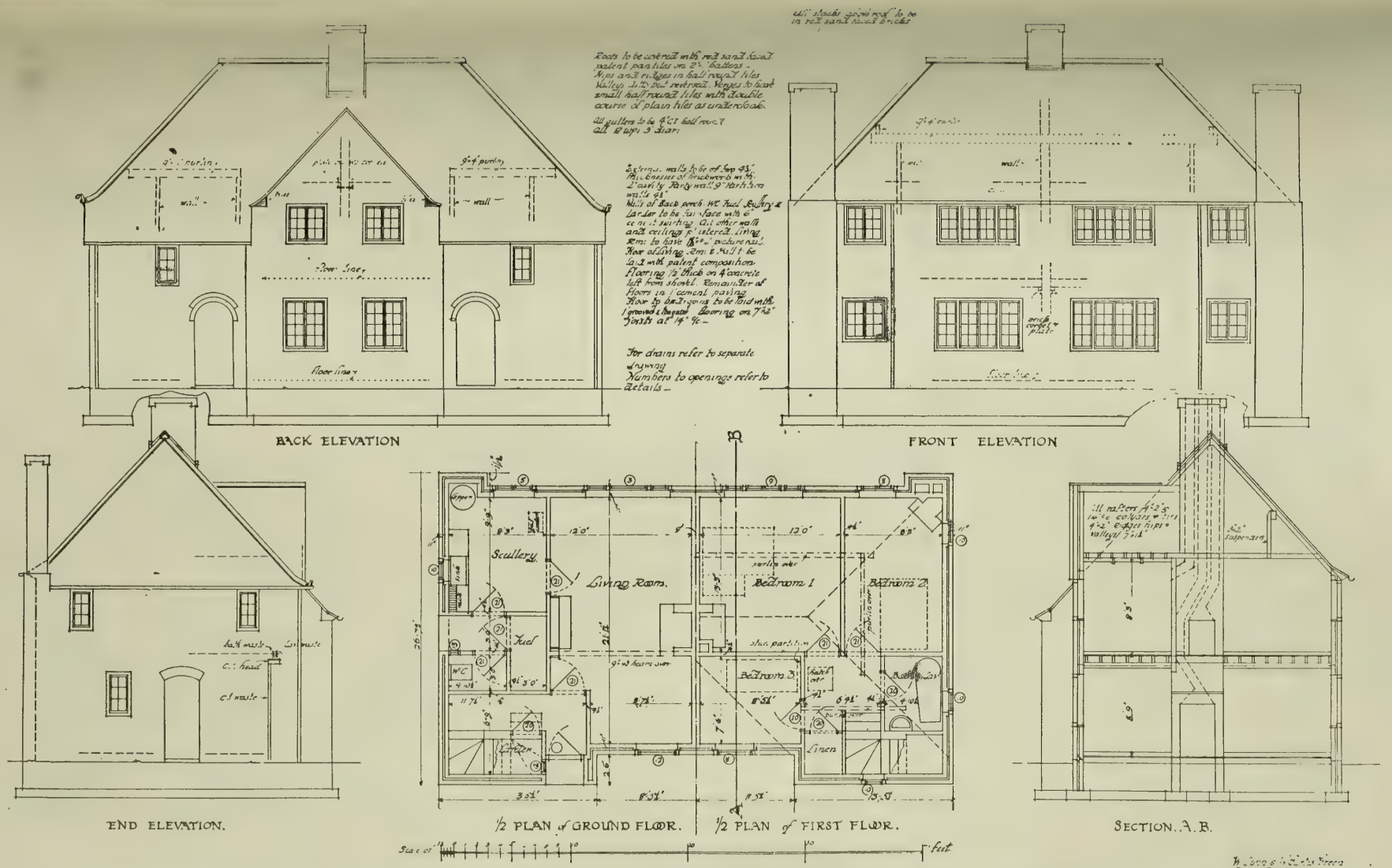
MR. CURTIS GREEN, A.R.A., F.R.I.B.A., Architect.



Top: NON-PARLOUR COTTAGES. *Middle:* PARLOUR COTTAGES WITH THREE BEDROOMS AND SHOPS.
Bottom: PARLOUR COTTAGES WITH THREE BEDROOMS

City of Winchester Housing Scheme.

Mr. Curtis Green, A.R.A., F.R.I.B.A., Architect.



CITY OF WINCHESTER ~ HOUSING SCHEME ~ COTTAGES: No 6 - TYPE A-N

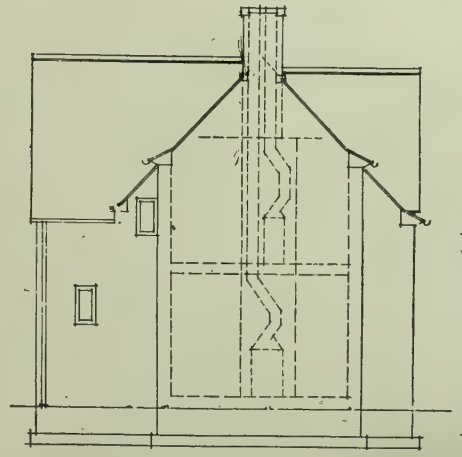
Mr. Curtis Green, A.R.A., F.R.I.B.A., Architect.

686 THE BUILDER [NOVEMBER 2, 1

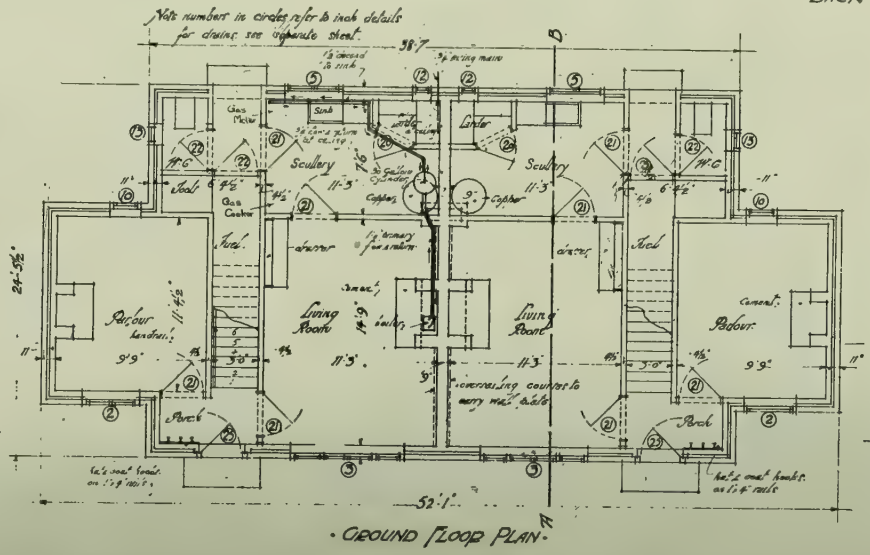
FRONT ELEVATION



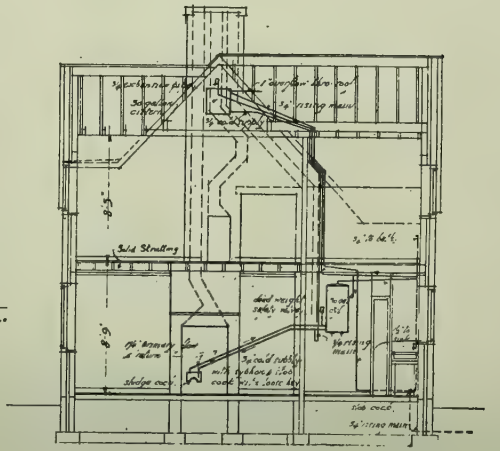
· BACK ELEVATION ·



· END ELEVATION ·



· GROUND FLOOR PLAN ·



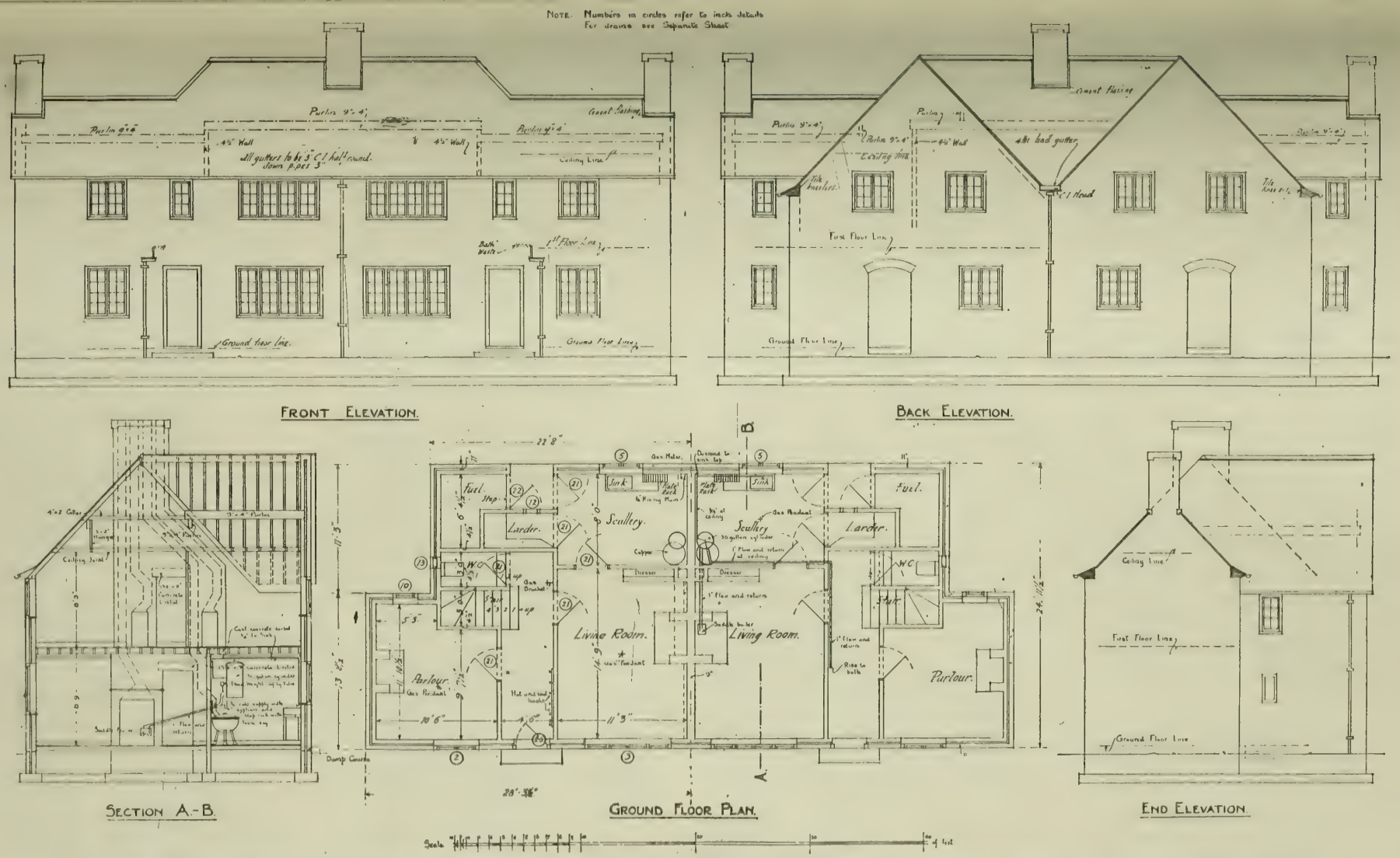
· SECTION A-B ·

scale of feet

CITY OF WINCHESTER HOUSING SCHEME No 7 COTTAGES TYPE B S REVISED

T. Davis & W. Curtis Green
Joint Architects.
35 Victoria Embankment
London W.C.
February 1920 Sheet No 60

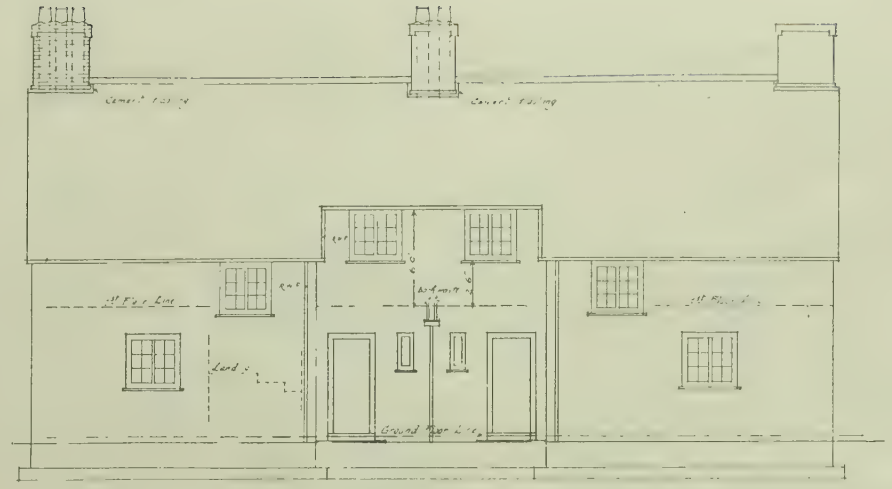
Mr. Clement Charles A.R.A. F.R.I.B.A. Architect



CITY OF WINCHESTER HOUSING SCHEME - COTTAGES No 9 - TYPE BS4 - REVISED.

W. Dunn & W. Curtis Green
Joint Architects
32, Lincoln's Inn Fields, W.C.2
February, 1920. Sheet No 68

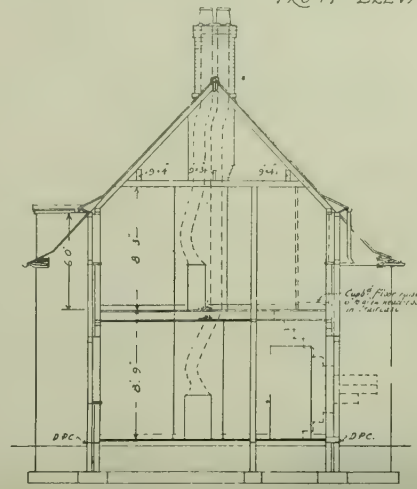
MR. CURTIS GREEN, A.R.A., F.R.I.B.A., Architect.



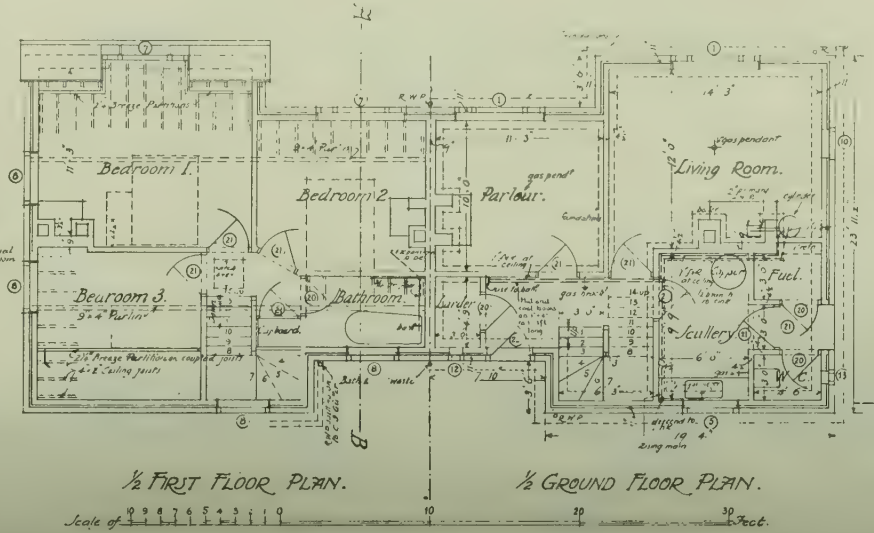
FRONT ELEVATION.



BACK ELEVATION.



SECTION A~B.



½ FIRST FLOOR PLAN.

½ GROUND FLOOR PLAN.



END ELEVATION.

CITY OF WINCHESTER HOUSING SCHEME. COTTAGES No 3 ~ TYPE B N.

REVISED

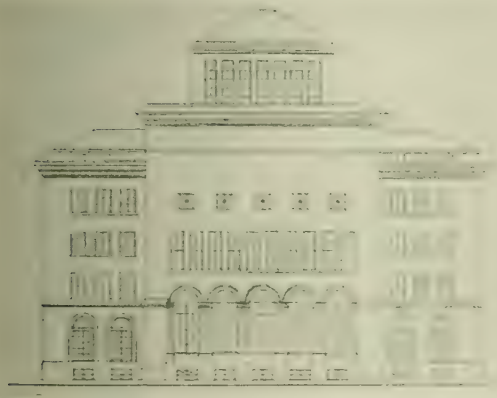
W. Dunn & W. Curtis Green Jun. Architects 15 Lincoln's Inn Field Aug 19th 09

SHEET No 62

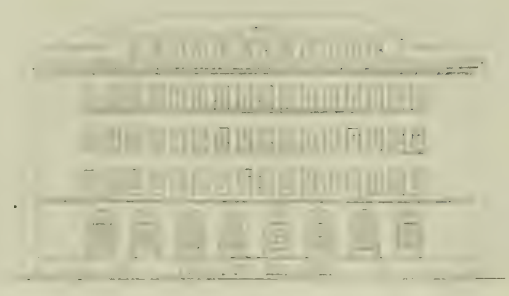
Mr. Curtis Green, A.R.A., F.R.I.B.A., Architect.



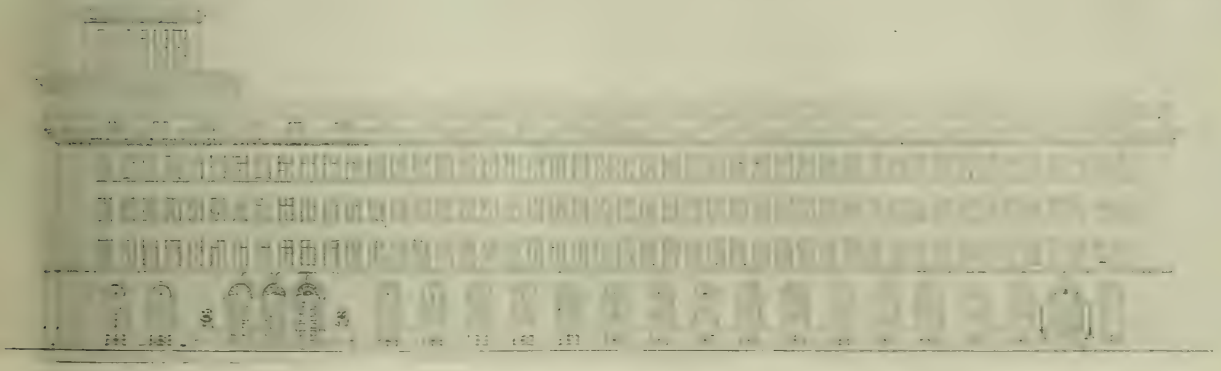
LONGITUDINAL SECTION.



NORTH ELEVATION.



SOUTH ELEVATION.



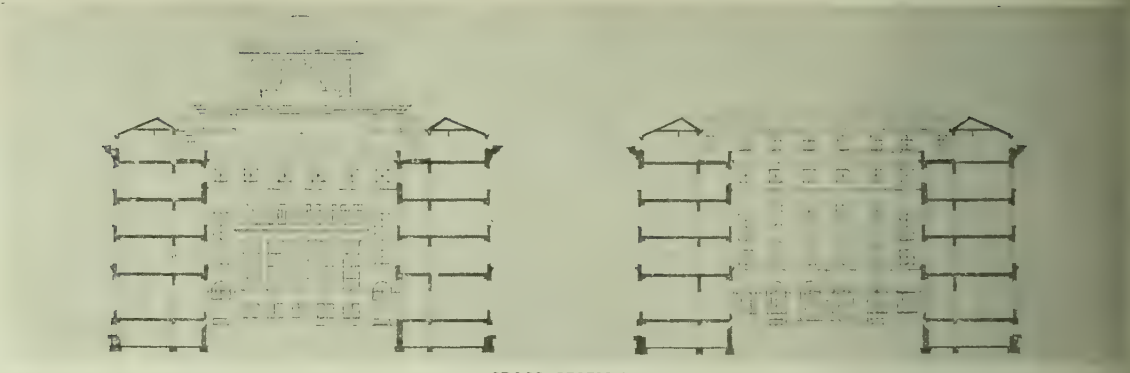
WEST ELEVATION.



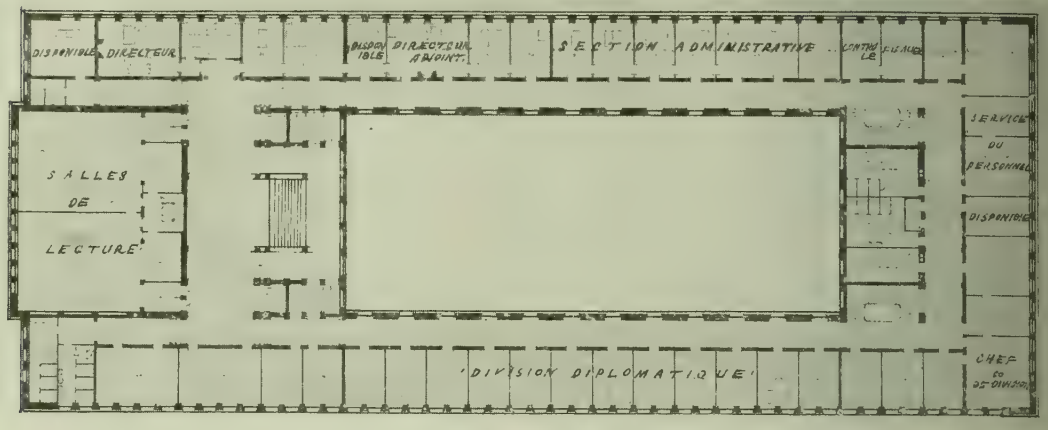
EAST ELEVATION.

The International Labour Office of the League of Nations, Geneva. M. EPITAUX, Architect.

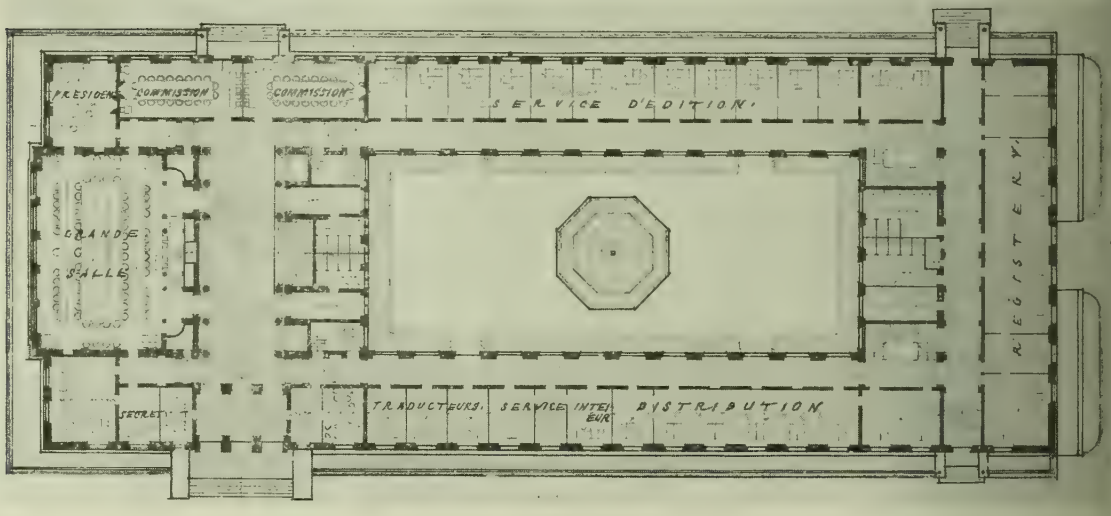
[The foundation-stones of this building were laid on October 21.]



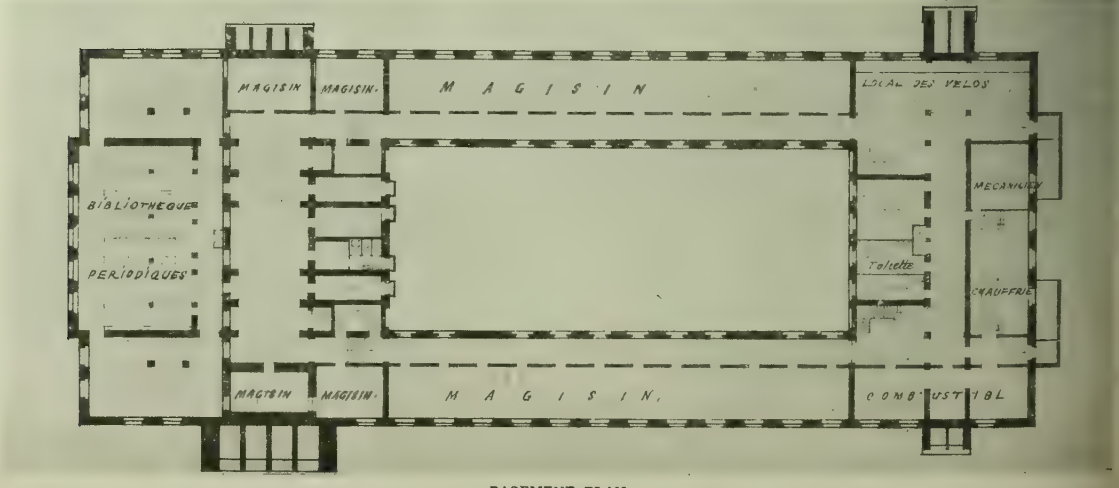
CROSS SECTIONS.



FIRST-FLOOR PLAN.



GROUND-FLOOR PLAN.



BASEMENT PLAN.

The International Labour Office of the League of Nations, Geneva. M. EPITAUX, Architect.

IE BUILDING ART: THEORIES AND DISCUSSIONS.—XI.

By W. R. LETHABY.

DIRECTION AND DEVELOPMENT.

Mediæval builders and designers were of a class very different from those whom ow accustomed to call architects. They stone, but modern buildings betray their having been conceived on flat paper and into solid material.

GOULD on "Freemasons."

t two parts grew so long that I had no link them up with the rest of this series. t out by example the fact that ancient cture" was craftsmanship by workmen. nnot go back," some may say with ce, and I quite agree; that indeed is thing I am trying all along to say in all ways, so that some may indeed see the f looking back and not only seek to emselves by the phrase "we cannot go time and to our methods will only be reached through seeking for structural perfection. No one man can do it: architecture, like any other art or science, must be a development, and the only possible base (perhaps, too, this is impossible!) is the scientific ground of experiment and demonstration. Moreover, if architects followed up their own proper business of perfect economic structure and arrangement they would have to give up the incompatible business of meddling and fussing with workmanship and would leave to workers their proper sphere. A way must be found for bringing back interested craftsmanship into the things of building once more. By leaving the arts of workmanship to the workman I do not necessarily mean that we must forsake all appearance of "ornament" until the brick-



FIG. 1.

t is absurd to "design" sham Gothic anything else out of its due time. My n is that our method of design must d with our method of production, for can we follow a theory with its expandcations in a vital line of development. ly general theory of building open to time is to aim at structural perfection cientific method, eliminating whim and and leaving the ornamental arts of ship to those who practise them.

people, I find, seem for a moment to he idea of structural perfection in and to contemplate the possibilities of e development gladly, but they will r the next minute and say, "but that merely mechanical, like a motor-car"; pressively, "architecture is more than Architecture may be *more* than that, from that, or *less* than that, and our rchitecture is greatly less than that, as ur towns, any of them, and our streets, em. Any architecture possible to our layer and the joiner can give them to us again. What I do mean is that we might save £20 or £200 or £2,000 from irritating mouldings and repulsive carvings and spend the money on real sculpture and painting by real men. It is, in fact, I that plead for more than mechanism. At present we try to disguise our failure as scientific builders by plastering on thick crusts of mechanically-made *appearances* of interesting workmanship. In reality our so-called "ornaments" are precisely the most mind-absent mechanisms of all.

When we talk about old workmanship-art it is not meant that every artist in masonry was a hod-man and mortar mixer all his life—obviously not. There are doubtless misconceptions about old building artists. Henry Yeveley evidently did an enormous amount of work; he probably "designed" more, which was carried out by others; he dealt in materials and he became quite famous, and must have been in some degree "well off." Henry Redman, King's mason, owned the George Inn at Brentford, and other house property, and his widow a few years after his death possessed a cow. Possibly he lived at Brentford and may have ridden in and out to his business in London; as early as Henry VIII he is mentioned in regard to property at Brentford.

Still, these men were masons and represented and honoured the craft of masonry. Every new apprentice in the building crafts would have been told that if he was a good boy he might come to wear "a robe of the degree of an esquire" and serve the King. The estimation in which the crafts were held and the rewards open to the craftsmen were circumstances which helped in the long, slow process of developing art. Old architecture was the thought of masons and carpenters; ours is not, and we need an idea and objective which shall correspond to *our* modern means and methods, as did theirs to those of the time. Even in the days of Wren and beyond there were fine traditions of workmanship in being, and great workmen-artists were employed. Again, the immediate contact of workers and employers induced a curious frankness, as in the carving of the portrait heads which I described. The close association and long intimacy among those of different crafts was a great factor in the development of building forms.

A point to which I wish to direct attention is the manner in which one mode of craftsmanship, when it was much admired, necessarily influenced other forms and the general development of "style." It is well-known, for example, how much painting influenced sculpture. In a similar way, the methods and forms of masonry, swiftly developed in the thirteenth century, had great influence on the carpenter's craft. Columns, arches, and stone-like mouldings were all soon adopted by skilful translation into timber work. Masonry was the first in honour and the first to advance in the cathedral and castle building epoch, and became a highly finished art while carpentry was still rude. In the fourteenth century the house-building art of the carpenter advanced so far that the forms of carpentry then strongly reacted on those of masonry. I do not think that it has been observed how much the change into what we call "Perpendicular" masonry was in a large degree caused by carrying over carpenters' customs into stoneworking. Flat four-centred arches, square-topped tracery-windows, and wall surfaces wrought into level ranges of panel-work were all natural developments in carpentry, and from thence were reflected into the technique of masonry. It was not a whim of "design" and "style"; the mason had to show that he could build houses and adapt his materials to low storys and level floors as well as the carpenter could. In the close association of those who practised developing forms of workmanship such reciprocal action and reaction was natural and inevitable. The central progressing stem of mediæval architecture was developing craftsmanship. There was steady expansion from within of the possibilities of workmanship, and all "design" was necessarily seen as workmanship.

It was only by continuously doing similar things for a long time that the full powers of craftsmanship were explored. The tracing of direction in building development may be taken up at any point throughout its long course, and, as an example, I will mention the elaboration of the window.

The traceried window not only passed through a rapid expansion from 1250 to 1450, but there were centuries of experiment before this period, during which the grouping of lights and the use of cusping were worked out. As I have before suggested, cusping of arches had its origin in the lobed edges of shells carved in Alexandrian niche-heads. It has recently occurred to me that this deep-rooted instinct to make the tympanum of an arch shell-like was no accidental whim. The hollow semi-circle filling the head of a niche was obviously of shell form, and it was called shell. In the contemporary descriptions of the building of Sta. Sophia, Constantinople, the word *conch* is used for the semi-domes of apsed recesses.

From this association of the arch-shape with "shell" came the deeply impressed instinct which led on through centuries of developing workmanship to the cusping of lights and the spreading lines of tracery.

Architecture was a development of workmanship as well in the small things as in the great. For example, let me return again to "mouldings," which have such a fatal attraction for the modern practitioner. As they grew into being, the most elaborate ones, even the too elaborate and tricky ones, were imagined through knowledge of how stone would cut—they were not foolish wriggling lines drawn on paper which an office designer orders the man with a chisel to work in solid stone. I saw the other day some elaborate thirteenth-century profiles, which by the way in which they follow the stone block show quite clearly the workmanly procedure (more or less like Fig. 2, which is from memory). Then having

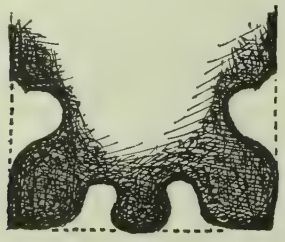


FIG. 2.

this in my mind I "ran across" an excellent marble moulding, which, although we should class it as in "the Renaissance style," had really been also found in workmanship. It conforms as closely to the chamfer plane as a Greek Doric capital which was designed by a mason in the same way (Fig. 3).

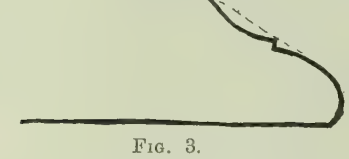


FIG. 3.

In the house where I am writing this there is a very ordinary white marble mantelpiece made about 1835, which still shows, in economy of stuff and adaptation of forms, a knowledge of workmanship. I believe it must have been the last thing *made* before architects' *designs* came between the artist and his material (Fig. 4).



FIG. 4.

Only to-day a friend in the Midlands has sent me a rough sketch of the finials from a cornrick made with ears of corn (Fig. 5). All architectural features were developed from such forms of workmanship.

Illustrations of building operations in the Middle Ages bring out the interest in the work, and the ignoring of architects' plans. In the Manuscript Gallery at the British Museum such a picture appears by accident on the page shown of Lydgate's "Metrical Life of St. Edmund, King and Martyr," written on the occasion of the visit of Henry VI to Bury St. Edmunds (Harl, 2278). The picture shows masons in white smocks and aprons, some having black caps and one a white coif. They are mixing mortar with a wooden spade, cutting stone with an axe, on a banker like a butcher's block, lifting a column by a pulley and spoked axle guided by a man on a wattled hurdle scaffold stage, another man plasters an external face with a trowel. The King with his crown on inspects the completed and rising structures (some being wood framed), closely attended by two chief workmen also in white garments, but of superior fashion and having ornamental belts. One of these, a wise-looking old person with a white beard, is evidently the head mason. There are no plans, and yet the King lifts his hands in astonished admiration. The MS. tells of the site :—

> "All the fieldis, sowyn rond a boute
> And lond arable, a full large space."

It then passes to the founding of the new town :—

> "Also beside the Wellis as I fynde
> At his coming he bilt a roil ton
> Which stant ther yet for a manier mynde
> Ffor his arryvaile, into this Region
> Which is this day, called Hundstantston."

A picture from Ely, now exhibited among the "Primitives" at the Royal Academy, shows St. Etheldreda directing the building of the first church at Ely. All the masons have white aprons, the stones are wrought with axes on blocks, one mason sets a stone with a square, another lays mortar with a trowel. Again the employer shows approval of the work, although as before there are no plans and no office, and in this case no chief master appears.

That which we, to our own great puzzlement and confusion have, since the modern vogue of Vitruvius, called "architecture," was before that time conceived as *workmanship in building*. The words architect and architecture were not known in England with our sort of meanings—or attempted meanings—until about 1600, and then meant one who professed to understand or at least to follow, the doctrines of Vitruvius, whose book was then looked on as a kind of inspired Bible. Before that time forms of the word architecture may be found in Latin writings very infrequently, but always with general meanings, as master-workman, or masterly work. Matthew Paris says that in 1224 the King's artificers made Bedford Castle of wood, *altem et architectoria arte fabricatum*—"a masterpiece of [military] art." Another chronicler (I think Higden) speaks of Rosamund's Bower at Woodstock as a wonder of architecture—a master work. In schemes of real work the art involved was masonry or carpentry, and everybody knew it; there was no profession of anything beyond useful work in good workmanship and materials. The Black Prince in ordering his tomb directed that it should be *de marbre de bone masonerie faite*. More than a hundred years before Villars de Honnecourt commended a building as "good masonry," and his book he tells us was concerned with



FIG. 5.

"the knowledge of the great powers of
In the records quoted last month
"the art of masonry" occurs.

It will again be asked with some i
"What on earth has this simple o
work to do with us? We can't
Why do we go back then? Why
modern architects go on paper-desig
Gothic in this so different age?

Modern city builders (in the coun
works might and should be done in
way) require an architecture of
precision suitable for our manner of
The Gothic and all architectures of
were found in workmanship; ours
and make much of the fact that it
as an exact paper scheme of scientific
A modern city architect's building
stone and brick machine, and when
it will have real interest proper t
The modern "style architect," anxio
ising mechanical workmanship to *lo*
art, with its freedom and masterly
an anachronism.

Building designers are no long
workmen and cannot think in wo
They should be high experts in pl
special types of structures, in organisi
and in constructive art. Our rece
trying to design the appearances of
tectures of other and very different
than childish. Our solemn architec
petitions in *appearances*, misrepre
flashy perspective drawings which
buildings do *not* look like, are about
as if naval engineers should admir
petitions for the design of Noah's
Empire style. How funny it is if it
so sad!

Our systems of "Architectural E
laid out in view of such "goings
necessarily destructive to the faculties
students submitted to them. From th
nourish a divided mind and personali
the first they make a distinctio
"architectural art" and building rea
necessarily breaks up our effective for
we are old enough to see through the
cloud the time is gone; and more s
many never seem to arrive at clear
die in their architectural beliefs!
tremendous thing really that he that
fully betrayed into admiration of
tural design" will never be able to
love the reality of building.

All will probably agree that your
differing types of mind would be speci
in modern building art. Those with
tive, experimenting, inventive fac
those with a turn towards wor
making and doing. Now the modern
"style-architecture" must deeply i
of these; it is a rack which will bre
them, while the actor and hair-dresse
minds will find little to object to.
matical and scientific youth will fi
in a world founded on inverted definiti
art means clerkship and archæology, *de*
copying, *style* means pretence, *the*
abounding rhetoric. The weight of
so great that the only thing he may
stage is to subject his mind to the bogy
break it in to nonsense, and learn
language" himself. Moreover, the
ever, go with conformity. He eat
looking apple, and will never more
peace of a keen, single and expandin

It is much the same with the act
of things, who will find himself shut
them by the same desert of doctri
mountain of paper as well.

The system produces experts i
drawings of projects which look fashi
"grand like" to the commercially-m
the ignorant, who are kept persuaded
all "architecture," and proportion,
and genius. Surely everybody will
such a system cannot last for ever a
not last long. It would, I am con
instructive if some student with an
for statistical inquiry would go th
records of the great architectural

of the last fifty or sixty years and subjects and results.
say is only a hint as to a *direction*, and ssed in the main to such as are ready gree to be like minded, however small e may be. I do not say, I have not possible, that we should be able to t of the maze all at once. Rather I turn a little, just as far as you are by your teachers, and employers; uestion of margins, percentage and If any reader will clearly realise rchitecture" of the modern variety rtist is as much out of the scheme of he Tommy," even that will make a The mind is a curious thing, and o reflects on this point will either be ile on more "decorations" to show lovely and right, or he will begin to d wonder whether it is worth making ers spend money in the vain endeavour e mechanical nature of buildings by more mechanism under the name of t." My modest enquiry is only this: ent circumstances might not a slight, slight, lessening of the enthusiasm for " the period styles be advisable? aim at something and go in *some* shall we put our hope in more "style r in better structure, and, where freer workmanship, if it is only in 0s. water-colour? Shall we increase r and depth of the fashionable hori- oves in the masonry of frontages? enlarge the curious triangular hats put over windows, although people in whether they are called pedestals nts, and nervously enquire what they Shall we dangerously support still larger "columns" (don't they call nging them along frontages like tall a shelf of architectural specimens? e slowly try to be just a little, a very e reasonable and indeed manly? It re that I have my eye on, but the and the personal always seem to be the ultimate and the general. severely practical grounds of scope, yment, and even of business remune- seems a mystery why all would-be with their diversity of aptitudes, driven through the wicket gate of randeur design." I wonder what the forces actually are? A few very aspirants will perhaps gain com- or employers in the city who know tal may be had; but what will all the In a comparatively reasonable rld there would be much differentia- students would aim at high scientific e, some at intimacy with workman- reintroducing craft excellence, some mprovement, and so on. So much done, but we actually educate how it. Competition in architectural es blocks the way to building reality.

Manchester Works.

part of Messrs. Lewis's Manchester extension has been started. Its cost some £70,000 or £80,000 of the s eventually proposed to spend. The or the superstructure for these imme- tions has not been let. That for the has been secured by Messrs. Tom- Sons of Liverpool, and that for the by Messrs. Dorman, Long & Co., of ugh. Messrs. J. W. Beaumont & azennose-street, Manchester, are the When completed the extension will street, Rook-street and Bark-street of the present premises. Marble- ne back limit of the scheme will be 30 ft., and will thus become an thoroughfare.
er War Memorial Committee de- the contract for the erection of the rial in St. Peter's-square, designed in Lutyens, R.A., to the Nine Elms onry Works, Ltd., London. The egin at once.

EXHIBITION NOTES.

THE OLD WORLD GALLERIES, LTD.

By invitation the Press visited the new premises of these Galleries, No. 449, Oxford-street, last week. The galleries are in keeping with the exhibits, and the various types of old furniture are displayed in rooms of similar character. Examples of various periods are exhibited, but the proprietors procure and make a special display of old farmhouse furniture. This type is undoubtedly more utilitarian and homely than the more ornate or specimen pieces so beloved by the collector. For the person desiring to furnish his house for use and comfort, at these galleries may be found excellent examples of refectory tables and the always popular gate-leg table, and, in addition, there are nice specimens of the Lancashire ladder and spindle back chairs. These patterns, with their wonderful rich brown colouring, are pleasant to look at and comfortable to sit on, which cannot be said of some old chairs.

The farmhouse pieces make excellent furnishings for the type of house being built by many architects to-day, and it is a satisfaction to know, while enjoying the beauty and quiet dignity of these old pieces when chosen with discretion, that one's money is well invested, for the demand for old furniture appears to be ever increasing.

A.A. HOLIDAY SKETCHES.

The standard of work at this exhibition reaches a higher level than any other of this class we remember. The majority of the sketches are put in with a precise touch and sureness which is admirable. A number of the sketches are the result of work done on the recent excursion to Avignon. The mediums used are varied, water-colour dominating, but happy results are obtained with coloured chalks, notably the impressionistic studies by Mr. Stanley Hamp, which are executed with an admirable directness; his chapel on the Pont Saint Benezet is charming, also an interior presumably at Avignon. We illustrate this week two of Mr. Hamp's sketches. Mr. Cyril Farey has several tasteful water-colours hung; "Chichester" makes a strong appeal to us with its tower showing boldly against an evening sky. Mr. Gordon Hake's "Palace of the Popes, Avignon," is treated in delicate pearly tones from across the river; the drawing, though slight, is sympathetically handled, and is very charming. An interior, entitled "Worcester," is an excellent piece of work in a low key of harmonious colour and sincere in its execution; the point of view is well chosen. Mr. St. John Harrison's studies are broadly handled, notably his water-colour of "The Porta Pinciana, Rome"; the peep through the great archway, showing the grey green cypresses, is very pleasing. Mr. John Grey's drawings of "Rye Harbour," and "The Town Hall, Rye," show this most interesting and picturesque old-world town in a quiet and reposeful manner, which is very befitting. Mr. Yerbury exhibits two fine photographic enlargements. "The Palace of the Pope, Avignon," an impressive study in sharp perspective, in which the perpendicular lines predominate; these are enhanced in value by a deep shadow in the foreground. The second study is a sunlit courtyard, with a noble plane tree, the foliage casting lace-like patternings on the adjacent building, thus making a telling picture in light and shade. Mr. H. G. Butler's "The Farm in January" is a deft piece of brush work, the leaden cloud oversailing the farm being quite impressive. Mr. W. G. Newton shows a pleasing little impression of "Sienna" in low tones. Mr. Robert Atkinson contributes several decorative colour studies, presumably prepared for his Brighton cinema. Mr. W. M. Keesey's "Camaret" is a crisp little sea study with fishing boats, and brightly-coloured figures on the quayside. Mr. Maurice B. Adams also exhibits two pleasing little works. Excellent drawings by C. J. Kennedy, P. Harland, F. P. M. Woodhouse, and many others demand attention, but space precludes. Those whose taste and interest lay in this direction would do well to visit the exhibition. They will be well repaid.



A DETAIL OF THE ORGAN.

Caird Memorial Hall, Dundee.

MR. J. THOMSON, F.R.I.B.A., City Architect.

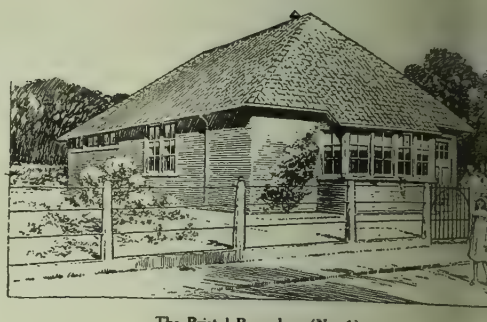
Building Schemes in Liverpool.

Alderman J. G. Paris, the chairman of the Corporation Estate Committee, in a speech which he delivered at a Conservative election meeting in St. Jude's Hall, Low-hill Ward, last week, declared that Liverpool would next year be a hive of industry. He referred to important works to be undertaken in the city. The total value of the schemes, including those of the Corporation with those originated by private enterprise, was over £3,000,000. It would be good news for the painters, he said, that the interior of St. George's Hall and the whole of the Municipal Offices were going to be repainted, and for all departments of the building trade January would inaugurate a year of unexampled activity. The Holt building, in Water-street, costing £1,000,000, would employ thousands of men, and in March would begin the Clayton-square scheme at a cost of £350,000, most of which would go in wages into the pockets of the Liverpool working men.

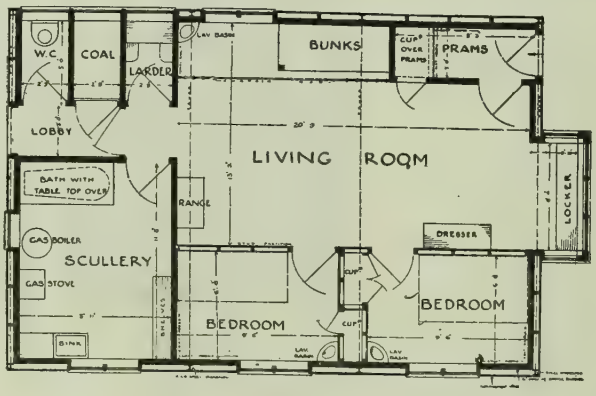
In addition to work by private firms, the Corporation had big building schemes ahead. The Stanley Abattoir and Cattle Market would cost £400,000; and that scheme would not only employ a great volume of labour in the construction, but would capture for Liverpool a large part of the killing and the frozen meat trade. The new tramway works at Edge-lane would cost £300,000, the Alsop Secondary School £40,000, the Art Gallery extension £30,000, the Allerton School £21,000, the Edge-lane School £21,000, and the Newhall-lane School £21,000. The Corporation work to begin in the new year represented a total of over £900,000, and adding this to the work undertaken by private enterprise it could be claimed that within three months from to-day there would start in the city schemes of a total value of £3,000,000. Further ahead lay Sir Archibald Salvidge's Mersey tunnel scheme, which, if it came off, would involve a total expenditure of £6,000,000, most of which would go in wages to the working men of the port.



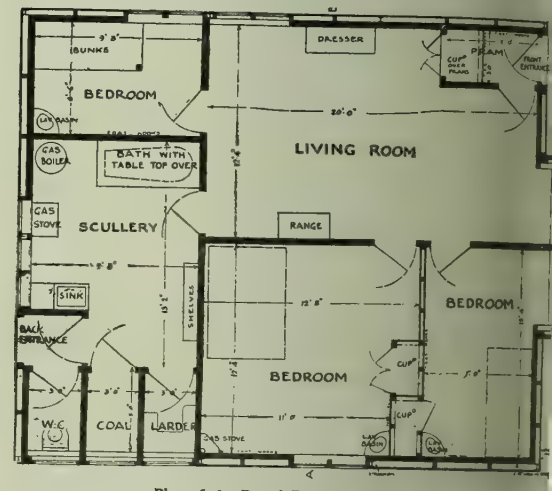
A Group of the Bristol Chalets.



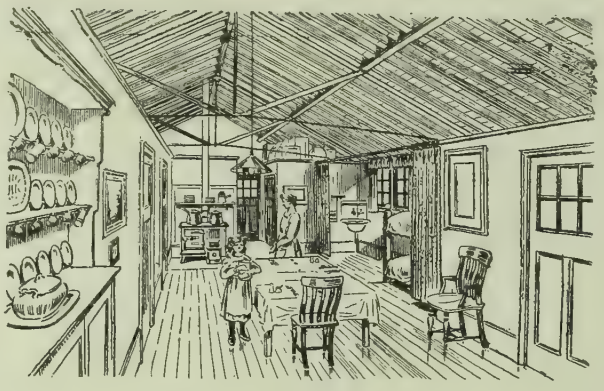
The Bristol Bungalow (No. 1).



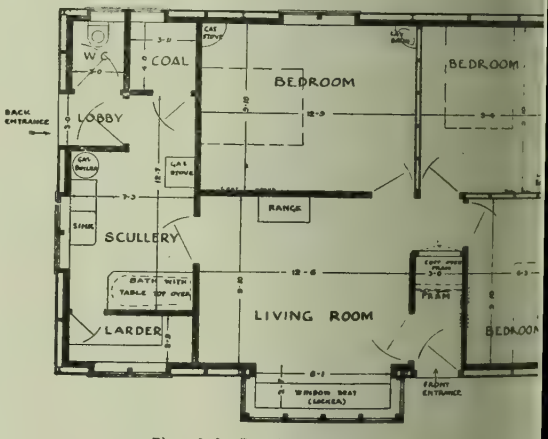
Plan of the Bristol Chalet.



Plan of the Bristol Bungalow (No. 1).



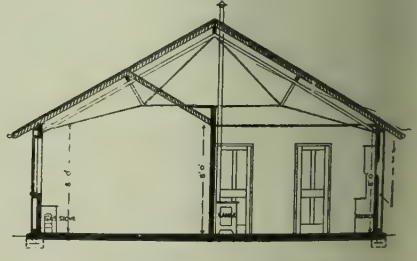
Living Room of the Bristol Chalet.



Plan of the Bristol Bungalow (No. 2).



Living Room of the Bristol Chalet.



Section of Bungalow No. 1, showing construction of bedroom ceilings.

The "Bristol" Bungalow.

[These bungalows, which were estimated to cost £195 each, are recommended by Councillor E. W. Savory, Chairman of the Bristol Housing Committee, as a solution of the housing problem. The "life" of these dwellings is estimated at 50 years.]

OWN PLANNING.

WILLIAM HAYWOOD, F.R.I.B.A., is series of lectures on "Town Plan- at the Birmingham University, of he first two are summarised below:—

I.—Ancient Town Planning.

planning has been practised more or ce neolithic man first abandoned m. and settled in primitive colonies abundant food, water, and the means r. These factors are essential to the a, whether primitive or modern; but or sing to find that, in the first traces tive existence in Egypt, Assyria and nd even in the pre-historic Terramare al Europe, there is usually more of a preconceived and comprehen- nning of streets and buildings than found in our industrial cities of the th century. Many early towns were as rigidly as those of modern , at a time when the deficiencies of ethod were of less importance than to-day.

indicative of the eastern origin of town arrangement in Greece, that mus, the first known professional nner, and a resident in Athens in the tury B.C., was an Ionian of Miletus, s from the Asiatic cities of the Mace- age (commencing 330 B.C.) that we first really adequate records of com- planned towns. The conquests of er led to the building of many such Asia Minor, under conditions favour- a complete and artificial design; and a marked increase in the adoption of iron type of street planning from this wards.

eresting aspect of town government is l by the building laws of this period. erfect inscription at Pergamon con- rt of a Royal law, to the effect that is structures could be taken in hand rs appointed for the purpose, and re- t the owner's expense, plus fines for The same officers controlled street and scavenging. Party walls had governing their repair and the ex- of damp. Brickmaking was regarded noxious trade, and was not permitted ty. Outside the city, widths of roads d, and adjacent owners were held re- e for road maintenance. Within the eet control was probably even more but of this we have no certain data; bly resembled that of Priene, which ered by the municipality.

the Greeks were not uniformly appre- of formal town planning, they were in a highly fastidious attitude to- eir public buildings. They liked their always in view, but not so easily e as to permit an immediate passing worldly to a spiritual environment. sanctuaries, therefore, occupy sites re as conspicuous and isolated as pos-

n temples were not built to house tions. The building itself was liter- house of a god, and the worshippers d about the altars which stood before ce the great terraces at Pergamon and precincts about Grecian temples gener- hich serve the double purpose of dating ritual, and of emphasising the ce of public ceremony in the life of munity.

II.—Roman Colonies.

contribution of Rome to progress in nning is best approached by way of nial output; which gives an easily od background to the more important fused conditions of the capital city

irst we must note the proximity to f certain fortified settlements of lake- , of which more than one hundred exist ern Italy, between the River Po and the Apennines. These settlements are known as Terramare. They date back to 1400–800 B.C.; and in their street alignment and regular disposition of sites for building they are as precise as a Roman military camp. It is possible that a knowledge of these formally planned Terramare may have been handed on to Rome by way of the intervening Etruscan cities of which we know so little; or, that the Romans themselves discovered these cities of lake-dwellers during their military excursions. But of this we have no certain knowledge.

Roman towns of complete design first appear in the period of the late Republic, approximately 200 B.C. At that time, and later, bodies of emigrants and time-expired soldiers were thrown off from the parent city and established in small fortified towns, the sites for these towns being determined by the military needs of the time. The character of their plan—naturally enough—followed military precedent. Seventy or eighty such towns were founded or refounded prior to 120 B.C. Sulla, after 81 B.C., added a dozen or so, and Augustus about thirty more. Many of the most important cities of Italy to-day originated in this manner, and still retain much of their first plan.

SKILLED LABOUR AND HOUSING.

Labour Minister on Shortage of Operatives.

SIR MONTAGUE BARLOW, M.P., Minister of Labour, received on Tuesday morning a deputation from the Birmingham City Council on the subject of the shortage of skilled building workers.

The Lord Mayor said that housing in Birmingham was held up by a shortage of bricklayers, and that, in consequence, the Council was prevented from making the progress called for in improving the present deplorable conditions. There were thousands of cases in which families were living in one room, and there was a crying need for houses which the Council were anxious to meet. They had held conferences with the employers' and workers' organisations with a view to securing an increase in the number of bricklayers, and making other arrangements necessary for expanding the volume of building, but without result.

Sir Montague Barlow said that opportunities for employment were restricted for very large numbers of workers by a shortage of certain classes of skilled building workers, especially bricklayers, and he had already thought it well to refer to this in speeches he had recently made in London and at Coventry. His statements on the subject in his speeches at Stationers' Hall on the 16th ult. and at Coventry on the 22nd ult. had been challenged, and he had been referred to the fact that 85,000 building workers were unemployed, and that, therefore, the question was not one of shortage of labour. To quote a statement which had just been issued by the Independent Labour Party, "although so many houses are required, 85,000 unemployed builders are prevented from starting on them." As he stated at Coventry, there were some 5,000 carpenters and 15,000 painters for whom no vacancies were offering, not to mention some 35,000 labourers. But all these were largely held up by the shortage amongst the bricklayers.

At a time when one of the most serious facts was the general unemployment of youth, a fact which must be keenly appreciated by all parents who wish to see their sons placed in a position to earn a livelihood, a failure in the building trade to take the quota of apprentices, even to the extent which the agreement with the trade unions would allow, was a matter which demanded most serious consideration. It was possible that neither side in the building trade was entirely free from blame in this matter, but the community were entitled to ask what steps the trade proposed to take to give young men the necessary training without delay.

A demand had been made that all building but that of houses should be stopped. This appeared to him to ignore the fact that in this country at present there was a million-and-a-quarter unemployed, and that the great necessity at the present time, a necessity to which Labour leaders constantly referred, was to provide work. He would prefer to see the number of workers increased in the building industry with proper safeguarding conditions rather than the stoppage of any form of building.

He wished to suggest to the Birmingham City Council that they should present to the employers and operatives in their area a clear and detailed statement of the building work which they wished to be carried out for many years ahead, taking into account the arrears, normal yearly requirements, and the slum clearances which were contemplated. With such a definite programme before them he would suggest that the building trade employers and operatives should further consider together the means for securing as soon as possible an increase of skilled workmen to meet the present situation and an increase in the number of apprentices.

Labour's View.

The controversy over the housing problem in Bristol still continues. In a long letter to the local papers Councillor F. E. White, Secretary of the Bristol Branch of the National Federation of Building Trade Operatives, and a member of the Housing Committee, gives the Labour side of the question.

Mr. White declares that the building trade operatives, had their policy been adopted, would have shown, by the erection of hundreds of houses, that they were keen on the abolition of the overcrowding in our midst. The Building Trades' Federation, in August, 1919, approached the Housing Committee and proposed that the Committee should proceed to erect houses, and guaranteed the supply of labour, but required to nominate their own supervisors, so that whatever amount might be saved in the cost of erection should not be placed in the pockets of a few, but for the benefit of the whole by a reduction in rent or rates. This was refused, but months after adopted, and again dropped. A Government housing scheme was then launched. In July, 1921, under pressure of vested interests, the Government called a halt. To meet the need of the million required the scheme was restricted to 176,000, and up to November 145,771 had been completed. It would not be overstating the problem to say that the need to-day is little, if any, better than it was in 1919.

Mr. White, dealing with the alleged skilled labour shortage, says that he knows a local builder who is prepared to build 200 or 300 houses for the working-class if an order is given him and a guaranteed agreed percentage on prime cost, and complete one every three weeks.

Mr. White opposes Mr. Savory's plan for chalets, holding that the scheme is unsuitable, unhealthy, not conducive to family life, expensive as compared with the life and construction of the ordinary brick house, and consequently an expense to the community which would not be warranted. He estimates that if let at 5s. per week, plus rates, there would be a yearly loss of over £18 on each house for 20 years, at the end of which period they would have to be rebuilt. He declares that, given the will, the Bristol Corporation, with the support of the citizens, could do a great deal to lessen the evil of the house shortage. By the levying of a housing rate, by the obtaining of the subsidy or Government grant, and by a scheme of building by direct labour, houses could be provided, and he maintains that it would be better to have a housing rate of, say, 6d. in the pound, to provide what is a vital necessity, than to have a 6d. Poor Law rate, with all its attendant evils.

The Independent Labour Party in a statement says: "Seven hundred and fifty thousand houses are required, and 85,000 unemployed builders are prevented from building them." Who is preventing them is not explained.

THE BUILDING TRADE.

THE EDUCATION OF BUILDING APPRENTICES.

On the invitation of a large number of building teachers in the N.W. area, a number of the members of the Manchester branch of the Institute of Builders attended a conference on the afternoon of Saturday, October 13. Apologies for absence were received from Mr. J. Smethurst, J.P. (Oldham), Mr. J. Storrs, J.P. (Stalybridge), and Mr. H. Matthews, J.P. (Manchester).

In opening the conference (which was attended by over 70 persons, including several interested in technical education), Mr. B. Mouat Jones, M.A., Principal of the Manchester College of Technology, emphasised the importance in the right development of technical education, of cordial and effective relations between the representatives of industry and the technical schools. He hoped that conference would assist greatly in improving these relations in connection with building.

Mr. E. M. Pearson (Preston), one of the conveners of the meeting, explained that the conference had been arranged in response to a wish expressed at a similar conference held in June last, which the teachers attended at the invitation of the builders, and it was hoped to carry forward to a further stage some of the suggestions then made for further co-operation between the representatives of the industry and those interested in technical education.

Mr. W. F. Anderson (Bolton), in opening a discussion on "The Training of Apprentices," referred to the satisfactory results which were obtained in earlier times when the relations between master and apprentice were much more intimate and definite. He maintained that, in spite of the effect of modern conditions, which compelled the employer to delegate much of the responsibility to his foremen and ultimately to the craftsman, the main responsibility for the character and effectiveness of the training of the apprentice rested still with the employer. The operative craftsman should, of course, be consulted as well, since his loyal and intelligent co-operation was essential. He urged that greater use should be made of part-time day classes for apprentices. Attendance for several evenings in the week carried with it grave disadvantages and meant in practice that many of those who really needed much instruction received none at all. Attendance in the daytime would not only mean that more apprentices would receive some instruction, but it would also mean that the less capable would receive more and better attention than was possible under the present system.

The ensuing discussion was mainly concerned with the instruction of the apprentice as distinct from the student of general building. Reference was made to the increasing specialisation within the industry, which among other effects had greatly increased the difficulties involved in the complete training of apprentices; at the same time the great developments which had taken place in the technical schools, owing to the introduction of properly organised courses, had undoubtedly raised the general standard of work which it was possible to attempt. These two factors (specialisation in the industry and the "course" system) had, however, created new difficulties; the "course" system had a tendency to cater mainly for the student who was prepared to take his work seriously and who could undertake to attend a pre-arranged course lasting for several years. This was not necessarily a fault, but it had the effect of reducing the provision for those students whose desire and capacity was for a limited or trade knowledge as against the wider or more general knowledge of the organised course. From the numbers now in attendance it appeared that the establishment of sound general courses in building was assured, and, this being so, an attempt should be made to set up trade courses of a much simpler character—courses which would be limited to the necessary requirements of apprentices in each of the trades.

Reference was made to the large number of separate trades in the industry, and to the fact that in some of them very few apprentices were to be found at the present time, and it was suggested that by arranging these trade courses to cover well-defined groups, such as the woodworking trades, the bricklaying and masonry trades, the plumbing trade, and the painting and decorating trade, it might be possible to conduct courses in most of the larger technical schools, courses for the last two trades mentioned above being already fairly well established.

Mr. T. Howarth, J.P. (Rochdale), said they were all agreed as to the ideals of apprenticeship, the changes in economic and other conditions did, however, make it very difficult for the employer to carry out his full obligations to the apprentice. He considered that training in apprenticeship should be a trade if not a national obligation. Employers and others who neglected their duty in this respect should be compelled to contribute to the solution of this problem in some other way. He supported the idea of trade courses and of attendance at the technical school in the day time, and he suggested that if, in some trades, the numbers were too small to justify separate classes, then the apprentices should be gathered for instruction at some centre such as Manchester.

Mr. Walter Thorpe (Manchester) mentioned the difficulty of getting apprentices to attend evening technical classes regularly in spite of the interest which the employer had in such attendance. He doubted if much could be done without some measure of compulsion, but he supported the idea of attendance in the day time, and welcomed the suggestion that trade courses might be set up; this latter arrangement might reduce the loss of students which always occurred in the early years of the courses.

Mr. H. H. Clapham (Salford) referred to the difficulty of dealing with the casual student. While they could not, of course, satisfy all the varied demands made upon them for instruction, all improvements which tended to make their courses more elastic were steps in the right direction.

On the motion of Mr. Steele (Wigan), it was agreed that a small committee of building teachers be formed to arrange for conferences on building topics from time to time in the N.W. area, and to help in the improvement of the connection between the industry and the teachers. One of the matters which might be referred to such a committee was, he said, the progress of the negotiations which had been taking place between the Institute of Builders and the teachers throughout the country concerning the preparation of students for the examinations of the Institute, which had recently been set up.

As one of the teacher-representatives dealing with this matter, Mr. F. E. Drury (Manchester) reported the progress made so far, and expressed the hope that it would result in arrangements being made that would be beneficial both to the Institute of Builders and to the building departments of technical schools throughout the country.

Mr. J. M. Macfarlane (President of the Manchester Branch of the Institute), in expressing their thanks for the entertainment which they had received from the builders that day, and for the opportunity of taking part in such an interesting and, as they believed, useful conference, said he hoped it might be found possible to set up on the lines a small committee to deal with such matters as they had discussed, so that they might expect to see definite results from their deliberations.

Mr. Frank Woods (Bolton), in supporting Mr. Macfarlane's suggestion of joint meetings between the teachers and the builders, said he regretted that so much difference to these important questions existed in the industry to-day. The establishment of a joint committee might furnish that information which had been missed in the past. It would, of course, be necessary that every section of the craftsman should also be drawn into the discussions since he was so intimately concerned.

Mr. Scholes Hague, M.Sc. (Principal of the Central Technical School, Liverpool), in proposing the thanks of the meeting to the Chairman, expressed his own pleasure at being able to be present at what seemed to be a most successful conference. He was glad that the enthusiasm so obviously existing among the members of the Manchester Branch of the Institute of Builders would be communicated to the corresponding branch in Liverpool. He believed that in the next few years one of the most important questions to be faced by technical schools generally would be the further development and improvement of instruction in building subjects. The maintenance of the industry in this forward movement was absolutely essential.

THE BUILDER COST BUILDING COMPETITION.

Mr. Henry Vale, F.S.I., who was appointed by the President of the Surveyors' Institution to act as assessor in Part II of *The Builder's* Cost Building Competition, in which builders were invited to submitted tenders for the erection of pairs of houses to the designs placed first in Part I of this competition, has now made his award as follows:—

Type "A" Houses (Premium, £75). Amount of tender, £1,197 16s. 8d.

Type "B" Houses (Premium, £75). No. 145. Amount of tender, £1,567 16s. 3d.

We have opened the envelopes and find that tender No. 47 for Type "A" houses was submitted by Mr. G. W. Roe, of Wolverhampton, and tender No. 145 for Type "B" houses by Messrs. Shilton & Co., Ltd., of Coventry.

We take this opportunity of announcing that the prize money in both Parts I and II of the competition was provided by Messrs. Rowland Drew & Clydesdale, Ltd., of Upper Thames street, E.C.

In subsequent issues we shall publish a report dealing with the competition.

Obituary.

The death has taken place at Kiddern of Mr. George Law, at the age of 86. He engaged in business as a contractor for many years, and had successfully carried out extensive schemes in various parts of the country.

The death has taken place at Rhyl of Hughie Roberts, builder and contractor, who was one of the best-known sportsmen in North Wales.

The death has taken place of Mr. J. Moreton, builder, of Codsall, near Wolverhampton.

THE INSTITUTE OF BUILDERS.

ıe invitation of the Council of the e of Builders, a conference was held y between the teachers in technical throughout the country, who were at taking a course of instruction in London ıe ægis of the Board of Education, and s of the Council of the Institute. At erence the subject of discussion was the of Examinations for admission to the e of Builders, as a result of which the g correspondence has passed between tatives of the teachers and the Insti-

e President and Council of The Institute cers.

LEMEN,—We, the teachers of building subjects in technical schools and throughout the country now assembled minster under the auspices of the Board cation, desire to place on record our tion of the efforts of the Institute of generally to raise the status of the industry, to increase the specialised hnical knowledge of future employers lers in the industry, and to encourage r appreciation of the value of technical n.

ving the conference with members of ouncil which we attended at your on, we beg to submit the following nt for your consideration :—

DING COURSES.—We wish to emphasise ortance of the provision for students of of a scheme of technical education of and varied character. Such schemes peration in a number of centres which ually being extended and could further loped if increasing support be given to k by the industry.

TUTE'S EXAMINATIONS.—We wish to the efforts of your Council to establish ng examinations for membership of the e, and we desire to emphasise our that no more effective preparation for posed examinations can be found than rganised courses of instruction referred e preceding paragraph. We, therefore, indications of your Institute's recog- f this fact, first by the circulation in of copies of the examination scheme ls throughout the country, and, secondly, ging to meet the teachers in conference. her beg to suggest that much mutual might accrue in the future from some nent whereby representative building could meet the members of your ations Board. In this connection it is nt that the teachers selected be truly ntative, and we venture to recommend ey be nominated in the first place by resentatives of the Board of Education cause of their knowledge of the work of hers, of the conditions under which the onal work is carried out, and the varia- n local practice in the industry, are ly fitted to advise the Council.

IPTION FOR QUALIFIED CANDIDATES.— not be practicable to set up special of instruction in preparation for your e's examinations in any but the largest ions. In order, therefore, to guarantee herever possible candidates have been d for the examinations by attendance able courses of organised instruction, order to enable technical colleges and to co-operate with your Institute to the possible extent, we take the liberty of ing that your Examinations Board indicate its readiness to exempt from appropriate subjects in the examinations ates who have satisfactorily completed ed organised courses. In conclusion, re to express our thanks for the way in you have met us and for providing an unity for the free discussion of educational s relating to the industry as a whole. pe similar opportunities will be provided future.

We have the honour to remain (on behalf of the teachers as per enclosed list),

(Signed)
F. E. DRURY
(College of Technology, Manchester),
H. E. MANN (University College, Southampton),
W. DOUGLAS MAY (Cardiff Technical College).

August 3, 1923.

To F. E. DRURY, ESQ.

DEAR SIR,—The Council of the Institute of Builders appreciated very much that the assistance and co-operation of the teachers of building subjects in technical colleges and schools throughout the country will be of real value, having regard to the system whereby admission to the Institute can be by examination only. The existence of organised building courses for the students must necessarily be of great value in the preparation for the Institute's Examination.

The Council of the Institute has appointed from its members an Examining Board with power to co-opt any properly qualified person outside the Institute to assist in the details involved in the examinations, as provided in the Institute's syllabus; therefore, in due course these powers must necessarily be put into operation.

The Syllabus provides that :—

"The Council may, at its discretion, accept an exemption in any subject for which the candidate may hold a degree which the Council considers as equivalent thereto, Candidates desiring to avail themselves of this must submit full details :—

"(*a*) The subjects from which exemption is desired.

"(*b*) Full particulars of degrees held which are suggested as equivalent to or covering (*a*)."

This clause has been drafted in a fairly wide sense because it was felt, certainly in the early stages, that it was unwise to endeavour to define the limits of exemptions in certain subjects. Having reference to the extent of technical knowledge called for in the building industry, the Council felt it wise to endeavour to avoid involving a student in the repetition of subjects in which it can be shown he has already become proficient.

Therefore, students may rest assured that if they detail the subjects from which exemption is desired and can show by certificate or other documentary evidence that they are proficient in those subjects, the Council, while reserving their right to judge thereon, will give the utmost consideration to applications for exemption in various subjects.

It is in this connection that the teachers of building subjects can render valuable assistance to the Examining Board. In the light of the experience that will have been gained after the first series of examinations, the Council considers that a most useful purpose will be served by conferring with selected representatives from the various technical colleges and schools.

(Signed) F. J. GAYER,
President of the Institute of Builders.

September 27, 1923.

Further correspondence has transpired which may result in an agreement, at an early stage, to accept successes in certain defined and established building courses in lieu of corresponding subjects for which provision is made in the Syllabus of Examinations.

COMPARISON OF PRICES OF BUILDING MATERIALS BETWEEN AUGUST 4, 1914, AND OCTOBER 31, 1923.

Material.	Aug. 4, 1914. £ s. d.	Nov. 11, 1918. £ s. d.	Sept. 30, 1923. £ s. d.	Oct. 31, 1923. £ s. d.	Rise or Fall during Month. (Per cent.)
Bricks—					
Best Stocks	1 16 6	3 3 6	4 2 0	4 2 0	—
Flettons	1 14 0	2 7 8	2 13 3	2 13 3	—
Glazed	13 0 0	17 17 6	22 0 0	22 0 0	—
Thames Ballast	5 9	17 0	10 6	10 6	—
Thames Sand	7 3	17 0	15 6	15 6	—
Shingle (¾ in.)	—	15 0	14 0	14 0	—
Portland Cement	1 17 0	3 8 0	2 18 0	2 18 0	—
Ground Blue Lias Lime	1 0 0	2 2 6	2 13 6	2 13 6	—
Grey Stone Lime	1 8 0	2 7 0	2 10 9	2 10 9	—
Bath Stone	1 7½	1 7	2 9½	2 9½	—
Portland Stone	2 4½	2 10½	4 4	4 4	—
Good Sound Building Timber—					
4 in. × 11 in.	16 10 0	53 0 0	34 0 0	34 0 0	—
3 in. × 7 in.	13 0 0	46 0 0	26 0 0	26 0 0	—
3 in. × 11 in.	15 0 0	50 0 0	34 0 0	34 0 0	—
2 in × 11 in.	—	51 0 0	34 0 0	34 0 0	—
2 in. × 7 in.	—	46 0 0	26 0 0	26 0 0	—
3 in. × 4 in.	—	—	24 0 0	24 0 0	—
Slates—					
24 in. × 12 in.	—	—	37 12 6	37 12 6	—
22 in. × 12 in.	—	—	34 0 0	34 0 0	—
R. S. Joists	9 10 0	—	13 10 0	13 10 0	—
Iron—					
Common Bars	9 0 0	16 10 0	14 0 0	14 0 0	—
Mild Steel Bars	9 5 0	21 0 0	13 10 0	13 10 0	—
Steel Bars	9 5 0	19 10 0	13 10 0	13 10 0	—
Cut Nails	11 10 0	29 0 0	21 10 0	21 10 0	—
Sheet Lead	22 15 0	40 0 0	35 0 0	40 10 0	+15·71
Glass—					
15 oz. Sheet	2	7	3⅜	3⅜	—
21 oz. „	3	8	5	5	—
26 oz. „	3¾	9	6	6	—
Raw Linseed Oil	2 4	8 4	3 9	3 9	—
Turpentine	2 6	11 0	6 9	6 7	—2.47
Ground English White Lead	30 5 0	60 10 0	56 5 0	56 5 0	—
White Lead Paint	—	83 10 0	77 0 0	77 0 0	—
Red Lead	28 10 0	47 0 0	42 0 0	42 0 0	—

THE TRAINING OF OPERATIVES IN THE BUILDING INDUSTRY.

MR. FRANK N. COWLIN, of Bristol, writes to us as follows:—

SIR,—I have read with much interest the article in your issue of October 19 by Mr. Bennett, in reference to the training of operatives in the building industry, and it is very satisfactory to know that this question of apprenticeship, which is of the most vital importance to the trade, is at last receiving attention.

The responsibility of maintaining a reasonable supply of craftsmen, and their training, should, undoubtedly, rest with the employers, and I fear it must be confessed that in the past they have not fulfilled their obligations in the matter. This is probably owing to the fact that when speculating building was at its height a large number of men drifted into the trade without any proper training, and, in consequence, the supply of labour (often of a very inferior character) was equal to the demand.

The altered conditions in the industry, brought about largely by the cessation of speculating building, and the results of the war, have practically cut off this supply, and in consequence the demand at the moment is greater than can be satisfied. The only solution of the difficulty is the encouragement of apprenticeship, and in this connection the co-operation of the employers' federations and the trade unions is desirable.

The apprenticeship system has always been in vogue in the West of England, and, in Bristol, a Joint Apprenticeship Committee of employers and representatives of the various trade organisations was formed some three or four years ago, and its operations have been eminently successful. A new form of indenture was agreed upon, premiums were abolished, and the Committee were made parties to the agreement, and practically responsible for the proper training of the apprentice. Under the terms of the indenture, the Committee have power in the case of bad conduct, or unsuitability on the part of the apprentice, or failure to teach the trade on the part of the employer, to cancel the indentures, and this has been done in a few cases.

The indenture also provides that the apprentice shall, between the ages of 16 and 18, and in his own time unless exempted by the Committee, attend such evening classes in connection with his trade as may be provided in the city, and approved by the Committee, and, as an inducement to him to continue his studies, it is provided that, in the event of the apprentice having attended such classes, and having in the fourth year of his apprenticeship passed an examination to the satisfaction of the Committee, he shall be entitled to an increase of pay during the last six months of his apprenticeship, this increase at the present rates being equivalent to approximately £25.

Every apprentice appears before the Committee when his indentures are signed, and progress reports are furnished by the employers every six months; as a consequence it is found that the boys take much more interest in their work, and I think it may safely be said that never in the history of the trade have we had in Bristol a more intelligent or enthusiastic number of apprentices than at present, practically all of whom will prove themselves first-class craftsmen.

Objection is often taken by the smaller employer to the employment of apprentices, on the ground that, should trade become slack, he would not have sufficient work to keep the boys employed; in this connection I would suggest that amongst the members of any federation a system of transfer might be arranged, which should prove of mutual benefit both to the employer and the apprentice.

If employers will only realise their duty and responsibility in the matter, the problem, if it can be called a problem, is easy of solution, as there is no reason why the system which has proved so successful in Bristol should not be equally successful in every other town in the country.

TRADE UNION LAW: INSPECTION OF BOOKS.

THE Trade Union Act, 1871, in section 14 provides that the rules of a trade union shall contain provisions in respect of the several matters mentioned in the First Schedule to the Act, and the First Schedule in clause 6, amongst such matters, mentions: "The inspection of the books and names of members of the Trade Union by every person having an interest in the funds of the Trade Union."

These provisions were recently considered in the case Dodd *v.* Amalgamated Marine Workers' Union (1923, 2 Ch. 236).

According to the report the plaintiff and ten other members of the union had been dismissed from official positions in the Union but retained their membership, and at the time of these proceedings an action questioning the validity of this dismissal was still pending, having been commenced in July, 1922. In August the plaintiff and another official who had been thus dismissed applied under the above provisions of the Act to inspect the books. The rule of the Union made under the above provisions provided: "The books and accounts of the Union shall be open to the inspection of any member or person having an interest in the funds of the Union at all reasonable hours at the head office of the Union or at any place where the same are kept and it shall be the duty of the secretaries to produce them."

On this application in August the plaintiff was told that the books were at the auditors, but the names of the auditors were refused. At a subsequent interview it was stated that the books were "in a mess" and some Australian stock had run out. On September 20 the books had been returned, and the plaintiff was shown some analysis books, but was not permitted to make extracts. On September 4 the plaintiff and others had commenced an action against the Union for a declaration that the general secretaries were invalidly appointed, and on October 14 the plaintiff and his colleagues had been expelled from the Union. On December 4 the Court had held that the general secretaries had been invalidly appointed, and on December 11 the plaintiff and others had commenced an action for a declaration that their expulsion from membership was invalid, and this action had on February 23, 1923, been decided in the plaintiff's favour.

This abbreviated statement of the facts, taken from the report, is necessary in order that the position of the plaintiff as regards the application to inspect the books and the findings of the Court thereon may be appreciated. On March 5, 1923, the plaintiff having heard a rumour that the funds had fallen from £100,000 to £67,000 in the course of a year, gave the defendant Union notice that on March 7 he would attend to inspect the books with a chartered accountant who would give the defendants an undertaking not to make use of the information acquired except to communicate it to the plaintiff. The plaintiff with two other members did so attend with an accountant, but inspection was refused on account of the presence of the accountant, and the plaintiff then commenced this action that he was entitled to inspection by an accountant on the accountant giving the above declaration.

The defendants pleaded that the inspection by an accountant was (1) unnecessary, for the plaintiff was competent to inspect the books himself, and (2) that the application was not *bona fide*, being merely made in the interests of a rival union.

In the case Norey *v.* Keep (1909 1 Ch. 561) it has been held that the right to inspect is not merely personal, but in "proper case be exercised by an accountant, f knowledge was frequently necessary f effective inspection, with which object was conferred.

Therefore, the point the Court had on this application was, was this "a pro in the sense that the application was n *fide*, and that the plaintiff had groun wish to ascertain with expert advice position of the union.

The Court referring to the facts set ou the refusal of the auditors' names, the s as to the conditions of the books, an held that the plaintiff was amply justif demand he had made, that there w matters on which it was reasonable have expert assistance, and that he *bona fide*, and was acting as he belie in the best interest of the union and i as an associate or agent of a rival u

This case shows that in such cases of proof is laid upon the parties as fol onus of showing the necessity of pr advice will be upon the plaintiff, but laid it down that the onus of proving *bona fides* or that the plaintiff is acting is upon the union.

NEW BUILDINGS LONDON.

Oxford-street.—BASEMENT.—At 309, street, Messrs. Marchant, Hirst & Co., o Town, are constructing a new baseme room for Messrs. Baber's, Ltd. T fittings are being supplied by Westw Milwall; steel, by the Bridgwater Con Co. Mr. Andrew Mather is the archite work.

39, Beauchamp-place, Pont-street, Mr. Walter Nash, builder, is just co alterations here, which include an Ada front. Beauchamp-place is a rapidly business thoroughfare. The leases of the premises expire at Christmas, a condition of renewal a new shop fr certain other works are required.

Milford-lane.—RECONSTRUCTION.—T burgh Stores," in Milford-lane, Strand reconstructed by Messrs. Marchant, Hir of Highgate-road, N.W. 5. The arch the work is Mr. C. G. Miller. The sub- are: Granite, Fenning's; steel, Ast struction Co.

Stratford.—LONDON.—A bank is no erected at Stratford for Messrs. Lloy Ltd. Mr. J. E. Whiter, of Newingto S.E., is the builder. The bricks for th are from Messrs. Collier, of Reading; windows to the banking hall by Mess Welstead Croydon; heating by Messr Hope & Son, Birmingham. The build steel and concrete construction, and structional steel work is from the Ast struction Co., Ltd. The architect is W Wilson, of 4, Staple Inn, Holborn, W.C

Fortess-road. — RECONSTRUCTION. — Marchant, Hirst & Co., builders, of E road, N.W. 5, are carrying out the recon of a pianoforte factory at 77, Fortess-ro lift-work is being carried out by Messr worth's, of Bolton; the steel staircase erected by the Bridgwater Constructio

Highgate.—GARAGE.—A garage is the course of erection at 26, North-hi The builders are Messrs. Marchant, Hir of Highgate-road, N. W. 5. Sub-contra Lifts, Messrs. Hammond & Champness; Messrs. Stoddart & Smith. Mr. A. G. is the architect.

"The National Association of Water

AT the Connaught Rooms on Wedn large and representative gathering res form an association with this title. of the proceedings will appear in o issue.

THE SCOTTISH BUILDER

ILDING SCHEMES IN EDINBURGH.

Edinburgh 1,624 houses have been pro- by the Corporation, and 397 are in course ction. Another 100 houses have been o by Government subsidy, making a total 24 houses. The expenditure upon the houses provided by the Corporation nts to about one and a quarter millions g. The scheme for the encouragement vate enterprise by a subsidy has met with or no response from builders. There is mediate requirement of over 1,000 houses older parts of the town, and the duo-slab which has been adopted by the Cor- on has been well received. According to ents by Mr. Paton, the City Chamberlain, nburgh it takes at present about £15,000 out of the local rates, and £50,000 a year the Imperial Exchequer, to meet the nce between the cost of providing and ining the houses and the rents received m. The city debt is at present between nd ten millions. About two millions g are paid in rates by the people of rgh.

Corporation has approved of the con- on of the proposed new Edinburgh to w road under certain conditions for ment subsidy. This will cost about llions sterling. The houses on the duo- stem are to be built on the Lochend estate, n Edinburgh and Leith, purchased by the ation, which has space for about 3,000. Dock Commission have submitted plans don in connection with the erection of a levator, and a quay wall is to be erected t Government assistance. In the last 1922-23, of the tramways now electrified, ve million more passengers had been than in the previous year. The Streets ildings' Committee had spent over £200,000 widening and new roads, one in process pletion running to the north side of the Hills golf course. These and other schemes een of great service to the unemployed.

SGOW CATHEDRAL.

structural design of Glasgow Cathedral subject of a lecture by Professor Charles at a meeting of the Architectural ien's Society held in the Society's Room Royal Technical College, Glasgow, on 19. The President, Mr. James ay, F.S.I., occupied the chair.

lecturer said that architecture was a art which depended on the art and of building for its expression, hence fully reciate architecture it was necessary to the actual building. Applying this e to the subject of the lecture he pointed t the eastern arm of Glasgow Cathedral, ng of upper and lower Churches, was a ecause the lower church was the comple- the upper, as it contained chapels neces- the carrying out of the full ritual of the

Although it was the rule that all impor- thedrals should have the central areas of hoir and transepts vaulted in stone, yet ission of this high vault in Glasgow al was largely, if not entirely, owing to esque influence, which lingered through- country for a long period.

t 1836 it was proposed to vault the areas in stone, but had the attempt been execute high vaulting as then designed ole structure would probably have d because no arrangement had been y flying buttresses or otherwise to with- he thrust of such high vaulting. The then proceeded to discuss the super- e of the cathedral, and showed how its parts were soundly constructed, arch thrusts being counteracted longitudinally and transversely by buttresses. He then emphasised the constructional importance of transepts as affording support to the central tower and spire, the construction of which was fully detailed. He concluded by urging young craftsmen enthusiastically to study the cathedral, and said that if they did so they would not fail to reap an abundant reward.

NEW BUILDINGS IN SCOTLAND.

Buckie.—SCHOOL.—Banffshire Education Authority is considering a new school at Buckie, estimated to cost £30,000.—At the last meeting of the T.C. correspondence was read anent the site for an additional 18 houses. It was pointed out that houses should be of concrete, as stone was too expensive.

Paisley.—CLINIC.—Plans have been passed for a medical clinic in the centre of the town. The building is a gift from Mrs. Agnes Russell, Muirfield, Castlehead, and will be known as "The Russell Institute." The institute is for the benefit of mothers and children of the town, and will consist of three upper floors, basement and attic. The building will be of reinforced concrete, and fireproof.

Keith.—SHOP.—The T.C. has approved of plans submitted by Messrs. Carrie & Co., Elgin, &c., for new premises in Mid-street.

Mossgreen.—HOUSES.—A start has been made with the erection of further houses under Fife C.C. It is proposed to erect 34 houses, and the total cost is estimated at between £10,000 and £15,000.

Greenock.—TENEMENTS.—Plans have been approved for the erection of two tenements of houses at the junction of Nile-street and Ann-street, for rehousing people from the insanitary areas.

Denny.—HOUSES.—Building has begun on 12 houses on the Anderson-street estate which the T.C. is developing under the Addison scheme. When these are completed the Council intends to proceed with the erection of two-apartment houses, with scullery and bathroom.

Banff.—POLICE STATION.—The Banffshire C.C. has decided to purchase the bank and house belonging to the North of Scotland Bank at Banff for police headquarters, at a cost of £1,250.

Rothesay.—At the last meeting of the Dean of Guild Court it was stated that the value of buildings for which warrants were granted amounted to £38,340, which included the erection of a new Roman Catholic Church to cost £25,500.

Paisley. — OFFICES. — Plans submitted by Messrs. Cook & Hamilton, architects, 7, Gilmour-street, Paisley, for new offices on a site adjoining Glasgow-road, for the Renfrewshire Education Authority, have been passed.

Brechin.—COTTAGES.—The Dean of Guild Court has passed plans for two cottages in Argyll-street, for Miss M. J. Gellatly, and for the conversion of a house in St. David-street into a shop for the Misses Duncan.

Dunfermline.—'BUS GARAGE AND HOUSES.—The Dean of Guild Court has authorised the Dunfermline Tramways Co. to erect a garage at the depot in St. Leonard's-place for 12 motor-'buses.—The T.C. has been granted a warrant to build a further 20 houses at Townhill.

Ayr.—HOUSES.—The Dean of Guild Court has passed the following plans:—Four houses of the bungalow type, to be erected at Spring-vale-road by Messrs. William Paton & Sons, builders, at an estimated cost of £4,000; villa at New Shore-road, Seafield Grounds, for Mr. and Mrs. Lindsay, Wellington Chambers, to cost £1,250. The following plans have also been passed under the Corporation's subsidy scheme:—Two dwelling-houses, Craigie-road, to be erected by Messrs. W. Govan & Sons, Prestwick, for £1,500; double villa, Craigie-road, for Messrs. J. H. Toll and D. Brackenridge, Gordon-terrace, £1,400; house, Ashgrove-street, for Mr. Robert Stewart, George-street, £850.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Plasterers' Labourers.
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/-	
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 700.

WORKS OF PUBLIC UTILITY.

As announced in Parliament, the Government have formulated proposals designed to provide employment in depressed industries by stimulating the acceleration of work by companies operating undertakings of a public utility character. It has accordingly been decided to extend to such companies as are prepared to commence during the coming winter works that would not otherwise be undertaken at the present time, financial assistance in respect of revenue-producing works. Applications to the Secretary, Unemployment Grants Committee, 23 Buckingham Gate, S.W.1.

The terms on which Government assistance will be granted to approved works are :—

(1) Works which would not be proceeded with at the present time apart from the pressing need for relieving unemployment are alone eligible.

(2) The works in respect of which assistance is desired must be of a public utility character, e.g., gas, water and electricity, tramways, docks, harbours and canals.

(3) The works must be of such a nature as will afford employment during the coming winter in industries at present affected by severe unemployment.

(4) The Committee will require to satisfy themselves as to the reasonableness of the tender accepted for the works. It will be a condition of all contracts that the material employed shall be of British manufacture.

(5) Assistance will be limited to a maximum of 50 per cent. of the interest on the expenditure, as and when incurred, out of capital raised, and will normally be given only for the period during which the expenditure is not reasonably remunerative.

(6) The undertaking will normally be required to submit to such limitations as to the distribution of profits, &c., during the period of assistance as may be necessary to secure in the opinion of the Committee that no undue advantage is taken of such assistance. Each case will in this respect be considered separately upon its merits.

(7) The approval of the Committee will be required for the terms on which the capital is raised.

(8) The Committee will require to be satisfied in such manner as may be mutually arranged without interfering with the company's respon, sibility for the execution of the works, that the work will be, or is being, satisfactorily carried out and in accordance with the conditions.

Presentation at a Wolverhampton Works.

An interesting ceremony took place at the works of James Gibbons, Ltd., St. John's Works, Wolverhampton, recently, when a presentation was made to Mr. Paul Gibbons, second son of Mr. F. J. J. Gibbons, on the occasion of his coming of age. Mr. A. M. Shennan (manager) mentioned that three years ago a similar presentation was made to Mr. A. B. Gibbons, elder son of the managing director of the firm when he came of age. Since then Mr. A. B. Gibbons had been welcomed into the business, which had steadily progressed, following his visit to America to study modern business methods, and a tour of Japan, China, and India. The employees roll had risen 25 per cent. in the last three years.—Mr. J. Crowe, on behalf of the employees, presented to Mr. Paul Gibbons a fitted suit case, and spoke of the very good feeling which existed between employers and employed. He mentioned that there were many employees, both in the works and on the staff, who had been with the firm for over 50 years. He made an interesting survey of the history of the firm, which could be traced back as far as 1697. Since that time Gibbons' had been lock makers, the control of the firm passing from father to son in direct succession.—Mr. Paul Gibbons thanked the employees for their very useful gift, and expressed his appreciation of their kind thought of him. Mrs. Gibbons and Miss Gibbons thanked the employees for their kind expressions. Mr. H. P. Cartwright extended to Mr. Paul Gibbons the best wishes of the staff.

RATES OF WAGES IN THE BUILDING TRA

The following are the rates of wages in the building trade in England and Wales endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occ

	Masons.	Bricklayers.	Carpenters. Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-Masons' layers' Labourers
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Colchester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Great Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/7	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/0½
Norwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/2½
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/1½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/2½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/1½
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/0½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	1/2½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	0/11½
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/0½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2½

(For rates of wages in the Building Trade in Scotland, see page 699.)

CONTRACTS, COMPETITIONS, &c.

ne contracts still open, but not included in this List, see previous issues. Those with an asterisk tised in this number. Certain conditions beyond those given in the following information ed in some cases, such as that advertisers do not bind themselves to accept the lowest or any hat a fair wages clause shall be observed; that no allowance will be made for tenders; and sits are returned on receipt of a bona-fide tender unless stated to the contrary.

e given at the commencement of each paragraph is the latest date when the tender, or the names illing to submit tenders, may be sent in; the name and address at the end is the person from whom here quantities, forms of tender, &c., may be obtained.

LDING AND PAINTING.

ER £5.—**Downham Market.**—FIRE-ENGINE rection of a fire-engine house and sur- ce in the Council Yard, for the U.D.C. ckson, Surveyor, The Chambers, Downham.

ER 5.—**Newton-in-Makerfield.**—HOUSES.— 40 type "A" houses (in brick) at the South rlestown, for the U.D.C. Mr. J. Elston, Market Chambers, Earlestown.

ER 5.—**Ormskirk.**—PORCH, &C.—Erection of ainting at Cottage Hospital. Mr. E. Ware, 43, Imperial Buildings, Exchange-street pool.

ER 6.—**Coventry.**—POST OFFICE EXTEN- ension of Coventry Head Post Office, for the ers of H.M.O.W. Contracts Branch, King Charles-street, S.W.1. Deposit £1 1s.

ER 6.—**Dewsbury.**—WAREHOUSE.—Erection or ed warehouse and offices at Dewsbury rs. Kirk, Sons & Ridgway, architects, e, Dewsbury. Deposit £1 1s.

ER 6.—**Kirkburton.**—COTTAGES.—Erection of ages in Turnshaw-road, for the U.D.C. ey & Hanson, architects, 11, Cloth Hall- dersfield.

ER 6.—**Mountain Ash.**—ERECTION OF SCHOOL. ting, for the Mountain Ash Education a Boys' School at Penrhiwceiber, for 410 th playgrounds, &c. Mr. W. H. Williams, n Hall, Mountain Ash. Deposit £3 3s.

ER 6.—**Newport (Mon).**—ERECTION OF For erection of offices at High-street Station, r the G.W.R. Office of Engineer, Newport on

ER 6.—**Plymouth.**—HOUSES.—For the erec- houses (the whole or a portion of the five sites, at North Prospect (Section wn Clerk, Municipal Offices, Plymouth. 2s.

BER 6.—**Rainworth, near Mansfield, Notts.**— Erection of 48 houses at Rainworth, near ogether with road works incidental thereto, over Colliery Housing Co., Ltd. Mr. Percy architect, Furnival Chambers, Chesterfield. 1s., by a crossed cheque.

ER 7.—**Barlby.**—SCHOOL.—For the erec- uncil School for the East Riding of York- y Council. The County Architect, County ley. Deposit £2 2s.

ER 7.—**Dewsbury.**—RESIDENCES.—Erection semi-detached residences. Messrs. Firth, ckburn, architects, 22, Wellington-road,

ER 7.—**E'dwick.**—PAINTING.—Internal and inting at the Eldwick Sanatorium, near r the West Riding Public Health and mmittee. West Riding Architect, County field.

ER 7.—**Hawksworth.**—FARM HOUSE, &C.— new farm house and buildings, and repairs uildings, at Lane Side Farm, Hawksworth, est Riding Small Holdings Committee. d Agent, County Hall, Wakefield. Deposit

ER 7.—**London, S.E.2.**—PAINTING, &C.— g and painting at Goldie Leigh Homes, od, S.E.2, for the Metropolitan Asylums ice of the Board, Victoria Embankment, posit £1.

ER 7.—**Manchester.**—FOUNDATIONS.—Con- the foundations for two transit sheds, Nos. t Dock No. 9, at the Manchester Docks. neer (Mr. H. A. Reed), 41, Spring-gardens, Deposit £5 5s.

ER 7.—**Marshland.**—HOUSES.—Erection of in pairs, in the Parish of Clenchwarton, C. Mr. L. F. Eagleton, architect, 38, King- g's Lynn. Deposit £1 1s.

ER 7.—**Prestonpans.**—HOUSES.—Erection ises at East Loan, for the T.C. Messrs. Smith, surveyors, 44, Queen-street, Edin-

ER 7.—**Sutton.**—ALTERATIONS.—For alter- n forming engineers' office and workshop at Hospital, for Children, Banstead-road, for olitan Asylums' Board. Office of the Board, nbankment, E.C. 4. Deposit £1.

ER 7.—**Witham.**—HOUSES.—Erection of s, in two blocks of four houses each, on the site, for the U.D.C. Mr. W. P. Perkins, -road, Witham.

ER 8.—**Ealing, W.5.**—FLATS.—Erection of Bramley-road, for the Borough of Ealing W. R. Hicks, A.M.Inst.C.E., Borough own Hall, Ealing, W.5. Deposit £2 2s.

ER 8.—**Llandebie.**—ERECTION OF INSTITUTE. ing, for the Trustees of the Llandebie fare Fund, an Institute at Llandebie. Mr. Price, M.S.A., Architect, Cross Hands

ER 8.—**Nantwich.**—ADDITIONS, &C.— and additions in connection with the vatory accommodation at the Poor Law Mr. C. E. Davenport, architect, 152, eet, Nantwich. Deposit 10s. 6d.

ER 8.—**Near Llandilo.**—ERECTION OF THREE For erecting, for the Carmarthenshire neil, of three bridges at Halfway, Nant- Borthynfach, near Llandilo. Mr. Gower nty Surveyor (East Division), County Hall, Deposit £1 1s.

NOVEMBER 9.—**Bere Alston.**—HOUSE.—Erection of a dwelling-house at Bickham, Bere Alston. Mr. R. W. Sleep, Broad-park, Bere Alston.

✱NOVEMBER 9.—**Birmingham.**—HOUSES.—Erection of 164 non-parlour type houses on Madcap-lane, Yardley, under Contract No. 143, by the Public Works and Town-Planning Committee of the City of Birmingham. City Engineer and Surveyor, The Council House, Birmingham. Deposit £1.

NOVEMBER 9.—**Galashiels.**—HOUSES.—Erection of three blocks of two and three apartment houses (18 houses in all), at Tweed-road, for the T.C. Messrs. J. & J. Hall, architects, Galashiels.

✱NOVEMBER 9.—**Jersey.**—CHURCH.—Erection of the first portion of new Church of St. Andrew, First Tower, Jersey (nave and chancel (96 ft. × 25 ft.), vestries, and organ space). Mr. C. W. Blanshard Bolton, 14, Library-place, Jersey, C.I.

NOVEMBER 9.—**Stanley.**—HOUSES.—Erection of a pair of semi-detached houses at Stanley, near Wakefield. Mr. J. C. Pepper, 27, Regent-street, Belle Vue, Wakefield.

NOVEMBER 10.—**Durham.**—PAINTING.—Painting, &c., of schools at West Herrington, Hetton-le-Hole Lyons, High Usworth Domestic Centre, Springwell Council School Science Room, Newbottle Boys (only), Paddock Stile, Biddick, Washington Colliery, Hetton-le-Hole Girls' and Infants', for the Durham C.C. Mr. John P. Tulip, District Clerk, Council School, Newbottle, Houghton-le-Spring.

NOVEMBER 10.—**Harrogate.**—HOUSES.—Erection of 44 houses, type "A," and the construction of roads, sewers, &c., for the T.C. Mr. C. E. Rivers, Borough Engineer, Municipal Offices, Harrogate.

NOVEMBER 10.—**Manchester.**—GREENHOUSE.—Erection of a greenhouse at Baguley Sanatorium, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

NOVEMBER 10.—**Renfrewshire.**—OFFICES.—The Education Authority invite offers for mason, joiner, and steel works in connection with the erection of new administrative offices. Mr. J. Hamilton Pullar, Executive Officer, County Education Offices, 28, High-street, Paisley. Deposit 10s.

NOVEMBER 10.—**Totnes.**—FLOORS, &C.—Taking up and relaying the whole of the boarded floors on the ground floors of the Totnes Housing Scheme; and for facing with stone the front fence to Totnes Housing Scheme. Messrs. Adshead & Ramsey, 46, Great Russell-street, W.C.1.

NOVEMBER 10.—**West Hartlepool.**—HOUSES.—Erection of thirty-six houses, for the T.C. Mr. Francis Durkin, Borough Engineer, West Hartlepool.

✱NOVEMBER 12.—**Conisbrough.**—HOUSES.—Erection of 22 non-parlour type houses in pairs, and 8 parlour type houses in blocks of four, at Dayland's Site, off Park-road, Conisbrough, for the U.D.C. Mr. H. Thirlwall, Surveyor, Council Offices, Conisbrough. Deposit £2.

NOVEMBER 12.—**Durham.**—PAINTING.—For painting and renovation of the following Council Schools: Marley Hill, Blaydon West, Greenside, Whickham, Emmaville, Highfield, Barlow and Blaydon East. Mr. I. G. Maguire, Education Office, Lloyds Bank Chambers, Blaydon-on-Tyne.

NOVEMBER 12.—**Kingston-upon-Thames.**—EXTENSION.—For the erection of a laboratory and classrooms at the Grammar School London-road, for the Borough. Borough Surveyor's Office, Clattern Lodge, Kingston-upon-Thames. Deposit £1 1s.

NOVEMBER 12.—**Kingston-upon-Thames.**—WALL.—For the erection of a stone wall adjoining St. Peter's Church, London-road, for the Borough. Borough Surveyor's Office, Clattern Lodge, Kingston-upon-Thames.

NOVEMBER 12.—**Morpeth.**—OFFICES, &C.—For offices, &c., for Messrs. Swinney Bros., Ltd., Morpeth. Mr. C. Franklin Murphy, architect, Lloyds Bank Chambers, Morpeth. Deposit £3 3s.

NOVEMBER 12.—**Oldham.**—HOUSES.—Erection of 50 houses, in pairs, for the T.C. Borough Engineer, Town Hall, Oldham. Deposit 10s. 6d.

NOVEMBER 12.—**Pengam.**—EXTENSIONS.—For making extensions to the Pengam and Fleur-de-Lis Library and Institute, for the Trustees. Mr. D. J. Thomas, M.S.A., architect, Blackwood (Mon). Deposit £3 3s.

NOVEMBER 12.—**Tyldesley-with-Shakerley.**—STABLES.—Erection of stables, &c., in the Council Yard, for the U.D.C. Mr. F. E. Jones, Surveyor, Council Offices, Tyldesley. Deposit £2 2s.

NOVEMBER 12.—**Wombwell.**—HOUSES.—Tenders are asked for the erection of 30 type "A" houses on a site situate in King's-road, Wombwell. Mr. D. H. Roberts, M.S.A., "Cliffe House," Wombwell. Deposit £2.

NOVEMBER 13.—**Ammanford.**—POST OFFICE.—Erection of a new post office at Ammanford, Carmarthenshire, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

✱NOVEMBER 13.—**London, N.W.**—EXTENSION AND ALTERATIONS.—Erection of an extension to the Nurses' Home and alterations to the Administrative Block at the Park Royal Hospital, Acton-lane, Willesden, for the Guardians of the Parish of Willesden. Messrs. Northcroft, Neighbour & Nicholson, 55 and 56, Chancery-lane, W.C. Deposit £5 (which will be returned on receipt of a bona fide tender), from Friday, November 2, to Monday, November 5, between the hours of 10 a.m. and 4 p.m. (1 p.m. on Saturdays).

NOVEMBER 13.—**Rotherham.**—SCHOOL.—Erection of a Council school to accommodate 250 children at Badsley Moor-lane, for the T.C. Mr. Chas. A. Broadhead, A.R.I.B.A., St. George's Hall, Rotherham. Deposit £1 1s.

✱NOVEMBER 14.—**Birmingham.**—CONCRETE HOUSES.—Tenders for building houses of cement concrete construction in contracts of about 200 to 250 houses, for the City of Birmingham Public Works and Town-Planning Committee. The Engineer and Surveyor, The Council House, Birmingham.

NOVEMBER 14.—**Birmingham.**—WALL.—Construction of about 129 yds. of brick and concrete retaining wall and other incidental works on the west side of the River Rea, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

NOVEMBER 14.—**Blackburn.**—POST OFFICE.—Extension of Blackburn Post Office, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

NOVEMBER 14.—**Castleford.**—ROOFING.—Repairs to the corrugated roof of temporary building at Castleford Temple-street Council School. Education Department, County Hall, Wakefield.

NOVEMBER 14.—**Clewer.**—HOUSES.—For the erection of 32 houses, for the Corporation. Office of the Borough Surveyor, Alma-road, Windsor.

NOVEMBER 14.—**Elland.**—WALLS.—Pulling down and re-erection of boundary walls to additional land at Elland South End Council School. Education Department, County Hall, Wakefield.

✱NOVEMBER 14.—**Exeter.**—HOUSES.—Erection of 45 houses, in blocks of 9, 10, 11 and 15, on the Buddle-lane site, and 8 houses in two blocks on the Isca-road site, for the Council of the City of Exeter. City Architect, 2, Southernhay West, Exeter. Deposit £2 per set.

NOVEMBER 14.—**Glasgow.**—PAVILIONS.—For works in connection with the erection of a pavilion, &c., at the Sanatorium, Lanark, for the Corporation. Mr. John Lindsay, Town Clerk. Deposit £3 3s.

NOVEMBER 14.—**West Riding.**—VARIOUS WORKS.—(1) Erection of brick boundary wall at Methley Scholey-hill Council School: (2) installation of low pressure hot-water apparatus at Thurcroft New School; (3) installation of new boiler and extensions to heating apparatus at Addingham High Council School; (4) additions required at Glasshoughton Cutsyke Council School. Education Department, County Hall, Wakefield.

NOVEMBER 15.—**Birkenhead.**—HOUSES AND TENEMENTS.—Builders are invited to submit plans of typical houses and tenements, the erection of one or more of which they are prepared to undertake as contractors for the Corporation of Birkenhead. Borough Engineer and Surveyor, Town Hall, Birkenhead.

✱NOVEMBER 15.—**London, E.C.**—PAINTING.—Internal painting at the Custom House, Lower Thames-street, E.C., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

NOVEMBER 16.—**Attleborough.**—REPAIRS.—Adapting and repairing the farm buildings at Haverscroft House Farm, Attleborough, for the Norfolk C.C. Mr. Victor Playle, County Land Agent, Shirehouse, Norwich. Deposit £1 1s.

NOVEMBER 17.—**Edinburgh.**—LAVATORY.—Erection of a public lavatory for women at Tollcross, for the T.C. Mr. A. Horsburgh Campbell, Burgh Engineer, 329, High-street, Edinburgh.

✱NOVEMBER 20.—**London, N.W.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Mill Hill, N.W., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

NOVEMBER 20.—**Tottenham.**—PAINTING.—For painting of the external woodwork of cottages on the White Hart-lane Estate, Tottenham, for the U.D.C. Surveyor. Town Hall, Tottenham.

✱NOVEMBER 22.—**Yorks.**—TELEPHONE EXCHANGE.—Erection of a post office and telephone exchange at Shipley, Yorks, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

✱NOVEMBER 23.—**Aberystwyth.**—HOUSES.—Erection of seven houses on a site at Glanrafon-terrace, Trefechan, within the Borough of Aberystwyth, for the Corporation. Borough Surveyor's Office, Smithfield-road, Aberystwyth. Deposit £1 1s.

✱NOVEMBER 24.—**Middlesex.**—HOUSES.—Erection off 32 houses near the Ride, Boston-road, Brentford, for the Middlesex County Council. County Engineer, Middlesex Guildhall, Westminster, S.W.1. Deposit £2 2s.

✱NOVEMBER 27.—**Ilford.**—MATERNITY HOME AND MEDICAL OFFICERS' RESIDENCE.—Erection and completion of the following buildings, at Hatch-lane, Ilford, for the Ilford U.D.C.: (1) Maternity home; (2) medical officer's residence. Mr. H. Shaw, M.Inst. C.E., Engineer and Surveyor to the Council, Town Hall, Ilford. Deposit £5 5s.

NOVEMBER 30.—**Singapore.**—POST OFFICE.—Erection of new general post office, Singapore. Crown Agents for the Colonies, 4, Millbank, S.W.1. Deposit £10.

NO DATE.—**Crossgates.**—CLUB.—Erection of the new Crossgates Club. Mr. J. S. Myers, architect, Crossgates Club, Crossgates, near Leeds. Deposit £1.

NO DATE.—**Grasmere.**—COTTAGES.—Erection of pair of cottages at Grasmere, for Mrs. Belk. Mr. James Jennings, architect, Church-street, Ambleside.

NO DATE.—**Linthwaite.**—HOUSES.—Erection of two dwelling-houses, at Cowlersley, Linthwaite. Messrs. John Kirk & Sons, architects, Market-place. Huddersfield.

NO DATE.—**Midlothian.**—HOUSES.—Erection of 10 houses for roadmen at various places, for the C.C. Mr. A. G. G. Asher, County Clerk, Edinburgh.

NO DATE.—**Salcombe.**—BUNGALOW.—Erection of brick bungalow, on hill-side, South Sands, Salcombe. Miss Campbell, Little Coopers, Eversley, Hants.

FURNITURE, MATERIALS, etc.

NOVEMBER 5.—**Bognor.**—PIPES.—Supply of stone, ware socketed pipes, &c., to the U.D.C. Mr. J. Jubb-Clerk, Bognor.

NOVEMBER 5.—**Gravesend.**—CONCRETE PILES.—Supply of 128 14 in. by 14 in. reinforced concrete piles, 27 ft. and 30 ft. in length, to the T.C. Mr. F. T. Grant, 4, Woodville-terrace, Gravesend. Deposit 10s.

NOVEMBER 5.—**Hipperholme.**—MATERIALS.—Supply of granite setts to the U.D.C. Mr. S. Dean, Surveyor, Council Offices, Hipperholme.

NOVEMBER 5.—**Romford.**—ROAD MATERIALS.—Supply of 1,300 tons of 2 in. blue Guernsey granite and 800 tons of tar macadam to the U.D.C. Mr. F. G. Beaumont, Surveyor, Romford.

NOVEMBER 6.—**Belfast.**—REFUSE BINS.—Supply of 2,000 galvanised steel bins to the T.C. for house refuse. City Surveyor, City Hall, Belfast. Deposit £1 1s.

NOVEMBER 6.—**London.**—FENCING.—Supply to the Director-General, India Store Department, of posts and wedges for fencing, wrought-iron, and wire, 7-strand, fencing, galvanised. Branch 12, Belvedere-road, S.E.1.

NOVEMBER 7.—**Tooting, S.W.17.**—DOORS, &c.—For the supply and delivery of 12 pairs of hardwood doors, frames and linings, to Tooting Bec Mental Hospital Extension, Church-lane, for the Metropolitan Asylums' Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

NOVEMBER 9.—**London.**—LOCKERS.—Supply to Commissioners of His Majesty's Works, &c., of metal lockers. Controller of Supplies, H.M. Office of Works, &c., King Charles-street, S.W. 1.

✱NOVEMBER 10.—**Bristol.**—BUILDING STORES, &c.—Supply of various stores, &c., during twelve months ending December 31, 1924, for the Sanitary and Improvement Committee of the Corporation of Bristol. City Engineer, 63, Queen-square, Bristol. Deposit 10s. for each copy.

NOVEMBER 12.—**Dublin.**—STORES.—Supply of various stores to the Great Northern Railway (Ireland) Co. Secretary, Amiens-street Station, Dublin. Charge, 1s. per schedule (48).

NOVEMBER 12.—**Dublin.**—SLEEPERS.—Supply of 60,000 Scotch fir (home grown) or alternatively 60,000 Baltic red wood sleepers, to the Midland Great Western Railway of Ireland Co. Chief Engineer, Broadstone Terminus, Dublin.

NOVEMBER 12.—**Margate.**—RAGSTONE.—Supply of tarred Kent ragstone, to the T.C. Mr. Ernest A. Borg, Borough Surveyor, 13, Grosvenor-place, Margate.

NOVEMBER 12.—**South Africa.**—PAINT.—Supply of red oxide paint in paste to the South African Railways and Harbours. Department of Overseas Trade, 35, Old Queen-street, S.W. Reference 12338/ED/CC/(2).

NOVEMBER 13.—**Dublin.**—MATERIALS.—Supply of stores for six or twelve months to the Midland Great Western of Ireland Railway Co. Storekeeper, Broadstone Station, Dublin.

NOVEMBER 14.—**Cardiff.**—BRICKS.—Supply of 200,000 or 600,000 blue and brindle bricks during the next six or eighteen months to the T.C. Mr. C. H. Priestley, City Hall, Cardiff. Deposit £2 2s.

NOVEMBER 17.—**Bootle.**—MATERIALS.—Supply of granite setts, channels, concrete flags, cement, &c., to the T.C. Borough Engineer, Town Hall, Bootle.

NOVEMBER 17.—**Lewes.**—MATERIALS.—Supply of granite, tarred macadam and tar to the East Sussex C.C. Mr. F. J. Wood, County Surveyor, County Hall, Lewes.

NOVEMBER 20.—**Warrington.**—STORES.—Supply of stores for twelve months to the Cheshire Lines Committee. Stores Superintendent, Cheshire Lines, Warrington.

ENGINEERING, IRON AND STEEL.

NOVEMBER 5.—**Fleetwood.**—BOILER.—Supply of a 3 ft. diameter vertical cross tube boiler to the U.D.C. Mr. E. Frobisher, Surveyor, Town Hall, Fleetwood.

NOVEMBER 5.—**London.**—SPRINGS.—Supply to the Bengal-Nagpur Railway Company of spring steel and springs. Offices, 132, Gresham House, Old Broad-street, E.C. Charge £1 1s.

NOVEMBER 5.—**Uddingston.**—BRIDGE.—Construction of a new bridge over the River Calder, near Uddingston, for the Lanark C.C. Mr. William A. Chapman, Road Surveyor, Airdrie.

NOVEMBER 6.—**Glasgow.**—HEATING INSTALLATION.—For a heating installation (1) for the church, and (2) for church and halls. To be either by a low pressure hot-water system or by electricity. Clerk of Deacons' Court, St. Enoch's U.F. Church, 38, Old Dumbarton-road, Glasgow.

NOVEMBER 6.—**London.**—GIRDERS.—Supply of 341 tons of steel girders and other iron and steel work of British manufacture to the Great Western Railway Co. Engineer, Paddington Station.

NOVEMBER 6.—**Plymouth.**—PIPES.—Supply of about 600 yards of 9 in., 2,000 yards of 6 in., 6,000 yards of 4 in. cast iron pipes for the T.C. Mr. Frank Howarth, Water Engineer, Plymouth.

NOVEMBER 7.—**London.**—OVEN.—Installation of brick type steam pipe draw-plate oven in the Patients' Kitchen at Tooting Bec Mental Hospital, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

NOVEMBER 7.—**London.**—VARIOUS REQUIREMENTS.—(a) Supply of kitchen fittings and appliances at Tooting Bec Mental Hospital; (b) installation of a 20-ton weigh-bridge at the North-Western Fever Hospital; (c) installation of steam-heated "Decoudun" ironing machine at the Colindale Hospital, Hendon, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. Deposit £1 1s. each.

NOVEMBER 8.—**Honiton.**—BRIDGE REPAIRS.—Repairs in reinforced concrete to Fenny Bridges, near Honiton, for the Devon C.C. Mr. F. E. Simpson, County Surveyor, No. 2 Division, 17, Bedford-circus, Exeter.

NOVEMBER 8.—**Karachi.**—WATERWORKS.—(1) Deep-well three-throw pumps in duplicate, with shafting, gears and other appurtenances, capacity of each unit, 9,000,000 gallons per 24 hours; (2) cast-iron well linings and gauge plates; (3) steel chimney shaft; (4) travelling crane, for the Municipality. Messrs. John Taylor & Sons, 36, Victoria-street, S.W.1. Deposit £5.

NOVEMBER 8.—**Southampton.**—DREDGING.—For dredging works in the proposed enlargement of the Swinging Ground off Southampton Docks. Mr. E. Cooper Poole, Harbour Offices, Town Quay, Southampton. Deposit £1.

NOVEMBER 9.—**Ballinasloe.**—SUCTION GAS PLANT.—Supplying and erecting a suction gas plant to suit a 35 h.p. Crossley gas engine at Ballinasloe Mental Hospital. Dr. John Mills, Resident Medical Superintendent.

NOVEMBER 9.—**India.**—STEELWORK.—Supply of structural steelwork for wagon repair shop, Trichinopoly workshops scheme, for the South Indian Railway Co. Company's Offices, 91, Petty France, Westminster, S.W. 1. Charge £1.

NOVEMBER 10.—**Dunure.**—HARBOUR WORKS.—For removal of about 460 cubic yards of rock from the entrance channel of Dunure Harbour (tide work). Mr. John M'Crindle, Post Office, Dunure.

NOVEMBER 10.—**Seaton.**—SEA WALL.—Construction of 400 lineal yards of reinforced concrete sea wall and appurtenant works in connection with the improvement of the Western Esplanade, for the U.D.C. Mr. Gower Pimm, 72, Queen-square, Bristol. Deposit £2 2s.

NOVEMBER 12.—**Bermondsey.**—LAUNDRY EQUIPMENT.—Supply and erection of public washhouse equipment at the public washhouse, for the B.C. Mr. Fredk. Ryall, Town Clerk, Town Hall, Spa-road, S.E. Deposit £1 1s.

NOVEMBER 12.—**Keynsham.**—ELECTRIC LIGHT.—For electric lighting installation of Poor Law Institution at Keynsham. Master at the Institution.

NOVEMBER 12.—**Southampton.**—PIPES.—Supply of 114 tons of 12 in. cast iron pipes and 2 tons of special castings to the T.C. Waterworks Engineer, Southampton. Deposit £1 1s.

NOVEMBER 12.—**Walton.**—PUMPING PLANT.—Eight water-tube boilers, piping, &c., at the Walton Pumping Station, for the Metropolitan Water Board. Mr. Henry E. Stilgoe, Chief Engineer, 173, Rosebery-avenue, E.C.1. Deposit £3 3s.

NOVEMBER 13.—**Liverpool.**—BOILERS.—Supply of three Lancashire boilers and fittings at the Public Baths. Chief Superintendent, Bath Department, 75, Dale-street, Liverpool. Deposit £1 1s.

NOVEMBER 13.—**Southall-Norwood.**—BRIDGE.—Construction of ferro-concrete bridge over Grand Junction Canal, for the U.D.C. Mr. J. B. Thomson, Surveyor, Town Hall, Southall.

NOVEMBER 15.—**London.**—STEEL SHEETS.—Supply of the Director-General, India Store Department, to galvanised corrugated mild steel sheets. Branch 12, Belvedere-road, S.E.

NOVEMBER 15.—**Wallasey.**—PONTOON.—Supply of one pontoon, 90 ft. by 10 ft. by 5 ft. 6 in., to the T.C. Ferries. General Manager, Seacombe, Wallasey.

NOVEMBER 16.—**Aberdeen.**—PIPES.—Supply of about 7 miles of 40 in. diameter pipes and specials of the following alternative types, viz.:—(A) Cast iron, (B) mild steel (lapwelded), (C) reinforced concrete (spun and ordinary). Water Engineer, 41½, Union-street, Aberdeen. Deposit £5.

NOVEMBER 19.—**Belfast.**—PIPING.—Supply of steam, water and other piping at the Harbour Power Station, for the T.C. City Electrical Engineer, Belfast. Deposit £2 2s.

NOVEMBER 19.—**Hastings.**—RESERVOIR.—For enlarging Ecclesbourne Reservoir, for the U.D.C. Mr. P. H. Palmer, Borough Engineer, Town Hall, Hastings. Deposit £2.

NOVEMBER 20.—**Burnham-on-Crouch.**—CONCRETE TANK.—Construction of a covered reinforced concrete sedimentation tank (of about 15,000 gallon capacity), for the U.D.C. Mr. E. Dilliway, Clerk, Council Offices, Burnham-on-Crouch. Deposit £1.

✱NOVEMBER 20.—**France and Belgium.**—HEADSTONES.—Total supply of 25,000 headstones, packed and delivered f.o.r., to be divided into a number of contracts, none of which shall be for less than 100 headstones, for the Imperial War Graves Commission. The Secretary, Works Dept., Imperial War Graves Commission, 82, Baker-street, London, W.1, marked "Headstones Contract 5079/S.," "Headstones Contract 5079/T."

NOVEMBER 20.—**New Zealand.**—PLATE GIRDER SPANS.—For supply of plate girder spans for the Pihama and Opunake Section Bridges and Turapiro Bridge, for the Public Works Tender Board, Wellington. Department of Overseas Trade, 35, Old Queen-street, S.W.

NOVEMBER 27.—**Carlton.**—BRIDGE.—Construction of a steel girder road bridge of 150 ft. clear span, with abutments and two flood openings, over the River Aire at Carlton, near Snaith, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

NOVEMBER 30.—**Sydney.**—BRIDGE.—Construction of the superstructure and substructure of a cantilever bridge across Sydney Harbour; also an alternative tender for the construction of the superstructure and substructure of an arch bridge across Sydney Harbour. Agent-General for New South Wales. Australia House, Strand, W.C.

DECEMBER 3.—**Sydney.**—SWITCHGEAR.—High tension switchgear, for Municipal Council. Department of Overseas Trade (Room 52), 35, Old Queen-street, S.W. 1.

DECEMBER 31.—**Kempton Park.**—ENGINES, &c.—Supply and erection of two reciprocating engines and pumps at Kempton Park Pumping Station, for the Metropolitan Water Board. Chief Engineer's Department, 173, Rosebery-avenue, Clerkenwell, E.C. Deposit £3 3s.

MAY 1, 1924.—**China.**—BRIDGE.—The C... Councellor at Peking has forwarded to the D... of Overseas Trade copies of the official text o... tenders, by the Hai Ho Conservancy Comm... the erection of a bridge over the Hai Ho a... Tenders must be in the hands of the Commis... noon on May 1, 1924. The cost of erectin... bridge has been roughly estimated at Tls. 7... £105,000. Department of Overseas Trade... Queen-street, S.W. 1. Reference 11647/F.E.

NO DATE.—**Pontardawe.**—HEATING INSTAL... For hot-water heating installation, for th... Cinema, Pontardawe. Mr. Francis, 12, H... Pontardawe.

NO DATE.—**Romford.**—CESS PIT APP... Supply of apparatus for emptying cesspo... vacuum process. Mr. T. W. A. Greenhal... South-street, Romford.

ROAD, SANITARY, AND WA... WORKS.

NOVEMBER 5.—**Gravesend.**—SEWAGE S... Ejectors and chambers for main drainag... of the U.D.C. Mr. F. T. Grant, Engineer, ... ville-terrace, Gravesend. Deposit £1.

NOVEMBER 5.—**Pontypridd.**—PRIVATE STRE... —For carrying out private street works at Mo... Pontypridd, for the U.D.C. Mr. W. E. L... veyor, Council Offices, Pontypridd. Deposi...

NOVEMBER 6.—**Annan.**—WATER WORKS... about 10¼ miles of cast-iron pipes within t... district of the county of Dumfries, the const... an intake, and other work. Messrs. Warren... 94, Hope-street, Glasgow. Deposit £2 2s.

NOVEMBER 6.—**Chingford.**—ROADS.—Mak... The Green Walk, Mornington-road, Mount V... and Park Hill-road, for the U.D.C. Mr. J. ... Surveyor, Council Offices, 34, Station-road, ... Deposit £2 2s.

NOVEMBER 6.—**Kirkcaldy.**—WATER MAINS... about two miles of 4 in. and 2½ in. cast-i... for the District Committee. Messrs. J. & A. ... Reid, civil engineers, 72A, George-street, E... Deposit £1.

NOVEMBER 6.—**Wednesbury.**—ROADS.—... making up of Church-street, for the T.C. ... Martin Scott, Borough Engineer, Town Hall, ... bury. Deposit £1 1s.

NOVEMBER 7.—**Beeston.**—ROADS.—Mak... portion of Farfield-avenue, for the U.D.C. ... Bush, Surveyor, Beeston. Deposit £1 1s.

NOVEMBER 7.—**Blackburn.**—ROADS.—Fo... mastic asphalte on prepared parts of Lord-s... for the T.C. Mr. A. T. Gooseman, Borough ... Town Hall, Blackburn.

NOVEMBER 7.—**Hastings.**—ROADS.—For wi... roadways at junction of Old London-road an... son's-hill, for the T.C. Mr. P. H. Palmer, ... Engineer, Town Hall, Hastings. Deposit £2...

NOVEMBER 7.—**London, S.E.2.**—ROAD ... &c.—For repairs to roads and pav... paving ... Leigh Homes, Abbey Wood, for the Me... Asylums Board. Office of the Board, Vict... bankment, E.C.4. Deposit £1.

NOVEMBER 7.—**Wantage.**—SEWERS.—Co... of 245 yards of 7 in. stoneware pipe sewers a... for the R.D.C. Mr. J. W. Harris, Surve... Challow, Wantage. Deposit £2 2s.

NOVEMBER 8.—**Sidmouth.**—ROADS.—... drainage and resurfacing of a section of th... Lyme Regis main road, near Sidmouth, for t... C.C. Mr. F. E. Simpson, County Surveyo... Division, 17, Bedford-circus, Exeter. Depo...

NOVEMBER 9.—**Hardingstone.**—ROADS.—F... ing and making-up the Northampton-Rot... district road, for the R.D.C. Mr. F. H. ... Surveyor, Great Houghton, North Hants.

NOVEMBER 10.—**Whitwood.**—ROADS.—For ... at junction of Leeds and Barnsdale and Wak... Castleford main roads at Whitwood, for ... Riding C.C. County Surveyor, County Ha... field. Deposit £1 1s.

NOVEMBER 10.—**Winchcomb.**—WATER S... Provision and laying of about 2,000 yards of 3... main and the construction of other incidental ... the R.D.C. Messrs. Willcox & Raikes, 63, Te... Birmingham. Deposit £2 2s.

NOVEMBER 12.—**Barnes.**—ROAD.—Resurfac... tion of Lower Richmond-road, Mortlake, for t... Mr. G. Bruce Tomes, Surveyor, Council Hou... street, Mortlake, S.W.14.

NOVEMBER 12.—**Enfield.**—SEWERS.—Consti... three stoneware sewers for the U.D.C. M... Crabb, Surveyor, Public Offices, Enfield. ... £2 2s.

NOVEMBER 12.—**Southampton.**—ROADS, ... structing a portion of the Western Esplanade ... with asphalte and reinforced concrete found... the T.C. Borough Engineer, 33, French-stree... ampton. Deposit £1 1s.

NOVEMBER 12.—**Southampton.**—WATER MA... laying cast-iron water mains from The Avenu... lane, for the T.C. Waterworks Engineer, S... ton. Deposit £1 1s.

NOVEMBER 13.—**Bu hey.**—ROADS.—For ... certain footpaths (having an area of about 9,... super) with tarpaving, for the U.D.C. Mr. ... Ryder, Surveyor, Bushey. Deposit £2 2s.

NOVEMBER 13.—**Docking.**—ROADS.—For r... (1) Hunstanton, Ringstead-road, and (2) ... Beach-road, for the R.D.C. Mr. R. W. Hi... Surveyor, Burnham Westgate, Norfolk.

NOVEMBER 13.—**Leeds.**—ROADS.—(*a*) Pav... creting, &c., for portions of highways in New ... Lower Briggate, Hunslet-road, Low-road, ... Stanningley-road; (*b*) granited rock asphalte ... in New Briggate (highways) and Lower Brigg... way track), for the T.C. Mr. J. B. Hamilton, ... cial Manager, 1, Swinegate, Leeds. Deposit, ...

NOVEMBER 14.—**Birmingham.**—SEWERS.—... tion of about 1,893 yds. of brick and concrete ... and 386 yds. of stoneware pipe sewers, in King ... for the T.C. Mr. H. H. Humphries, City ... Council House, Birmingham. Deposit £2.

MBER 14.—**Marlborough.**—SEWAGE WORKS.—ng drains and re-construction of outfall drains, T.C. Messrs. H. Humphreys & Sons, 28, -street, S.W. Deposit £3 3s.
MBER 16.—**Aberdeen.**—WATER MAINS.—Laying miles of 40 in. piping and ancillary works Crathes and Culter, for the T.C. Water , 41½, Union-street, Aberdeen. Deposit £5.
MBER 17.—**Hayes.**—ROADS.—Making-up streets for the U.D.C. Mr. D. C. Fidler, Sur- ouncil Offices, Hayes, Middlesex. Deposit £2.
MBER 19.—**Caerphilly.**—PRIVATE STREET —For carrying out, for the U.D.C., the kerbing, sewering, forming, metalling, &c., of Brynymy- enue and Brynview-avenue, Ystrad Mynach. I. Richards, Surveyor, Council Offices, Caer- Deposit £1 1s.
MBER 19.—**London, E.C.**—PAVING.—Repair- e footways of London Bridge with York stone maintenance thereof for nine years, for the ion of the City of London. City Surveyor, l, E.C. 2, between the hours of 10 a.m. and Deposit £2 2s.
MBER 19.—**Waltham.**—ROADS.—For the widen- ney-lane, for the U.D.C. Mr. W. C. Holloway, , Town Hall, Waltham Abbey.
MBER 20.—**Lees.**—ROADS.—Making-up Turner- r the U.D.C. Mr. W. J. Lomax, 11, Fold- olton. Deposit £5.
MBER 20.—**Maesteg.**—ROAD WORKS.—For and reconstructing Llwydarth-road and -street, Maesteg, for the U.D.C., in connection f of unemployment. Unskilled labour to be . Mr. S. J. Harpur, Surveyor, Talbot-street, Deposit £2 2s.
MBER 21.—**Birmingham.**—TRAMWAYS.—Con- of about 700 yds. of solid construction ack tramway, and about 3,000 yds. of wooden onstruction double track tramway, in Bristol- the T.C. Mr. H. H. Humphries, City Engineer, House, Birmingham. Deposit £5.
MBER 22.—**Windsor.**—SEWAGE DISPOSAL —For construction of sewage disposal works at ill, for the R.D.C. Mr. J. H. Blizard, 7, street, S.W. Deposit £10 10s.
EMBER 23.—**Mitcham (Surrey).**—ROADS.— p of certain roads on the Council's Housing for the Mitcham U.D.C. Mr. B. Bullock, Surveyor, Broadway House, Lower Mitcham.
ER 26.—**Camberwell.**—ROADS.—Making-up rt-road, East Dulwich, for the B.C. Mr. Bell, Borough Engineer, Town Hall, Peckham- mberwell, S.E.5.
BER 26.—**Enfield.**—SEWAGE DISPOSAL WORKS. uction of sewage disposal works at Cuckoo , for the U.D.C. Mr. H. R. Crabb, Surveyor, ffices, Enfield. Deposit £5 5s.
TE.—**Hanwell.**—BOWLING GREEN, &C.—For ruction of bowling green and the supply of he U.D.C. Surveyor, Council Offices, Han-

Competitions.

ee Competition News, page 679.)

tion Sales, Tenders, etc

EMBER 6.—**Farnborough, Hants.**—Messrs. Over will sell, at Farnborough, Hants, galvanised d workshop, garage for 12 lorries and store tional huts, heating installations, sectional iping, &c. Auctioneers, Camp-road, Farn- Hants.
BER 6, 7, 8, AND 9.—**Rainham, Essex.**—. W. Smith & Moon will sell, by order of the r, the whole of the waterside, pile-driving, er, and building contractor's plant, machinery ts, at "Ferro Works," Wennington-road. rs, 6, Great James-street, Bedford-row, W.C.1.
EMBER 8.—**London, S.E.**—Messrs. Veryard will sell, without reserve, at 126A, Norwood- . (close to Tulse Hill Station), useful building l materials.
EMBER 13.—**Lon on, S.W.**—Messrs. Veryard will sell without reserve, at 255, Clapham- V. (a few yards from "The Swan," a large assorted stock of timber, fittings, and build- ial. Auctioneers, 365, Norwood-road, S.E.27.
EMBER 20.—**East Kent.**—Messrs. Worsfold & (in conjunction with Messrs. S. Hinds & Son) at the Wingham Colliery, between Dover and ry, valuable colliery plant and machinery. quare, Dover, and Walmer, Kent.
BER 20.—**London, E.C.**—Messrs. St. Quintin. anley are instructed to offer for sale Crown direction of the Commissioner of His Majesty's Woods, Forests and Land Revenues, at Wincheste r House, Old Broad-street, E.C. 2, valuable corner freehold building site, known as 110 to 116 (even), Curtain-road, and 1 to 10, Union-place, E.C.; also various sites will be let by auction, by Order of the Corporation of the City of London. Auctioneers, 50, Threadneedle-street, E.C. 2.

★NOVEMBER 21.—**Hayes (Middlesex).**—Messrs. Henry Butcher & Co. have received instructions to sell, by order of Messrs. Sir Robert McAlpine & Sons, on completion of Hayes housing contract, at Hayes, Middlesex, surplus building material, plant and stores, office furniture, &c., including several temporary and dismantled wooden workshops, offices, huts, &c. Auctioneers, 63 & 64, Chancery-lane, London, W.C. 2.

★NOVEMBER 22.—**Chingford.**—Messrs. Kemsley will sell, at the London Auction Mart, freehold building land known as the Chingford Hall Estate; frontage of 1,600 ft. to Chingford Hall-lane, and 1,000 ft. to Hampton-road. Auctioneers, Broad-street House, E.C.2.

★NOVEMBER 28.—**Rotherhithe, S.E.16.**—Messrs. J. T. Skelding & Co., will sell (by kind permission of Messrs. Scantlin, Taylor & Co.), at Appleby's Yard, Silwood-street, Rotherhithe, S.E.16, well-seasoned, dry stock of timber of a large variety of various woods. Auctioneers, 48, Gresham-street, Guildhall, E.C.2.

★NOVEMBER 28.—**Windsor.**—Messrs. Knight, Frank & Rutley will sell, at Windsor, Berkshire, about two miles from the Royal Borough and 20 miles from London, the freehold residential property known as the St. Leonard's Hill Estate, the noble mansion and other property from the estate, the whole extending to about 630 acres. Auctioneers, 20, Hanover-square, London, W.1.

DECEMBER 13.—**London, E.C.**—Mr. Joseph Stower will sell with vacant possession, freehold property containing the important area of about 75,000 ft., or nearly 1¾ acres, prominently and conveniently situate on the north side of and fronting the main Bow-road. Auctioneers, 43, Chancery-lane, London, W.C.2.

Public Appointments.

★NOVEMBER 9.—**Scarborough.**—Temporary Architectural Assistant required in the Borough Engineer's and Surveyor's Office by the Borough Corporation of Scarborough. Borough Engineer and Surveyor, Town Hall, Scarborough.

NOVEMBER 10.—**Bedford.**—Architectural Assistant required in the Borough Engineer and Surveyor's Department for a period of at least twelve months (subject to satisfactory performance of duties, &c.), by the Borough Council of Bedford. Borough Engineer and Surveyor, Town Hall, Bedford.

★NOVEMBER 12.—**London, N.W.6.**—Assistant required in the Engineer's Department, with good knowledge of building work and a general knowledge of the routine work of a Municipal Engineer's office, by the Willesden District Council. Mr. F. Wilkinson, M.Inst.C.E., Engineer to the Council, Town Hall, Dyne-road, Kilburn, N.W.6.

NOVEMBER 12.—**Mitcham, Surrey.**—General Assistant required by the Mitcham Urban District Council to act under the direction of the Engineer and Surveyor. Clerk to the Council, Vestry Hall, Mitcham. endorsed "General Assistant."

★NOVEMBER 14.—**Somerset.**—Clerk of Works to supervise the alterations and adaptations now to be carried out at Quantock Lodge, near Over Stowey, for the purpose of converting the Mansion House into a tuberculosis sanatorium, required by the County Council of Somerset. Mr. G. I. Simey, Clerk to the Council, Boulevard, Weston-super-Mare.

★NO DATE.—**London, S.W.1.**—Architects and Surveyors' Assistants required for temporary engagements in the Architect's Department of the London County Council at varying rates of pay. Architect to the Council, The County Hall, Westminster Bridge, S.E.1

HOT-WATER RADIATORS & DOMESTIC SUPPLIES.

Mr. A. H. Barker, of Westminster, writes:—

SIR,—My attention has been called to your issue of September 21, in which appears an article on "Sanitary Surveys," by Mr. Arthur H. Davies. In this article the statement is made in regard to heating arrangements that "under no circumstances must hot-water radiators be connected to ordinary hot-water domestic supply. Separate heating apparatus must be provided."

This somewhat astonishing assertion makes one rub one's eyes and look up the name of the author and the name and date of the paper in which such a statement is made. It is within the knowledge of every heating engineer that there are literally scores of thousands of satisfactory installations in which hot-water radiators are connected to domestic hot-water supplies. One well-known firm of manufacturers makes a speciality of a very excellent combined apparatus for this very purpose. Sometimes the hot-water supply is secondary, but the radiators are also often connected to the same boiler on primary supply. Whether the arrangement is desirable or not depends largely on the quality of the water used. But a sweeping statement that "under no circumstances must hot-water radiators be connected to ordinary hot-water supply" goes far beyond what is justified and would mislead an ordinary reader who did not understand the matter.

There is another statement of a similar character: As regards gas, "unless it is laid on the same principle as the coal fire it has the effect of drying up the moisture of the air." The real effect of gas used in this way is the precise opposite to this: that is, it has the effect of so increasing the moisture of the air as to make it unhygienic.

We have received the following reply from Mr. Arthur H. Davis, F.S.I., F.I.San.E., the author of the article in question:—

SIR,—I gather from Mr. Barker's letter that:—

(1) He takes exception to my statement that radiators must not be connected to domestic hot-water supply, but must be served separately.

(2) A well-known firm of manufacturers specialises in a combined apparatus for supplying both radiators and the domestic hot-water supply.

May I point out that in the paragraph of my article referring to Heating I was obviously concerned with general principles only, and not with exceptional and special circumstances or specialised apparatus.

I am fully aware that most of our leading boiler-makers can supply a special form of boiler or cylinder for the purpose of combined heating and hot-water supplies, but the basic principle in the design of all of them is that the water serving the radiators is kept entirely separate, and never mixes with the water used for domestic purposes. When I laid it down as a general principle that radiators should be served separately, I was not concerned with the method used to attain this end, and should have been exceeding the intention of my article in complicating the issue by reference to exceptional circumstances requiring special treatment

With reference to heating by gas, the words "unless it is laid on the same principle as the coal fire" would read better "unless it is ventilated on the same principle as a coal fire." A properly fixed gas fire connected to a chimney flue has no more drying effect on a room than a coal fire, but it is, in fact, a ventilating agent. If a chimney flue is defective, or a gas fire is improperly fixed, hot products of combustion will escape into the room, and these will no doubt have a drying effect on the atmosphere of the room.

Cable from Japan

10 October, 1923

Concerning CHUBB'S Safes and Strong Rooms

"BANKS EXTREMELY SATISFIED. NO DAMAGE BY EARTHQUAKE OR FIRE"

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PROPOSED NEW BUILDINGS & OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERDARE.—Negotiations are in progress for the merging of the two Aberdare railway stations into one by additions to accommodation of the larger.

ABERDEEN.—Plans passed by T.C.: House, Queen's-road, for Major A. L. Mackinnon, per Messrs. A. Marshall Mackenzie & Son, architects; alterations, Union-terrace, for the Aberdeen Education Authority, per Mr. J. A. O. Allan, architect; alterations, Wesleyan Methodist Church, Crown-terrace, for the Trustees, per Mr. J. A. O. Allan, architect; alterations, 68, Stanley-street, for Mr. James P. Farquharson, managing director, per Mr. George Watt, architect; alterations 25A, Union-street, for Mitchell & Muil, Ltd., per Messrs. Wilson & Walker, architects; two garages, Hope-street, for Mr. James Mathieson and Mr. Joseph Johnston, per Messrs. Sutherland & George, architects; shed, Hutcheon-street, for the Aberdeen Combworks Co., Ltd., per Mr. William S. Boice, engineer; garage, 11, Albert-terrace, for Mr. Alexander Winchester, junr., per Mr. George Watt, architect.

AIRDRIE.—The Airdrie Dean of Guild Court has approved plans for the erection of a new public library in Wellwynd-street, at an estimated cost of £10,000. The Carnegie Trust, Dunfermline, has agreed to make a grant towards the cost. The plans have been prepared by Col. J. M. Arthur.

ALTRINCHAM.—The managers of the Bradbury Central School are proposing extensions to their school buildings.

AUDENSHAW.—Plans have been approved by the Licensing Justices for structural alterations to the "Queen's Arms," for Messrs. Groves & Whitnalls, Ltd., Regent-road Brewery, Salford.

BANBRIDGE.—Plans by the U.D.C. for 26 houses have been approved by the Ministry of Home Affairs.

BARROWFORD.—Plans have been approved by the D.C. for the erection of two bungalows at Fore Side, for Mr. E. Flory.

BATH.—Plans approved: Additions, Portway Cottage, Combe Park; dwelling-houses, Evelyn-terrace; bungalow, Frome-road; lock-up shop, 42, Cynthia-road; garage, 51, Walcot-street.

BEDWELLTY.—The Council has called for plans and estimates for a new road from Markham to Aberbargoed.

BELFAST.—Plans passed: Shop and house on Wandsworth-road, for Mr. W. G. Turner: architect, Mr. Robert Lynn; shop and house on Bloomfield-road, for Mr. John McGaherty: architects, Messrs. E. & J. Byrne; villa in Martinez-avenue, for Mr. E. Youell: architects, Messrs. Hobart & Heron; additions to Cathedral, for Select Vestry of St. Anne's: architect, Mr. R. M. Close; builders, Messrs. Henry Laverty & Sons; shop and house in Castlereagh-street, for Mr. Daniel McMahon: architects, Messrs. McDonnell, Lamont & McDonnell; shop and stores on Holywood-road, for Mr. Josias Graham: architect, Mr. Robert Barron; builder, Mr. James H. Barton; shop and house on Albertbridge-road, for Mr. Hugh Fitzpatrick: architects, Messrs. F. & J. McArdle; villa on Whitewell-road, for Mr. Thomas McKinney: architects, Messrs. E. & J. Byrne; villa on Bawnmore-road, for Mrs. E. Edgar: architect, Mr. J. C. Stevenson; shop and dwelling-house on Ormeau-road, for Mr. George Coutts: architect, Mr. Samuel Stevenson; alterations to premises in Little York-street, for Mr. Simon Murphy: architect, Mr. W. J. Convery; 10 semi-detached villas on Somerton-road, for Mr. Andrew Taggart: architect, Mr. Charles A. Aickin; recreation hall in Ceylon-street, for the Lawn View Recreation Club: architect, Mr. W. C. Maxwell.

BERWICK-ON-TWEED.—The L.N.E.R. Company has decided to construct a new railway station to replace the present one, which is inadequate for present-day requirements. The scheme is to be put in hand immediately.

BELLINGHAM.—The R.D.C. has passed plans for a memorial hall at Kirkwhelpington.

BILLINGE.—The R.D.C. are proposing to improve and strengthen Orrell-road, estimated to cost £2,500.

BINGLEY.—Plans passed: Conversion of lofts into cottage at Parkfield, for Mr. H. B. Lund; stables and harness room, Priestthorpe-lane, for Mr. H. Sunderland; pair of houses, Bradford-road, for Messrs. Whitehead & Wilson; nine houses, Oak-avenue, for Messrs Rhodes & Scott; two houses, Ireland Bridge, for Mr. R. Lightfoot; 48 houses, Bradford-road, for Messrs. J. H. & T. Cooper.

BLACKPOOL.—St. John's Market, Blackpool, is to disappear, to be replaced by new municipal buildings.

BOLSOVER.—The U.D.C. has instructed the Surveyor to pitch the existing reservoir, and to prepare a plan and an estimate of the cost of a new reservoir to hold a month's supply of water.

BOURNEMOUTH.—Plans passed by T.C.: Additions to shop, 329, Wimborne-road, Mr. E. Jones; block of houses and shops, corner Charminster and Acland-roads, Messrs. E. M. Drewitt & Co.; house and shop, Wimborne-road, Mr. Dymock; alterations and additions, 79, Seabourne-road, Mr. A. Ives; house, Portland-road, Mr. G. W. Figgins; alterations and additions, 195 and 197, Wimborne-road, Mr. G. F. Rider; bungalow, Castle-lane, Mr. B. Booth; house, Malvern-road, Mr. S. G. Ward; additions, "Devon Towers," Hahnemann-road, Mrs. Minchington; additions to workshops, rear of 263, Holdenhurst-road, Messrs. A. & C. Lawrence; alterations, "Westover Palace," Westover-road, Westover (Bournemouth), Ltd.; conversion into lock-up shops, 3, Charminster-road, Mr. A. E. Lavis; alterations and additions, "Pineside Laundry," Pine-road, Mr. H. Blakeley; alterations and additions, 148, Wimborne-road, Mr. J. Davies; additions, "Mont Turbie," West Overcliffe-drive, Mr. A. W. Page; alterations and additions, 11, St. Alban's-avenue, The Bournemouth Free Church Council; motor house, alterations and additions, "Frimleigh," Newstead-road, Mrs. C. Hall; additions, 77, Holdenhurst-road, Mr. S. Monckton; alterations and additions, "Thornhill," Montague-road, Mrs. Eustace; alterations and additions, "Lustleigh," Westby-road, Mr. J. J. Kingston; additions to house, corner Keswick and Grasmere-roads, Mr. B. Rich; alterations to shop, corner Haviland- and Palmerston-roads, Mr. J. Sawyer; additions, 351, Holdenhurst-road, Mr. W. Notton; additions, corner Talbot and Woodend-roads, Mrs. Aptommas; motor house, corner St. Alban's-road and Arcadia-avenue, Mr. W. R. Lock; shops, Wimborne-road, Mr. W. Burridge; workshops, rear of 83 and 85, Gladstone-road, Mr. G. R. Harrison; alterations and additions, Plot 3, Alyth-road, Mr. A. Barnes; alterations and additions, "Talbot Hotel," Wimborne-road, Marston's Dolphin Brewery Co.; motor house, Penrith-road, Mr. A. Campbell; pair houses, corner Clarence Park- and Rebbeck-roads. Mr. J. E. Langdon; motor house, "Koseyholme," Watcombe-road, Mrs. K. E. Brook; motor house, corner Burleigh- and Watcombe-roads, Mr. A. Williams; workshop, Coronation-avenue, Mr. A. Harris; two houses, King Edward-avenue, Mr. F. Richards; house, King George-avenue, Mr. W. E. Gould; house, Green-road, Mr. C. Parker; house, Elmes-road, Mr. A. Maskell; house, Mavis-road, Mr. W. Watson; bungalow, Croft-road, Mr. T. Kerley; bungalow, Croft-road, Mr. E. Yates; house, Wentworth-avenue, Mr. F. W. Burton; house, St. Luke's road, Mr. A. Barnes; two houses, St. Ledger's-road, Mr. C. V. Miller; motor house, "Allwayes House," Southbourne Overcliffe-drive, Mrs. D. Ward; house, Browning-avenue, Mr. F. Drake; bungalow, Sutton-road, Messrs. C. A. Barnes & Co.; house, De Lisle-road, Messrs. G. S. Brown & Co.; two houses, Burleigh-road, Mr. A. Williams; house, Alyth-road, Mr. S. M. Davis; house, Irving-road, Mr. F. H. Howe; house and garage, Hengistbury-road, Mrs. E. Reeves; house, Iddesleigh-road, Mr. W. Davis; house, King Edward-avenue, Mr. P. J. Love; two pairs of houses, Amesbury-road, Mr. H. B. Mudge; four houses, Oates-road, Mr. S. Gidlow; conversion of stables into garages, The Osborne, Priory-road, Mrs. M. McDermott; alterations and additions, "Streate Place" An exe, st. Peter's-road, Mr. C. A. Blisset; alterations and additions, "Ravenswood," Surrey-road, Mr. Stelf; motor house, "Ferncombe," St. Stephen's-road, Mr. G. P. Shelton; motor house, "Wideways," Clifton-road, Mrs. R. Paddon; pair of houses, corner Beaufort- and Amesbury-roads, Mr. A. G. Cook; pair of houses, corner Castlemain-avenue and Fenton-road, Mr. G. Newman; house, East-avenue, Messrs. J. & A. Steane; additions, 52, Darracott-road, Miss Hockley; rebuilding of garage, &c., 136, Commercial-road, Mr. A. R. Baker; house, Eldon-road, Mr. A. T. Williams; three houses, Danesbury-avenue, Mr. H. Hewitt; house, Seafield-road, Mr. A. H. Jackson; ten houses and garage, Burleigh- and Irving-roads, Mr. Smith; house, Iddesleigh-road, Mr. M. O. A. Beer; bungalow, Bloomfield-avenue, Mr. E. Culver; house, 38, Green-road, Mr. H. V. Wareham; house, 5, Highfield-road Mr. H. C. Reeves; house and garage, College-road, Mr. J. Drewitt; two houses, Gresham-road, Mr. A. Cooke; house, Highfield-road, Mr. Pearce; house, 115, Markham-road, Mr. J. H. Earl; house, Rotherfield-road, Mrs. Clappen; house and shop, Kimberley-road, Messrs. H. Small & Sons; two houses, Albemarle-road, Mr. Vincent; four houses, Castlemain-avenue and Burleigh-road, Mr. T. O. Barrett; bungalow, Bloomfield-avenue, Mr. H. C. Barnes; house, Highfield-road, Mr. Spicer; house, Stamford-road, Mr. W. G. Pardy; conversion of stables into garage, rear of 136, Parkwood-road, Mr. Gane; two houses, Chigwell-road, Mr. W. Moore; house and garage, De Lisle-road, Mr. M. O. A. Beer; house, Tower-road, Mrs. Ames; house, Evelyn-road, Mrs. A. M. Tassell; alterations, "Streate Place," Bath-road, The Bournemouth Spiritualist Church; house, Albemarle-road, Mr. W. Greenwell; motor house, "Ellerslie House," St. Stephen's-road, The Misses Shaw; alterations and additions, "Allington Grange," Kerley-road, Mr. T. J. Gunn; motor house, 9, Richmond Park-crescent, Mr. Godwin; house, Irving-road, Mr. W. E. Wood; alterations and additions, 53, Alma-road, Mr. F. Richards; alterations and additions, "Glenroy Hall," St. Michael's-road, Mr. A. W. Barnsley; house, Danesbury-avenue, Mr. A. Clark; house, Burleigh-road, Mr. J. Scott; alterations and additions, 41, Branksome Wood-road, Mr. R. Bentley-Carr; alterations, 7, St. John's-road, Mr. T. J. Mason.

BRADFORD.—The Ministry of Health has sanctioned the borrowing of £96,460 by the Corporation for the erection of houses at Bradford Moor, and £439 for electric light mains.

BRECONSHIRE.—The County Education Committee has agreed to purchase land at Pont-Neath-Vaughan for erection of new school.—The Brecon T.C. has applied for grant to carry out new small waterworks scheme, estimate £7,000, for supply to higher levels.

BRIGHTON.—Plans passed by T.C.: Bungalow, Hangleton-road, for Mrs. E. Lewingdon; four houses, Hollingbury-road, for A. G. Lower; four houses, Ewhurst-road, for G. Ayling.

BROMLEY.—Plans passed by R.D.C.: Keston: Miss V. C. P. Wilson and Mr. W. Adams, houses, Longdon Wood-avenue, Keston Park Estate. Aimee Jane Scullard, bungalow, King's-road Jessup, bungalow, Grays-road; Mr. G. A. V. bungalow, Old Jail-lane; Mr. J. Buckman, Melrose-road; Mr. A. J. Richards, bungalow road. Hayes: Sir Everard A. Hambro, D.L., J.P., alterations and additions, "Geor Hayes-lane; Mrs. A. Edwards, house, Ha Mr. A. Logan, two houses, Hayes-lane. O Mr. J. Kent, 16 houses, Ladywood Estate, Ch road; Mr. H. Tanner, house, Lovibond-avenue

BURNLEY.—Plans have been approved erection of fifty houses on the Palace Ho Burnley.——Plans passed:—Alterations t 16, 18, 20, 22 and 24, Gannow-lane, for Dr. J. warehouse, Barrow-street, for Messrs. W. Co.; four houses, Queen's-road, for Messrs. Clegg & Holdsworth.

BURY.—The members of the Walshaw Cri are raising funds to provide a new pavili

BUXTON.—Plans passed by T.C.: Motor St. John's-road, for Mr. P. Pearce; bungalow downe-road, for Mr. Bellhouse; conversion o holm" into two houses, for Messrs. Pearson &

CARBIS BAY.—An extensive freehold site, c about twenty acres, has been acquired by M Payne, extending from the main road at Chy to the Carbis valley. This, it is stated, M intends to develop as a building site.

CHEADLE.—Plans passed by U.D.C.: Add St. Wilfrid's College, Oakamoor; bungalow wall Wood, for Mr. Foreman; additions to Do House, Forsbrook, for Mr. Meigh; bungalow house-lane, Bucknall, for Mr. Sambrooke; ho Ashcombe Park, for Mr. J. H. Hill: addition t at Star Bank, Oakamoor, for Mr. Prime; g Brookhouse-lane, for Mr. Mee; two brick bun Weston Coyney, for Mr. Foreman; additio mises in Caverswall-lane, Blythe Bridge, for Allen.

CLITHEROE.—The T.C. has received sanct the M.H. to erect 46 houses by direct labour, per house not to exceed £400.

CROYDON.—Plans passed: Young & Macin Imperial Buildings, 55 houses, The Chase, Co avenue, Grovelands-avenue, and Hillcote-aver bury; Higgins & Thomerson, bungalow, Teev R. B. Manser, conversion of house into two ho garage, 31, Ashburton-road; A. J. Dickinson low, Monks Orchard Estate; Fox, Jones & bungalow, Addiscombe-road; G. Wallingt houses, Pollards Hill North; Young & M house, Croham Manor-road; V. Boys, ho garage, Addiscombe-road; J. & C. Bowyt Upper Norwood, house and school, Wydehur F. W. Milton, 76, Haslemere-road, six houses wood-avenue; C. H. Gibson, Ltd., 10 house wood-road; Young & Macintosh, six houses, road; C. H. Taylor, house, Fryston-avenue, E R. Kendall, Ltd., house, Norbury-avenue: C Fairbairn, Ltd., house and garage, Warha Clout & Tysoe, seven houses, Silverleigh-road Findlay, two houses, Alexandra-road: G. W. house, Haling Park-road; R. Mansell, new sta Wickham-road, Shirley Schools; S. Subur operative Society, shop and stores, Lower Addi road; G. H. Dales, nine houses, Alton-road: Parris, two houses, Birdhurst-avenue: Elcock cliffe, alterations and additions, 76, West Young & Macintosh, bungalow, Pampisford-r Isitt, 12 garages, Waddon Marsh-lane; E. Sons, six houses, Melfort-road; S. H. Laver, six garages, 11–14, The Pavement, London-road Laver, 12 houses, Green-lane, and 14 shops and London-road, Norbury; W. C. Midmen, b Downsview-road; L. O. Linfoot, two bungal house, Pampisford-road; C. G. Allen, four London-road, Norbury; G. J. Philpot, 16 Galpins-road; W. H. Folkes, four houses, Alto R. K. Webster, engineering works and foundry Downs-road; P. Richardson, 14 houses, E road; and 74 houses, Meadvale-road; Croy poration, block of 16 flats, Oval-road, West Sid Davey, 20 houses, Brocklesby-road; E. Law Monks Orchard Estate.

DEWSBURY.—Plans approved by T.C.: Woodcock, extension of house, The Town, Th Mr. B. R. Knowles, stable and shed, Caulms Woo Crackenedge; Mr. John Chadwick, additions t Holmleigh, Northfield-road; Messrs. Smithson hill, shed, Branch Mill, Ravensthorpe; D.P.I. alteration of reading-room into dwelling-house, road, Thornhill; D.P.I.S., Ltd., alteration of room and shop into dwelling-house, Hill Head, road; Mr. George Stross, motor garage, Belmont West Park-street; Messrs. Armitage & Gibso houses, Wakefield-road site; A. E. Horne, Cowper-street, Savile Town; and Mr. Patrick Headfield-road, Savile Town.

DONCASTER.—The Ministry of Health has a the erection by the Corporation of an additi houses on the Warmsworth-road site, and h sanctioned, subject to certain restrictions, the C tion's proposals in respect to a subsidy.

EAST HAM.—Plans passed by B.C.: Garag 161, Barking-road, for S. B. Richardson: sho 519, Barking-road, for A. B. Barrett: steel church, Church-road, corner of Little Ilford-l W. J. Cearns; heating chamber to factory, c Heigham-road and Katherine-road, for Fretwell Co.; house, 81, Little Ilford-lane, for J. W. J

EAST KERRIER (FALMOUTH).—The D.C. is powers to borrow £2,174 to carry out a scheme p by Mr. R. H. Worth, of Plymouth, for improv water supply of Flushing.

EDINBURGH.—At the last sitting of the Dean Court there were 31 cases, of which 18 were f tions, and of these 15 were granted, among wh the following:—Mr. A. B. Gilbert, villa at St. T road; Mr. D. M. Ross, dwelling-house at Spyla road, Colinton; Mr. J. Scott, villa at Succoth-ga Mr. W. R. Swan, four self-contained houses at Gre

(Continued on page 706.)

* See also our List of Contracts, Competitions, etc.

PRICES CURRENT OF MATERIALS.*

: to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

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a n d	27 10 0
lazed	
rs .. 22	0 0
21	10 0
Bull- 4½in.	
28	10 0

uality, £1 per 1,000 less than best. Cream £2 extra over white. Other colours, Hard 10s. extra over white.

D'ble Str'tch'rs
D'ble Headers
One Side and two Ends ..
Two Sides and one End ....
Splays and Squints .....

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.
super	2 1
,,	2 5

	s. d.
3 in. per yd. super	2 9
4 in. ,,	3 7

	s. d.	
llast	10 6	per yard.
	14 9	,, ,,
nd	15 6	,, ,,
d Sand	15 6	,, ,,
gle for Ferro-		
	14 0	,, ,,
,, ,,	15 0	,, ,,
n Brick	10 6	,, ,,
	5 6	,, ,,

delivered 2 miles radius Padding-ton.

delivered in London area in full van loads.

land Cement, British Specification Test £2 18 0 to £3 3 6
ngside at Vauxhall in 80-ton lots.
per ton extra on above 0 10 0
ent 4 8 0
ment 8 15 0
ent 5 15 0
ment, White 5 15 0
,, Pink 5 10 0
arse, Pink 3 0 0
,, White 3 12 6
ne 5 12 0
oarse 3 9 6
nish 3 17 6
Lime 2 10 9
e 2 10 9
d Blue Lias Lime 2 13 6
..... 17 0 0
ippings 1 12 0

cks are charged 1s. 9d. each and credited f returned in good condition within three carr. pd.
e Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

E—delivered in railway trucks at s. d.
rne Park, Paddington, G.W.R., or mbeth, G.W.R., per ft. cube 2 9½
elivered in railway trucks at Nine & S.W.R., per ft. cube 2 11½

STONE—
Whitbed, in random blocks of 20 ft.
e, delivered in railway trucks at Elms, L. & S.W.R., South Lambeth n, G.W.R., and Westbourne Park, ngton, G.W.R., per ft. cube 4 4
delivered on road wagons at above ns, per ft. cube 4 5
asebed, 3d. per ft. cube extra.
½d. ft. cube extra for every foot over 20 ft.
e, and ½d. beyond 30 ft.

OOD STONE.
red at any Goods Station, London.
om blocks, up to 10 ft. cube. Per ft. cube 7/-
locks from 10 ft. and over ,, 17/-
sides ,, 27/-
e or four sides ,, 32/-

NE, BLUE—*Robin Hood Quality.*

red at any Goods Station London.	s.	d.
two sides landings to sizes (under per.) Per Ft. Super	5	3
d two sides, ditto ,,	5	9
wo sides slabs (random sizes) ,,	2	1½
½ in. sawn one side slabs sizes) ,,	1	5½
n. ditto, ditto ,,	1	3

K—
red at any Goods Station London.

ndom blocks. Per Ft. Cube	5	6
two sides landing to sizes (under per.) Per Ft. Super	5	4½
d two sides ditto ,,	6	0½
wo sides slabs (random sizes) ,,	2	10
ditto. ditto ,,	2	5
ced random flags. Per Yard Super	7	11

ARTIFICIAL STONE.

n London Area in full van loads.	s.	d.
per ft. cube	6	6
,, ,,	7	9
,, ,,	8	3

WOOD.

GOOD BUILDING DEAL.

per stan.	Inches	per stan.
£34 0	3 × 6	£25 0
34 0	3 × 11	34 0
29 0	2 × 11	34 0
28 0	3 × 9	33 0
26 10	2½ × 9	33 0
26 0	3 × 4½	24 0
26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11 .... £38 10 | 1 × 9 .... £36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅞	21/-	1¼	33/6
⅞	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	22/-
1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle	0 2 10
Dry Wainscot Oak, per ft. super, as inch	0 2 0 to 0 2 6
¾ in. do. do.	0 1 6 to 0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9 to 0 2 6
Cuba Mahogany	0 3 0 to 0 3 6
Teak (Rangoon, Moulmein or Java), per load	45 0 0 to 50 0 0
American Whitewood planks, per ft. cube	0 14 0 to 0 16 0
Best Scotch Glue, per cwt.	4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
,, ,, Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discount; carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¾	3½d.
4 in.	1/4	1/1¾	3½d.
4½ in.	1/5¼	1/4	4d.
5 in.	1/7¾	1/5¼	5d.

O.G. GUTTERS.

3 in.	1/6¼	1/2¾	3½d.
3½ in.	1/6¼	1/2¾	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9¼	1/6¼	4d.
5 in.	2/1¼	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. ,,	1/9½	1/4	2/0½
3 in. ,,	2/1½	1/8	2/5½
3½ in. ,,	2/6½	1/11½	2/10½
4 in. ,,	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. ,,	3 6½	2 5½	3 3½
3 in. ,,	4 2½	2 8	4 0½
3½ in. ,,	4 7	3 3½	4 8½
4 in. ,,	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. ,, ,,	6 3	6 8	11 4
5 in. ,, ,,	7 6	11 6	18 2
6 in. ,, ,,	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	14 0 0	to	15 0 0
Staffordshire Crown Bars—good merchant quality	14 10 0	..	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	13 10 0	..	14 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 10 0	..	14 10 0
Hoop iron, basis price	16 10 0	..	17 10 0
,, Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black—Ordinary sizes to 20 g.	15 10 0	..	16 10 0
,, ,, ,, 24 g.	16 10 0	..	17 10 0
,, ,, ,, 26 g.	18 10 0	..	19 10 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets—Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24 10 0
Sheets Galvanised Flat, Best quality—Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	21 10 0	..	23 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	40 10 0
Pipe in coils	41 0 0
Soil Pipe	44 0 0
Compo pipe	46 10 0

NOTE—Country delivery, 30s. per ton extra: lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton	27 0 0	..	—
Do., ex country, carriage forward ..... per ton	28 0 0	..	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps ..	33/-	41/-	56/-	101/-	per doz.
8 lbs. S. traps ..	35/-	45/-	66/-	126/-	..

COPPER—	£ s. d.	
Strong Sheet .... per lb.	0 2 3	.. —
Thin ,, ... ,,	0 2 4	.. —
Copper nails .... ,,	0 2 3	.. —
Copper wire .... ,,	0 2 4	.. —
TIN—English Ingots ,,	0 2 1	.. —
SOLDER—Plumbers' ,,	0 1 0	.. —
Tinmen's ,,	0 1 2	.. —
Blowpipe ,,	0 1 4	.. —

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes .....per gallon	0 3 7
,, ,, ,, in barrels .... ,,	0 3 9
,, ,, ,, in drums .... ,,	0 4 0
Boiled ,, ,, in barrels .... ,,	0 4 1
,, ,, ,, in drums .... ,,	0 4 3
Turpentine in barrels ..... ,,	0 6 7
,, in drums (10 gall.) .. ,,	0 6 10
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	56 5 0
GENUINE WHITE LEAD PAINT—"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots.....per ton delivered	77 0 0
Red Lead, Dry (packages extra)....per ton	42 0 0
Best Linseed Oil Putty.....per cwt.	0 16 0
Filocol.....per cwt.	0 15 6
Size, XD Quality.....fkn.	0 3 6

[*Concluded on next page.*]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths....	3½d.	32 oz. fourths	8½d.
15 ,, thirds	4½d.	32 ,, thirds	10½d.
21 ,, fourths....	5d.	Obscured Sheet, 15 oz.	4d.
21 ,, thirds	6½d.	21 ,,	5½d.
26 ,, fourths....	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
26 ,, thirds	7½d.	En'lled 15 ,, 5½d., 21 ,,	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
¼ Rolled plate	4½d.
3/16 Rough rolled	5½d.
¼ Rough rolled	6½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal flatting	ditto	1 0 6
Hard drying Oak	ditto	0 18 0
Fine Hard drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 0
Knotting (patent)		1 5 0
French and Brush Polish		0 17 6
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

PROPOSED NEW BUILDINGS.

(*Continued from p.* 704)

terrace, Liberton; Mr. J. R. Turner, double villa at Greenbank-crescent; Mr. A. Henderson, double dwelling-house at Riverside-road; Mr. W. Howorth, villa at Craiglockhart-drive; Messrs. Nicholson & M'Cormack, two cottages at 66 and 68, Inchview-terrace; MacFisheries, Ltd., motor garages at 29, East Crosscauseway; Mr. W. C. Skinner, garage at Craiglockhart-road.

FILEY.—A Ministry of Health inquiry has been held into the Council's application to borrow £5,000 for a scheme to extend the water supply.

FOLESHILL.—Mr. Stanford, an inspector of the Ministry of Health, has held a public inquiry into an application by the R.D.C. for a loan of £7,100 for the reconstruction of Bedworth sewage outfall works.

GUISBOROUGH.—Plans passed by R.D.C.: Nursing home at High-street, Marske, for Miss B. Smith; pair of houses at Windy Hill-lane, Marske, Mr. J. Easton; house opposite Bellevue-terrace, Marske, Mr. F. W. Cleminson; and a bungalow at Danby, for Mr. A. Burtt.

HASLAND.—The Central Miners' Welfare Committee has approved a scheme for the provision of baths for Hasland and Birdholme, Chesterfield. The Grassmoor Company has agreed to make a grant to the Chesterfield Corporation.

HESTON AND ISLEWORTH.—Plans passed by U.D.C.: Messrs. Roper, Son & Chapman, bungalow, Wellington-road North; Messrs. P. Chase Gardener & Co., two houses, Bulstrode-road; Mr. F. G. Leahy, house, Bath-road; Mr. R. Emmett, house, Jersey-road; Messrs. Elcock & Sutcliffe, bank premises, 215, High-street; Mr. A. J. Thair, house, Harvard-road; Mr. Glenister Woodger, four houses, Pears'-road; Mr. J. Levy, two houses, College-road; Mr. R. Myring, sixteen houses, Maswell-park; Mr. W. Avis, bungalow, Pears'-road; Mr. J. L. Ellis, two houses, Grove-road.

HIGH SPEN.—The Blaydon U.D.C. has approved plans submitted by the Consett Iron Co., Ltd., for the erection of 72 houses at High Spen.

HORNSEY.—Plans have been approved by the B.C. for six dwelling-houses at Fordington-road (Messrs. Smerdon Bros.) and one house at Sheldon-avenue (Mr. W. Quennell).

ILFRACOMBE.—A Ministry of Health inquiry, with reference to the U.D.C.'s application for sanction to borrow £8,600 for the construction of a new concert hall at the Victoria Pavilion, has been held.

KENDAL.—Plans passed by T.C.: House, Gillingate, for D. W. Howie, architects Shaw & Stables; 15 lock-up garages, Parr-street, for J. W. Howie & Son; six lock-up garages, Old Post Office Yard, for C. Simcock; garage, Tenterfield, for C. Somervell; garage, Kendal Green, for H. Taylor.

LEEK.—At the last meeting of the U.D.C. a letter was read from the Ministry of Health, signifying general approval of the scheme for erection of 85 houses for Councillor Bowcock, and offering a grant of £75 per house for houses fully completed by 1925, to be met by an annual payment of £6 per house for 20 years.

LEICESTER.—At a meeting of the Education Committee sanction was given to make provision in next year's estimates of sums amounting to over £63,000 for additions to school buildings, &c.—£47,000 for extensions to the Technical and Art Schools, £15,000 for providing an assembly hall at the Wyggeston Boys' School, and £1,800 for erecting a pavilion on the Wyggeston Boys' School playing fields.

LLANELLY.—The Ministry of Health has assented to the B.G. erecting special vagrants' accommodation, at cost of £2,000.—It is proposed to acquire Felinfoel House for conversion to a maternity home.

LONDON (DEPTFORD).—Sanction has been given by the L.C.C. to the B.C. to borrow £9,131 for paving works.

LONDON (ELTHAM).—Buildings, Bexley-road, for Mr. T. D. Chandler.

LONDON (GREENWICH).—Drainage plans passed by B.C.: Mr. W. Banks, 24, Catherine-grove, Greenwich, at 14, Winforton-street; Messrs. G. F. Havell & Son, 167, High-road, Lee, at 62, Westcombe Park-road; The Receiver and Agent, Greenwich Hospital Estate, 26, Park-row, Greenwich, at Durnford-street, Greenwich Market; Mr. P. B. Dannatt, 18, Nelson-street, Greenwich, at 7, 8 and 9, Claremont-street.

LONDON (HACKNEY).—Plans passed by B.C.:—Five blocks of dwellings, &c., Dalston-lane, for Messrs. Josephs; additions, St. Peter's Parish Hall, Hertford-road, for J. W. Steed; nine lock-up shops and three workshops, Mare-street, for Mr. E. H. Abbott; four houses, East Bank, for Mr. W. R. Hamblyn.

LONDON (PADDINGTON).—The General Purposes Committee of the B.C. is recommending the extension of the hot-water heating system at the Town Hall, at a cost of £1,000.

MERTHYR TYDFIL.—The T.C. is to borrow to carry out Troedyrhiw Recreation Ground scheme, estimate £3,000, of which £700 is provided by Miners' Welfare grant.

NELSON.—The Higher Education Committee of the Lancashire C.C. has resolved that land at Hole House Farm, Nelson, be purchased from Nelson Corporation as a site for a new secondary school and playing field, the price being £120 per acre; also that plans be prepared for a mixed school of not less than 400 scholars.

NEWCASTLE-ON-TYNE.—The London & North-Eastern Railway Co. have accepted the tender of Messrs. Braby, of Glasgow, for extensions to the Station Hotel, which will include 22 new bedrooms and a large banqueting hall.—A scheme has been inaugurated at Richmond by the Richmond (Yorks) Garden Suburb, Ltd., for the development of a site on the Skeeby-road, providing accommodation for the lay-out of 57 building sites, varying from one-eighth to one-quarter of an acre each.

NEWPORT (MON).—The reconstruction of the Usk old bridge is to be again considered. The pre-war estimate was £100,000. The Ministry of Transport has offered more than half the cost by way of grant. The scheme is one of widening and rebuilding of parapets and strengthening of old pillars.

NEW QUAY.—New tenders are to be called for the erection of a memorial hall.

OXFORD.—Plans passed by the T.C.: J. A. English, 116, Cowley-road, motor garage, Marston-street; T. Collier, Victoria-road, Summertown, workshop, timber store and sanitary block, Hernes-road, Sunnymeade; City of Oxford Motor Services, Ltd., motor-bus garage, Cowley-road; A. Morgan, reconstruction of house, 270, Cowley-road; Cadena Cafés, Ltd., bakehouse, &c., Red Lion-square; T. Bonner, shopfront, 61, Botley-road.

PEMBROKESHIRE.—The G.W.R. Co. has notified the local authorities of the County that it will be responsible for half cost of construction of St. David's light railway if remainder is found by Government grant and subscription. The original estimate was £120,000, but G.W.R. estimate is £350,000.

PENARTH.—The U.D.C. has completed negotiations with private owners for acquisition of the pier, on which a considerable sum is to be spent on improvement.

PONTEFRACT.—Plans passed by R.D.C.: House at Glass Houghton, for Mr. Townsend; bungalow at Dish-hill, Brotherton, for Mr. K. Hunter; stables, &c., at Monk Fryston, for Mr. Huddlestone; and a detached house at "Weelworth," Glass Houghton, for Mr. A. Roper.

PRUDHOE.—The U.D.C. have decided to formulate a scheme to provide for the erection of about 100 houses. The authority has passed plans for 10 new houses to be built by private enterprise.

RISHTON.—Two bungalows, for Mr. R. H. Kenyon.

ROMSEY.—Plans passed by R.D.C.: Bungalow at Abbotswood, Timsbury, for Mrs. Kitto; bungalow at Windwhistle-hill, East Wellow, for Mr. J. McManus, of Ower; bungalow at Whitenap, Romsey, for Mr. W. A. Allen, Heysham-road, Shirley; house, New-road, Cupernham, for Mr. R. Curtis; four detached bungalows at Whitenap, for Mr. F. J. Newell, The Hundred, Romsey.

ROTHWELL.—Plans passed by U.D.C.: House, Copley-lane, Robin Hood, for Mr. S. Hartley; two houses, Royds-lane, for Mr. J. Bridges.

ST. HELENS.—Plans passed by T.C.: Mrs. E. Pickavance, two houses, Dentons Green-lane; Mr. E. Bold, alterations and additions, Hardshaw-street; Mr. Huyton, two semi-detached houses, Laurel-road; Sutton Manor Collieries, Ltd., 150 houses, Sutton Manor (estate plans); three houses, King Edward-road, Mr. H. E. Hulme; house, Croppersh ll, Mr. J. J. Case; house, Rainford-road, Miss F. F. Holland; seven houses, Broad Oak-road, Mrs. James Callon.—Plans approved by the local licensing authorities include the rebuilding of the "Sefton Arms" Hotel, for Messrs. Greenall & Whiteley & Co.

SALFORD.—Plans passed by T.C.: Alterations to St. James' Schools, Great Cheetham-street East, Broughton; "Fountain Head," Wheathill-street, Salford; "Grey Mare Inn," 3, Cannon-street, Salford. Construction of garage, "Rutland," Waterpark-road, Broughton; garage, "Kamala," Old Hall-road, Broughton: garage, "Hilsamede," Water Broughton: sanitary accommodation, Inn," Liverpool-street, Salford; sanitary ac tion, "Railway Inn," Cross-lane, Salford. to works, Woden-street, Salford Alte premises, 118, Great Clowes-street, premises, 184, Great Clowes-street, "Bella Vista," Bury New-road, Broughton Hood Inn," and dwelling-house, 134, St. Sa Salford: "Spinners' Arms," Oldfield-road "Old House at Home," Middlewood-street the "Three Terriers' Inn," Ini n-tree', "Joiners' Arms," Ellor-street, Pendleton 401, Bolton-road, Pendleton. Construction Arrow-street, Broughton; bakehouse, store 418, Bury New-road, Broughton.

SCARBOROUGH.—The T.C. has decided to at a cost of £6,500 at the corner of Peasholt the North Bay promenade, and also to improvement of the roadway between the the North Bay Café and the sea, at an estima £7,000.

SCUNTHORPE.—The U.D.C. has decided t West Riding County Council to erect mor also to proceed with the new secondary sch

SOUTHEND.—The T.C. proposes to er secondary school at Westcliff, at an estima £53,690, and a convenience at Palmeira Arch of £2,920.—Plans passed: House, Crow H. Brown; three houses, Blenheim-cresce Butt; house, Thorpe Hall-avenue, Mrs. house, Westminster-drive, J. C. A. Holgat Chalkwell-avenue, S. E. Adams; altera additions, "Overstrand," Salisbury-road, L Tribble; new roads and sewers, Westlei Estate, C. J. Hill; two houses, Kingsw Messrs. Kerry & Ford; house, Northview-c E. E. Hodgson; two houses, Kingswoo Daniels; three bungalows, Olivia-drive, H. E garage, The Broadway, Thorpe Bay. C. two bungalows, Glenbervie-drive, M. Ker bungalows, Crickfield-grove, H. Twitchet house, Hamstel-road, W. Benthall; four garage, Hadleigh-road, S. F. Johnson; "Brockenhurst," Eaton-road, H. P. Drape low, Recreation-avenue, H. G. Kingsho houses, Woodfield Park-drive, Wiltshire & houses and shops, London-road, V. Tewe "Ardmore," Branksome-road, A. Ducat; to bakery, Sutton-road, H. Garon, houses and garages, London-road, H. Smit Capadocia-street, J. Clarke; four flats, avenue, T. J. Dennis; house, Picketts-ave Humphreys; house, Eastwood-road, C. F. house, Chadwick-road, F. G. Bethley; hous Court-drive, J. Payne; bungalow, Belfairs-d Robinson; garage, Tyrone road, P. Garon; and additions, "Eden Cot," Tankerville-d Hammond; house, Eastwood-boulevard, two houses, Eastwood-boulevard, C. Neil; garage, King's-road, Wheeler & Houlding Lymington-avenue, H. E. Johnson; house a London-road, J. W. Clarke; house, Carlt A. E. Patman; bungalow, Percy-road, two houses, Inverness-avenue, W. Carrington Armitage-road, Miss Hayward; bungalow, C drive, F. Strain; two bungalows, Recreati A. W. Goodhew; house, Prittlewell-chase, house; house, Westborough-road, Mrs. garage, Station-road, Leigh, A. Butt: add Glendale-gardens, A. Sutherland; house, avenue, J. H. Matthews; bungalow, Dur H. Mitchell; two bungalows, Fleming-aven Pennell; garage, Westleigh-avenue, Allen & four bungalows, St. Clement's-drive, A. J. additions to conservatory, 62, Leigham C S. H. Imrie-Smith; garage, Eastwood-lan Bros.; additions, Sweyne-avenue, T. C. garage, 20, Elderton-road, J. Young; Blenheim-crescent, H. Watson; eight houses drive, C. Neil; additions, 14, Prittlewell-squ Lemare; stores, Lymington-avenue, H. E. house, Burnham-road, W. J. Sherwin; alter additions, Elm-road, Conservative & Unio Ltd.; new premises, Victoria-avenue, H. Ga house, Harley-street, Mr. Waghorn; conv house into shop, 100, Hamlet Court-road, F conversion of house into shop, 51, Milton-str Lloyd; garage, Southchurch-road, A. Malt galow, Tunbridge-road, G. B. Harrison; hous road, Wheeler & Moulding; two houses and Hamstel-road, Mrs. J. R. Smith; bungalow, B avenue, R. H. Pennell; house and garage, avenue, G. W. Eves; two houses and one Cheltenham-drive, F. Hardwicke; bungalow drive, W. Heath.

TAMAR BRIDGE.—A scheme to bridge the which divides Devon from Cornwall, which drawn up largely by Mr. Adam Hunter, of Sir Arrol & Co., Glasgow, has been placed b Devonport Mercantile Association by Newcombe. The bridge, which would be cr far from the present ferry, which connects on the Cornish side, with Devonport, would posed of twelve spans of 112 ft., with abutm of 112 ft. and a centre opening span giving way of 120 ft. The estimated cost is slig £300,000, with an additional £10,000 for proaches.

TENBY.—The Tenby Bowling Club Syndi presented plans to the Council for a new pav caretaker's residence, estimated to cost £700.

TREDEGAR.—Messrs. Rees, Edwards & Sons Building, Commercial-street, have secured the for the erection of the new premises for the City and Midland Bank in Commercial-street.

Fire

BLACKPOOL.—A serious outbreak of fire has at the top floor of the Alexandra Café, at the Victoria-street and the Bank Hey-street.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
d throwing or wheeling and filling carts,			
arting away to shoot—6 ft. deep	per yard cube	11	6
elay	" "	1	0
very additional depth of 6 ft.	" "	0	6
nd strutting to trenches	per foot super	0	5
sides of excavation, including shoring	" "	1	0

CONCRETOR.

cement concrete in foundation 1 to 6 ..	per yard cube	35	0
underpinning in short lengths	" "	7	6
floors 6 in. thick	" "	3	6
beams	" "	4	0
rregate 1 : 2: 4	" "	10	0
oisting not exceeding 10 ft. beyond the 0 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
brickwork in lime mortar and Fletton	per rod	30	0	0
stocks	"	7	10	0
Staffordshire blues	"	22	0	0
Portland cement and sand	"	2	0	0

FACINGS.

facing in English or Flemish bond for 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

struck or weathered joint	" "	0	0	3

ARCHES.

y to the price of ordinary brickwork :—			
nal in half brick rings	" "	0	0	10
ocks	" "	0	1	9
nd gauged jointed in putty camber or ental	" "	0	6	0

SUNDRIES.

rse in double course of slates breaking and bedded in Portland cement	" "	0	1	1
dinary register grates and stoves	each	1	0	0
itchener, including forming flues, &c., all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
horizontal damp course	per yard sup.	4	3
rter-inch vertical damp course	" "	9	0
flats in two thicknesses.....	" "	6	6
t	per foot run	0	3
nd fillet 6 in. high	" "	1	3

MASON.

e templates fixed	per foot cube	12	6
e sills fixed	" "	21	6
e and all labour fixed	" "	10	6
stone fixed	" "	19	6

SLATER.

in. × 8 in. 3 in. lap, including nails....	per square	72	9
in. × 10 in. Do. Do.	"	80	9
in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

ed in plates .....per foot cube		5	3
joists	" "	5	9
roofs, floors and partitions	" "	6	3
trusses	" "	8	3

	¾"	1"	1¼"	2"
h close boarding ..... per sq.	38/-	44/-	50/-	80/-

		s.	d.
ering for concrete floor, in-			
ng struts or hangers .. "		50	0
beams .....per ft. sup.....		1	0
or arches ..... "		1	6
oards and bearers ..... "		1	0

FLOORING.	¾"	1"	1¼"	1½"
s shot ..... per sq.		49/-	58/-	67/-
ued and grooved ..... "		54/-	65/-	72/-
chings ..... "	45/-	55/-		
skirting, including back- and grounds .....per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
a-half moulded sashes or casements	per foot super	1	10
Do. Do. Do.	" "	2	1
itting and fixing	" "	0	4

d frames with 1 in. inner and outer gs, 1½ in. pulley stiles tongued to linings, wood sills with 2 in. moulded sashes in res double hung, double hung with pul- lines and weights; average size..... " " 3 9

DOORS.	1½"	1¾"	2"
el square framed .....per ft. sup	2/1	2/4	2/6
el Do. ..... "	2/5	2/8	2/11
el moulded both sides ..... "	2/8	2/11	3/2
el Do. Do. ..... "	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	5½d.	Rim locks	2/4
Sash fasteners 1	1½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and	
Casement stays.....	1/2	making good	19/-
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints ..	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do. ..	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt	54	0
Do. Do. in flats	"	52	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

	½"	¾"	1"	1½"	2"	4"
Drawn lead waste per ft. run	11d.	1/8	1/11	3/5	4/2	
Do. service "	1/7	2/1	2/6	3/10		
Do. soil "						6/10
Bends in lead pipe each					3/3	8/2
Soldered stop ends "	1/2	1/8	2/1	2/10	3/6	
Red lead joints .... "	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints "	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws .....„				14/7	19/6	
Bib cocks and joints ..„	6/4	9/7	15/4	41/-		
Stop cocks and joints „	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	" "	2	6
Do. Do. Keen's	" "	3	6
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1¾
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to	4/-

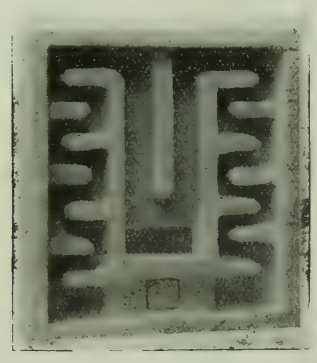
* These prices apply to new buildings only. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A sum of 11 should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

NEW INVENTION.

Fuel-saving Stove.

THE new stove illustrated on this page is the invention of Mr. J. Danin, of 71, Tressillian-road, Brockley, S.E.4.

The working principle is an adaptation of the reverberating idea, whereby the heat units from the flame as produced in the furnace portion in front are absorbed in alternating masses of heat-storing material around which masses the whole of the flame, and hot gases pass to be absorbed *en route*. Consequently, the stove itself—which can be placed outwardly into the room or built into the fireplace—becomes a heated mass, which



very slowly radiates its heat outwardly into the room.

The fuel supply—a range of gas jets—can be turned off after about one to two hours, after which the heat absorbent mass of the stove need not be relighted for ten hours, after which period, we are informed, the room still possesses about 62 deg. F., having only consumed from about 30 to 60 cu. ft. of gas. The stove possesses a door and damper, which are closed after the gas has been turned off. By building the stove into a wall separating two rooms, both rooms may be heated by the same consumption of fuel. The only flue needed is one of 5 in. diameter, which can be made of common drain-piping built up in the thickness of the wall, preferably inwardly towards the room itself, thus, so as to enable the flue to radiate any heat contained in the gases into the room itself.

Thus the cost of ordinary chimneys is saved, and the piping-flues do not interfere with the architectural scheme of the building.



TRADE NEWS.

Expanding business has made it necessary for the Contractors' Machinery Co., Ltd., to move to much larger offices, and the address of this firm is now 7, Lower Grosvenor-place, S.W.1.

A booklet has been issued by the Thames Paper Co., Ltd., of Purfleet, Essex, illustrating the possibilities of their "SX" Board for interior lining. Modern ideas in this direction are described and illustrated, and the firm invite architects and constructors to investigate the decorative possibilities of their "SX" Board.

Mr. Frederic Coleman, of Regent House, Regent-street, W.1, has received from America fifty copies of a well-illustrated book on "Building a Bungalow." It illustrates and describes twenty-five types of suburban homes designed by American architects, and contains photographs of a few interiors and half-a-dozen floor plans. Anyone applying to Mr. Coleman for a copy of this book will be supplied with one gratis until his supply is exhausted.

The business at present being carried on by Messrs. Medway's Safety Lift Co., Ltd., at Rolt-street, Deptford, S.E. 8, has been transferred to more commodious premises at Victoria Works, Maidstone. These works have been planned on up-to-date lines, and are fitted throughout with the latest types of machinery. The Company's selling organisation will be continued at 35, Surrey-street, Strand, W.C. 2.

Messrs. W. H. Willcox & Co., Ltd., of 38, Southwark-street, S.E. 1, have secured registration of a new telegraphic and cable address, as follows: Telegrams—"Enginsplys, Boroh, London"; cables—"Enginsplys, London."

Messrs. G. L. Wilson & Co., Ltd., of 309-11, High-road, Tottenham, have issued some additional pages for insertion in their catalogue, relating to the "Chelmer" surround. This is a development of the tile surround. A cast-iron arch is used in place of a bullnose tile arch, thus reducing the cost, but still retaining the appearance of an arch fire.

Messrs. H. Young & Co., Ltd., constructional engineers, of Nine Elms Ironworks, S.W. 8, have issued a handbook which should be of considerable value to those who handle or deal with steelwork. So far as we know, this is the only publication containing the new B.S.S. Sections (revised 1920) made up into compound girders and compound stanchions. Copies of the handbook, which is of handy form for the pocket, will be sent gratis on application to Messrs. Young.

Shortage of Labour in the Building Trade.

At the meeting of the London County Council on Tuesday, replying to questions by Mr. E. M. Dence, Lieut.-Colonel Cecil Levita (Chairman of the Housing Committee) said there was a shortage of skilled labour, particularly of bricklayers, at the present time. Even if the shortage could be made good forthwith there was opportunity for the immediate employment of a further number of bricklayers, and an increasing demand would require to be met in the near future to enable satisfactory progress to be made with the Council's work. The Committee were now considering what action could usefully be taken to overcome any existing shortage with a view to enabling the housing programme of the Council to be carried out as far as possible without delay from this cause.

Income Tax.

To the harassed taxpayer who finds difficulty in reconciling his assessment with the amount of tax he thinks he ought to pay, the title of Mr. Arthur Fieldhouse's work, "Income Tax Simplified," should have an irresistible appeal. This publication, (priec 1/6) now in its ninth edition, is a practical guide to the preparation of the return of assessment, and contains full instructions for obtaining repayment of tax.

TENDERS.

Communications for insertion under this be addressed to "The Editor," and must later than Tuesday evening.
* Denotes *accepted*. † Denotes *provisi*
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modificat*

ADWICK.—For excavation work a the U.D.C.:—
*E. S. Knight, Balby.....

ADWICK.—For steel plates for the for the U.D.C.:—
*Astley, Brough & Co., Hudders-field .....

ASPLEY GUISE (BEDS).—For the detached houses, Aspley Hill Estate Laycock. Mr. W. B. Stonebridge, F.S. Bedford:—
*Sinfield & Sons, Aspley Guise..e

ASPLEY GUISE (BEDS).—For er tached house, the Holt Estate, for Mr Mr. W. B. Stonebridge, F.S.Arc., archite
Y. J. Lovell & Son .....
Warton & Goodship .....
W. T. Revitt .....
*C. Sinfield & Sons, Aspley Guise ..

BALLYMENA.—Erection of town U.D.C.:—
*J. Carsome.....

BEDFORD.—For additions to No. gardens, Bedford, for Rev. W. Hewetso Stonebridge, Diocesan Surveyor, Bedf
*A. T. Barnes, Bedford.....

BEDFORD.—For rebuilding shop flat over, Branham-road, Bedford, for M & Johnston, Ltd. Mr. W. B. Stonebr architect, Bedford:—
H. Bowler .....
P. Corby & Son .....
Y. P. Lovell & Son .....
*S. Foster.....

BLACKPOOL.—For house, garage boundary walls in Arnold-avenue, So Mr. Arthur M. Goldsmith. Mr. Rich A.R.I.B.A., architect:—
John Cartmell & Sons £2,
J. Fielding & Sons 2,
Atherton Bros. 2,
F. Saville..... 2,
Potts & Pickford 2,
Dryland & Preston, Ltd. 2,
After modification—
Dryland & Preston, Ltd. 1,
*Potts & Pickford 1,

BLACKWOOD.—For erection of trans for the Bedwellty U.D.C. Mr. D. H. P Council Offices, Aberbargoed:—
Thos. Green, Blackwood.....
*R. P. Evans, Fleur-de-lis.....

BOGNOR.—For heating installatio for the U.D.C.:—
*C. P. Kinnell & Co.....

BRADFORD.—For the erection of premises in Sunbridge-road, for the Brad Benefit Building Society:—
*W. Farnish & Sons, Bradford.

BRADFORD.—For erection of pa Odsal Institution, for the Board of Gu
*Pocock Bros. (fitting) .....
*J. Moulson & Son (builders' work)

BRAINTREE.—For erection of h R.D.C.:—
Great Coggeshall—
*A. Birkin, Coggeshall.....
Little Coggeshall—
*Belsham & Son, Kelvedon .....
Rivenhall—
*P. C. Sayer, Great Totham.....
Terling—
*B. Wenden, Witham.....

BRIGHTON.—For elevator at Elec for the T.C.:—
*Bennis & Co.....

COTFORD.—Erection of four cotta Mental Asylum, for the Somerset and Committee:—
*J. Maddock & Son, Taunton.....

CYMMER.—For extending offices U.D.C. Mr. W. P. Jones, Surveyor, Cymmer, Port Talbot:—
Newman & Co., Maesteg £2
P. Gaylard, Bridgend 2
Rees Protheroe, Caerau 2
David Rees, Blaenrhondda 1
*John Morgan, Neath .....

DORSETSHIRE.—For works at holdings, for the Dorset C.C. Agricultura
Castle Hill Estate—Repairs and adapta
*Russell..... £1
Canford Estate—Converting old stable
*E. E. Boughton.....
Oborne Estate—Water supply—
*J. Blake, Ltd. 2
Radipole, South Buckland Farm—R adaptation—
*Bird & Cox.....

EAST HAM.—For resurfacing part road, for the B.C.:—
*Highways Construction Co.—9s. 7d with five years' free maintenar

RGH.—For erection of car lies, for the Committee of the T.C.:—

J. R. Watson, Edinburgh	£2,912

ESS.—For erection of three blocks of two ed houses at Lochalsh-road, exclusive of work (which is to be estimated for), for the verness. Mr. J. Hinton Gall, architect, reet, Inverness. Quantities by Mr. John n:—

brickwork—	
nald & Munro, Inverness	£1,058 8 9
work—	
gruer, Inverness	658 17 9
—	
& Son, Inverness	159 17 3
d drainage work—	
ser, Inverness	413 4 0
k—	
s & Son, Montrose	262 0 0
tal for the three blocks	£2,552 15 7

ING.—For the erection of 24 houses on rd-road Estate:—

in & Son, Kettering	£8,149

LANGLEY.—For the erection of 12 r the Hemel Hempstead R.D.C. Mr. T. H. Council Architect, 16, Alexandra-road, pstead, Herts:—

regory & Son, Colwyn Bay	£8,160 0
liss & Son, Bushey	7,670 0
vinford, Leavesden Green	6,600 0
s, Bushey	6,370 3
hite, Bedford	6,244 12
obinson, Roade	5,915 0
am & Co., Aylesbury	5,908 5
y & Son, Luton	5,880 0
& Son, Tring	5,711 0
Building Co., Luton	5,480 0
Bros., Berkhamstead	5,280 0
onge, Watford	5,250 0

-For structural alterations to banking Vicar-lane, for Messrs. Barclays:—

kinson & Sons, Leeds.	

-For the erection of a house and shop at near Leeds, for Mr. Mitchell:—

Bros., Leeds.	

DNO.—For construction of underground with reinforced concrete roof, in Lower et, for the U.D.C. Mr. W. T. Ward, own Hall, Llandudno:—

ixley & Co. Chester	£5,600 0 0
ughes & Son, Llandudno	5,332 15 2
ackburn, Manchester	5,250 0 0
r's estimate	5,035 0 0
Thorpe, Llandudno	4,897 0 0

LONDON.—For erection of ambulance station on Battersea-rise, for the L.C.C.:—

Rice & Son, Stockwell	£1,801 15 8
John Garrett & Son, Balham	1,681 6 5
John Marsland & Sons, Ltd., Westminster	1,586 5 4
T. Brown & Son, Herne-hill	1,505 0 0
Triggs & Co., Clapham	1,415 10 0
W. J. Dixon & Son, Bermondsey	1,384 11 4
William Hammond, Battersea	1,378 5 8
*J. & C. Bowyer, Ltd., Upper Norwood	1,337 14 0

LONDON.—For paving of various new streets, for the Wandsworth B.C.:—

*J. Cronk & Sons—Cricklade-avenue	£2,062 0 0
*H. Woodham & Sons, Ltd.—Downton-avenue	1,699 12 8
*J. Cronk & Sons—Faygate-road	1,258 0 0
*J. Mowlem & Co., Ltd.—Fontaine-road	1,945 4 10
*J. Cronk & Sons—Ockley-road	1,117 0 0
*E. Parry & Co., Strathbrook-road	3,430 0 0
*J. Cronk & Sons—Woodbourne-avenue	4,876 0 0
*E. Parry & Co.—Ellerton-road	1,624 0 0
*J. Mowlem & Co., Ltd.—Heading-ton-road	1,487 0 0
*E. Parry & Co.—Leckford-road	1,482 0 0
*J. Mowlem & Co., Ltd.—Lidiard-road	1,786 0 0
*P. Shepherd & Co.—Victoria-road	3,157 9 2

LONDON.—For road material, for the Lewisham B.C.:—

	Per cubic yard s. d.
Crushed Ballast—	
Supplies & Transport Co., Ltd.	12 5
Samuel West, Ltd.	12 4
W. Penfold	12 3 to 13 0
Fry Bros., Ltd.	12 3
*Thames Sand Dredging Co., Ltd.	12 2

	Per 1,000 8in. by 3in. by 4in.	8in. by 3in. by 3½in.
Wood Blocks—		
The Improved Wood Pavement Co., Ltd.	£10 7 0	£9 3 0
John B. Lee & Sons, Ltd.	10 5 9	9 1 9
Burt, Boulton & Haywood, Ltd.	10 5 6	9 6 0
*Sir Wm. Burnett & Co., Ltd.	10 3 6	9 0 0

LONDON.—For painting works at parks, for the L.C.C.:—

*Whitby's, Ltd., Holborn	£675 15
*G. Barker, Whitechapel	670 0
*J. C. Mather, Islington	638 0
*Roy Gibson, Barnes, North-Eastern District	495 17

LONDON.—For provision of 20 ft. by 8 ft. 20-ton weighbridge, for the St. Pancras B.C.:—

H. Pooley & Son, Ltd., Birmingham	£485
W. & T. Avery, Ltd., Birmingham	455
Chas. Ross., Ltd., Sheffield	368
*Wm. Hodgson & Sons, Ltd., Salford, Manchester	360

LONDON.—For the formation of a dry playing area at Battersea Park, for the L.C.C.:—

Chittenden & Simmons, Ltd., Maidstone	£4,790
R. Neal & Sons, Wandsworth	4,715
Constable, Hart & Co., Ltd., E.C.	4,657
John Garrett & Son, Balham	4,422
Henry Woodham & Sons, Ltd., Catford	4,207
Howard Farrow, Golder's Green	3,770
G. J. Anderson, Poplar, E.	3,550
George Bell & Sons, Ltd., Tottenham	2,866
*Mears Bros., Lewisham	2,797

LONDON.—For supply and laying of 1,000 yds. super of Duraphalt rock asphalte carpeting, for the Bethnal Green B.C.:—

*Whitehall Asphalte & Engineering Co.—At 10s. per yd. for 2 in., 9s. for 1¾ in., and 8s. for 1½ in., with five years' free maintenance.	

LONDON.—For the erection of a weather shelter and alterations to the existing conveniences on the Victoria-embankment at Blackfriars, for the L.C.C.:—

Y. J. Lovell & Son, W.2	£1,265
A. & F. J. Leather, Westminster	1,157
William Hammond, Battersea	1,089
J. & C. Bowyer, Ltd., Norwood	1,069
James Carmichael (Contractors), Ltd., Wandsworth	1,050
Edwards Construction Co., Ltd., Eltham	964
Wm. Harbrow, Ltd., Bermondsey	926
A. Roberts & Co., Ltd., Kensington	850
Triggs & Co., Clapham	814
*John McManus, Ltd., Hammersmith	695

LONDON.—For the carrying out of alterations to the north boundary fence at the central repair depot, for the L.C.C.:—

J. & C. Bowyer, Ltd., Upper Norwood	£700
J. Garrett & Son, Balham	672
Edwards Construction Co., Ltd., Eltham	648
Douglass Halse & Co., Ltd., Woolwich	599
P. & W. Anderson, Ltd., W.	599
T. D. Leng, Deptford	595
Thomas & Edge, Woolwich	498
F. R. Hipperson, E.C.2	497
*H. Groves & Son, Greenwich	475

LONDON.—For supply of materials required for the renewal of the treads and landings of the stairways at Greenwich Tunnel, for the L.C.C.:—

*Safety Tread Syndicate, Ltd.	£1,177 18 6

LONDON.—For supply of portable stone-crushing machine, to the L.C.C.:—

Hadfields, Ltd., Sheffield (including screen)	£615
Goodwin, Barsby & Co., Ltd., Leicester	320
H. R. Marsden, Ltd., Leeds (alternative)	286
Do.	276
*F. Parker, Leicester	257

LONDON.—Extension of heating system at printing premises in Belvedere-road, for the L.C.C.:—

*W. G. Cannon & Sons	£141

LUTON.—For re-roofing portion of Cheapside Plait Hall, for the T.C. Mr. J. W. Tomlinson, Borough Engineer, 1, Cheapside, Luton:—

J. Saunders & Son, Luton	£235 0
J. T. Garrett, Luton	225 0
*Luton Building Co., Luton	198 10

NEWBRIDGE.—For additions to the Dominican College, Newbridge. Mr. T. J. Cullen, architect:—

H. J. McNally & Co.	£28,200 0 0
John Kenny & Son	27,180 18 7
M. O'Callaghan	26,052 13 8
P. Sheridan	25,475 0 0
Maguire & Short	25,066 3 0
T. McMillan	24,360 0 0
J. & R. Thompson	24,200 0 0
Charles Doyle	23,968 19 0
James Flynn	23,900 0 0
Murphy Bros.	23,836 16 5
Wallace & Pyke	23,591 0 0
Kinlen & Co.	21,980 0 0
*Thos. Mackey & Son	20,000 0 0

NEWTOWN.—For the erection of a new hall, in connection with the Newtown Parish Church:—

*Treasure, Shrewsbury.	

NORTHWOOD, I.W.—For laying 924 yds. of 3 in. cast-iron water main, for the R.D.C. Mr. Reginald Jolliffe, surveyor, Cowes, I.W.:—

	Amount of Tender.	*Amount of Tender: Alternative Route.*
Geo. Riley, Poole	£672 9 0	—
H. Moger, E. Cowes	575 7 6	£569 19 2
G. H. Arthur, Newport	481 8 6	461 8 6
*W. Jukes, Newport	479 0 0	*455 0 0

OADBY.—For construction of sewage works, for the U.D.C.:—

*Armstrong, Whitworth & Co.	£12,771 19

PRESTON.—Semi-detached bungalows, for the Cottam Hall Estate, near Preston. Mr. Richard Anderton, A.R.I.B.A., architect:—

*J. J. Allen	per pair £975

PRESTON.—For garage at 28, Beech-grove, Ashton-on-Ribble, for Mr. W. Saxon. Mr. Richard Anderton, A.R.I.B.A., architect:—

J. J. Allen	£135
*J. C. Barnes & Son	130

ON.—For the erection of 50 houses, for the Greenwich B.C., on the No. 3 Section of Housing Site in two sections of 28 and 22 houses. The section containing 28 houses would consist of 12 A2 Type, and 4 B3 Type, and in the section containing 22 houses, 12 A2 Type, 8 A3 Type, and 2 B3 Type

	28 Houses.	Completion. Weeks.	22 Houses.	Completion. Weeks.
Greenwich	—	—	£13,400 0 0	36
Pritchard, Eltham	—	—	11,326 0 0	40
on, Crofton Park	£15,337 0 0	40	11,873 0 0	36
Hither Green	14,500 0 0	To be arranged.	11,400 0 0	To be arranged.
& Co., Ltd., Barnsbury Park	13,343 0 0	Nine months.	10,233 0 0	Nine months.
gham, Ltd., Dartford	13,260 0 0	To be arranged.	10,140 0 0	To be arranged.
Hounslow	13,060 0 0	40	9,980 0 0	35
ers, Ltd., South Norwood	12,761 0 0	40	9,912 0 0	40

N.—For laying a bituminous carpeting on Bolton-road, for the Kensington B.C.:—

	Surfacing per yd. super. s. d.	Hardcore foundation per yd. cube. s. d.	Maintenance per yd. super.
Asphalt Co.	7 9	14 0	2 years free, 1d. 3rd year, 2d. 4th year, 3d. 5th year.
herd & Co.	7 6	—	6 years free.
Construction, Ltd.	6 4	22 6	1d. per annum per yd. super.
Asphalt & Engineering Co.	6 6	18 0	6 years free.
Hart & Co.	6 2	14 0	5 years free.

N.—For surfacing the following roads: Roland-gardens, Rillington-place, Hurstway-street, eet, Park-street, Calderon-place, Alderson-street, for the Kensington B.C.:—

	Price per yd. super.	Maintenance per yd. super.	Total.
Asphalt Co.	7s. 3d.	2 years free, 1d. 3rd year, 2d. 4th year, 3d. 5th year	7s. 9d.
Construction, Ltd.	10s. 2½d. Park-street; 6s. Remainder	1d. per annum	10s. 7½d. 6s. 5d.
Asphalt & Engineering Co.	6s. 6d.	6 years free	6s. 6d.
herd & Co.	6s. 6d.	6 years free	6s. 6d.
Hart & Co.	5s 6d. Roland-gdns. 5s. 9d. Remainder	5 years free	5s. 6d. 5s. 9d.

EATON.—For reconstruction and widening of 1,800 yards of highways, known as Breaston- and lane, for the U.D.C. Mr. H. Raven, Surveyor, The Hall, Long Eaton:—

	No. 1. Breaston-lane.	No. 2. Sandiacre-lane.	Total Tender.
Tarred Macadam Co., Ltd., Loughborough	£7,989 9 3	£16,149 15 11	£24,139 5 2
ght & Co., Melton Mowbray	7,102 11 10	13,567 6 8	20,669 18 6
son, South Normanton	6,850 0 0	13,750 0 0	20,600 0 0
ir Lyell & Co., Ltd., Birmingham	6,736 5 8	13,574 9 6	20,310 15 2
& Co., Nottingham	6,566 0 6	12,884 2 3	19,450 2 9
hley, Mansfield	6,474 7 9	12,809 7 0	19,283 14 9
, Ltd., Long Eaton	6,626 0 0	12,569 0 0	19,195 0 0
Mansfield	6,263 19 8	12,465 12 9	18,729 12 5
lkeston	5,818 0 0	11,623 0 0	17,441 0 0
d & Sons, Nottingham	5,830 7 8	11,606 12 1	17,436 19 9
d., Nottingham	5,626 3 11	10,990 16 7	16,617 0 6
raham, Huddersfield	5,483 12 4	11,064 10 2	16,548 2 6
e Stapleford	5,241 9 6	10,734 4 7	15,975 14 1
Son, Long Eaton	5,225 0 0	10,593 0 0	15,818 0 0
dine, Ltd., Derby	5,181 0 0	10,346 0 0	15,527 0 0

Engineer's Estimate, £20,000.

PRESTON.—For bungalow, garage, outbuildings, paths and fencing, for Mr. and Mrs. H. Lees. Mr. Richard Anderton, A.R.I.B.A., architect :—

J. J. Allen	£1,722	10	0
H. H. Topping	1,668	7	0
T. & R. Colley	1,651	0	0
T. Croft & Sons, Ltd.	1,649	0	0
J. Cartmell & Sons, Ltd.	1,628	15	0
J. C. Barnes & Son	1,621	4	5
P. A. Baines & Son	1,616	0	0

After modification :—

J. C. Barnes & Son	1,364	13	0
*P. A. Baines & Son	1,362	0	0

SALFORD.—For making-up Broom-lane, Higher Broughton, for the T.C. :—

*W. H. Worthington, Manchester £861 9 9

SALFORD.—For making-up Park-lane, for the T.C. :—

*T. Wilson, Pendleton £795 18 11

SALFORD.—Erection of motor garage at Albion-place, for the T.C. :—

*R. T. Warburton & Son, Salford £334 14 6

SALFORD.—For supply of blue Staffordshire chamfered garden edging tiles, to the T.C. :—

*Statham & Sons, Salford—
9,000 at 239s. per 1,000, and 1,000 at 325s.

SOUTH SHIELDS.—For (*a*) carrying out conversions of 1,300 privies to w.c.'s ; and (*b*) for fittings for same, for the T.C. :—

*(*a*) A. Holmes & Co.—per conversion	£5	17	6
*(*b*) A. J. Wares, Ltd.—per set	3	4	3

STOCKSBRIDGE.—For erection of four houses, for the U.D.C. Mr. J. N. Singleton, Surveyor, Council Offices, Stocksbridge :—

D. Smith & Son, Stocksbridge—			
Type A.	£1,299	6	0
„ B.	1,278	10	0
D. Brearley & Son, Stocksbridge—			
Type A.	1,276	0	0
„ B.	1,300	0	0
Moses Simpson, Sheffield—			
Type A.	1,100	0	0
„ B.	1,100	0	0
*Mason & Quince, Sheffield—			
Type A.	1,029	3	4
„ B.	*1,029	3	4
*Battye Bros., Deepcar—			
Type A.	*1,020	10	0
„ B.	1,032	15	0

STOCKTON-ON-TEES.—For conversion of privies into w.c.'s in various streets, for the T.C. Borough Engineer, Victoria Buildings, Stockton-on-Tees :—

A. H. Ridley, Stockton-on-Tees—
Per conversion £7 6

STOCKTON-ON-TEES.—For construction of pumping station, tanks, pipe sewer, cast-iron rising main, &c., for the T.C. Mr. J. P. Wakeford, Borough Engineer, Stockton-on-Tees :—

T. R. O'Doherty, Stockton-on-Tees £892 1 6

TADCASTER.—For extension of sewers at Owlethill, for the R.D.C. :—

*J. Rodgers & Sons, Castleford £597

TOTTINGTON.—For public mortuary, for the B.G. :—

*C. Horrocks, Bury.

WALLASEY.—For construction of landing stage at Seacombe, for the T.C. :—

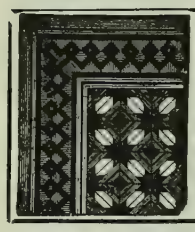
*Cleveland Bridge & Engineering Co... £55,293

WASHINGTON.—For the erection of 32 houses at Spout-lane, New Washington, for the U.D.C. :—

*M. Mole, Chester-le-Street : £436 6s. per house.

WEALDSTONE.—For street improvement and surface water drainage of Headstone Drive-road, for the U.D.C. Mr. H. Walker, Surveyor, Council Offices, Peel-road, Wealdstone :—

Earlsfield Construction Co., London	£6,761	19	7
Charles Ball, Letchworth	5,934	3	6
J. Mowlem & Co., Ebury Bridge	5,614	7	4
*W. & C. French, Buckhurst Hill	4,939	12	8



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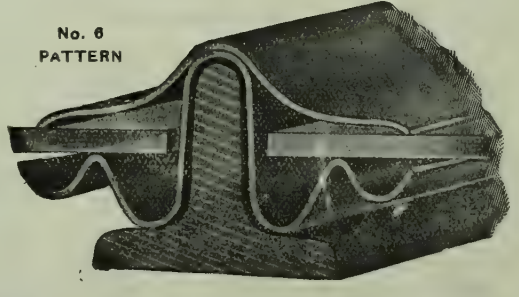
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JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

. CXXV.—No. 4214. NOVEMBER 9 1923

THE PRESIDENT'S ADDRESS.

HIS year's Presidential Address at the Royal Institute of British Architects is of peculiar interest, because everywhere we stand on the threshold of an unknown territory; in the words of Mr. Baldwin, the times "are new and strange, and extraordinarily difficult."

It has in the past been customary for the President ew the particular problems confronting the architect e detail, and it is desirable that such problems should ewed when they are cut and dried and easily stated. the present moment architecture all the world over is a sharp turn—a turn that history might have led us to as the result of a world upheaval—and the problems ting us are not so easily marshalled and reviewed as in t. Architecture finds itself intimately bound up with ns of social reform, of trade, labour, and world policy. anning, housing, slum clearance, and the future develop- our existing cities involve considerations of so complex cter that it would be impossible to deal with them at vidually in the short compass of a speech.

e circumstances no doubt induced the President to himself to the broadest principles upon which we must the architecture of the future and safeguard our existing . Our historic monuments belong as truly to the future rchitecture of to-day, and we are responsible as much protection of the one as for the creation of the other. this, the City Churches are still in imminent danger, of the Roman Villa at Chedworth is undecided, and tgift Hospital was only saved at the last moment. l, therefore, to be reminded that the beauty of an old does not consist in the romance of ivy-mantled towers ne fact that such buildings are themselves part of the of these islands.

hould, above all, be grateful to the President for his . Few will admit that they are pessimists; they say prefer to face facts and do not live in a fool's paradise; a so, to take a pessimistic view and make no construc- estions is to lower the temperature and so help to bring e very evils we anticipate. The standard of archi- s improving, the number of those who improve it is g, and the habit of good architecture is gaining ground in London, but in the provincial towns and even in test country. Problems are now attacked on their ts, and we no longer feel it necessary to imitate the ire of some bygone age. In these circumstances, is it in that we shall produce a live architecture reflecting age and its aspirations? But the appeal is here made the public than to the architect. Architecture has tudio and taken its place among the subjects that are as concerning the layman; it is important that this hould expand further, since it was the absence of this interest in the past that we must blame for the degra- architecture during the last hundred years.

nite stride forward has been made by the Institute ng a special scale of charges for the speculative builder; it is as yet too early to estimate the extent to which ntroduce the direct co-operation of the architect and e further improvement of house architecture, yet, he direct result be small or great, the recognition of its necessity is of vital significance. Other factors are hardly, if at all, less important; the ground landlord, the house agent, the commercial firm or company, and the house decorator must be induced to learn the difference between the good and the bad and not merely to rely on that kind of "architecture" which appears to appeal most to the least educated. The indictment that is frequently levelled against a certain section of the Press, with what justification we are not prepared to say, is that, instead of leading the public and attempting to influence it towards loftier ideals, or towards the truth, it rather grubs about to find what kind of stuff "goes down," and then deliberately panders to the lowest taste, because, for the time being, there is money in it. All those concerned with building, however indirectly, should see to it that they are not open to this charge, and until they realise how important architecture is, it is hopeless to expect them to take it seriously.

The President's allusion to the difference between a common place statement and a poetical expression of the same thought admirably illustrates the difference between absolute utility and the same requirement interpreted in an architectural manner, no matter how simply. The latter must appeal to something deeper even than the intellect—something corresponding to an absolute reality which can be apprehended only by what is philosophically known as "intuition." The artist himself is not necessarily fully aware of the meaning of his own creations. The tremendous drama of "Faust" and the mysticism of the Choral Symphony embody realities concerning which Goethe and Beethoven themselves could only form a dim conception. It is the glory of the arts and sciences that they should, like icebergs, remain for the most part submerged below the surface. The President points out that we are "agreeably affected by fine literature without knowing exactly why, so, with like vagueness, are we impressed with good architecture." It is, therefore, easy to agree with Mr. Gotch as to the unfortunate results arising from the ignorance of so many who attempt to build without knowing anything of the most elementary architectural principles, and we earnestly hope that his address will reach the ears of some of the culprits, and so help to check the spread of buildings whose architecture is not merely neutral but actually injurious.

The address includes no claim that architecture is the greatest of the arts, and this departure is welcome. It is easy for each artist to assert that his own art is the chief, but the President is justified in claiming that of all arts architecture reflects the spirit of the age with the most insistence. It is the only art in which the weeds are able to grow and then to remain with the wheat, and even to choke the wheat out of existence. Hence, although we may deplore the bad taste of the public in music and literature, it has not the permanent ill-effects of ignorance and consequent bad taste in architecture.

We have already noticed that this address deals in generalities rather than in an examination of the actual problems with which we are faced. The whole is, however, greater than the part, and the generalities that the President has encompassed are fundamentals. If the true scope and meaning of architecture can only be brought home to the public—and architects must be clear about them before this is possible—individual problems will solve themselves.

NOTES.

Regent-street. SIR EDWIN LUTYENS' remarks in his article in the current issue of *The World's Work* are pertinent, as might be expected, and in many ways, of course, we are in cordial accord with his main points. He says:—"The skyline in Nash's Regent-street was without jars or jags. The curve was absolute, the main cornices were continuous; a great achievement this, if you consider the gradients. That has gone. Instead, we have in Regent-street, and other parts of London, commercial buildings covered with domes, towers, weird excrescences, and flamboyantly uneven skylines. From pavements, omnibuses, and taxicabs, thousands of people look up daily at surfaces of huge and fantastic embellishment. The effect is inescapable." As to the Dome (he alludes to where the old long-removed Hanover Chapel stood, with its well-known pediments and colonnade over the pavement) on the west side of Regent-street, it is only just to remember that this incongruous structure was carried out long prior to the existence of the more comprehensive rebuilding scheme now in course of execution. The same want of forethought happened with several other Regent-street buildings, hence the present confusion which necessarily hampers what is being done. Towards the southern end of this thoroughfare there is less likelihood of such discrepancies of skyline all the façades having to comply with the scheme agreed upon by the Government with the expert advice of Sir Aston Webb, the late Ernest Newton, and Sir Reginald Blomfield. Whatever may be thought of some of the elevations in the immediate vicinity of Oxford-circus, as to the variation of the façade now in progress of Messrs. Peter Robinson's extensions along Oxford-street contiguous with the same firm's Circus façade, we can but regret that so manifest a change of facial treatment should have been possible. When viewed from the east, looking towards the bottom of Great Portland-street, this divergency of design and difference of scale is another matter, the elevations in Regent-circus being seen only in rapid perspective.

London Development and Charing Cross Bridge. THE urgent necessity for a new road bridge at Charing Cross has now been very emphatically brought before the public, and especially the governing authorities of London, by a strong appeal this week from the Royal Institute of British Architects. In that appeal it is pointed out that the Court of Common Council is not in favour of the proposed St. Paul's Bridge, and it is well known that the London County Council is strongly in favour of a Charing Cross Bridge. Here, then, is an anomalous position. A great and costly viaduct bridge is projected for the City where apparently only a minority want it, whilst the imperative need for a fine road bridge at Charing Cross has been urged by a remarkably strong force of opinion, both lay and professional. Surely there must be found a way out of such a situation. The proper development of the south side of the Thames has been the subject of much theory and many plans, but it has never been placed in the definite category of possible and urgent needs by the governing bodies. Only the other day it was publicly stated that there was no plan for developing London. In one sense that may be true, but it is a statement which suggests a curious ignorance of the many able schemes of planning which have been put forward for years past. A large area on the south bank of the Thames has been skilfully dealt with by several well-known experts, whilst there are few important parts of London which have not formed the subject of carefully considered plan improvements. The London Society has been occupied for some time in various studies of London. It might be well if it once more seriously addressed its energies to the Charing Cross improvement, and in some way made it clear that London is not so entirely without a plan as we have seen suggested.

London's Bridges. LONDON bridges are to the fore to-day. The claims of no less than three of them—the proposed bridge at St. Paul's, the Charing Cross scheme, and a new bridge at Lambeth—are now under consideration. It is to be hoped, the weight of evidence being so much against it, that the first of these will be given up, as it is not required for traffic facilities, and it obstructs the much better possibilities of a bridge at Charing Cross, which on so many accounts is to be desired. Not only is the scheme desirable in itself as a great improvement and addition to traffic facilities; it is desirable in order to find p work for a large number of une which it would provide for so The realisation of the scheme only add dignity and attractive most important London centre, also indirectly facilitate trade by much of the congestion which this area.

Chiswick Embankment Competition. WE cannot regar signs submitted competition, and the award has be as satisfactory in their characte appear to us lacking in distin appreciation of local requireme which they seem rather out Nor do we think that by adapt from each of the premiated de weaving them together the defec in them will be overcome. At time we are not prepared to adop gestion that "capable" archite not suitably, and certainly witho dignity, co-operate over such a on the contrary, we think such be, in certain circumstances, qu able and likely to be productive results. There may be added st such counsel and co-operation, advantage in furthering a mor hensive view of the requirem preserving the result from the the unaided single mind. Not combination, in the instance present competition, would effec have in mind. It appears to u chief aim should be concerned more permanent life of the local such an improvement should c and that the quiet of a certain character which attaches to should be jealously preserved pity that the R.I.B.A. should compelled to ban the compet that some accommodation has found possible. Is it too lat that this may yet be the cas adequate result may be assure



The "Mitre" Hotel, Oxford. From an old print.



The "Mitre" Hotel, Oxford. (*See p.* 717.)

ttish oits at bley.

WITH reference to what Sir Laurence Weaver describes as a "Storm in a tea cup," a remark may be allowed us ard to the protest made on behalf ottish exhibitors at the British e Exhibition at Wembley to the hat examples from Scotland should played in a separate section apart British work. We agree with Sir Burnet that it would greatly e the value and interest of the tion to have Scottish art set forth distinctive way in order to show vidual characteristics. Much must , of course, upon the accommo- available, though it appears Sir ce Weaver has said that there ample space for all the work ed to come in from Scotland. It s, therefore, after all a matter of ement, and we are inclined to think t be a gain to have the advice of oyal Scottish Academy before g upon the precise exhibits to be om North of the Tweed. This is r. Macgillivray, the King's sculptor, ed, and it is unfortunate that his tion has followed the refusal of hibition authorities to agree with onable a proposal.

Dole New prise.

WE are beginning to realise better the waste which has been involved in expending vast sums on the dole, might so much better have been the creation of new wealth had we the foresight to apply the money s for productive work. Had this e case the Charing Cross scheme ave been completed for a far less an has been paid to endow unem- nt. So long as we disregard human values and their equivalent in wealth, we shall ignore the sounder economy of paying wages, and the false economy of the dole. The loss to human values in the deterioration of life in the latter is certain, and the loss of the money thus spent no less so; whereas in carrying forward new enterprises, adding to our commercial facilities, to the convenience and beauty of our cities, we are creating new wealth all the time. We do not write in a spirit of criticism; under the abnormal conditions resulting from the war, it was in the urgency of such a crisis difficult to appreciate the demands it made on us, and we drifted into the habit of the dole, unmindful of its economic and moral unsoundness, forgetting that the right economy lay in sustaining human values in creating new wealth, not in undermining one and retarding the other.

Competitions.

WE publish this week, as promised, an abstract of the able paper by Mr. Lanchester on "Competitions," which will add some value to the present discussion on competitions, especially in regard to the adoption of the jury system. We must all be agreed that there are certain difficulties or drawbacks in any system, and that it is well we should take cognisance of where these difficulties lie before we adopt new methods.

St. Mary-le-Strand and the Bush Building.

SOME anxiety was felt lest one of the architectural gems of London—the church of St. Mary-le-Strand—would be put out of countenance by the new Bush Building. We now see that the fear was groundless and that the simple and severe treatment of the latter has provided an admirable background for the beautiful little church.

The R.I.B.A.

THE Council of the Royal Institute of British Architects calls attention to the fact that the use of the R.I.B.A. affix, or of any affix suggesting membership of the R.I.B.A. by those who are not members of that body, is illegal, and that if any cases are reported to the Council legal proceedings will be taken. We infer from this that cases have already been reported to the Institute, and we have no doubt the intimation of the action which it is proposed to take in future will be approved by members.



The Crypt: The "Mitre" Hotel, Oxford.

GENERAL NEWS.

Professional Announcement.

Mr. R. N. Stroyer, M.I.Mech.E., of 4, Westminster Palace-gardens, Westminster, S.W.1, is also practising as consulting engineer in reinforced concrete at 57, Drayton-gardens, South Kensington, S.W.10.

Building By-Laws.

In his paper on "The Control of By-Laws and other forms of Local Regulations," read before the Liverpool Architectural Society, on October 23, and reported in last week's issue, Mr. A. N. C. Shelley, M.A., B.C.L., Barrister-at-Law, was stated to have said that local authorities, in relaxing by-laws and regulations as to control of building, would find every help from the "legal profession." Mr. Shelley informs us that the sentence should conclude, "from the officers of the Ministry."

The Builders' Subsidy.

Mr. A. J. Bennett, M.P., has written to Sir William Joynson-Hicks, the Minister for Health, asking for a closer definition of the statement made by the Minister in an earlier letter that he would endeavour to consider favourably, for the purposes of a grant of housing subsidy, the cases of private builders to whom an assurance was given by the local authority that they would be entitled to it, or that their particular cases would be put forward as deserving recipients. Mr. Bennett urged that any small house conforming to the official conditions and built since the Government appeal should automatically receive the subsidy. In his reply Sir William Joynson-Hicks says that he does not think it is possible to lay down in set terms what constitutes an assurance by the local authority, though he is clear that it must be something more than the mere ordinary approval of the plans under the by-laws. Further, he must be satisfied that the builder proceeded on the faith of the assurance given to him, and could not have done so but for that assurance. It did not necessarily follow that every house which fell within the prescribed maximum size was a proper subject for a grant from public funds.

COMPETITION NEWS

Colour Scheme Competition for Vestibule.

The assessors in this competition have made the following awards:—First Premium (100 guineas): Mr. E. A. Cox, 120, Adelaide-road, N.W.3; Second Premium (50 guineas): Mr. K. Anns, 5A, Sinclair-gardens, W.14; Third Premium (25 guineas): Mr. A. W. Wall, 33, Bonnington-crescent, Sherwood, Notts; Consolation Prizes: Mr. L. E. Robinson, 3, Southampton-street, Bloomsbury, W.C.1.; Miss Violet L. Timms, 42, West-street, Croydon, Surrey; Mr. R. F. Wilson, 103, Castle Boulevard, Nottingham; Mr. E. R. Phillips, 11, Abingdon-road, Plymouth; Mr. J. Morton Sale, 121, Lower Richmond-road, Putney, S.W.15. The winning designs are on exhibition at 315-317, Oxford-street, W. An article on this competition appears on page 733.

D.I.C. House Competition.

Thirteen architects competed in this competition for an office building, to cost £42,000, in Cross-street, Manchester, for which Professor C. H. Reilly, F.R.I.B.A., was the Assessor. The winners are Messrs. J. G. Prestwich & Sons, of Leigh, near Manchester, and Messrs. G. H. Willoughby and H. S. Fairhurst were commended. The design placed first is given in this issue.

Heating and Lighting Scheme, Belfast Union.

FOR THE BOARD OF GUARDIANS.—Installation of heating and lighting plant. Premium for best scheme submitted, 100 guineas. Sending-in date, December 18, at Noon. (See advertisement this week.)

Civic Hall, Truro.

FOR THE CITY COUNCIL.—Designs version of market house into a public Premiums, 100 guineas and 50 guineas, in date, November 12. (See adve this week.)

The Institution of Heating and V Engineers.

The Council of the Institution of He Ventilating Engineers offer the follow for original papers on subjects conne heating and ventilating, during 19 Lumby Premium (£10 10s.) for the b dealing with heating in the generally sense of the term; Sirocco Premium for the best paper dealing with fan en and the general application of fans; air air conditioning, dust and fume remo Preston Premium (£5 5s.) for the next b on any subject included in the above. particulars from the Secretary, 138, street, London, S.W. Sending-in dat 31, 1924.

Police and Fire Station, Brist

Details of this competition will b competitors after November 15. must reach the Town Clerk before 18, and the designs must be forwarde within ten weeks from the date o replies to the questions are forwarded petitors.

Other Competitions.

Other competitions still open inc following (the dates given are, first the in date, and second the issue of *The B* which full particulars were given):—S College (Jan. 1, 1924; March 30) Memorial (Jan. 5, 1924; Sept. 14). and Bishopstoke Assembly Hall—*B R.I.B.A.* (Dec. 3; August 24). Taun Memorial (Nov. 30; Oct. 5). Memori Missing (Jan. 1, 1924; Aug. 3). Ashton-under-Lyne (Oct. 26). Newca cert Hall (Feb. 1, 1924; Oct. 26). Empire Exhibition Decoration (Dec. 17;



VIEW FROM BODLEY QUADRANGLE, SHOWING CONNECTION OF BODLEY BUILDING WITH NEW BLOCK.

Cambridge Collegiate Buildings Competition.

Design placed first: By MR. HERBERT J. ROWSE, A.R.I.B.A., and MR. LIONEL B. BUDDEN, M.A., A.R.I.B.A.,



CHESHAM HOUSE, F



TANNER, ARCHITECTS.



THE NEW CORNER OF THE DINING-ROOM.



THE FRONT AS RESTORED.

Alterations to the "Mitre" Hotel, Oxford.

MESSRS. RICHARDSON & GILL, FF.R.I.B.A., Architects.

CORRESPONDENCE.

Chiswick Competition.

Sir,—In your published report on the premiated designs in connection with the above competition, it certainly appears evident that your representative omitted to peruse the conditions relating to same; first, from his remarks as to the "standard demanded" and the "opinion seemingly shared by the promoters," and, second, his report on scheme "37" submitted by me. I would point out to you that it was part of the conditions that the Council would not necessarily adopt the winning design, and the remarks published in the *Chiswick Times* were quite in accordance with this particular clause.

As regards my own scheme, the lawns round the bandstand were not intended to be used for dancing, and had this provision been asked for a suitable enclosure would have been included accordingly.

With respect to the remarks on the departure of the Boat Race crowds, "the countless *little plots* of grass laid out with acute angles [total number of plots two, each with an area of 250 super yards] could not possibly be trodden out of recognition," as first, the main roadway (with ample pavements) is placed directly at the rear of the terraces allotted to the crowds, and second, the grass plots and lawns are arranged at entirely different levels to this roadway, clearly indicated by the sections and at level points on the plan.

I therefore submit to you that my scheme was not as you report it to be. I am not averse to criticism; on the other hand, I invite it, but in this particular competition I do think that you have omitted to study the conditions.

G. T. Morris.

London.

[**The conditions were radically at variance with the R.I.B.A. regulations, otherwise members would not have been informed that they must not submit plans, and if our correspondent's scheme carried out the instructions issued to competitors, as we must presume was the case, then the instructions were incompatible with a satisfactory scheme.—Ed.]

[Other letters are unavoidably held over.—Ed.]

New Thames Bridge.

The R.I.B.A. has sent the following letter to the London County Council:—

"In view of the proposals that have recently been revived for the construction of a St. Paul's Bridge, the Council of the Royal Institute of British Architects wishes to reiterate its considered opinion that there is a real necessity for a bridge at Charing Cross.

"My Council desires to place on record its conviction that the London County Council should direct its policy and financial commitments towards the construction of a bridge at Charing Cross, which is urgently wanted in order to relieve the traffic over Westminster and Waterloo Bridges. The construction of such a bridge would, in addition, provide several years' work for a great number of men.

"My Council also desire to enter a strong protest against any contribution from public funds by the London County Council towards the cost of the approaches to St. Paul's Bridge, which, in its opinion, and apparently in the opinion of the Corporation of the City of London, as twice expressed at recent meetings of the Court of Common Council, is not wanted. Indeed, the Council of the Royal Institute of British Architects believes its construction would involve a serious waste of public money. On the other hand, the moment seems opportune for co-operation between the Government, the London County Council and the Corporation for the purpose of building at Charing Cross a magnificent bridge which would be one of the glories of the metropolis, and assist greatly in solving the very urgent problems of traffic and unemployment."

COMPETITION FOR NEW SETS OF CHAMBERS LIBRARY, KING'S COLLEGE, CAMBRIDGE.

The drawings submitted by seven selected architects in this exceptionally interesting competition in the University of Cambridge have not been on public view, but we were allowed to inspect them privately this week in the Library of King's College. The award of the assessor (Mr. Lovat Gill) has just recently been made, as mentioned in our last issue, and the successful design is given this week.

The contest produced a series of excellent schemes, prepared by a well-selected set of seven comparatively young competitors (chosen under the age of forty-seven years), who certainly sent in designs and drawings well worthy of the occasion. We have no hesitation in fully confirming the rightness of the award, which is in favour of Messrs. Herbert J. Rowse and Lionel B. Budden, of Liverpool University. They have not exactly had "a walk over." There can be no doubt that their planning of the sets of chambers is most conveniently contrived, and, on the whole, preferable to any other proposal. Their architectural design is conceived admirably with scholarly distinction, and quite in accordance with the immediate environments of King's great lawn, as well as the scale of the adjacent historic buildings. This remark implies a high standard, appreciated with knowledge.

The two blocks of chambers are purely domestic in character, and not of the kind usually reckoned important, but their effect in this case, combined as they will be with King's College new library building as a centre-piece, makes all the difference. Their long façade will flank at right angles the famous "Fellows" building, monumentally designed by James Gibbs in his sedately dignified manner; while directly in front, on the far side of the lawn, ranges the charming picturesque façade of Clare College. The site of these proposed buildings is now occupied by the modern Gothic premises standing in front of the Provost's garden and the Bodley quad. These can be removed without any architectural loss.

The competition designs show detail plans only of the right-hand block of chambers, but the whole of the group is fully set forth by the elevational and perspective drawings. Between the library in the middle and the chamber wings are archways giving access to the Provost's garden, and at its rear end the chosen plans prettily show an open loggia and new formal arrangement of its lawns. In the centre of the right-hand new chamber block, another archway will lead to the Bodley court, with its recessed and wall-enclosed garden seat, overlooking the river Cam skirting alongside. The adjacent bridge is in a line with the frontage of these new buildings. On either side of this handsomely treated throughway are the porter's rooms, and beyond these apartments are the entrance halls and staircases to the chambers. On the ground floor at the eastern extremity is a couple of chamber sets, consisting of a keeping room and a bedroom each. These are of ample size, and the gyp rooms, reached off the hall or stair landings, are all amply lighted and have good ventilation.

At the west end and adjacent to the Bodley building the lavatory and baths are contrived very conveniently, while a separate entrance vestibule from the court gives an immediate approach in the corner formed by the Bodley wing. The first, second and third floors are repeats, with three sets of chambers in each moiety of the block, which has a commodious central landing from whence their gyps are reached and also the coal bunkers, all excellently contrived in a modern and up-to-date manner. The heating chamber in the basement is placed centrally in respect to the whole series of buildings below the lavatory part of this block.

Messrs. Rowse & Budden ingeniously realised the enormous importance of keeping the scale of their buildings in just relationship with Gibbs' elevations, and they did wisely by not adopting the suggestion in the conditions as to making their top floor assume the character of attics in the roofs. That meant keeping the mai level with the uppermost floor and so the comparative heights of the two bui a needless way, much to the detriment new façades.

The lines adopted by the winning desig a most satisfactory connection to be olished with the Bodley block at the rea is a great gain, both as to fenestration ance and the stopping of strings and Towards the lawn the two blocks of c balance well and exactly repeat, excep Bodley court throughway. The librar an excellent composition in the centre, v disengaged columns rising above the r plinth, where there is a handsome doo the middle. Three niches with statu between the columns. The cornice is higher level than in the wings, and an at dignity to the setting of the pedime drawings are in pencil, nicely finish much approve of the broad treatmen end of the east block, which will be v spicuous from the bridge approach Cam. This effect is important with extent of the Gibbs' building coming field of vision, as it must from this fin point.

Mr. W. G. Newton (whose design is ma in accordance with the reference, if no diate suggestion, in the conditions, r feature of his tall slated roofs rising handsome cornice which necessarily therefore, much lower than that of "Fellows" building. The contrast betv windows of the old and new buildings i culty and not a gain in relative sca Newton's fenestration is really more in tion with the windows of the earlier Ren design of Clare College as seen in the over King's great lawn. His proposed is more proportionate to Gibbs' style, columns over the side screens abo Newton's throughways in their adjacent may add size, but seem a trifle out of pr to his own work. The entrance hall chambers are big and the 17 ft. by 11 keeping rooms are good. Bedrooms 7 ft. 6 in. are none too large.

No. 3, by Mr. John Burford, masks hi with statuary set above the plinth b five great windows, and the scheme i guished by strong horizontal lines with cated return block at the east extremit size where effect is of moment, as above i

Mr. Naseby Adams (No. 6) sends a priate architectural scheme with hipp and parapets, but the end towards t Cam is over-featured, so suffers in sca bedrooms, 8 ft. by 9 ft., are not over l the keeping rooms are 12 ft. square.

Messrs. Holt & Rees (No. 1) ma library by a delicately-proportioned This scheme is refined and assimilates v the Bodley building.

No. 2, by Mr. Alexander Tait, ha guished appearance, and is illustrate excellently big perspective, but this vie what dwarfs the scale of Gibbs' relatively speaking, and it overst importance of Mr. Tait's pedimented pieces to his throughways, so presenti coarsely to the disadvantage of his sur details. The top floor of the chamber lit by dormers, and though the Bodley roof at the rear mitres with Mr. Tait's other parts commingle badly, as see picture of the quad front.

No. 5, by Mr. H. A. Dod, was awa second place, but unfortunately we shown his drawings. They were not other designs in the library.

The cost of the whole projected s stated by Messrs. Rowse & Budden to to come to £100,000. The £20,000 all the first block intended to be put in based on the pre-war allowance of on per foot cube. This for ashlar-faced w unreliable at present rates of wages a

THE "MITRE" HOTEL, OXFORD.

Mitre Hotel, situated in the famous
treet in the city of Oxford, is sur-
d by some of the finest architecture in
nd. Its foundation enables it to claim
on to its antiquity.

oldest portion of the building is the
now the wine cellars of the hotel,
date back at least to the thirteenth
y, of which period it shows specimens
ined vaulting, capitals, and pier, whilst
of the walls are obviously of earlier
At this period ecclesiastical architec-
vas at a high standard. Merton and
Colleges had been founded, and West-
r Abbey and Salisbury Cathedral being
inished, whilst in domestic architecture
r time nor money was grudged in the
g of a noble house, and the first
t in a house or hall intended to give
for the students of the great univer-
ould be the building of ample cellars.
ellars occupy a considerable area be-
the hotel and adjacent buildings, and
id at one time to have extended from
treet, formerly "Turl Gate"-street or
er"-street, as far as Carfax, formerly
as "Quatrevios."

quarians consider that the earliest por-
f the crypt of the hotel is of Norman
In one portion there is still preserved
window opening, whilst there are still
fragments of original shafting and
ing.

s more than probable that the rough
g shown in the illustration formed
of the original Croxford's Inn that
l in King Edward II's reign, the large,
tones indicating even an earlier date.
inion is that, from the pitch of the
nd the fine moulded capital of the short
that supports the vaulting itself, the
is of the late thirteenth or early four-
century. The existing ribbing may
y be somewhat later, as plain cham-
vaulting was commonly used through-
ong period. This theory is strengthened
fact that though, as shown in the pic-
portions of the vaulting have been re-
or fallen away, the superstructure
s intact, affording conclusive evidence
y of the stability of the work, but also
llent constructive detail.

e is also some evidence from old annals
he site of the Mitre Hotel had pre-
been occupied by an ancient hall
as Burwaldscote Hall, probably after
ambert Burewald, who was owner of
alls situated in this direct neighbour-
n the reign of Henry III (1216 to
This hall was probably destroyed to
room for the Mitre Inn and other
In 1364 the house was known as
d's Inn, so called from burgesses of
me in Henry III's, Edward I's, and
ing reigns.

ay be here stated that, prior to the
ion and endowment of colleges, as we
ow them, the students of Oxford used
in the citizens' houses, but after this
tenements were set aside for their use
ey might live together in societies,
being distinguished from the private
of the citizens, were called either
" from the Saxon, or "hostels," from
nch Of these there were in Oxford
reign of King Edward I (1272 to 1307)
than 300. The proprietors of these
hostels were not allowed to apply
any other purpose than the reception
lents, nor demise them without this
n, and certain special conditions were
by the University. In these "hos-
the students lived, at first by the
tion of the nobility and great men in
and State, and afterwards at their
pense, till the pious and munificent
of learning thought fit to settle for
on them certain and plentiful revenues
and to enlarge and beautify their habitations. Most of the colleges were built upon the sites of one or more of these ancient halls, and several of them contained little more than these, with some additional buildings, retaining also their former name for a long time. Four only remain still bearing their ancient title, viz., Magdalen, Edmund, St. Albans, and St. Mary's Hall.

The house in 1474 was called Dagville's Inn, this alteration in name being due to a change of proprietorship, when William Dagville, divers times Mayor of Oxford (in 1465-6-7, 1470, 1472, and 1474), married a relative who owned the inn. He was a man of astute business, for at his death he executed a will in which he directed that if his daughter Joan died without issue Dagville's Inn and the Christopher Inn (Nos. 9 and 10, Magdalen-street) should become the property of Lincoln College. Fortunately for the college (the present owners) Joan died without issue, and Dagville's Inn was named "The Mitre." Even during this period it was well known as a "famous house of entertainment." William Dagville died October 29, 1476, and in 1499 the tenements were conveyed to Lincoln College by Margaret Parker, Dagville's widow.

Next to this inn, probably the present Turl-street entry to the old stables (and near to the hotel billiard rooms), was an entry known as Bastaple's Entry, of which Wood makes mention: "Near to that Inne was Bastaple's Entry, of whose name I find in narration of some disturbers of the peace who had abused and robbed the schollers thereof, as also S. Mildreds (which adjoins this entry in Turl-street), Hampton and Pery Hall, with others in Oxon."

The building as it stands at the period of the seventeenth century claims our attention. Considerable alterations and rebuilding were contemplated and carried out, these now forming the basis of the upper portions of the present structure. The finely proportioned elevation facing the internal courtyard, with its overhanging stories and its three gables, date from the beginning of the seventeenth century; the date 1631 can now be seen carved on the bracket under the window of the east gable. The fine oak panelling, staircases, and ornamental plaster ceilings in this portion of the hotel show that it was finished in an elaborate style. The original leaded windows are now all removed, and the present late Georgian windows no doubt took their place when the plaster front was added at the end of the eighteenth century.

An interesting example of a fireplace of the seventeenth century (see p. 727) is to be seen in bedroom No. 19, which still retains the unusual feature of a moulded oak curb: the iron stove, however, is of later date.

From the beginning of the eighteenth century the hotel remained unaltered until the year 1922, when it was found necessary to carry out considerable alterations to maintain the structure and to adapt the building for modern hotel requirements, and entirely new kitchens and extension to the dining-room and service were constructed: the old kitchen was formerly situated behind the present offices. The extension of the dining-room has been carried out in similar panelling as the original dining-room facing the High-street, twentieth-century fireplaces being replaced by others in keeping with the architectural character of the period.

Fine panelling can also be seen in many of the bedrooms, Nos. 10, 11, 12, A, C, and D, the last-named room having also a good specimen fireplace of the eighteenth century. The bay windows of the late eighteenth century form an interesting feature of the drawing-rooms on the first floor, giving fine vistas up and down the High-street.

These alterations have been executed to a considerable extent, and the old features retained by the architects, Messrs. Richardson & Gill, of London.



The Panelled Room: The "Mitre" Hotel, Oxford.
MESSRS. RICHARDSON & GILL, FF.R.I.B.A., Architects. (*See p.* 717.)

On Monday last the opening general meeting of the Royal Institute of British Architects for the 1923-4 Session was held at the premises of the Royal Society of Medicine, Wimpole-street, which are to be used for several of the meetings of the Royal Institute this year whilst the alterations are being carried out at Conduit-street.

The Council Dinner.

Amongst the guests of the Council invited to dinner before the meeting were Lord Sumner; Lord Riddell; Sir Aston Webb, P.R.A.; Sir Ryland Adkins, K.C., M.P., (Chairman, Northants C.C.); Mr. H. J. Waring, M.S., B.Sc., F.R.C.S. (Vice-Chancellor, University of London); Sir W. Hale-White, K.B.E., F.R.C.P. (President, Royal Society of Medicine); Sir Richard Winfrey, M.P.; Mr. Owen Parker, M.P.; Mr. J. C. Squire (President of the Architecture Club); Mr. E. J. Partridge (President of the Society of Architects); Mr. W. R. Davies, C.B. (Board of Education); Mr. Sydney Smith (Chairman, Kettering Urban District Council); Mr. H. G. Gotch, C.A., J.P.; Mr. Ernest Hopwood; Mr. John Bond (Town Clerk of Kettering); Mr. T. C. Gotch; Mr. W. Curtis Green, A.R.A.; Mr. A. Jacobs (Director, Wolseley Motors, Ltd.).

INAUGURAL ADDRESS.

After the preliminary business of the meeting, the President (Mr. J. Alfred Gotch, F.S.A.) delivered his inaugural address as follows:—

It requires no profound thought to become aware that an idea may be expressed in different ways; one way may be bald, the other beautiful; one may be the merest statement of facts, another may present those facts so aptly or in such charming language that we ever afterwards recall them with delight. It is not improbable that, meeting here to-night after a long interval of separation, we may have discussed the weather, we may have recalled the inclement spring, we may have praised the summer for everything but its spells of excessive heat and its brief duration. If we have done so, no one will bear our commonplaces long in mind. They were merely bald observations to pass the time, forgotten as soon as made. But how does the poet handle the same theme?

" Shall I compare thee to a summer's day?
Thou art more lovely and more temperate;
Rough winds do shake the darling buds of May,
And summer's lease hath all too short a date."

Or, suppose that a student of architecture takes advantage of summer's lease while it is still running, and goes, let us say, to the south of France on a sketching tour. He has toiled up on a hot day to Roquebrune or to Gourdon, or to some other ancient and interesting village perched upon a hill. What is his first desire on reaching his destination, a desire that takes precedence over the most delightful sketching? It is to quench his thirst. This laudable wish—still laudable, at any rate, in the Old World—he may well gratify by calling for a bottle of the *vin du pays*, with ice if possible. All quite matter-of-fact and prosaic. But how does the poet express the student's longing?

" O for a draught of vintage! that hath been
Cooled a long age in the deep-delved earth,
Tasting of Flora and the country green,
Dance, and Provençal song, and sunburnt mirth."

Just as the plainest idea can be rendered handsome by clothing it in the gorgeous raiment of poetry, so the crudest necessities of building can be ennobled by architecture. That, indeed, is one of its functions: to turn the disjointed prose of the client's sketch-plan into an organic whole, infused with the spirit of poetry: to transmute his halting murmurs into the liquid song of the nightingale. But you may say that poetry is not apt for every-day use, or even confess that you have no ear for it. Well, there is noble prose, as well as fascinating poetry. But prose, to be noble, cannot be haphazard; its words must be carefully selected and skilfully blended, chosen as well for the aptness of their meaning as the music of their sound.

I will not pursue the parallel to your discomfort, but will merely add, descending from the noble to the commonplace, that even an advertisement is more likely to be efficacious if couched in reasonable prose than if presented in the form of a crisp but odiously familiar conversation. As with noble prose, so with fine architecture: its component parts must be carefully marshalled and skilfully adjusted, apt for their purpose and agreeable to the eye; and although in small buildings the scope is narrower than in large, yet the same principles hold good in both. What is the moral to be drawn from this analogy? This, that as we are agreeably affected by fine literature without knowing exactly why, so, with like vagueness, are we impressed with good architecture. But as literary style can only be acquired by study and practice, so also can the faculty of design in architecture only be acquired by training.

This fact is sometimes overlooked by those who are about to build, especially if their intentions are not ambitious. They have been known to employ a builder or a decorator or a land agent or a house furnisher, so simple do they consider the problem to be, so prudent are they in saving the expense of an architect. But, depend upon it, with these practitioners the cost of design is always added to the bill, although it may not appear as a separate item. And, more important still, the work of design is done in such cases by men who are not trained to it—men admirable in their own occupations, but who, in the nature of things, cannot have devoted much time to studying the niceties of design; and by design I mean not merely external appearance, but the arrangement of the building, whether great or small, its aptness, its relation to the sun, the disposition of its windows, doors and fireplaces, not to mention a due supply of cupboards.

If only in the past the designing of houses had not been left to excellent (if speculating) builders, untrained for this side of their enterprise, how far less depressing, or irritating, would be the suburbs of our cities and country towns! The past is irrevocable, but the present and the future are in our own hands, and my appeal to the public is that just as when they are ill they employ a doctor, if their teeth trouble them they go to a dentist, or if they are suitors at law they seek the skill of a barrister, so if they undertake work requiring architectural design they should go to an architect; not for the sake of the architect, but for the sake of the public themselves. More especially is this necessary when it is borne in mind that the barrister and his inarticulate client, the doctor and his patient, the dentist and his victim, all die and are forgotten; whereas in architecture the results are abiding, and the sins of the fathers are visited upon the children unto the third and fourth generation.

Architecture is abiding: so it is if cl
is propitious, or, if unpropitious, is duly
into account; if motorists are some
curbed in their desire to rush through a
towns and villages; if the work of our
fathers is deemed to hold lessons for
selves. Each generation has its own vie
to this last point. Even so ponderc
matter as architecture is subject to
vagaries of fashion. It has been so thr
out its history. Greek architecture b
fashionable in Rome and decided the for
the Roman builders. Ancient Roman
tecture became fashionable in Italy o
fifteenth century, and decided the tre
design during the period we call the R
sance; Italian architecture became fashic
over the rest of Europe and gradually c
the native Gothic style of Northern coun
Gothic architecture itself had sprung an
veloped from ancient classic forms large
consequence of slowly changing fashion
the days of Elizabeth classic features
built into or added on to Gothic hous
order to bring them more into the fas
and Kirby Hall, one of the most fascin
productions of the early designers in th
vived classic of Elizabeth's time, was
modernised, the better to conform
fashion, in the time of the first Charl
the insertion of features designed on
scholarly lines.

In the distant past the pursuit of fa
was intimately associated with structura
velopment, and was, in fact, a process of
evolution. But in the nearer past the ch
have been more rapid, prompted as they
been not by structural development, bu
admiration of the appearance of older
ings. Thus we have had the artificial G
of Horace Walpole, the fleeting Greek re
the more genuine Gothic revival initiate
Pugin, which in its turn has given w
modern design founded on classic ideals,
deed, so much has the classic spirit pern
our schools that the study of Gothic has
almost into abeyance, a fact much to b
plored; for the student of architecture
find his account in studying every pha
it which has dominated his own forefa
and it is a short-sighted policy which
confine his attention to those phases
which may be supposed to minister to h
mediate needs.

All these changes of fashion have
lesson for us. Some few teach us wh
avoid, but by far the greater number sh
how skilful men of old solved their prob
how they adapted their designs, not o
the wants of their clients, but to the ma
at hand; how they contrived to make
buildings at once express their purpos
give pleasure to the eye, and this throu
whole gamut of fancy, from that bes
upon the simplest cottage to that whic
duced the most gorgeous and compl
cathedral. May I therefore make a
appeal to the public—to hesitate once, t
tate twice, to hesitate thrice before cons
to the destruction of these ancient wo
art, remembering, among other things
the beauty of a building does not com
the ivy with which it is covered, but
design and the materials which the ivy
There may sometimes be circumstances
render the retention of ancient buildin
possible, but it should be borne stron
mind that their number is limited, tha
cannot be replaced, and that their disa
ance may result in such pangs as follow
obduracy of the proud Tarquin in re
the Sibylline books.

It must not be supposed that architect
these old buildings and are jealous of
safety from any feeling of despair at
ting their beauty. On the contrary;
modern buildings are as worthy of pre
tion as those of the past, and the st
of design is gradually but surely impr
We are emerging from the network of re
which marked the nineteenth century.
attack our problems on their own
guided but not enslaved by the w

t masters. Not only is the standard ring, but the number of those who im- it is increasing. The country is full of cts who do good work, work of refine- and distinction, showing careful training kill in the use of opportunities. No is London the only source whence fine cture can be obtained; other towns and he country districts can supply it: and are scores of architects unknown, per- beyond their own neighbourhood whose would have been the admiration and f their predecessors of like degree.

ake a cheerful view of the future of cture, especially when remembering the g interest shown in the subject by the at large. The civic spirit, which has so much to make us what we are, is more deeply than in bygone years by auty of art; and of all the arts, archi- e reflects the spirit of its age with most nce. The man in the street, that ulti- arbiter of our destinies, has but to raise es to behold its manifestations, whereas ork of the painter and, in slightly less , that of the sculptor, is shrouded from aze by the walls of private houses or of public institutions, entrance into requires an effort of will, and in many an outlay of money. The fact that of art are so shrouded brings home to e truth of the old saying that architec- s the mother of the arts, for pictures ne choicer sorts of sculpture have always ed, in Europe, at any rate, the protec- f walls and roof, and where there are and roof there already is, or ought to chitecture. It is the architect who first on the scene and provides the structure, he other artists who then help to embel- and take advantage of its protection to r their wares.

patronage of the public is as essential e art as to another. But workers in cture are in some respects at a dis- tage in comparison with their brothers brush and the chisel. These latter can ir own volition, and whenever the spirit them, embody their visions in tangible, form. They can fill their studios with pieces at little material expense. All hen have to do is to sell them: and if course of this proceeding it should that they find it expedient to appeal munificence of different localities, they small cost send their work from one tion to another. Not so with us archi- Before we can begin to create we have set in motion by some outside power, hen we do move we have to embody not ch our own visions as those of someone We cannot accumulate a stock of our tions as can our luckier brothers of arts, nor can we exhibit them with the facility or frequency. Indeed, no exhibi- an do justice to architecture. It can s drawings of more or less exactitude, er still, it can give us photographs. But wings and no photographs can do ade- justice to a building, inasmuch as its ance is only one out of many of its to success. Except to the initiated or imaginative, these representations tell g of its suitability, or of its disposition ation to its surroundings, and to that factor in our lives—the sun. That is we are handicapped, for just as in his- research it is hazardous to depend quotations, and it therefore becomes ary to consult original sources of in- ion, so, in attempting to form a true ent of architecture it is wiser, not to cessary, to see the building itself and depend upon the quotations which gs and photographs supply. Thus it about that architects find, to use the ge of commerce, their capital tied up eir assets far less liquid than do their artists in painting and sculpture. these disabilities apply only to the pro- making our work known to the general when once it is executed it is fully in evidence to local observers, and becomes one of the many mirrors that reflect the spirit of the age. The record of our own age lies with us; let it not be mean and contemptible, but rather let it be, by happy harmony between the public and the architect, a record fit to vie with that of the great days of Rome or the spacious times of Queen Elizabeth.

The Vote of Thanks.

Lord Riddell, in moving a vote of thanks to the President, said the selection of Mr. Gotch as the new President marked a notable innovation in the practice of the Institute, for Mr. Gotch was a provincial architect. There were times when provincial architects were spoken of with scorn by their London brethren, but London architects had learned to fear them, and now realised that some of the most eminent men in the profession were practising in the provinces. Mr. Gotch was one of the most notable historians of architecture, and had rendered great service not only to his profession but to his country in recording interesting things about architecture and buildings and architects' practises in the past. There was one very vital point in the address to which he would like to refer, namely, the education of the public. The education of the architect was an important matter, but the education of the public was equally necessary. Nothing was more important from a municipal, ethical, or any other point of view than that the public should be educated about architecture. Nothing gave more pleasure than to understand what were beautiful buildings, and even the poorest could admire beautiful buildings. It lay within the scope of every architect to do missionary work, and architects would be well advised to approach their local newspapers with a view to obtaining greater publicity for matters appertaining to architecture. It was possible for every architect to be a missionary for good architecture, and the monstrosities to be seen to-day would never be abolished until the public were educated to an appreciation of good architecture. The President had preached the doctrine of beauty and suitability in architecture, but he had said nothing about the commercial side of architecture. He would suggest that, in addition to perfecting design, architects should perfect their business methods. In America working drawings were prepared in much greater detail than in this country, and this had the great advantage that when a client wished to depart from the drawings the architect could say, "These drawings have been very carefully thought out and to depart from them will cost a great deal of money."

The vote of thanks was seconded by Mr. Sydney Smith (Chairman of the Kettering Urban District Council), and carried with acclamation.

Presentation of the Street Architecture Medal.

In rising to present to Mr. Curtis Green, A.R.A., the R.I.B.A. Medal and Diploma for the Best London Street Frontage in 1922, the President said the idea of presenting a medal to the architect of the best street frontage in London built during the year was an entirely new one in this country, although it had been accepted in France and America for some time. The presentation of such a medal in London was due to the suggestions of two late Presidents, Mr. Hare and Mr. Simpson, and the scheme was a very valuable one, inasmuch as it interested both the client and the public. Also it helped to improve commercial architecture, and to acknowledge the merit of the architect of the successful building. Last year there was a very eminent jury, including Lord Crawford and Balcarres, the President of the Royal Academy, the President of the Royal Institute of British Architects, Sir Reginald Blomfield, and Mr. Guy Dawber, who had great difficulty in deciding for which building to award the prize. Eventually, however, it was awarded for the Wolseley Building in Piccadilly, designed by Mr. Curtis Green, A.R.A., and he (the speaker) was fully satisfied with the justice of the award. Anyone who had seen that building, and especially the interior, would agree that it was a most beautiful design, and particularly apt for its purpose. It showed a great knowledge of detail, and was worked out with infinite care; the colour and choice of material, also, were extremely satisfying. The bronze medal had been designed by Mr. Langford Jones, and in addition to the medal a diploma signed by the jury would be presented to the winner.

In returning thanks after receiving the medal and diploma, Mr. Curtis Green said he was very fortunate—he thought any architect was fortunate who had a client who would build within four miles of Charing Cross. He was particularly fortunate in his clients, Messrs. Wolseley Motors, Ltd., who had the foresight—unusual in this country—of seeing that architecture was a commercial asset. They spared nothing to make Wolseley House worthy of a great business undertaking. He had heard it said that such a building must add considerably to the cost of the Wolseley car, but, as a matter of fact, the cost of that building was not taken in account at all in fixing the selling price of the firm's products. The fact that many laymen as well as architects had spoken of their liking for Wolseley House was encouraging, and an indication that they welcomed a return to the traditional lines of Wren. He was grateful for the kindly appreciation of Wolseley House, but he was under no delusion himself about its merits. He had seen an American paper in which he read something as follows—"Wolseley House is the sort of thing we are accustomed to in America. It is not very good, but the inside is interesting." Wolseley House owed something to America, particularly to McKim; it owed something to Letarouilly, and perhaps more fundamentally to Gibbs. In plan and composition it owed nothing to the past. Had he had the training some of the younger men were getting to-day and the experience of previous opportunities such as their American friends had, the design would perhaps have been developed more freshly. The American architect went from one great building to another with the ease which came from constant practice. In this country such opportunities were few and far between. Robert Louis Stevenson used to read page after page from the great masters of English literature to acquire technique. To the younger architects he would say, "Orders, lovely as they are, are the beginning and not the end of architecture." The orders were the grammar of the art; they should be learnt as Stevenson learned to read English, and learned so well that the students would be freed from the books once and for all: they would then be in a position to speak to the public and to one another in a language that was common property: they would all be free to produce living architecture such as was produced by the mere handful of architects who had done so, and whose work was held in esteem to-day.

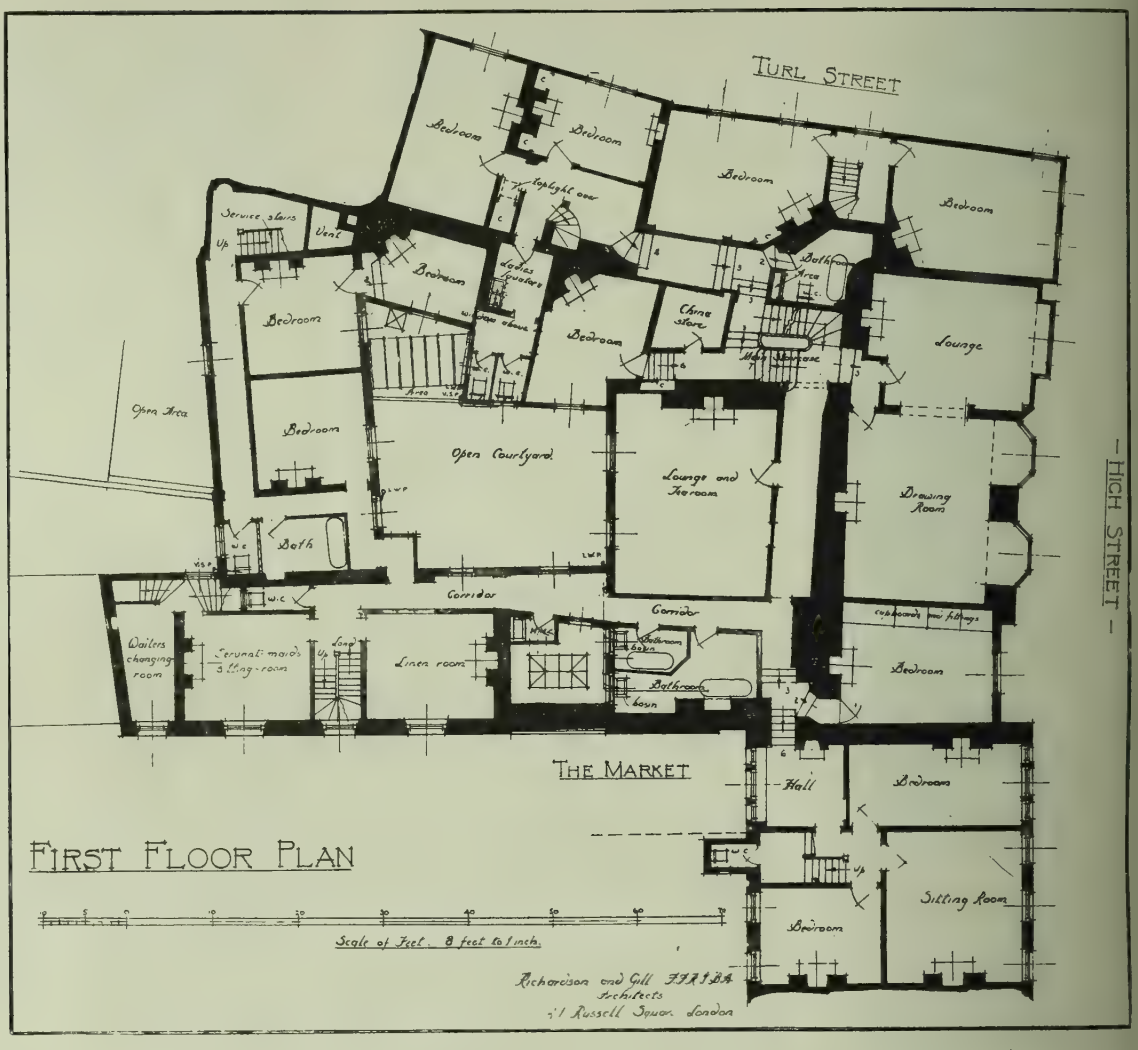
Portrait of Mr. Paul Waterhouse.

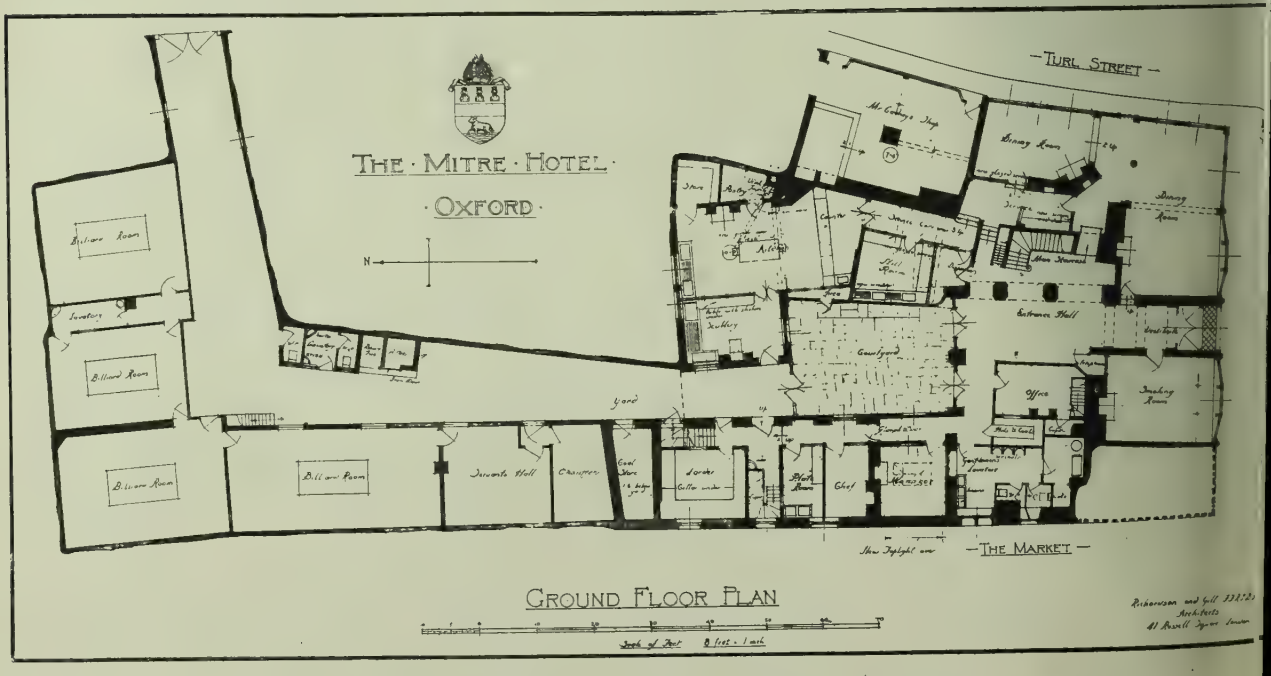
The President then unveiled the portrait, painted by Sir William Orpen, of Mr. Paul Waterhouse (Past President), which would, he said, join that of Mr. Waterhouse's eminent father, an event which had not previously occurred in the history of the Institute.

A few words by Mr. Waterhouse, in which he expressed his appreciation of the kindness and help he had received during his term of office, terminated the meeting.

Obituary.

The death is announced, on November 3, at 1, Cornwall-terrace, Regent's Park, London, f Thomas Durrans, A.R.I.B.A., aged 73.





Alterations to the "Mitre" Hotel, Oxford.

MESSRS. RICHARDSON & GILL, FF.R.I.B.A., Architects. (*See p.* 721.)

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ILLUSTRATIONS.

Chesham House, Regent Street.

building will extend over the whole of ock bounded by Regent-street, Beak- Warwick-street and Regent-place, with ception of one plot at the south-east No. 35, Warwick-street.

basement, ground and portions of the id sixth floors will be occupied as shops, and workrooms; the remainder of the nd sixth floors and the whole of the , third, fourth and fifth floors are intended sed as offices. The offices will be served entrances from Regent-street, and one e from Warwick-street, with staircases ts. The walls of the staircases will be ly lined with marble.

building will be of steel frame con- on faced on the front and two returns Portland stone, and on Warwick-street alt-glazed bricks to first floor level and cks above with Portland stone cornices, , &c. The floors and roof will be of e, and the latter covered with asphalte, e mansards facing Warwick-street will ered with Westmorland green slating. will be nine lifts, four on the public ses, one goods, and five in connection ne shops. Seven of these lifts are being d by Messrs. Waygood-Otis, and two by press Lift Co. The shop fronts will have sashes with marble plinth.

srs. Henry Tanner are the architects.

building contractors are Messrs. Bovis, The building is to be carried out in two s, the first section comprising the two rnmost shops and offices above. The ictional steelwork is being executed by . Moreland, Hayne & Co.; the steel nts by the Crittall Manufacturing Co.; lights by Messrs. Henry Hope & Sons; cement to floors by the British Reinforced te Co.; pavement lights by Messrs. King & Co.; stone staircases by the ia Stone Co.; red facing bricks by Messrs. Lawrence & Sons; electric light and by Messrs. Jackson & Boyce; heating ot water, by Messrs. J. H. Nicholson; partition blocks by the Leeds Fireclay Other contractors who have work on n 1 are: Messrs. Jones & Willis for rading; Messrs. Elwood for enclosures in staircases; and Messrs. J. & A. Crew rble wall lining to staircase.

D.I.C. House, Manchester.

first premiated design in the D.I.C. , Manchester, Competition, by Messrs. Prestwich & Sons, is given this week.

Cambridge Collegiate Buildings.

The design for Collegiate Buildings at Cambridge, by Mr. Herbert J. Rowse, A.R.I.B.A., and Mr. Lionel B. Budden, M.A., A.R.I.B.A., was placed first in the recent competition. A review of the design submitted is given on p. 716.

The "Mitre" Hotel, Oxford.

It was found necessary completely to rearrange the internal accommodation of the ground floor of this building without disturbing the historical features. The kitchen has been transferred to a better situation to avoid a service crossing the entrance hall as formerly. New lavatories have been installed, and the nineteenth-century buildings which stood in the courtyard have been removed. Other alterations have included a new extension to the dining-room, the repair to existing portions of the building, new drainage, and the preservation of the ancient vaults in the basement. Some notes on the history of the building are given on p. 717.

The architects are Messrs. Richardson & Gill, FF.R.I.B.A., 41, Russell-square, W.C.1, and the work was carried out by Messrs. J. Knowles & Sons, of Oxford.

Additions to the Bland-Sutton Institute of Pathology, The Middlesex Hospital.

The Committee of the Medical School of the Middlesex Hospital decided early in the year to increase the accommodation for Pathological Research in their Institute of Pathology, which was built in 1914–1915 and named after Sir John Bland-Sutton, who contributed very largely towards the cost of building.

The original building was designed by Mr. Keith Young, F.R.I.B.A., then architect to the Hospital, and consisted on the ground floor of administrative offices for Dean and Director, and a large lecture theatre. On the first floor was arranged the large Pathological Museum and gallery, and two large practical research classrooms. The second floor consisted of two large laboratories and a series of six small research rooms for special work, where the routine hospital examinations are made. The new top floor, as shown on the plan and illustrated by the photographs in this issue, was designed and carried out by Mr. Alner W. Hall, F.R.I.B.A., who was appointed architect to the Hospital in 1922, when Mr. Keith Young retired and was appointed consulting architect. The extension is in the form of a mansard roof constructed of steel and concrete with large dormers having steel casement windows, which ensure the maximum amount of light possible. The accommodation consists of the Director's office and private laboratory, with a Secretary's office and library immediately opposite. On the northern side is one large laboratory for public health work, and on the southern side are two smaller research laboratories. In the original building the semicircular corner was a staircase on all floors. This has been removed, and the space made available for more rooms, used principally for preparation purposes. A lift is installed in the western staircase.

The whole department is fitted up with all the necessary cupboards, benches, sinks, &c., all the wood fittings being made of teak. In the construction of the flat it was desired to take every precaution to ensure an even temperature; it was therefore decided to insulate the space between the top of the concrete and the finished flat level by a cushion of air. This was done by slabbing over the whole roof with 2-in. slabs carried flat on bricks-on-edge, honeycombed, with a complete air-space from end to end with air gratings in the end walls. On the top of the slabs is the finished surface of 1½-in. cement and "Pudlo."

Messrs. Trollope & Colls were the general contractors. The heating and hot-water was carried out by Messrs. James Slater & Co. All the plumbing and sanitary and laboratory sinks by Messrs. Dent & Hellyer; casement windows by Messrs. Burt & Potts; tiles by Messrs. Roberts, Adlard; terrazzo flooring by Messrs. Diespeker; lift by Messrs. Waygood-Otis; electric lighting and telephones by Messrs. Girdlestone & Co. Messrs. Trollope & Colls made all the teak fittings. The steelwork was carried out by the Fawcett Construction Company; the invisible gearing for fanlights was made and fixed by the Light Steelwork Company.

Nos. 75–78, Sloane-street.

The illustrations show these houses as they existed previous to their conversion into a block of flats, and the completed buildings.

The three houses were private residences, one occupied by the late Sir Herbert Beerbohm Tree and the other for many years by the late Sir Charles Dilke. The staircases of the three houses have been removed and the floors filled in, and a new staircase and additional rooms have been provided in the rear so as to form a suite of flats, consisting of two reception rooms and six bedrooms on each floor in addition to offices.

The roof of the corner house has been removed and two stories added, and the elevation of the two other residences has been brought into line, old bricks being used for that purpose. The new entrance is now at No. 78; the porch at No. 76 has been transformed into a bay window; the conservatory and covered verandah above have been removed and an additional story has been added to the bay, which has been carried round the elevation to Pavilion-road, thus providing a corner feature.

The space at the rear of these residences has been utilised for the erection of garages and men's rooms over, in keeping with the general character of the front elevation.

The general contractors were Messrs. W. H. Lorden & Son, Ltd., with the following subcontractors:—Steelwork, Messrs. Young & Co.; heating installation, Messrs. Haden & Sons; lifts, Messrs. Waygood, Ltd.; electric installation, Messrs. H. Page & Co.; wrought iron work, Messrs. Jones & Willis.

The architect is Mr. Paul Hoffmann, of Capel House, E.C.2.

MEETINGS.

FRIDAY, *November* 9.

Architectural Association.—Members' Musical Evening. At 34, Bedford-square, W.C.1. 8 p.m.

Chadwick Public Lectures.—Major H. Barnes on "Preventive Hygiene, Health, and Town Planning." At 18, John-street, W.C.2. 8 p.m.

London Society.—Sir Frank Baines on "Hampton Court." At 18, John-street, Adelphi, W.C.2. 5 p.m.

Town-Planning Institute.—Presidential Address. At 92, Victoria-street, S.W.1. 6 p.m.

MONDAY, *November* 12.

Surveyors' Institution.—President's Opening Address. At 12, Great George-street, S.W.1. 8 p.m.

TUESDAY, *November* 13.

Illuminating Engineering Society.—Reports on progress during the Vacation, and Developments in Lamps and Lighting Appliances. At 18, John-street, Adelphi, W.C.2. 8 p.m.

Society for the Promotion of Roman Studies.—Professor H. J. Rose on "Inauguration of Numa." At Burlington House, W.1., 4.30 p.m.

Incorporated Institute of British Decorators.—Mr. T. Peters on "Visit to Italy by a Decorator who does some Landscape Painting." At Darlington. 7.30 p.m.

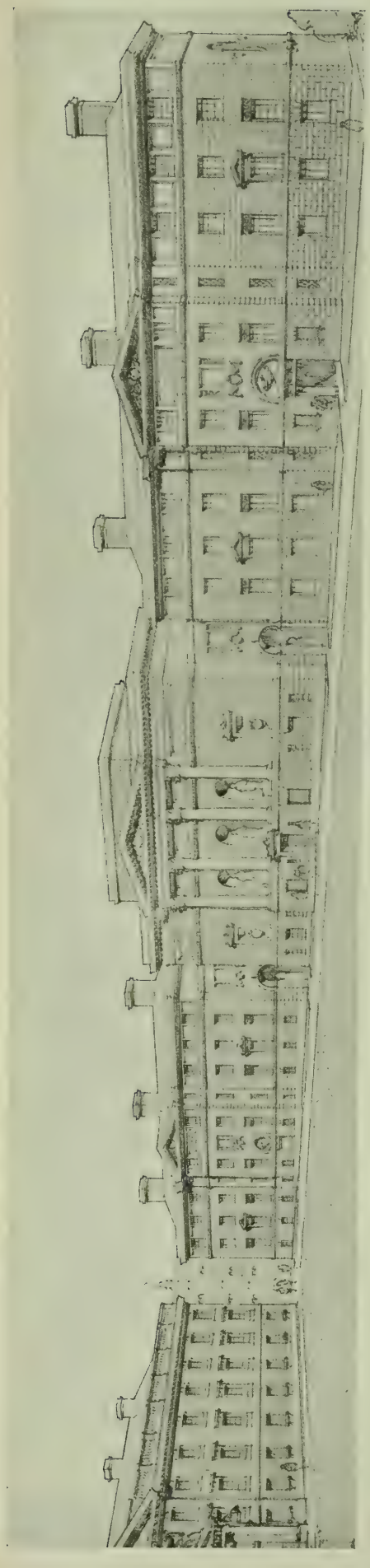
WEDNESDAY, *November* 14.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Greek Architecture." At Southampton-row, W.C.1. 6 p.m.

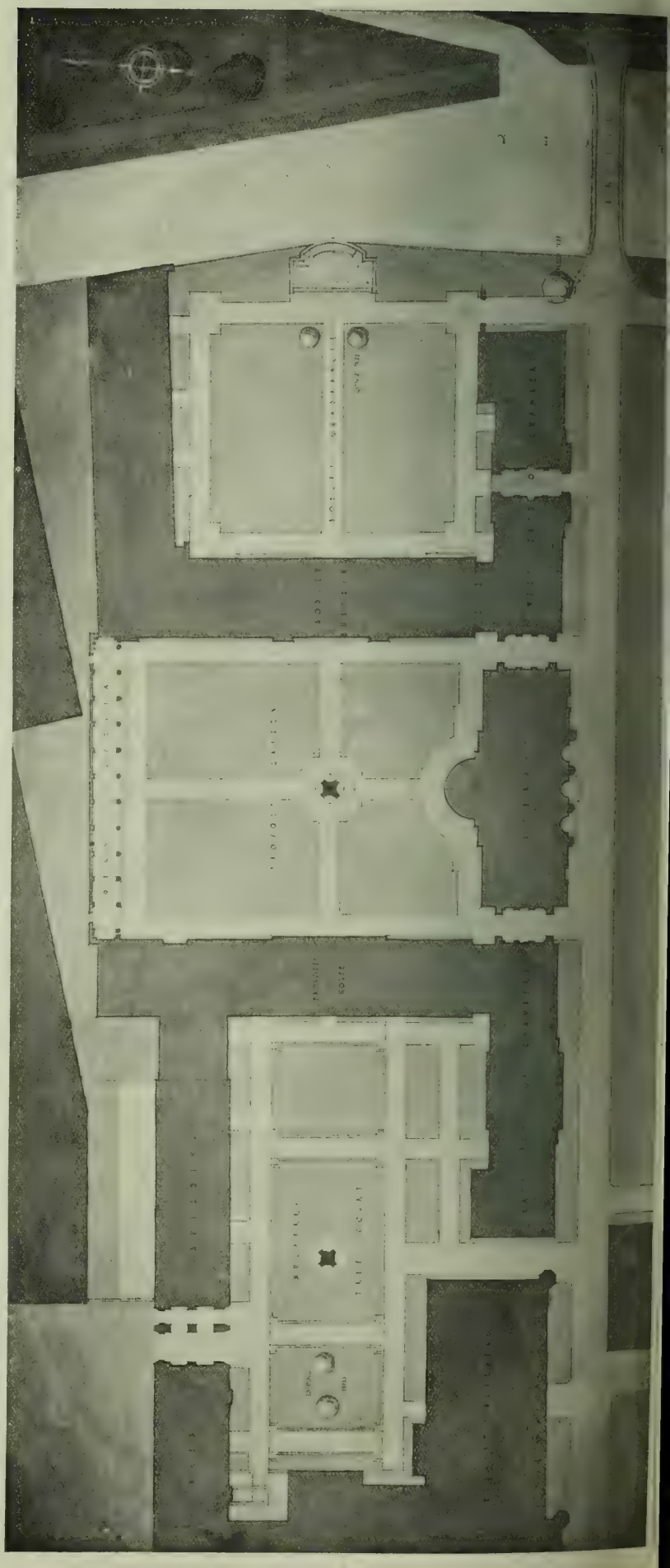
Royal Academy of Arts.—Professor A. P. Laurie on "Early Methods of Oil Painting." At Burlington House, Piccadilly, W.1. 4 p.m.

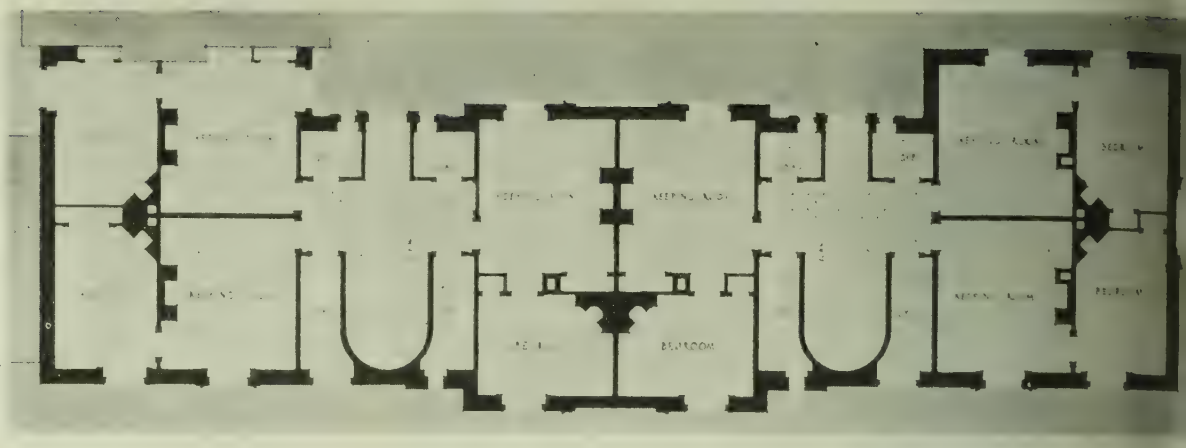
THURSDAY, *November* 15.

Incorporated Institute of British Decorators.—Mr. W. J. Pearce on "How, When and Where to Use Colour and Ornament." At Painter's Hall E.C.4. 7.30 p.m.

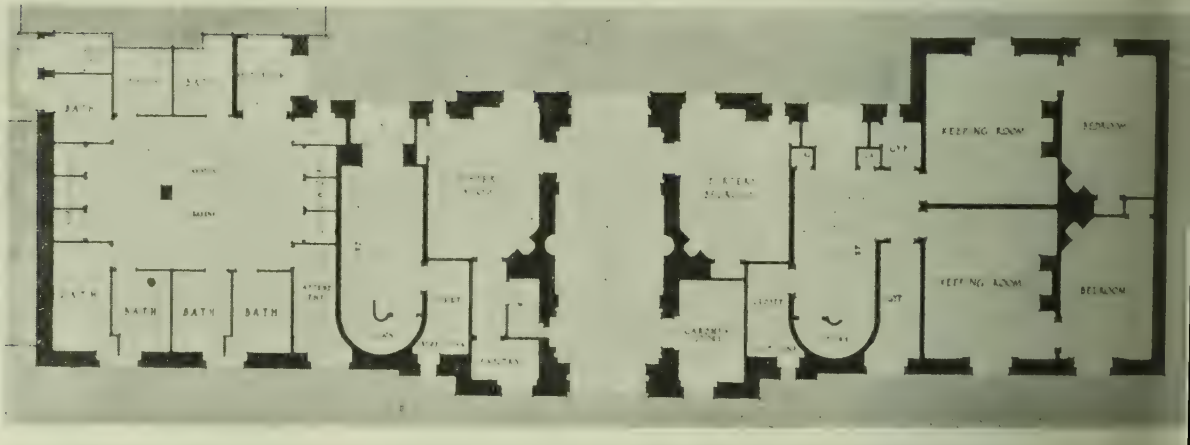


ELEVATION.

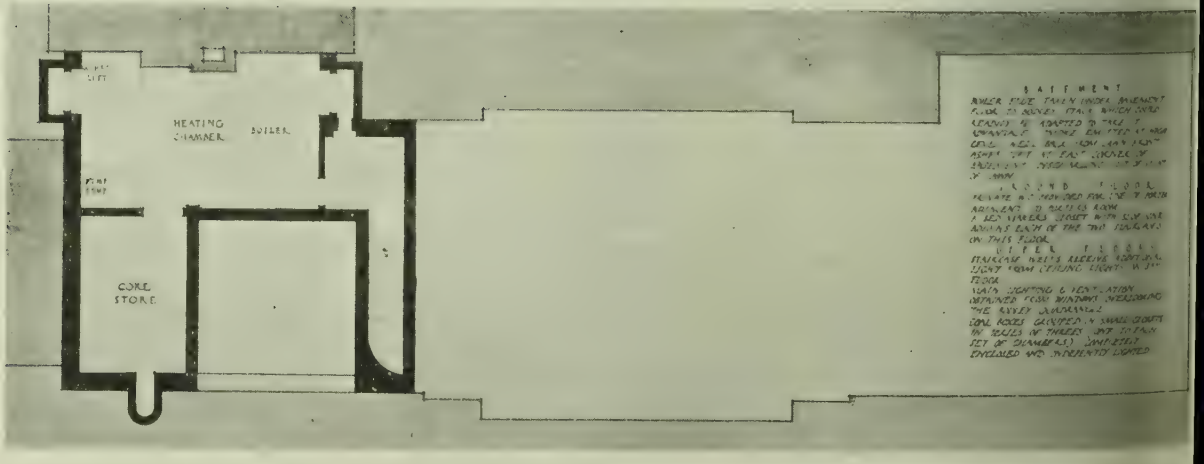




FIRST, SECOND AND THIRD FLOOR PLANS.



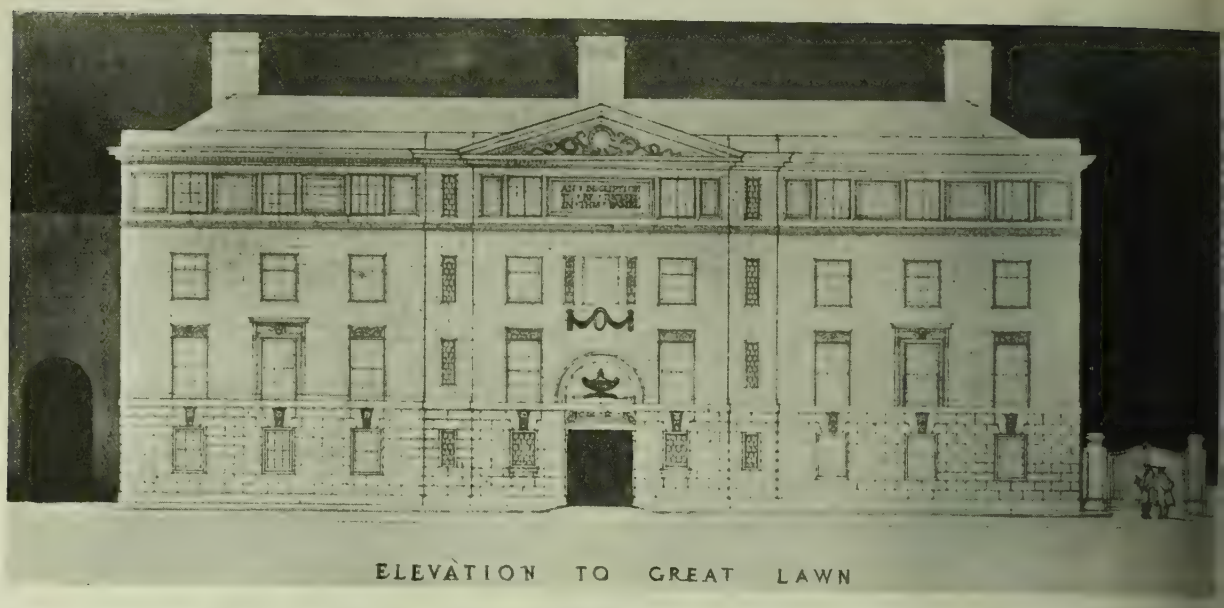
GROUND FLOOR PLAN.



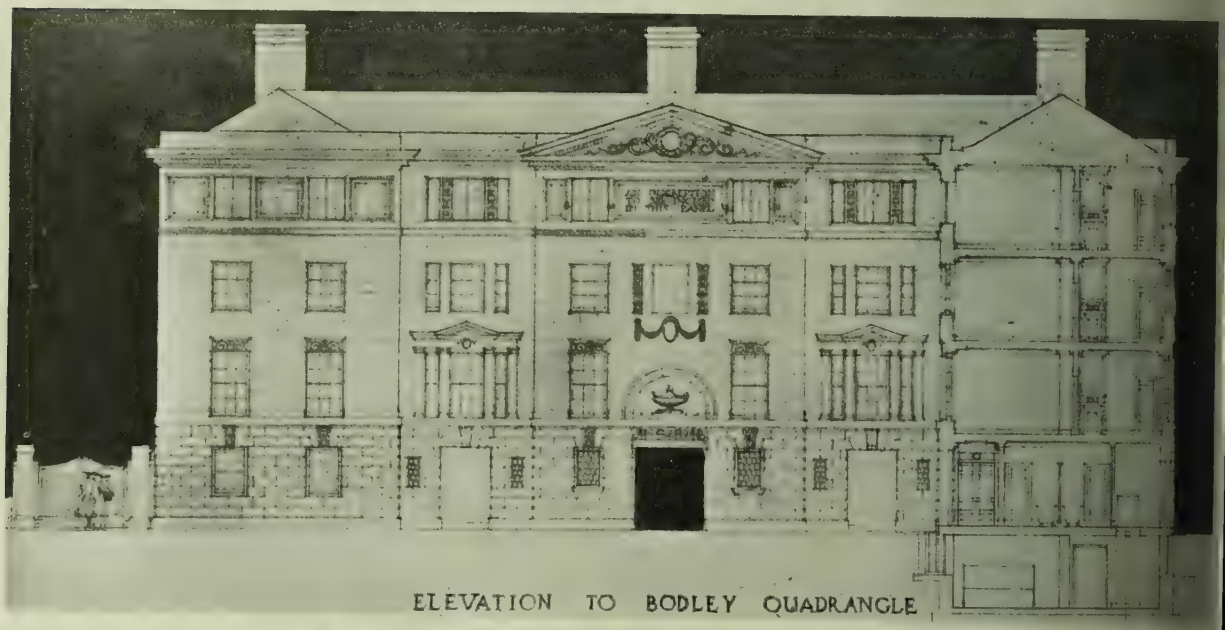
BASEMENT PLAN.

Cambridge Collegiate Buildings Competition.

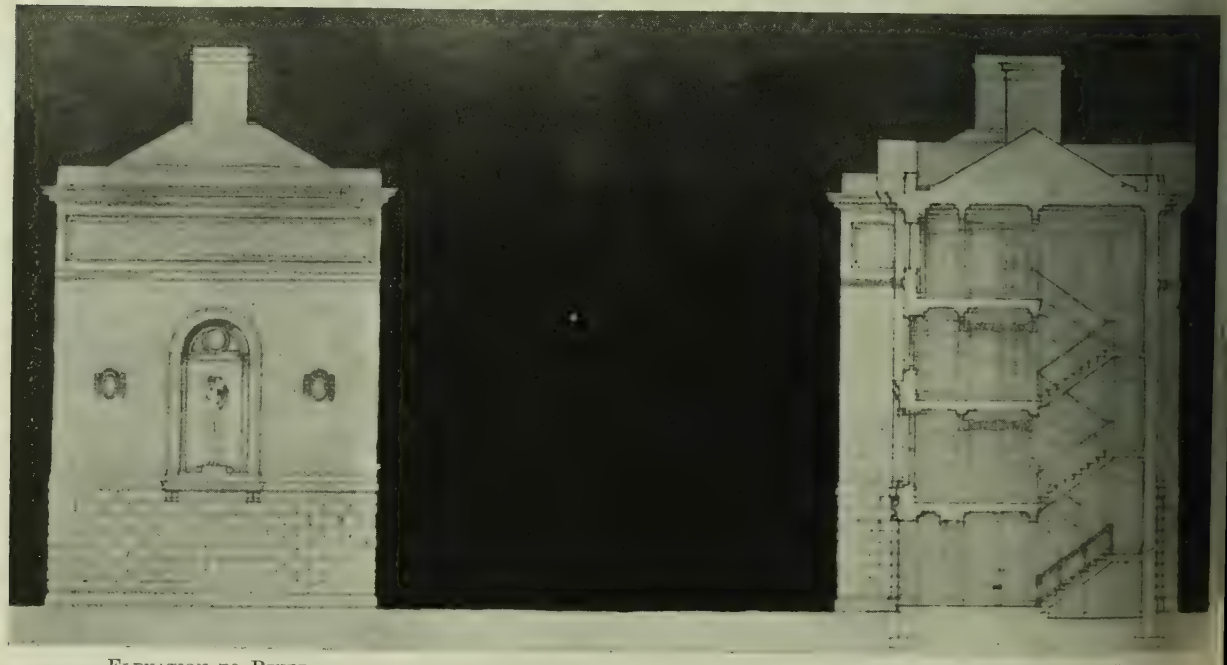
Design placed **First**: By Mr. Herbert J. Rowse, A.R.I.B.A., and Mr. Lionel B. Budden, M.A., A.R.I.B.A.



ELEVATION TO GREAT LAWN



ELEVATION TO BODLEY QUADRANGLE



ELEVATION TO RIVER.

SECTION THROUGH STAIR HALLS.

Cambridge Collegiate Buildings Competition.

Design placed first: By MR. HERBERT J. ROWSE, A.R.I.B.A., and MR. LIONEL B. BUDDEN, M.A., A.R.I.B.A.



D. I. C. House Competition, Manchester.

Design placed First: By Messrs. J. G. Prestwich & Sons.

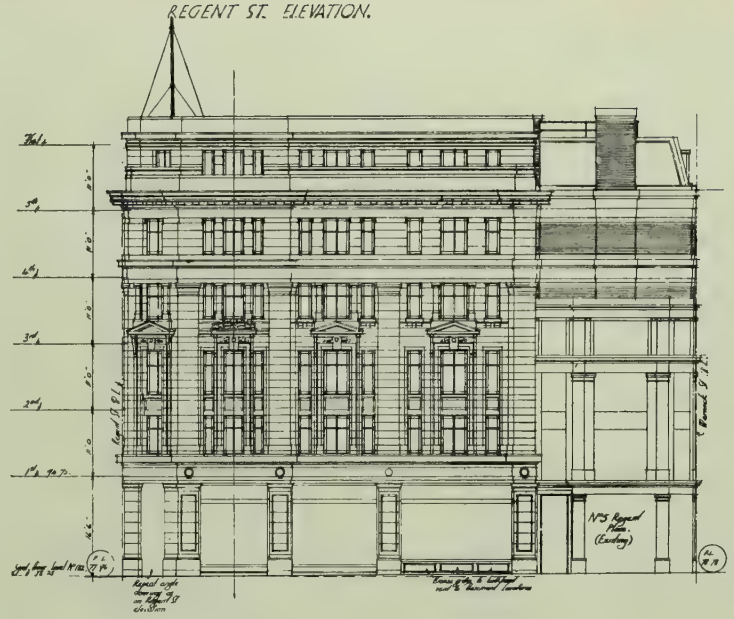


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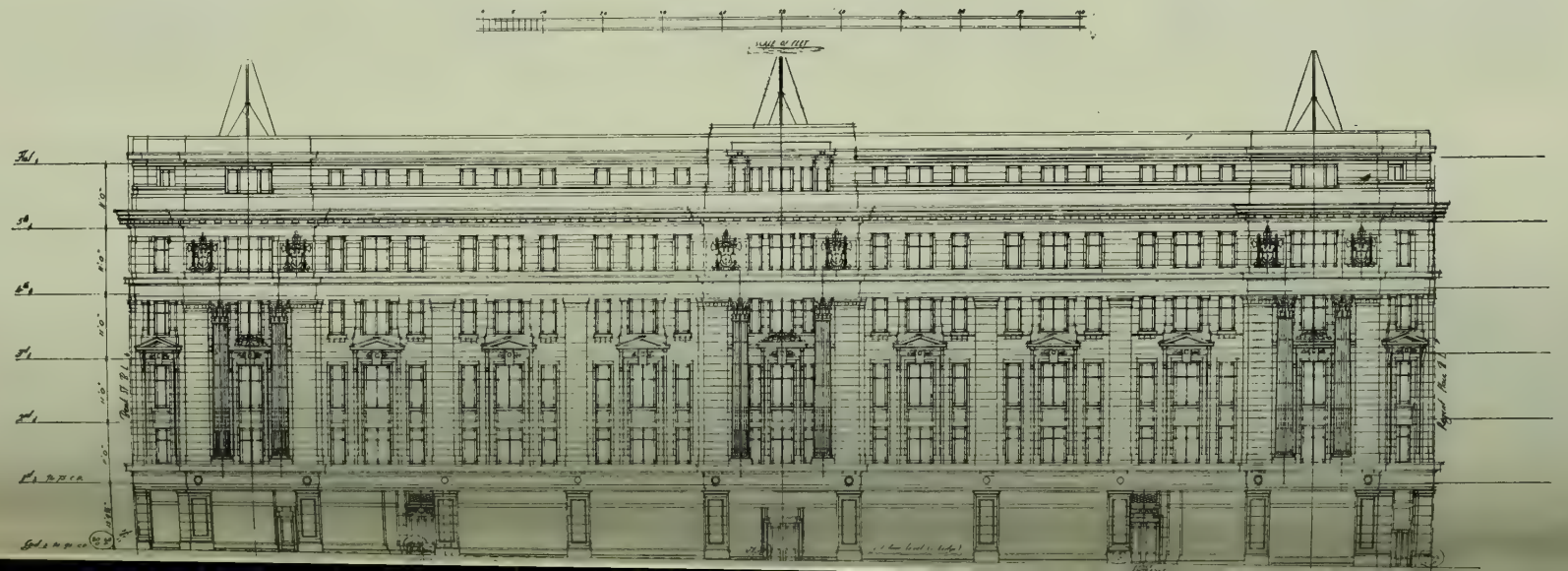
REGENT ST. ELEVATION.

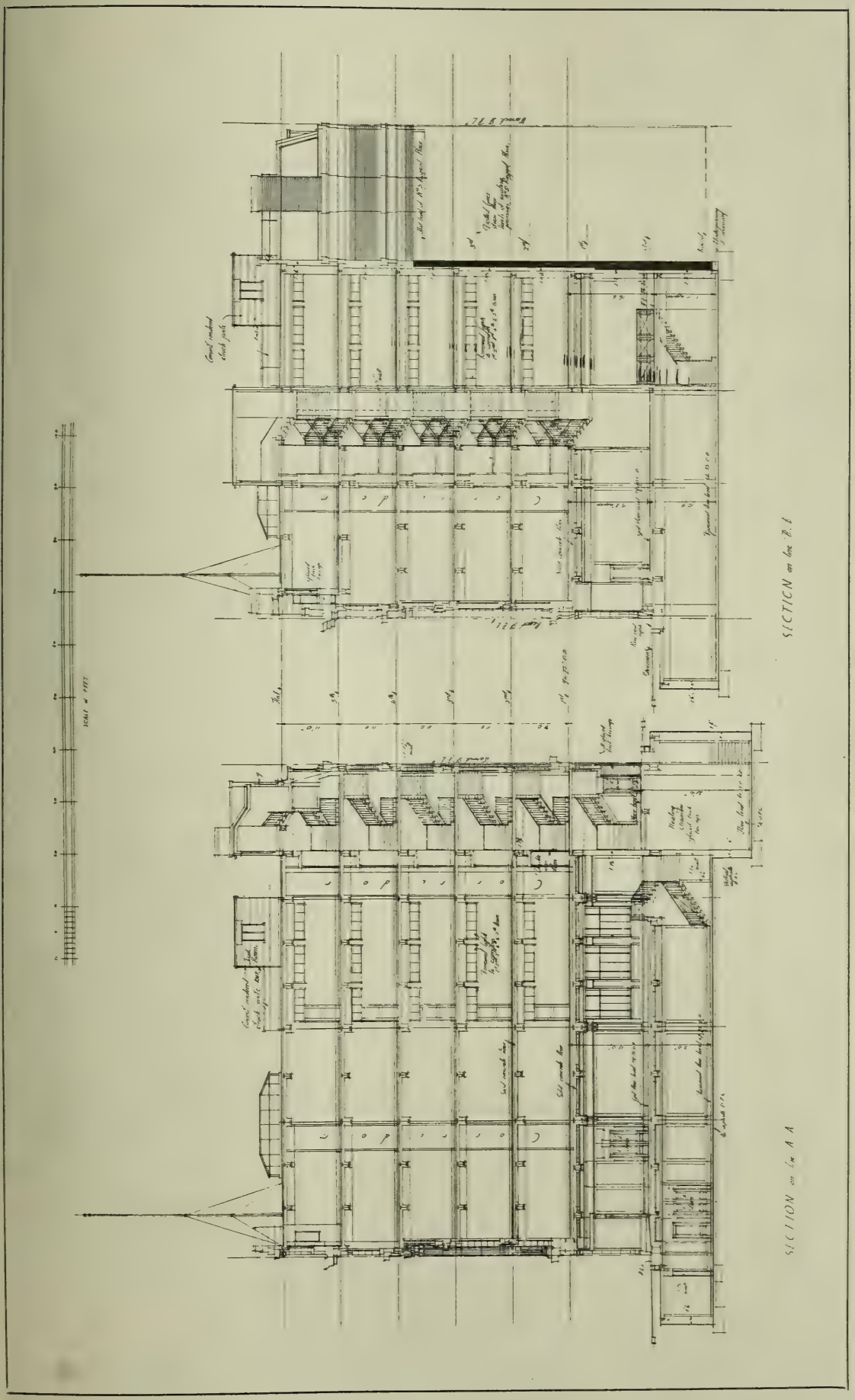


REGENT PLACE. ELEVATION.

BEAK ST. ELEVATION.







Chesham House, Regent-street. Messrs. Henry Tanner, Architects.

EXHIBITION NOTES.

THE ROYAL WATER-COLOUR SOCIETY.

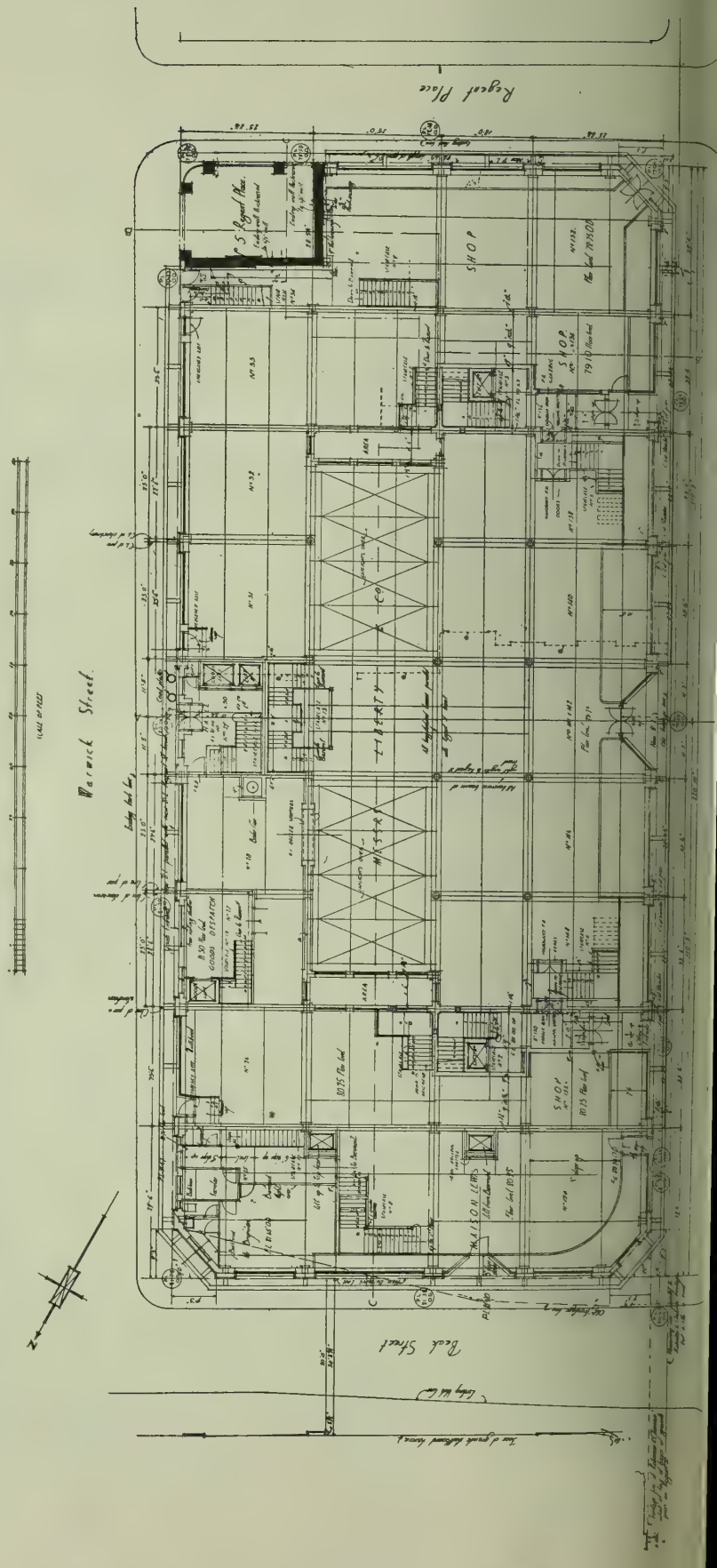
THERE is certain pleasure in store for those who appreciate water-colour art in the present exhibition of the R.W.S. in Pall Mall. The good things are not scarce, and it is a welcome sign that so much is being done in low-toned and non-theatrical painting. Such pictures as Nos. 29, 31, 38, 59, 60, 81, 84, 106, 112, 122, 156, 192 and 198 at once compel one's interest. Oliver Hall, S. J. Lamorna Birch, Frank Brangwyn, W. T. Wood, E. T. Holding, Harry Watson, A. Reginald Smith, R. Thorne-Waite, and Jas. Paterson are amongst the mainstays of an excellent exhibition. Harry Watson's simply expressed "Departing Day" (12), Oliver Hall's fine study of "Dorset Barns" (8), E. T. Holding's admirably transparent "Black Country" (7), Sir Hughes-Stanton's fine "Sunrise, Athens" (26), S. J. Lamorna Birch's charming decorative drawing of "The Silent River," Henry Rushbury's graphic monochrome of "The Market Place, Assisi" (41), Harry Watson's vivid "Welsh Moorland" (78), Nelson Dawson's dainty and poetic drawing in warm greys of "Daybreak" (102), and Cecil Hunt's finely drawn "Arco" (101), are only some of the subjects which one might particularise for their artistic vision and skilful technique. Whether we are as progressive as we might be is possibly doubtful, but we are honestly glad to find so much sincere and able work by artists who do something to uphold to-day the reputation of English and Scotch water-colour art.

COTSWOLD GALLERIES.

In the pleasant little Cotswold Galleries is a small exhibition by Cotswold and other artists, amongst which we find nothing of outstanding interest. The tight handling of some of the drawings and unhappy composition of others suggest a lack of artistic inspiration and freedom of outlook. Mr. Griggs seems happiest in black-and-white, W. T. Wood has a dainty drawing of "Early Spring in Kew Gardens," Kenneth Hobson has a nice drawing of "Ludlow Castle," and Chas. M. Gere and Margaret Gere make pleasant contributions.

DRAWINGS BY MR. GERALD MOIRA.

The brilliant sketches by Mr. Gerald Moira at the Beaux-Arts Gallery in Bruton-place have quite a fresh interest for those who have associated his name with the production of elaborate decorative work. There is a spontaneity and fascinating quality of gay luminous colour in some of these sketches which make them very attractive; most of them are recent and have not been seen before. The "Peasant Funeral in France" is very admirable, and in its colour and drawing finely depicts the subject. The sense of scale conveyed in the grouped figures behind the great curtain in the "Russian Ballet," and the fine drawing of the "Long Water, Kensington Gardens" and "Bathing" are specially noticeable. The interesting panel of "The Cornish Floral Dance" shows what a natural and easy instinct the artist has for decorative values, whilst his two other drawings hung on either side, "The Spirit of the Slag-heap" and "The Lapis Pool," have a distinction of design in drawing and colour which do not come to many artists. We hope we shall see more of the lighter side of this able artist's work. In the gallery of Mr. Frederick Lassore, the sculptor, is fixed a large mural painting by Moira entitled "Sacrifice, a Proposed War Memorial Painting," which is admirable in its composition. We venture to think the little child in the centre of the foreground would have functioned better in the design if it had less of a set pose and not so very apparently making a direct appeal to the beholder. We know it is easy to criticise, but we are also sure this is not the very best this accomplished painter can do.



Chesham House, Regent-street.

MESSRS. HENRY TANNER, Architects.

THE "BRISTOL" CHALET AND BUNGALOWS.*

By MANNING ROBERTSON, A.R.I.B.A.

eople will agree that in respect to the of houses we have had a sufficiency of ibly a surfeit of talk. Not that talk t value; on the contrary, the mere a of the necessity of reform undoubt- a powerful influence in convincing the at something must be done—if only e talk. The Chairman of the Bristol Committee, Councillor E. W. Savory, come forward with a proposal for using, involving departures from the ule both as to design and construction. artures raise the important question r it is justifiable to modify our pre- standards in order to meet an emerg- h is little less than a menace to our

In the attempt to find a solution ely justified in making any experiment hoose, within certain strictly defined s, which may be described under the three heads :—

house must be one in which a family health and with at least a reasonable comfort. This means that it must be adequately lighted and ventilated, ssential amenities such as baths and must be provided, and that the sexes iven separate accommodation.

house must be reasonably durable. ss to build shanties that can only last teen years, since we cannot allow to be faced with rebuilding in 1935, our energies will then obviously be rbed in keeping pace with current

houses we build must not spoil fresh ountry; in other words, they must need not be ugly.

two essentials constitute boundaries ch we may not carry economy. The ly concerns the financial side at all, ands a little knowledge and thought rt of the designer. Nothing more.

be said at once that the "Bristol" the two bungalows appear to conform with these three points, but before the suggestions in detail it is import- phasise that only in those districts al authorities really mean business ny chance of adopting this suggested onstruction, or anything like it. It ole to overstate the responsibility at orne by local authorities. If they usiastically upon a serious attempt the problem of their local housing nd are prepared to use their powers the obsolete, or—for the moment— ent, demands of their by-laws, the ear to a move forward, since each can summon a conference and ascer- can be done in the way of erecting ses in the district, consideration n to local conditions, such as the of ballast, clinker, sand, bricks, &c.; oment a local authority forgets that inst a live problem requiring common settlement, and adopts the attitude t's silly, but it's on page 26, para. 3, k of by-laws," the situation is next peless. It is true that section 13 of Housing Act gives the Ministry of wer to force a change where by-laws ring progress, yet the time wasted this into operation, and the ill- endered in such proceedings, mean in hat much valuable time is lost, and manent drag is applied. To suggest local authorities regard their by-laws nct revelations from Heaven is not them of dishonesty, rather they are a misguided zeal. They gain nothing ld but obloquy and abuse—but they using.

It is useless to devise methods for clearing the second hurdle until the first is successfully surmounted, and in considering the Bristol proposal we must assume that the local authority of the district concerned has vaulted its own ringed fence and is really anxious to co-operate in sensible proposals, even though they be new ones. Granted that this be the case, how far would the Bristol proposal help in the present crisis? We have, unfortunately, no exact figures of cost, the original estimate of £195 being admittedly too low, but it is at least certain that in most districts houses built on the Bristol method would be considerably cheaper to build than the ordinary brick or concrete house. It would be of the greatest value to build some experimental bungalows in different districts and to compare the cost with that of ordinary houses of the same size.

Mr. Savory would probably be the first to admit that his plans are not ideal, and he would no doubt point out that his method of construction can be applied to any other bungalow plan, but he would probably say that his plans represent the limits to which concessions can properly be made under point (1). A bath in the scullery is, of course, not ideal, but it is so much better than not providing a bath at all that the economy of omitting a separate bathroom may be justified, especially when the scullery is not a passage room. The plan of Bristol Bungalow No. 2 might be improved by placing the bath adjacent to the copper so that hot water could be provided to the bath by a direct tap. In the Bristol chalet a double bed is shown in a room 9 ft. 6 in. by 6 ft. 6 in., which seems rather optimistic; in this plan, where the living room is to be used as a child's bedroom, it is especially important to obtain the warmth of the range in the living room, but at the same time to keep the cooking as far as possible in the scullery; in the chalet in question the range backs on the scullery, and it would be easy to insert a range which had its fire in the living room, but the oven opening into the scullery. Such appliances are on the market. An iron flue may not be beautiful, but it certainly allows the products of combustion to do their share in warming the house.

The construction is, however, the important innovation, and is designed to make possible the erection of houses with the minimum of skilled labour, the shortage of which is extremely serious in almost every department of building. It seems rather a confession of bankruptcy in the year 1923 to have to revert to more primitive methods, but abnormal circumstances, complicated by the refusal of trade unions to allow of dilution, the fact that skilled men were lured away to other callings during and after the war, and have not come back, and the lack of any regular system of apprenticeship, have led to an almost hopeless deadlock. The attitude of the trade unions is, of course, due to the spectre of unemployment, and the tragedy is that the dread of future unemployment itself creates additional present-day unemployment; but any practical solution directed to relieve bottle-neck pressure in the labour market improves the general circulation and is of infinitely greater value to the community than a hundred political panaceas.

The Bristol construction consists of a steel skeleton carrying steel roof trusses which, except in the bedroom, are exposed; heavy galvanised iron sheets tarred both sides are laid with corrugations horizontal to form the outside of the wall, and a 4 in. air space separates the galvanised iron from a 4 in. wall built of breeze blocks. Clinker would be far more reliable than breeze for the inside walls, and care would have to be taken to keep the steel framework entirely free from the clinker. It should be possible to carry the elimination of skilled labour from these houses a stage further by omitting the internal plastering and by nailing asbestos cement sheets direct to the clinker face and papering or distempering over. The floors of the living rooms and bedrooms are of one inch boards nailed to fillets secured in the concrete. Here there would be serious danger of dry-rot, especially if linoleum were laid, or improperly-seasoned wood used, and one might suggest that a form of jointless flooring not colder underfoot than linoleum would obviate the risk of dry-rot and at the same time be easier to clean. The roof is shown tiled with an ornate bargeboard that might well be plain or omitted altogether and an 18 in. projection is given to the eaves. This eaves projection would add enormously to the appearance of the houses, and since good appearance nearly always has some structural significance, the heavy projection would save the walls from full exposure to rain and thus materially lengthen their life. Mr. Savory considers that these bungalows should last 50 years, and they would no doubt do so if the iron were kept tarred at frequent intervals, but in industrial towns any carelessness that resulted in exposing the galvanised iron would result in its disintegration in a very short time, although even then it would not be difficult to renew.

If, as one hopes, this movement towards greater freedom spreads, it is of the utmost importance that designers should realise that the appearance of these chalets and bungalows will depend, not upon adding so-called ornament, but upon preserving good proportions in doors and windows, a good variety of colour in the tiled or slated roof, a good eaves projection, and possibly simple trellis porches. Too great a degree of standardisation would be highly undesirable, but even to admit complete uniformity would be better than to attempt to differentiate one from the other—to give individuality—by sticking on any kind of useless and applied ornament.

Finally, it must be confessed that the unceiled rooms in these bungalows would be cold in winter and hot in summer, but it may well be argued that it is better to live in a dry and comfortable house that was rather extreme in its variation of temperature than to exist in a damp, dark cellar or a leaky attic while people outside were talking about building the ideally cosy home.



An Old Fireplace, the "Mitre" Hotel, Oxford. *(See p. 717.)*

Housing Losses.

The loss upon the Assisted Housing Scheme at Coventry for the year ending March 31 last is now reported as £38,240 11s. 1d., of which the City Council contributed £2,097 18s. 5d. (the proceeds of a 1d. rate), and the Government £36,142 12s. 8d. The scheme comprises 579 permanent houses and 738 temporary houses in converted hostels, a market arcade or shopping centre at the Holbrooks, and men's hostels at Whitmore Park. The Council have still 50 houses in course of erection and vacant sites of about 148 acres.

se were illustrated in our last issue.

THE PROPOSED NEW BUILDING FOR THE INTERNATIONAL LABOUR OFFICE, GENEVA.

THE report of the jury appointed to adjudicate on the designs submitted in the recent international competition has some points which may be of general interest. It will be remembered that the competition promoted by the International Labour Office of the League of Nations was open to Swiss architects and those of "Allied" nationality who had practised in Switzerland for at least ten years. As a consequence it is not, perhaps, surprising that among the 69 sets submitted there do not appear to have been any by British architects.

The jury was composed of a representative of the promoters, M. Fontaine, President of the Council of the International Labour Office; of the Swiss Federal Government, M. Usteri; of the I.L.O., Assistant-Director of the International Labour Office; and four architects—MM. M. Brincourt, Société Centrale (France), A. Guyonnet and M. Turrettini, Société Suisse des Ingenieurs et Architectes (Switzerland), and Mr. E. P. Warren, F.R.I.B.A. (Great Britain).

The programme of the competition was well drafted and gave full particulars of the accommodation required, the nature of the site (which was also shown by several photographs), and made it clear that the estimate of cost calculated on the basis of 50 francs (Swiss) per cubic metre must not exceed a total of 2,500,000 francs.

It is satisfactory to note that the jury, in their award, have taken all these points into consideration and, in consequence, arrived at the conclusion that none of the schemes submitted could be recommended for the execution of the proposed building without modification.

Before proceeding to examine the designs sent in the jury listened to an address by M. Albert Thomas, Director of the International Labour Office, on the purpose of the proposed new building, and inspected the site, accompanied by Mr. Lloyd, Chief of the Administrative Staff of the Bureau.

The examination of the designs followed the usual system of progressive elimination at successive meetings, although one set was immediately put "Hors concours" on account of "complete negligence of study and in the presentation of the project." The eleven sets which remained after the third session were subjected to a careful examination as to their "cubing," and the jury arrived at the conclusion that a margin of 5 per cent. could be admitted; in other words, that a total cube of 52,500 metres in place of the 50,000 given by the strict interpretation would be permissible. As a result of this verification of the estimates five of the remaining designs were eliminated, and in their report the jury express regret that the authors of several interesting designs did not pay sufficient attention to the very definite instructions on this subject contained in the programme. It was decided that five premiums should be awarded, but that no first prize should be given, as none of the designs was of sufficient merit to be recommended for execution.

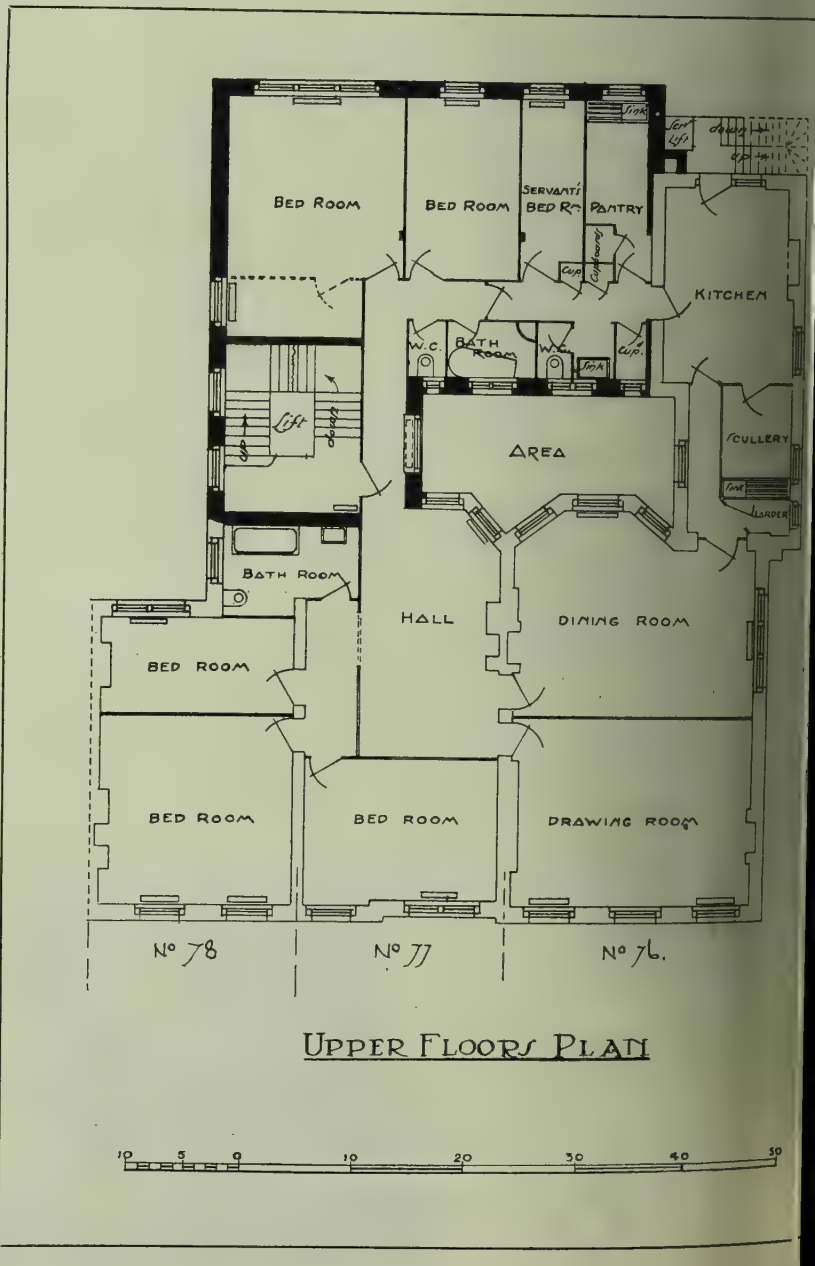
A detailed criticism of the remaining designs follows, of which it will suffice to give a translation of the remarks on the design placed first—No. 46, motto "47.546 metres cube" (M. Epitaux)—illustrated in our last issue.

"Cubical contents as given, 47.546 metres cube; exact cubing, 47.546 metres cube. One of the best plans as to situation ('implantation') on the site. The unsymmetrical plan is original, but presents certain difficulties in detail. It possesses the advantage of giving nearly all the offices a share of sunlight. The general dispositions of the plan are clear. The principal staircase is too important, and its connections with the secondary staircases are not happy. The grouping of the administration offices on the right and those of the Council, Director, and the Library on the left is an advantage. Certain details were defective. The President's room is too small and badly proportioned, and the lighting of a part of the library by a lantern is perhaps not sufficient, and the same criticism applies in the case of ventilation. The façades are simple and well proportioned. Architectural features on the front facing the lake add importance to the two garden entrances, and add interest to this too monotonous façade. This design is in accordance with the conditions of the programme, and has the advantage of a cubical content to that of most of the other sets."

The jury conclude their report following observations: "The price per cubic metre for the construction considered as a strict minimum. It is that the Direction of the International office should endeavour to reduce the number and area of offices, &c., if it is desired that the total cost sh exceed the price of 2,500,000 francs, as (in the programme of the competition)

We give these extracts from the r this competition, as they may be of i giving an idea of the methods and p adopted in an important public co under the jury system.

		Awards.			*Architect.*
First class	(5,500 frs.)	No. 46	Motto "47.546 metres cube"		M. Epitaux (Laus
Second class	(4,500 frs.)	„ 17	„ "Labour"		M. Thévenag (Lau
	(4,500 frs.)	„ 31	„ "Cheap"		M. Laverrière (Lau
Third class	(3,500 frs.)	„ 2	„ "Avenir"		M. Savary (Geneva
Fourth class	(2,000 frs.)	„ 27	„ "Pax Vobiscum"		MM. Rittmeyer an (Winterthur).



UPPER FLOORS PLAN

Nos. 76-78, Sloane-street, S.W.1.

MR. PAUL HOFFMAN, Architect.



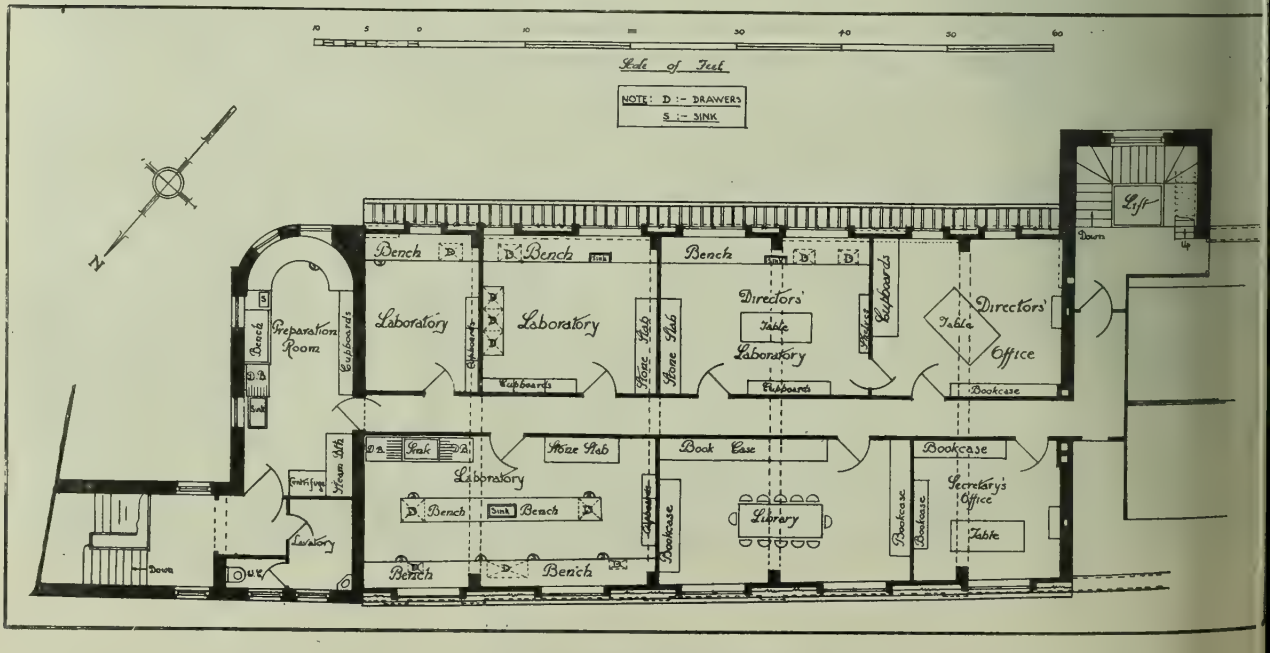
Nos. 76-78 Sloane-street, S.W.1.

Mr. Paul Hoffman, Architect. (*See p.* 721.)



ELEVATION TO GARDEN.

[The top floor is the new portion.)



PLAN OF NEW THIRD FLOOR.

Additions to the Bland-Sutton Institute of Pathology, The Middlesex Hospital.

MR. ALNER W. HALL, F.R.I.B.A., Architect.

ARCHITECTURAL COMPETITIONS.

llowing abstract of a paper entitled volution of the Architectural Com- read by Mr. H. V. Lanchester at l Institute of British Architects in 15. was referred to in our leading st week. and is given in view of the n the subject at the present time.

f the earliest undertakings of the stitute of British Architects was the ent of a committee to consider public ons. Their report is well worth per- I can only now give you a few as showing the point reached at the ne report. January 24, 1839.

uns as follows: "The arguments in favour of competition are suffi- rcible. Emulation is said to be the xcellence in the arts and sciences— gnised talents of the elder professor sed to be maintained in activity and e improvement, and his employers tected from the routine manner which n public patronage and private prac- oo apt to produce: while the oppor- afforded to the young aspirant to place in public estimation to which s may entitle him."

we find: "But whatever the condi- y be. they ought to be clear and that the competitor may know pre- d unequivocally upon what he has Whenever it may be expedient to lay inite instructions, they ought to be dhered to, when judgment is to be pon them, and every design rejected ll be found not to conform to them. aming instructions care should be distinguish accurately between the o be attained and the means of them. The former cannot be too ascertained, or too explicitly de- ut the latter should be left as much e to the architect, for otherwise a ope will not be afforded for the f a variety of suggestions, and one of competition will be frustrated. er, there should be a decided bias of any particular style or mode of n, it ought to be ascertained and the instructions." And in another . "The formation of the pro- pon which competitors are required heir designs becomes, therefore, the tial point for consideration, and a on this point is perhaps the most il in the present system. The pre- s to be attained, the most desirable attaining them, the circumstances control the plan with regard to the her localities, the sum of money to ed, and many other particulars in ry case of competition brings its eldom ascertained and settled so as groundwork of well-defined instruc- which competitors may proceed. decision is to be made, the judges r the first time that they have been f their own intentions; their loose gested instructions are abandoned and the architect, who has acted greatest good faith in adhering to e first to be deprived of his reward. view of the case, an architect, have suggested a design not recon- h the crude, undigested, and per- adictory preconceptions cast into nme, may virtually exclude himself mpetition, and his employers from n of his ideas."

phlet written in 1861 the late M. deals with Competitions for Public . The term "monument." of s a wider significance with the n with us, and includes all im- blic buildings. M. Daly takes the the competition is vital to archi- gress, and emphasises the follow- ion: "We require the competition sable for ascertaining periodically and definitely the direction of architectural ideas." He regards the nomination of the jury (the jury system is not questioned) as the greatest technical difficulty in a competition, on account of the demand that all schools of thought should be represented, and the difficulty that these have in finding a common ground on which a logical decision may be based. After canvassing the various interests that should be represented on the jury for an important public building, he comes to the conclusion that it should number thirteen, appointed as follows:—

L'Institut		
L'Ecole des Beaux-Arts	to nominate	
Le Conseil des Bâtiments	jointly	.. 2
Civils		
Le Comite des Monuments Historiques		.. 1
La Société Centrale des Architectes..		.. 2
L'Administration	Administrators ..	.. 2
	Laymen	.. 2
The Competitors		.. 4

He supplements this by a note that some buildings cannot be thoroughly understood without the advice of a technical expert familiar with their uses, but in a jury of the size suggested he naturally sees no difficulty in including one so qualified, either with or without a vote.

M. Daly goes at some length into the methods which should be taken by the jury to reach a decision, but in regard to these I can only refer you to his work, which is in the R.I.B.A. Library. He continues with the modifications necessary in forming the juries in provincial centres, suggesting one partly local and partly national, and at the end advocates the competition as of great importance in encouraging an active interest in architecture among the general public. He feels that were full advantage taken of the opportunities it offers in this direction, architecture might once more take the place it held in the sixteenth century as an art generally understood and widely appreciated.

In 1908 the R.I.B.A. appointed a Special Committee on the Jury System of Assessing Competitions, which reported on November 10, 1908. as follows:—

"1. That in competitions for works, estimated to cost £100,000 or over, the jury system be adopted, subject to the following conditions:—

"(*a*) That such jury shall consist of three architects of experience and ability:

"(*b*) The Chairman of such jury shall be nominated by the President, and the other members by the Competitions Committee.

"2. That in competitions for works estimated to cost between £30,000 and £100,000 there shall be one assessor and two assistants, subject to the following conditions:—

"(*a*) That the assessor shall be nominated by the President, and shall be responsible for and make the award.

"(*b*) That the assistants shall be nominated by the Competitions Committee, and their duties shall be advisory only.

"3. That in competitions for works of less value than the above the present system of assessing shall continue.

"4. That the scale of fees for assessing competitions at present set out by the R.I.B.A. be adhered to.

"It is suggested that the full fees be divided in equal shares between the three assessors after deduction of 30 guineas, which the Chairman should receive.

"A similar division should be made in the case of the assessor and two assistants.

"5. That the above Resolutions should be regarded as framed for the guidance of the President, who shall have discretion to vary their application as circumstances in particular cases may require.

"6. That, subject to the approval of the Council and the sanction of a General Meeting, the foregoing suggestions be incorporated in an official R.I.B.A. Paper headed 'Regulations as to Assessing Competitions,' with subheading as follows:—'Subject to special circumstances, which in the judgment of the President may justify their variation, the following rules should be adopted with regard to the assessing of Competitions.'

"7. That the Competitions Committee shall prepare a list of assessors for the assistance of the President. Such list to be revised from time to time, at least annually."

A Minority Report in the following terms was appended:—

"The undersigned members of the Competitions Committee, while cordially supporting the recommendations of the Committee, feel impelled to add that it is their view that the present dissatisfaction is due less to the existing methods of assessing than to the lack of any defined and recognised standard as to the qualities that should distinguish a fine building, and that in default of such a standard no system of assessing, however perfect in itself, can do more than mitigate the evil.

"They consider, therefore, that the best efforts of the R.I.B.A. should be directed towards promoting a unity of aim in regard to architectural expression. This, however, does not appear to be a question on which any immediate practical recommendation is possible, being a matter of slow growth, the outcome of a better system of education. In the meantime the absence of such unity must affect the method of assessing, and the divergence of aim and difference of opinion among architects make some application of the jury system more than ever advisable.

"They believe that a jury such as is recommended by the whole Committee for large competitions might eventually be adopted for all, provided some means of remuneration could be devised that would be generally considered reasonable. It may be pointed out that this difficulty would disappear if the view (now held by many) becomes general—viz., that the office of assessor is one of distinction rather than profit, and that architects should not allow the question of remuneration to outweigh the interests of the profession as a whole, and should be prepared to act in an honorary capacity if these interests demand it.

"In such a case, fees on the established scale might be made payable to the R.I.B.A., who would call upon its members to act as assessors for such remuneration as the competitions fund might admit."

From these sketch outlines of the history of architectural competitions it will be clear to you that knowledge has usually been very much in advance of practice. Two reasons may be adduced for this. The first is the lack of a systematic training in the profession as to what the essentials of architecture are. With the greatest artists these essentials are comprehended by intuition, and it would be unfair to expect their formulation. But in an art such as ours it is necessary to the formation of a proper judgment that they should be recognised and formulated, and this is the work for those who have the capacity to do it.

Training in architecture, in this country at any rate, has always been rather haphazard and empirical. This was not so serious when only those who had the strongest possible natural bent towards it took up the profession, but when the doors were more widely opened the educational methods should have been more definitely organised than has been the case, and the logical basis on which our art now rests made the foundation of its study. Had this been done the professional handling of competitions would have been a much easier matter and the results much more satisfactory.

The second reason why our practice does not reach our standard of knowledge lies in the necessity for compromise in dealing with promoters, who often only partially understand the real purposes of a competition, and even when they do, are technically inexperi-

enced in the methods best suited to achieve these.

Now I wish to be quite fair to promoters, and I must say that, when recommendations are put lucidly to them from a clear, logical standpoint, it is my belief that in most cases they would accept advice so supported. The responsibility for seeing that they receive this rests with the architects, and more important competitions have fallen short of the standard they might have reached by our own default than by reason of any intentional malpractice on the part of promoters.

I shall be able to deal with these points more clearly by taking the three parties to a competition in turn, and endeavouring to define the functions of each, in relation to the methods by which, in my view, they can best discharge their respective obligations.

These three parties are: (1) The promoters. (2) The assessors or jury. (3) The competitors.

The promoters may or may not schedule their requirements before inviting professional aid, but this is almost the full extent of what can be profitably undertaken without consultation with the professional advisers who are to conduct the competition. It is therefore more convenient to consider the functions of promoters and assessors together. We can realise more clearly the relationship between them if we grasp the fact that it is in every respect similar to that between client and architect during the earlier stages of any projected building work. Just as the architect gives advice on the suitability of a site, adequacy of cost, accommodation needed, and all other matters that are not predetermined by force of circumstances, so those that adjudicate in a competition should advise the promoters. The fact that a competition is to be held in no way justifies the abandonment of these preliminary consultations.

No reasonable man in employing an architect fails to consider his advice, even if he does not always take it, from the very beginning of the undertaking, and promoters ought not to deprive themselves of this, even though the ultimate architect has yet to be selected. The idea that everything must be in shape before the assessor or assessors are appointed is utterly wrong, and has been responsible for the comparative failure of many a competition.

On the architect's side this responsibility has not received much more definite recognition than with the promoters. Assessors have often failed to realise that they ought to give the same meticulous consideration to the various aspects of the proposition as they would in the case of a building they were invited to carry out themselves. It is their duty to see that the interests of the promoters suffer in no way through the successful competitor not having been in personal touch with them from the beginning, and assessors can best realise this requirement by regarding themselves as representing the unknown competitor who will ultimately take up and continue their work.

Continuity from start to finish, such as we find in non-competitive work, is the great need in competition practice. At present there is a tendency to cut it up into three distinct stages, greatly to the detriment of the result. The first stage before the appointment of the assessor or jury, the second during their appointment, and the third after the selection of the design.

To put competitive practice on a sound basis, the breaks between these stages should be bridged over, and I venture to suggest a procedure by means of which this may be achieved. I do not say that there may not be better ways: the one I put forward is merely a suggestion as to the type of procedure that might be appropriate.

Let us assume that some public body is promoting a competition and has appointed a building committee. After some preliminary discussion they would ask for the appointment of an architectural adviser, and depute two well-qualified members to confer with him, possibly the chairman and city engineer, or chairman and medical officer, according to the class of building. These three would draw up the programme. Before issuing this, two other independent architects would be added to form a jury of five, and on the programme having been agreed by them, it would be issued to competitors. The usual stages of questions, replies, and receipt of designs having been passed through under the supervision of this jury, its members would jointly make their award, dealing very fully with all the considerations necessary to inform the successful competitor as to any fresh aspect that has occurred to them during the adjudication. Their award might be in two parts—one for publication, and the other more in the nature of a confidential communication to the selected architect in order to make him conversant with problems and difficulties that may affect the further development of his design.

I do not think I need say more on the promoters' share in a competition, and will now turn my attention to the assessors.

I have often heard it said that a good architect is necessarily a good assessor, but to my mind this is not the case. The expression of personality within the confines of architectural technique is the measure of artistic quality, but the less imaginative man with a better training in technique may be superior as a judge to the greater artist who is perhaps unable to analyse the operations of his own mind.

Now the same intuition that enables an architect devoid of the analytical faculty to produce a brilliant design may empower him to select the ablest one submitted in a competition. That is not the weak spot in his equipment as an assessor. This will be discovered in the earlier stages, such as discussions with the promoters and the preparation of the programme. To place the issues properly before a clear-headed business or professional man whose experience is outside the technique of art demands a faculty of logical exposition and an experience of the difficulties involved which are not essential concomitants of imaginative force. Of course, "the legal and logical mind" is useless without artistic ability, but artistic ability is equally useless in this case if its methods are intuitive.

You will notice that in my suggestion for the conduct of a competition I have introduced one of the architects a stage earlier than his two professional brethren. I have done this in order to take advantage of employing one, specially qualified by his attitude of mind and his experience, to thrash out with laymen those points of detail and method that are so often misunderstood. He is thus "the forerunner" who paves the way for his association on the jury with one or more whose artistic qualifications may perhaps rank higher, but whose limitations in other respects might preclude their being entrusted with the conduct of a competition.

As a general rule, experience as a competitor is almost essential as a qualification for the single assessor, but in the case of a jury this experience may be dispensed with in some of its members if it is in other respects advantageous to have a wider field for selection.

To use the phrase quoted from César Daly, "the direction of architectural ideas" is subject to gradual change, and the pioneers of one generation become the exponents of the academic school in the next. In order, therefore, that vital fluctuations in our art shall receive due appreciation it is desirable that the adjudication of competitive designs shall not be entirely in the hands of the older and more experienced men, whose sympathies are liable to incline towards the earlier as against the newer methods. At the same time experience and mature judgment are invaluable, so that one of the chief recommendations of the jury system is the facility it affords for securing both the experience of the elder and the fresher point of view of the younger men.

Finally, we come to the compet when he has decided to compete, to master the programme, or con the document is more usually called the conditions include the program is the part essential to the prep the design. If the programme is w up it should at once give the co good general impression as to wha moters have in their mind; if it i competitor, by much reading and will gradually obtain, from acc phrasing here and there, some id points to which importance is attach a good programme no further should be needed, but with a bad competitor can help to patch it up of questions on salient points.

From the competitor's point of best programme is one that stat what is wanted but makes no atte dicate how these wants are to be pr As a rule, the allocation of the rel tions for the accommodation asked mistake, tending to hamper freedo conception of the design. If specia ments have to be met, it is far b these should be thoroughly explained attempt made to anticipate the co work by specifying some definite ment.

Holding the views I do with regs basis on which a competition shou cided, I must point out how rare double competition of advantage to t peting. The double competition ha where the promoters and their adv been unable completely to formu views, but almost its sole use is i before them a series of definite solu which they can realise how they h to grasp and express all that the mind. They are then able to suppl programme and secure a design mo approximating to their requirements is clearly recognised it disposes of ment for or against double competit promoters are obviously entitled to the problem is so complex that only of a double competition can the b be secured, but solely on the ground after seeing sketch solutions can all culties be realised. After all, one client has often to see two or thr sketches before he can fully explai The main difference is that the could usually clear up difficulties of and where they can the double c becomes unnecessary.

I ought not to omit a brief refere International Competition. Conside satisfaction has been felt with the many of these, and so long as there marked national distinctions, both tectural ideals and in the whole t the architect, it will be difficult to a It is all very well to regard art as a language, but if it is, the diale vastly, and no civilised people c developing a national form of expre be equally satisfied with any other fore each member of an internati will probably have an instinctive bia the work of his own countrymen, ever impartial each may desire to very difficult to arrive at unanimity, if the exhibits at a flower show mixed up and you were asked to de the finest flower amongst them. then we may find an architect tem ally qualified to adapt his ideas to environment, but except in such a unlikely that his work will be entire able in a country not his own.

Dover's New Mayor.

The Mayor of Dover for the ensu Councillor Richard John Barwick, is a local building contractor, and was 1921-22. His father was a builder but Mr. Barwick learnt his business wi Walter Lawrence & Sons, of Finsbu London.

OUR SCHEME COMPETITION: VESTIBULE DESIGNS.

nterprise of Messrs. Thomas Parsons & l merited the response attained by the con'est of colour schemes for the e treatment of the octagonal vestibule onnects their premises, 315 and 317, reet. For this purpose as many as gns were submitted. No doubt the f the occasion was largely due to the artistic talent furnished by the list of ors, who have this week awarded the 100 guineas, 50 guineas, 25 guineas, solation prizes of £10 10s. to five other ors. These assessors were Sir Edwin R.A.; Sir John Lavery, R.A.; Sir urray, R.A.; Mr. Frank Brangwyn, nd Mr. E. Guy Dawber, F.S.A. The d schemes are now on view in a room the vestibule. Visitors, therefore, can ir own opinion as to the suitability of ted proposal.

A. Cox, of 120, Adelaide-road, N.W. 3 is the winner. Each competitor was with a sheet of paper on which a perview of restricted size was in line drawn h had to be coloured to exhibit the deby this wise precaution all the competines are of uniform scale. The apartment corated is octagonal on plan with a aucer vault, and its position is on the at top of the main staircase, from he vestibule is entered under a fourrch. To the right and left are glazed ors, and in front a recess, also arched ile on the two splays are semi-circular ches, each side of the octagon having with a cornice running round, except e arch from the staircase is situated. is be understood that the architectural of the vestibule is rather busily consequently a broad simplicity of e treatment would appear to be the opriate method of solving the problem. the choice remains very much a f taste and individual preference. of the majority settled the award, derstand that the final result was not nanimous.

t and second premiated schemes differ in detail, except that both happen to oted the same principal variation due ing the pilasters and surrounds to the borways in black as well as those to e-backed recess, while the pilasters splay are in both designs finished in red. The continuity of the archimain mural features is thus ignored. singular that this partial treatment ve been chosen, instead of the more ous, not to say consistent, treatment In some other schemes, and notably 66, by Miss Violet L. Timms, who ngly uses vermilion red throughout. he point with the other the assessors decided in favour of Mr. Cox, and hey may be right. His domical ceiling ws, with arched ribs of gold broken by ell patternings (only partly shown), nd of clouds running round the saucer up its soffit. Over the niched arches l cartouche is introduced, shaded on the pendentive positions (so to speak) een central device surrounded by a , and gold scroll in a Baroque fashion g the shape, and these ribbons conir knotted frolicsomeness over the nd recess arches—rather detrimental uctural breadth where a plain surface be most needed. We suggest their and also, instead of the figure panel the recess where workmen are introsnewhat after the manner of Brangwyn), cent-glass illuminated transparency arched head might be an improvertificial light in any case will be The looking-glass proposed in No. 381 nd premiated scheme, by Mr. K. this same position would be objectionable because it would not only reflect the spectator, but also the staircase and windows beyond, thus increasing the restless effect of the whole thing. The apex of Mr. Cox's saucer dome consists of four circular bands in vermilion, from whence radiate seven tapering bands extending from a red disc in the middle and ending on a continuous fret of gold relieved by white, which also nicely separates the beforementioned bands. The floor is black with a yellow surround. We think this capable proposal could be simplified with advantage, and that the black treatment might be modified as already indicated.

The second premiated scheme, by Mr. K. Anna, 5A, Sinclair-gardens, W. 14, provides a much broader management of the ceiling, but his red radiating ribs, which assume an almost structural scale, diminish so rapidly as to reach vanishing point before they arrive at the top and mingle with the stencilled yellowish crown, where grey colour is introduced. These alizario crimson ribs have gold shells and trophies at their base. The black doors are picked out with grey, and the entablature and other mouldings are elaborated with frets in gold and red. Other ornaments are in green. Painted floral devices on the soffit of the dome occur over the niches. The floor is big in scale, with starlike patterning in grey and broken white, like marble in design, but probably to be executed in cork or linoleum.

Mr. A. W. Wall, Bonnington-crescent, Sherwood, Notts (No. 485) takes the third premium. His proposal is not shown to advantage, being so sketchily drawn, with a patchy effect. The pilasters and arches are to be carried out in yellows, ranging from burnt sienna to lemon chrome,, and partly in orange with a vermilion plinth as a contrast to the yellow upper part, where red is sparingly used for the architraves. A disconnected broad mural frieze in solid black rises above the springing line of the arches to the niches, in the splay, and ends at the bottom of the cornice. The doors are left brown, with white glass glazings. The floor is in dark green. The domical ribs of the ceiling are merely suggested by a slight difference of yellow. This in artificial light becomes uncertain to judge. The vermilion disc at apex of the dome is emphatic enough at all events.

The first consolation prize design (according to the hanging in the exhibition) is by Mr. E. R. Phillips (No. 225), of Plymouth. The idea is delicately conceived and nicely treated, if not conspicuous for effectiveness. The diapers on the pilaster bottom parts, in yellow and grey, with plinth mouldings in green and blue, are liable to appear trivial; the same enrichment is repeated under the caps. Figure panels, elaborately designed, are introduced on the three sides of the recess, but highly finished pictures seem rather out of place where the main purpose is intended to be, from the promoters' point of view, to obtain effect by fields of matt or glossy plain painting without relying on artists' panel pictures of figure compositions. A statue is placed in each niche to justify these paintings. Yellows of differing values for the vault and ribs are adopted, with sky-blue narrow bands as an edging to the ribs. The doors are of greenish drab like the panels below the pictures.

No. 366, before mentioned, is a masterly bold venture by Miss Timms, of Croydon, who has justified her strong red handling of the architectural structure by fillings of Oriental boldness (rather Chinese in detail), with green-stemmed fruit trees and odd Asiatic flowers distributed on a black background. These extend over the vault, the whole being set off by vermilion surrounds. This is quite the most striking design in the exhibition. The fact that the vestibule is always intended to be lighted by artificial light justifies this idea as contemplated by the competition conditions.

Mr. J. Morton-Sale, of Putney (No. 368), relies on monochrome, or rather a treatment of differing browns, with a glossy face, being skilfully managed. Dark bands emphasise the structural lines. At the summit of the ceiling the amber glass cone drop-light would give a glamour over this scheme and strengthen the horizontal lines by shadows, the top members of the cornice being painted in broken white to increase this effect of luminosity.

No. 463, by Mr. L. E. Robinson, of Bloomsbury, relies on whites with dark grey flutings in the pilasters (already small enough), and also used for the skirtings and fascias. Pale blue is employed for the arches and vaults.

Mr. F. R. Wilson, of Nottingham, is the last hung of the series of consolation prize works. He proposes matt paint, and treats his scheme with very delicate pickings-out, using frets frankly proportioned to a diminutive small interior. But dividing the pilasters into two horizontal spaces is a doubtful expedient. We prefer the bolder and broader handling adopted by Miss Timms (No. 366), and by Mr. Morton-Sale (No. 368). This, however, is at best a matter of taste.

In conclusion one remark seems pertinent, and it has reference to the manner in which Messrs. Parsons' façade, painted in oils three or four years ago has withstood the effects of London smoke and climatic conditions, although the front faces north, and so fails to obtain cleansing by the prevailing rains from the south and south-westerly aspects.



PREPARATION ROOM.

Additions to the Bland-Sutton Institute of Pathology, The Middlesex Hospital.

MR. ALNER W. HALL, F.R.I.B.A., Architect.

THE LIGHTING OF BUILDINGS.

THE second of a series of public lectures, at the Northern Polytechnic Institute, Holloway, N., was given on October 25 by Mr. Lawrence Tye, on "The Lighting of Buildings."

The lecturer dealt with recent developments in lighting and said that, as a science, it was essentially modern. Prior to 1883, when Auer Von Welsbach introduced the incandescent gas mantle, illumination was confined to the use of candles, oil lamps, and naked gas jets—all illuminants which have very definite limitations and obvious drawbacks. About the same date, interest was centred around Swan and Edison's introduction of the first electric glow lamps.

Owing to the recent introduction of efficient lighting and to its very rapid growth, it is easy to understand that a great deal of work has been carried out which is far short of a reasonable and attainable ideal. Reference was made to various sources of lighting available for country house lighting, such as acetylene, petrol air-gas, paraffin superheated lamps, and electrical plant, as well as to the familiar source of supply in towns, namely, electricity and gas from public mains. Acetylene is comparatively cheap to instal and very adaptable to artistic effects, such as for candelabras in oak banquet halls, &c. The cost of running is fairly high, and it is rather impracticable for cooking. Petrol air-gas is very suitable as an all-round medium—for light, heating, or cooking. Its initial cost is higher than acetylene, but cheaper as regards running costs.

Paraffin superheated lamps had a certain value for small schemes, whilst the self-contained electric plant had the advantage of convenience, cleanliness, &c., so far as lighting is concerned, but is, of course, impracticable for heating or cooking, owing to its relatively small output. Having referred to the sources of supply, wiring in wood casing, conduit (screwed and otherwise), and lead covered wiring was referred to, and samples of each type were exhibited.

Reference was then made to the scientific principles underlying sound lighting and to some of the laws which govern illumination. By means of a model, "Inverse Square" and "Co-sine Laws" were demonstrated; by this model, it could be seen that light varies inversely as the square of the distance from a given surface. For example, a surface, placed 1 ft. away from a light of 1 c.p., gave 1 ft. candle of illumination on such surface. If the distance was increased to 2 ft. it was seen how a surface four times the size received the same total quantity of light with a reduction in brilliancy to one-quarter of that received on the surface at 1 ft.; in other words, the intensity corresponds with the square of the distance divided into candlepower. The same model demonstrated the loss of brilliancy on inclined planes, *i.e.*, co-sine law, and gave other useful details.

The bare light source was next explained, and reference made to the small quantity of light which actually reached the working plane direct, the majority of the light being dependent upon reflection from walls, ceilings and other surfaces, which could not be more than 80 per cent. in the case of white surfaces and might be as low as 4 per cent. for deep chocolate and similar colours.

Diagrams were thrown upon the screen indicating the direction of light rays from various types of fittings and the value of opalescent, prismatic and other reflecting surfaces. The diagrams and photographs illustrating these fittings showed that to a large extent the direction of light can be controlled with exactitude, and that with proper knowledge the fittings could be adjusted to any required height or system of light distribution. A comparison was then made between direct, semi-indirect and indirect lighting, showing that approximately 50 per cent. more energy was required to get the same illumination intensity for a semi-indirect system and 100 per cent. more energy for an indirect system as compared with a direct system.

Illustrations were given of the lighting of shops and factories. In the case of factory lighting it was pointed out that the opaque reflectors, whilst giving the maximum value to light reflection, had the effect of creating a low head line owing to the density of the shadows in the upper part of the building, and that a certain amount of luminosity in the reflector had the advantage of lightening the appearance of the building as a whole and therefore creating a more comfortable apartment in which to work. The value of flood lighting was indicated, both from an architectural and an advertising point of view.

In closing, the lecturer invited closer co-operation between the architect and the illuminating engineer, and pointed out that, only by such collaboration, was it possible to secure correct illumination.

An interesting discussion followed, in which the principal speakers were Mr. William Woodward, F.R.I.B.A., F.S.I., and Mr. Keith Braden.

A vote of thanks was accorded Mr. Tye, on the proposition of Mr. T. P. Bennett, F.R.I.B.A., Hon. F.I.O.B.

The next lecture, on "Heating Systems Used in Buildings," will be delivered by Mr. F. Broadhurst Craig, M.B.I.H.V.E., on November 15.

INCORPORATED INSTITUTE OF BRITISH DECORATORS.

"EMPIRE STYLE IN DECORATION."

MR. FELIX DE JONG, President of the Incorporated Institute of British Decorators, read a paper at the Painters' Hall, Little Trinity-lane, E.C., on October 30, on "Empire Style in Decoration." The chair was occupied by Mr. L. Shuffrey (ex-President of the Institute), and among others present were Messrs. Stewart Greene, Drinkwater, Dakin, Anderson, and W. A. D. Englefield (Secretary).

Mr. De Jong said that as the Empire style had been revived a good deal lately he thought a general review of its origin might be of interest. Empire decoration was attributed to Percier and Fontaine, whose names had remained inseparable in the history of the art. They were known principally as architects, but they took as much interest in the interior decoration of their buildings as their exterior, and they might therefore compare them in their work to the Brothers Adam, as they also designed all the interior details, such as ceiling and wall decoration, furniture, fittings, carpets, hangings, so as to make the whole apartment, or interior, one harmonious scheme. Maurice Fouche told them in his biography of these two artists that the beginning of their career was a very laborious one, but after many early struggles their enterprises were ultimately favoured by the fashion of the day, which they were able to guide in the way of good taste and on a sound basis. Percier was born in Paris in 1764 and died in 1838. Fontaine was born in 1762 in Pontoise and died in 1853. His father was also an architect.

Mr. De Jong described some of the important works carried out by Percier and Fontaine in Paris, and pointed out that, although they engaged in the work of interior decoration, they still carried on as architects, and among their masterpieces was the Arc de Triomphe du Carousel. They carried out many important works of restoration for the Emperor Napoleon at Malmaison, the Palace of St. Cloud, and Fontainebleau and the Tuileries. Napoleon was very pleased with their work at his palaces and appointed them architects to the Louvre and other places. Napoleon spent large sums in the redecoration of the rooms at Fontainebleau and this work was executed by Percier and Fontaine, and the Salle du Trone and other rooms were still much admired. Percier and Fontaine were also engaged to d decorative and designing work in with the celebration of Napoleon which were on a very elaborate scale

Proceeding, Mr. De Jong said the the changes brought about at the eighteenth century in the forms o the furniture and the subjects of inte tion. Under Louis XV the general rounded and soft, graceful and l elbows light and delicate. After t revolution the forms were severe, t warm and even violent. This chan under the reign of Louis XVI, the subjects then under the Empire wer the furniture and decoration execu the revolution, such as the eagle and t It was, therefore, admitted that th style was only a continuation of the style. Percier and Fontaine were of the antique, but they were not an They considered that the classical f the purest, and their work was in these lines without absolutely copy but they looked at the antique mon men of the eighteenth century an archæologists. They were preoc much with their elegance as with th of the early ages. They considered interior decoration and furniture ar were so closely allied with constru architecture that they could not l the results with indifference. The r cover up the construction applied a furniture as to a building, and the ornamentation must be subservien architecture. This was the secret influence which these two artists have and the true origin of the perfect ada a style which they guided so well and they deserved to be called the creat

This style, after meeting with success all over Europe at the time of for about fifteen years, was afterw carded under Louis Philippe. It was harsh and stiff, lacking in grace and im The abuse of geometrical forms, the designs of monsters, chimeras, and th comfort in the furniture, all added to its ment. If some of their furniture or s considered too severe, or uncomforta must not forget that they were no made for rest or comfort, but that t made for the use of men of action, for re and other stately requirements. To Empire style was favoured again, but ised and adapted to up-to-date requi the forms and ornamentation were le the furniture, especially the seats, m fortable, and yet retaining the classica ance, the feeling and dignity so well in by Percier and Fontaine.

An excellent series of lantern sli shown, and Mr. De Jong described the ties of the Empire style in the furni decorations in the Emperor's rooms Trianon Palace, Versailles, and at Fonta

A hearty vote of thanks was accord close.

North Shields Building Trades' Assoc

Mr. George A. Leck (President) occu chair at a recent largely attended m the North Shields and Whitley Distri Building Trades' Association, held at Bay, when those present include Bertram, President of the Tyne and Federation; Mr. W. H. Hope, of Sun Secretary of the Northern Counties' Fed Mr. G. G. Carr, of Newcastle; Mr. J President of the South Shields Master Association; and Mr. Chas. Rowell, S of the local Association.

Mr. Carr, at the invitation of the N Counties' Federation, read a paper urg efforts be made in the district to strengt ranks of the Federation. They want members to realise what had been d them, and join. An address was also d by Mr. Hope.

THE HOUSING ACT.

THE DIRECT RELIEF OF THE WEEKLY TENANT.

By JAMES P. ORR.

he many people who are hard hit by evailing shortage of houses the great y have no chance of ever owning a The new Housing Act is devised to e the erection of new houses for both ner-occupier and the ordinary tenant. g the former out of consideration, I in this article to deal with the latter nd to show how the new Act can be to provide low-rented houses for the wage earner.

he present, at any rate, it will nowhere y to get the private builder to erect ouses in large numbers. A few are built by local authorities; but private s are engaged on houses of a larger re costly type for sale to people much off than the average weekly wage The policy underlying the grant of subsidy for houses built before Octo- 1925, with floor area between 500 and ft., is to make the early building of ouses attractive to private enterprise, local authorities my not have to build. end local authorities are empowered t private enterprise by grants and ad- from local funds, the Government king to contribute to these funds £6 um for twenty years for each house ed under an approved scheme before 1, 1925. To ensure that State funds unnecessarily drawn upon, section 2 s that local authorities may make only in accordance with proposals ap- by the Minister, and that, before his approval, the Minister must be l " that the need for such houses can- met without assistance under this

local authorities may prefer to do lding themselves, if they can do so at not far exceeding the subsidy the requires, because then, as owners of ses, they can fix prices and rents to al needs, and select as tenants the serving of those in need of relief from sing conditions. The Act, however, [sec. 1 (i) (*b*)] that the State con- n shall be granted in respect of houses local authorities only where the local ies satisfy the Minister " that the f their area can be more appropriately the provision of houses by the authori- mselves." All this is in strict ac- e with the declared Government policy lding subsidies as far as possible, and g the encouragement of private enter- the main feature in their programme aking good the shortage of houses. enterprise in any locality is sure to by of houses of a type which local ies are likely to build in large num- the near future, and let at less than c rents; so, for fear of discouraging enterprise, the building schemes of uthorities are not to be assisted by ment subsidies if local builders are o supply the houses needed with such ce as the Act permits; and, in any cal authorities are to get no more ce from Government than builders can

local authority's first step must, e, be to estimate the number of houses rent types demanded by local needs. are satisfied that private enterprise will, without intolerable delay, satisfy eds, there is nothing more to be done. think that provision of the required will be deferred too long, unless they they have to decide how far it is y to go in the way of (*a*) grants, der sec. 2 (*b*), or advances, etc., under in order to get private enterprise to local needs. It is clearly laid down in Circular 388a of the Ministry of Health that the local authorities must satisfy themselves that the assistance they propose to give is the minimum assistance required to induce private builders to erect the needed houses; so a local authority will not be permitted to pay a grant of £120 per annum if £90 per annum would be sufficient attraction to the builders.

In considering the capacity of private enterprise to supply local housing needs, the local authorities should, I submit, consider not merely the type of houses required and the number of each type, but also the time within which the houses can be built, and, above all, the rent at which they will be let. Local needs will not be met if the houses provided, though of the required types, are offered at rents which those in need of them cannot afford to pay; or to tenants who are not in really urgent need of relief from bad housing conditions, or who can afford a higher rent. It was suggested in Parliament that local authorities need not concern themselves about questions of rent or class of tenant, so long as houses of the right type were built, because, even if the rents were too high for the people in need of relief, these latter would find accommodation at a rent within their means in the quarters vacated by the new tenants. This assumes, however, that the new tenant is on the upward grade and hitherto has been paying a rent disproportionately low in comparison with his means, whereas more often in these days the new tenant will be on the downward grade seeking a lower rent more suitable to his purse than the high rent circumstances have hitherto compelled him to pay.

Small houses, especially those like most of the new ones with many up-to-date labour-saving arrangements, are in great demand; and it is well known that selection committees have had to exercise the greatest care to see that new houses erected by local authorities are reserved for those in most need of them. It can hardly be expected that a private owner of houses which have been unconditionally subsidised will select his tenants and fix his rents out of consideration for public needs; he is more likely to lay himself out to get the biggest possible rent. There may be some places in which, thanks to competition between builders, local authorities will have done all they need to if they secure the erection of a certain number of houses of the required type, leaving rents to settle themselves; but, in my opinion, if the benefit of the subsidy is, without undue delay, really to reach the people in most need of relief, the local authorities will, in nine cases out of ten, have to attach to the grant of a subsidy such conditions as to selection of tenants and restriction of rents as they would themselves observe if the houses were their own.

Outside the local authorities' housing estates a large proprtion of tenants of the class under consideration have hitherto been accommodated in houses erected by speculating builders financed by landowners. The builder worked on a few houses at a time and needed little capital to start with; he had plenty of clients, and as fast as he built he sold either to owner-occupiers or to small investors, immediately putting his enhanced capital into more new houses. But his clients have been hard hit by the Rent Restriction Acts; some of them have suffered from harsh administration of section 28 of the Housing Act of 1919, which gives local authorities power to enforce repairs of working-class dwellings, and most of them have learnt that there are safe openings for investment (*e.g.*, Savings Certificates) which offer far higher net profit and far less risk of worry than house property let to poor tenants. The speculating builder now finds his *clientèle* mainly among fairly well-to-do owner-occupiers. In the old days he did not mind being a landlord himself, pending sale of his houses; but he does not care to take such risks now; so his work does not help poor tenants and never will until the class of investors in small house property is resuscitated. The builder is ready to work for such investors, as soon as their orders come in, if they offer him at least the same rate of profit as he can get from owner-occupiers; he is not at all likely to come in in anticipation of orders. So far as he does not come in, the poorer tenants must do without new houses, unless local authorities themselves build them. If the local authorities wish to escape this by getting the private builder to satisfy the needs of the weekly wage earner, their part is to get him orders for small houses from investors at prices which will give him the profit he demands, and at the same time make it possible for the investor to reap a good profit from the rents which the weekly tenant can afford to pay.

The local authority will not be in a position to dictate to the builder what profit he must be content with; if he can get a certain rate of profit by building houses of a better type than the local authority is out to get, nothing less than a subsidy sufficient to give him that same rate of profit on the smaller houses will induce him to build them. No more can the local authority dictate to the investor what rate of profit he shall have. The investor will not come in until he can clearly see a permanently safe return at least equal to what he can get from other investments. The local authority will therefore have to determine the character and extent of the assistance they will give to the investor in consideration of (i) the rent which the people in need of relief can afford to pay, and (ii) the profit the builder and the investor demand. It would clearly be a misuse of the subsidy to grant it to a builder who sells or an investor who lets his house to people better off than those for whose relief it was given, in order to get something more than the profit he originally demanded; and yet in the absence of conditions binding the owner of the new house in regard to choice of tenants and amount of rent or price, it is pretty certain that in many places competition for new houses will defeat the object of the scheme: the wrong people will get the house, the builder will get more than the profit he bargained for, and the builder or owner, not the tenant, will get the benefit of the subsidy.

The local authorities' proposals as to grants, etc., under section 2 have to be submitted to the Minister of Health for approval, as also any conditions that the local authority propose to attach to advances, etc., under section 5. So, having decided what to do to help private enterprise and on what conditions, local authorities must next submit their proposals to the Minister of Health for approval. They will have to get to work very quickly, if the Minister's approval is to be obtained in time to allow of the completion of many houses before October 1, 1925. No cautious builder will start work before the Minister has definitely approved the local authority's proposals. It will often be necessary for the local authority to submit to the Minister of Health, along with their proposals for assisting private enterprise, proposals for building some, if not all, of the houses required for weekly wage earners themselves. Sometimes they may have to erect only a few houses, just to give private enterprise a lead. In cases in which all the inducements they are empowered to offer to private enterprise seem likely to produce at most something less than the full number of houses required before October 1, 1925, they will have to decide whether to embark on a scheme for erecting the balance themselves; or, again, in cases in which investors will not accept restrictions as to rents, etc., which the local authority think necessary conditions of assistance, the local authority may have to take the whole burden on themselves. In such cases it will surely be clear enough that the houses can " more appro-

priately" (section 1 (i) (*b*)) be provided by the local authorities, if no greater loss to the public purse is involved than the assistance demanded by private enterprise would entail.

There is nothing in the Act to prevent local authorities from building along with private builders. The Minister of Health declared in Parliament that he hoped to see both local authorities' schemes and private schemes in progress together, and section 1 (i) (*b*) expressly provides for the case in which the required houses will be provided *partly* by the local authority themselves. Let us take, in illustration of the local council's procedure, a simple case in which the housing survey has shown that 300 new houses of the subsidisable type are required by weekly tenants at present ill-housed. Possible sites have first to be found for these 300 houses; and for purposes of supervision and control it will be desirable to have large compact residential estates rather than many widely-scattered little groups of houses. Large new residential estates have the great advantage that they are self-protected against intrusion of factories, shops, etc. The council will probably do well to acquire the necessary land and help investors by letting them have their house sites on 999 years' leases at low ground rents just sufficient to cover debt charges on cost of acquisition and development of roads, sewers, etc. This will considerably reduce the capital the investor must raise, and at the same time will ensure that the lay-out and number of houses per acre are as determined by the council. Moreover, the council, as ground landlords, will be in a strong position for enforcing as terms of the proposed lease any conditions they may attach to the assistance they give—*e.g.*, conditions limiting rent for five or six years or so long as there is great shortage of houses, or conditions requiring the landlords to select their tenants from the council's panel of approved tenants of small means during that same period. The council may give their assistance wholly or partly in the shape of remission of ground rent for a term of years. The substitution of a peppercorn rent for a 999 years' rent just sufficient to cover cost of land and development would, according to the calculations on which the State grant of £6 per house was based, be equivalent to a lump-sum grant of £70.

What the council have to consider is how, with the least possible delay, and with (but, if necessary, without) the aid of private enterprise, to get for those in need houses suitable to their needs at rents within their means; so, whether they themselves provide sites or not, the next question after the location of sites has been determined is, "What rent can the tenants afford to pay?" and the answer must be given in consideration not merely of present conditions but of the prospects of at least the next sixty years; for the investor in houses has to think out his finance for the whole life of the house, and the council have to follow the same lines as the private investor, since they know that if he will not build they must. Many of the tenants are probably paying more than they can really afford—rents agreed to when wages were abnormally high and houses abnormally scarce, and when there seemed to be some prospect of the shortage being soon made good. On the other hand, it may in some districts be possible to forecast a permanent rise in wages above pre-war normal when the present trade depression is past.

If the council mean to prevent overcrowding and wish to see each house occupied by a single family only, they may do well to aim at average rents (inclusive of rates) which will not absorb more than one-fifth of the average family wages obtainable when local trade conditions are normal. Suppose they decide, on these or other considerations, that there must be 100 houses at 10s., 100 at 8s., and 100 at 6s. rent per week, exclusive of rates; their next step should be to calculate the maximum price at which these houses must be made available in order to attract the investor. If the council themselves were the investor they might be content to do without any profit, and to get a return on the capital cost just sufficient to pay maintenance charges and debt charges, say, 6 per cent.; but few private investors will be content with less than 8 per cent. on their capital, so that the houses rented at 10s., 8s., and 6s. per week must not cost the investor more than £325, £260, and £195 respectively. The Government grant is equivalent to a lump-sum payment of £75; so if the council bear the cost of the developed site and get contractors to erect for investors houses at least as attractive as those which in normal times fetch 10s., 8s., and 6s. net per week at a constructional cost of £400, £335, and £270 respectively, the investors will on receipt of the Government subsidy be in a position to make 8 per cent. on their investment, even though they are bound to limit their rent to 10s., 8s., and 6s. per week for five years, and to select their tenants from the council's nominees, as proposed above. Thus, and thus only, so far as I can see, will the council through private enterprise secure direct relief for weekly tenants now ill-housed.

If builders hold out for more than the above prices or investors for more than 8 per cent., it will be open to the council (i) to increase their grant above the £70 represented by remission of ground rent and/or (ii) to build departmentally, either through contractors or by direct labour, so as to give tenants the benefit of the reduction in rent which should result from the reduction of the 8 per cent. required by the investor to the 6 per cent. which the council can do with. There are, however, many pitfalls about departmental building; it does not always reduce cost. I would always limit it to a small section of the scheme at any one time; so that there may be a *locus penitentiae* for builders and investors, and they may settle their differences and come in later on other sections of the scheme with, perhaps, the aid of an increased grant from the council. The knowledge that there is a time limit for the grant may help them to settle their differences quickly. The time limit applies equally to departmental building; so the council cannot afford to postpone their scheme pending negotiation with builders or investors. Some 240 councils have already been permitted to start their own schemes for making good part of the local shortage of houses; 28 of these and 89 others are getting builders to work on approved private schemes, aided by grants varying from £50 to £150 (but mostly £100) per house.

Bristol, Swindon, Hale, and Bromley are among the councils who have made their assistance conditional on restriction of rents. The weekly rents are limited to 7s. 3d. in Swindon (185 houses) and 9s. in Bromley (100 houses). In Hale the rents are limited for five years to 8 per cent. of actual cost. Swindon and Bromley are both giving assistance in the shape of a lump-sum grant of £75 per house, while Hale gives an annual grant of £6 per house per annum.

Winchester House.

Winchester House, St. James's-square, has been sold by the Office of Works, for approximately £100,000, and it is to be converted into a club. The property was acquired nearly fifty years ago by the Crown at a cost of £45,000, having been before that the London house of the See of Winchester.

The house has been used for Royal Commissions and a variety of official purposes.

Messrs. Foord & Salberg were the agents for the Office of Works, for whom also they acted in the sales of the Windsor Hotel, Victoria-street, and the Wellington Hotel, Buckingham-gate. Messrs. Mellersh & Harding are the agents for the purchasers of Winchester House, which will, it is understood, become the Centaur Club. The sale follows closely upon that of Lord Falmouth's mansion in St. James's-square to an insurance company, and other changes in the square are impending.

THE WONDERS O BABYLON.

SIR BANISTER FLETCHER, in his lectu Wednesday, October 24, on Babylonian, As and Persian architecture, said that the tecture of Mesopotamia differed much fro Egyptian in character, for it was vaulte not trabeated, as was inevitable in an al country which supplied clay for the maki bricks to be used in vaults, but no stone fo beams. In Assyria, too, there were n tombs nor temples, but chiefly kings' pal whereas, among the temples and tom Egypt, we may well ask, "Where di Pharaohs live?" This, however, does not to the Babylonian period, which began at remote time in the dim dawn of the worl lasted till, say, 1275 B.C. This was the te building epoch, when every city of the deans had its "ziggurat," or "holy mount a pyramidal observatory-tower with a decorated temple chamber on the summit, which the astrologer-priest could study heavenly bodies. The temple at Nimrou erected in seven receding terraces, each dedi to a planet and decorated symbolically in g bricks of a different colour.

Recent German excavations at Babylon discovered ground plans, marked out by aspl of the Temple of Baal, and of numberless towers, none of which, however, correspo the popular pictures of the Tower of B The attempts to build a tower which sh "reach to Heaven" are very simply expl by the desire of the Babylonians to breal monotony of their flat and dreary cou The excavators also discovered signs of irrig suggesting the site of the hanging garde Nebuchadnezzar. Then came the Assyria palace-building period (about 1275-538 The tremendous palaces of the Assyrian were the dominating features in the valle the twin rivers Tigris and Euphrates. stream of human life flows on, and we can as elsewhere, judge its nature from its a tecture. Kings' palaces and walled cities raised on mighty mounds or platforms by g of slaves who lived and toiled in the mir plain below. The buildings and decora reflect in a remarkable degree the natu the country and the building material it supp as well as the social and political conditio that age—the dominance of the war-like and the subservience of the bond people. Bible story of the Babylonian captivity testimony to the position of Assyria as the War Power of Western Asia.

The perishable brick material necessitate the absence of stone is largely responsibl the disappearance of the buildings, for it mostly returned to its original clay, leavin fine alabaster slabs, in which there is no re of religious rites, but all is devoted to wa the chase. There was naturally surface de tion instead of mouldings, massive walls in of columns and vaults instead of flat r British excavations at Khorsabad have rev the plan of the town and of the Palace of Sa twenty-five acres in extent, with its long na apartments suitable for roofing by brick ar The Greeks may have got their palmette rosette and colour decoration from Ass sources, as also the scroll or volute. Here was discovered, in the water channels, the of the pointed arch; while a relief records use of the dome, familiar in Byzantine v centuries later. Is there in architecture anyt new under the sun? Sir Banister conclude an interesting account of the Persian ar Susa and Persepolis, and the Tabernacle Solomon's Temple at Jerusalem.

The next lecture will deal with the architecture of Crete and Mycenæ.

Excellent illustrations of their "Wel struct" patent slotted steel appliance racks, bins, benches, shelving, show stands, & are contained in an attractive booklet issued by the makers, Constructors, Ltd. 4, Brook-street, St. Paul's, Birmingham.

THE BUILDING TRADE.

BUILDER'S IMPRESSIONS OF THE UNITED STATES.

By EDWARD J. STRANGE (*Past President, Institute of Builders*).

E setting out upon a journey of 13,000
e writer was informed that from a
standpoint nothing could be learned
Inited States of America, but on the
much of interest was found in the
architectural types of public and
buildings, in their arrangements and
fittings, and in the methods em-
in their construction. The labour
as compared with that in our own
would alone have made the journey
rth while.

ublic buildings are exceptionally fine,
tion only two—the Pan-American
Building and the post-war Abraham
Memorial at Washington, D.C. The
Cemetery, constructed in the grounds
ral Lee's home at Arlington, is well
d. The auditorium from which the
oration is delivered, facing an open
eated amphitheatre capable of accom-
g 1,500 persons, is evidence of the
shown to those who gave their lives
ational cause, and there is much indi-
here and elsewhere of the Govern-
desire to make American citizens of
ople of various nationalities who find
me in the United States. The
or Parliament buildings, of the
States are usually of classic design
e proportions.

g recent years there has been a great
nent in the comforts planned for
itors. These buildings in the cities
structures—18, 22, or 24 stories high,
y express lifts. The bedrooms in the
of cases are fitted with telephones in
bells, with a doorway opening into
llently appointed bathroom. The
nually of glazed earthenware, built
completely filling the recess. The
or other w.c.'s have cisterns which
quiet both in filling and discharging.
basins are fitted with hot and cold
pplies, and iced drinking water is
Not infrequently the apartment is
d by fresh air driven in at the skirt-
, with the extracting ventilator near
g.

st the buildings visited in course of
ion was a secondary or high school
burbs of Boston (12 miles out), which
mplete fireproof construction. The
wall battens are of light steel up-
vered with wired-on expanded metal;
door frames are of pressed steel; and
ious arrangement, by the use of mer-
an air vacuum controlling the steam-
adiators, automatically keeps the lec-
ms at an agreed temperature, with
degrees variation only.

normous departmental and dry goods
nd such buildings as the Woolworth
New York City and Chicago), have
y been described.

ailway stations (or "depots") are
of note, and must vastly interest
nd Continental architects. In num-
mportance, and in conception they ap-
o be on the whole finer than those
the British Isles or on the Continent.
rly interesting were the country
with their green swards between the
s and the station building.

is little to be said for the dwellings of
le. Visits were paid to workmen's
s, to the large apartment houses, and
of the beautiful detached houses.
city's fire-zone wood is the principal material used in construction, and the usual design is well known. Basements for storage and central heating are usual: the former is required by by-laws, and the latter is found in quite small dwellings.

The writer was told that in the suburbs of large towns in Massachusetts (and given to understand this generally applied) building land is not leased but sold outright, not at so much per ft. frontage, but at per ft. sup. The price varies from 5 cents upwards. Upon one estate in the suburbs of Boston the plots were 50 ft. by 100 ft. at 10 cents per ft. sup., or about £2 a ft. frontage in our money.

In opening new building estates (and there is considerable activity everywhere) the lay-out is carefully planned, roads and drainage constructed before building operations are commenced, and the estate (according to the informant) bears half the cost and the local authorities the other half.

In civic buildings the cities appear to vie with one another in their efforts to improve their beauties and amenities. St. Louis, Missouri, has recently raised a bond of 87 million dollars, of which 20 million dollars (£4,000,000) are for street improvements and a new town hall.

The city of Chicago is taking in a large section of water to form a lake-side drive of extensive area, linking up the public gardens which abound in that city. Piles have been driven in the lake and large-bore silt pumps are at work, not pumping the water from the reclaimed area into the lake, but the reverse. This water is full of sand in suspension, which precipitates the water gravitating back into the lake.

Mr. A. G. White (Secretary of the National Federation of Building Trades Employers) gave the writer an introduction to the Secretary of the Federated Building Trades Employers in New York City, who stated that with the high wages now paid there was an increasing insufficiency of good craftsmanship. Apparently the workmen in that city auction out their labour to the highest bidder, and the employers do not co-operate to prevent it. Plasterers are the most highly paid craft, receiving $16 to $19 per 8-hour day. It was stated that something must be done to relieve the situation, or the public would some day intervene. The New York *Times* of June 21 last stated:—"Builders who have taken to erecting structures during the winter rather than in the usual season said that the increased wage to bricklayers would have no immediate effect on them, as the efficiency of bricklayers to-day was less than two-thirds of their efficiency during the winter. Last winter these contractors paid $10 a day and obtained full efficiency from their men." And further, "The interests that have been studying the American plan of open shop and a more open apprenticeship system, with the New York building trades in mind, are of the opinion that unless the public takes a firm hand rents cannot come down."

The supply of skilled labour in the building industry is understood to be a grave problem. It was the writer's good fortune to learn in conversation with an architect of New Orleans, and also with a New York city architect, that the employers and operatives, realising that the absence of unrestricted immigration necessitated the tackling of the means by which skilled craftsmen could be obtained, had formed Joint Councils, represented by equal members of both employers and employed, with three neutral representatives of the professional side. In this apprenticeship scheme the wages were a percentage of the craftsman's rate, starting at 30 per cent. and only increased at six-monthly intervals according to a test carried out by members of the Joint Board, aided by the technical school officials—the apprentices learning "how" on the jobs and "why" in the schools.

In New York City the electrical engineering trades' employers and operatives had, at their joint expense, opened an Employment Bureau with whole-time secretary, and all men were engaged through this Bureau, with excellent results. The effect upon the morale of the men was stated to be remarkable, reducing "ca' canny" methods to a minimum.

In view of the inquiries now being prosecuted by the Institute of Builders upon the best means of recruiting the best brains of the country for the future employers in the industry, and investigating the possibilities of the better training and equipment of the master builder, the following may be of interest:—

Courses in building construction have been established at Yale University and Union College. The Thompson-Starrett Company offers to provide two annual prizes of $2,500 each, to be awarded each year to graduates of the course who shall commend themselves by the quality of their work and by their promise as practical building constructors, and who desire to connect themselves with the Thompson-Starrett Company for practical training in their chosen calling.

The course in building construction is to be offered as a development of the civil engineering course, rather than an appendage to a course in architecture. This move is made upon the theory that building construction is looked upon more as a profession in itself than subordinate to architecture. In proposing the establishment of such a course and undertaking to support it, the purpose in view was to supply a number of technically-trained and educated men to perfect the capacity and work of the constructor, with the hope that building construction would become a profession as dignified as architecture, and on a parity with it.

In conclusion, the writer's impressions upon some of the subjects dealt with in this article may be summed up as follows: The development of a new country is obviously helpful to a student in the old country, and that social and industrial problems are world-wide, and the interchange of thought between men of different nations tends to a better understanding and possible solutions.

The Institution of Civil Engineers.

The Council of the Institution of Civil Engineers have made the following awards in respect of selected engineering papers published without discussion during the Session, 1922–1923:—

A Watt medal to Mr. T. E. Houghton, M.Eng., Assoc.M.Inst.C.E. (Liverpool), and Telford premiums to Mr. J. W. Meares, C.I.E., M.Inst.C.E. (Guildford); Mr. J. W. Spiller, M.Inst.C.E. (Maidenhead); and Messrs. G. S. Coleman, D.Sc., Assoc.M.Inst.C.E. (Manchester), and Dempster Smith, M.B.E., M.Sc., Tech. (Manchester), and in respect of papers read before meetings of Students of the Institution in London and the provinces during the same period:—

Miller prizes to Mr. E. L. Everatt, Stud.Inst. C.E. (Newcastle); Mr. J. G. Kimber, Stud.Inst. C.E. (London); Mr. A. H. Naylow, M.Sc., Stud.Inst.C.E. (London); Mr. E. Sykes (Birmingham), and Mr. F. J. Symonds, Stud.Inst. C.E. (London).

THE RENT ACT: POSSESSION.

A paragraph in *The Times* of November 16 referred to a case in which the Judge at one of the county courts in Essex is reported as having said, in refusing an application for possession, that he desired to take this opportunity of making known the method he intended to adopt in such cases, and he then went on to say it seemed to be forgotten that section 5, subsection (1) of the Rent Act, concluded with these words: "And in any case as aforesaid the Court considers it reasonable to make such an order or to give such a judgment," and he described the Act as an involved and confusing piece of legislation. The learned Judge then is reported as having said that he should continue to look at all the circumstances of the case, the circumstances of the tenant as well as those of the landlord, until a higher Court told him to do otherwise. The circumstances of this case are not given in the paragraph in question, but we may make one or two general observations on the legislation.

In the first place, section 5 of the Act of 1920 is no longer operative, as it has been superseded by section 4 of the Rent and Mortgage Interest Restrictions Act, 1923. The amendments introduced into section 5 were so complicated that the Legislature took the wise course of redrafting the whole section, and thus incorporating the amendments, and it may serve a useful purpose to consider them. The words quoted by the Judge do not appear at the end of subsection (1), but at the end of the first nine paragraphs. The section begins: "No order or judgment for the recovery of a dwelling-house to which this Act applies or for the ejectment of a tenant therefrom shall be made or given unless"—then follow the paragraphs we shall notice in a moment—"and in any such case as aforesaid the Court considers it reasonable to make such an order or to give such judgment." The whole of the following paragraphs are, as the Judge pointed out, governed by these words conferring a general discretion, and subject to this discretion they indicate the conditions which must exist to obtain an order for possession.

Paragraph (*a*) is unchanged and stands as in the Act of 1920; rent lawfully due must have not been paid or some other obligation of the tenancy, whether under the contract of tenancy or under the Rent Acts, must have been broken or not performed.

Paragraph (*b*) refers to the user of the premises, and so far as this user is concerned, that is conduct which is a nuisance or immoral, and acts of waste, the paragraph is unaltered, but there is an addition. The Act of 1920 only referred to the "tenant or any person residing with him," but the new Act amplifies this, and also includes any person "lodging with him or being his subtenant," and the following words have been added at the end of the paragraph: "And where such person is a lodger or subtenant the Court is satisfied that the tenant has not, before the making or giving of the order or judgment, taken such steps as he ought reasonably to have taken for the removal of the lodger or subtenant."

Paragraph (*c*) is unaltered. It refers to cases where a tenant has given notice to quit and, acting on that notice, the landlord has contracted to sell or let the premises, and may be prejudiced if he cannot obtain possession.

Paragraph (*d*) has been considerably amended and extended, and the nature of the alternative accommodation has been more closely defined. We set out the paragraph, italicising the words contained in the paragraph as it stood in the Act of 1920: "The dwelling-house is reasonably required by the landlord *for occupation as a residence for himself*, or for any son or daughter of his over 18 years of age, or for any person bona fide residing with him" (the Act of 1920 also said, 'or to reside') "or for some person engaged in his whole time employment or in the whole time employment of some tenant from him or with whom conditional on housing accommodation being provided a contract for such employment has been entered into and except as otherwise provided by this subsection) the Court is satisfied that alternative accommodation is available which is reasonably suitable to the means of the tenant and to the needs of the tenant and his family as regards extent character and proximity to place of work, and which consists either of a dwelling-house to which this Act applies, or of premises to be let as a separate dwelling on terms which will afford to the tenant security of tenure reasonably equivalent to the security afforded by this Act in the case of a dwelling-house to which this Act applies." In the Act of 1920 it was only provided that the alternative accommodation should be "reasonably equivalent as regards rent and suitability in all respects."

Paragraph (*e*) has been redrafted: "The dwelling-house is reasonably required for the purpose of the execution of the statutory duties or powers of a local authority or statutory undertaking or for any purpose which, in the opinion of the Court is in the public interest, and the Court in either case is satisfied as aforesaid as respects alternative accommodation." Paragraph (*f*) is unaltered. It refers to landlords who became landlords after service in the war and require the house for personal occupation, and offer the tenant accommodation in the same house. Paragraph (*g*) is also unaltered, and refers to tenants who gave up occupation for service in the war. Paragraph (*h*) is new. "The tenant without the consent of the landlord has at any time after July 31, 1923, assigned or sublet the whole of the dwelling-house or sublet part of the dwelling-house, the remainder already being sublet." Paragraph (*i*) is also new, referring to licensed premises where an offence or improper conduct of the premises is proved.

Now, on consideration of all these paragraphs, it will be apparent that, with the exception of paragraphs (*g*) and (*h*), quite apart from the general words which follow them as to a judicial discretion, from the very nature of the subject matter a judicial discretion is involved. In the case of breaches of contract such as defined in paragraph (*a*) that discretion must be a "judicial discretion," that is, a discretion based on lines defined by the law; for instance, in case of breach of covenant the Court would presumably consider the legal grounds on which relief is given. In paragraph (*b*) there are three grounds for the discretion of the Court—the degree of annoyance, the deterioration of the premises, and lastly the conduct of the tenant as regards the subtenant or lodger. In paragraph (*c*) there is a discretion as to whether the landlord has been prejudiced by the notice to quit. In paragraph (*d*) there is a discretion as to whether the house is reasonably required by the landlord, and as to the sufficiency of the alternative accommodation. In paragraph (*e*) the Court has to be satisfied that the house is reasonably required for the statutory purpose, or for a purpose which is for the public interest as well as to the alternative accommodation.

In paragraph (*f*) the discretion has to be exercised as to whether the accommodation offered by the landlord who has served with the Forces in the same house is reasonably sufficient. So far in each paragraph there are specific questions upon which the Court must exercise a discretion, but the next two paragraphs are somewhat different. In paragraph (*g*), which relates to a former tenant requiring the house of which he gave up the occupation to serve with the Forces, there is no qualification as to the claim being reasonable, and in paragraph (*h*) the letting, assigning or subletting without consent appears an absolute ground for possession. In these two cases there is no special point for discretion, and if the general words at the end of these paragraphs confer a discretion it must be a general discretion based, for instance, on the conduct of the parties in the matter, and such a general discretion can also be exercised presumably in relation to the subject matter of the other paragraphs, unless it can be argued that the general words "and in any such case as aforesaid, the Court considers it reasonable to make such order or give such judgment" means such case as aforesaid where a discr to be exercised under the several p the Court considers it reasonable to m order," an argument which seems fa Whilst we are considering this first s of section 4, and the amendments i into the Act of 1920, it may be use complete the survey by showing the introduced in the remaining paragrap relate to cases in which the existence native accommodation is not to be a of an order or judgment for possessi

Paragraph (*i*) is unchanged. It r cases where the tenant was in the em of the landlord, or of a former land the dwelling-house was let to him in co of that employment, and he has left th ment. Paragraph (*ii*) relates to cas the Court is satisfied by the certifica County Agricultural Committee, or Minister of Agriculture, pending the of a committee, that the dwelling required by the landlord for occupat person engaged in work necessary for t working of an agricultural holding, a present Act the following words h added: "or with whom conditional o accommodation being provided a co such work has been entered into graph (*iii*) has been unaltered, but question arises in connection with it. "Where the landlord gave up the o of the dwelling-house in consequenc service in any of His Majesty's Forc the war." Now this paragraph is no paragraphs in the earlier part of the su an operative paragraph stating the gr which possession may be claimed, bu paragraph dispensing with the con alternative accommodation, and whe to the operative paragraphs it appears case is not there dealt with. Paragrap deals with a landlord who became the after service, and paragraph (*g*) rel tenant who gave up occupation of the to serve, but the case of a landlord up occupation to serve appears omit any operative paragraph.

Paragraphs (*iv*) and (*v*) are entirely to the corresponding paragraph in t 1920 and, therefore, they should be noted. These two paragraphs no (*iv*) "Where the landlord or the hu wife of the landlord became the landl June 30, 1922, and the dwelling-house ably required by him for occupat residence for himself or for any son or of his over 18 years of age"; or (*v*) " landlord or husband or wife of the lan not become the landlord before June and the dwelling-house is reasonably by him for occupation as a residence f or for any son or daughter of his ove of age, and the Court is satisfied th hardship would be caused by refusing an order or judgment than by grant

Thus the existence of alternative a dation is dispensed with in both th but where the landlord has only acq house after June 30, 1922, an ex extended discretion is conferred on t for the order can only be made if th satisfied that the scale of hardship tip the side of the landlord. It will be subsection has been so extensively that the corresponding subsection in t 1920 is practically superseded, and portant that the provisions of the new be understood. This is one of the portant subsections in the Act, and therefore, endeavoured to explain wh changes in the law under the present Ac

Building Collapse.

A number of men were injured, five as the result of the collapse of roof an in a building in course of erection as sion to an existing large building in K Kilburn. The old building, formerly store, situated at the corner of High Birchington-street, is being reconstr Messrs. Woolworth & Co.

TRAINING IN THE PAINTING AND DECORATING CRAFT.

By A Fellow of the Institute of British Decorators.

question is sometimes asked as to what edge is essential that one may practise aft of the painter and decorator. When estion is extended and its scope applied person engaged in conducting a business ecorator, or the decorating department of ll business run under the general title of ler and Decorator," one can only answer : should learn the trade or craft as thor- as it is possible, and not until you have his are you really well qualified to accept structions from your client and advise this very complex business." "As ghly as possible" may appear vague, need not be so; it can become very e if one is reminded of the display of ecently set out at the Decorators' Exhibi- Holland Park.

n it one saw that the range of sub-division nsive—so great that one requires very rable practise in each section—and ust involve some years of hard work.

the apprenticeship system as it is, it is know the fact that there is to-day a very scheme of education by means of which ployer of the future may receive the ry training, and go on step by step from ly stages, through the various grades of petition held by the National Federation ter Decorators, to the examination by y and Guilds of London Institute, on Advisory Committee the Federation is y represented. Following this there are reliminary, Intermediate, and Final ations for admission as an Associate ow of the Institute of British Decorators. is scheme in its entirety is comparatively would be unreasonable to insist that no should practise unless thus qualified; time may not be far distant when we pect the same kind of "hall-mark" of y from the person practising the business building craft as we expect from the the dentist, lawyer, or solicitor.

odern practise of the craft one finds re many things done in a vastly different an they were a quarter of a century ago. velopment of the value of materials, in function of which is mere obliteration, ; one has come to accept as right partly d materials, paints in semi-paste form, n, we are told, ready for use. These need a different understanding from ich was sufficient when we were limited tically one pigment for a base for all lours. The use of lead requires a fresh anding if we are to use it to its best ge. If limits are to be imposed upon we shall need still further to find how use the proportion allowed to meet the f treating our surfaces with a good -resisting material. At the present t does not appear at all certain that strictions are a necessity, except, perhaps, rd to the method of working. Much done by better methods and a more understanding of what personal hygiene

method usually observed amongst good en of preparing surfaces for repainting lly changing through the introduction satisfactory materials, but much preju- nds in the way of development, though ld always be efficiency that counts; his is to be so one can reasonably predict of pumice-stone as a material suitable paring surfaces that have been previously

r the new process much of the dust and ociated with repainting will vanish, and mbers of the craft will be more welcome ntering the household of clients. Even ocess of removal of old wall papers by ally applying water with a brush and ng the saturated paper with a broad knife seems to be doomed, for there is another method which, no doubt, will soon come into more general use.

All the foregoing should serve to show that the study of painting and decorating is one that requires careful thought and conscientious application. The practise of it by an employer should be an indication that one is a master craftsman and as such should be able to deal with all the many difficulties of the client, be he architect or householder. There is now no difficulty in acquiring the knowledge. We have schools where there are special departments for training, not only painters and decorators but persons for all the other building crafts. The opinion that anyone can do painting is borne of ignorance and stupidity, frequently coupled with an exalted idea of one's personal capability, accentuated by a lack of intelligent understanding of anything except the absolutely obvious.

A daily paper recently published an article headed "Our Disappearing Craftsmen." Bearing in mind the very recent Decorators' Exhibition and the display of excellent work by young craftsmen, one could write on the "re-appearing craftsmen." If there is a shortage—as there does appear to be—are not the employers and clients of the past as much to blame as anyone? How often we hear on the job and in the workshop that the work has been cut for price and told it is near enough? If we are to go on doing things that are only near enough, then we shall not be able to encourage sound craftsmanship either amongst the decorator or any other section. If the job is cut for price it should not be cut for method..

Much can be done by sound business organisation and intelligent use of both material and labour. Let labour be used a little less as the scapegoat, and let painting be a little less the Cinderella of the Building Industry. The craft is becoming so well organised educationally that it will be found that Cinderella will surely go to the Ball and hope to find colleagues of the other crafts there too.

A building trade official is reported to have said that local builders are absorbing the bricklayers and paying them higher rates than the Federation members are allowed to pay. He says the remedy is to train more apprentices. This may be equally true of painting and decorating. We need to train apprentices, but what is the use when there is so much difficulty in getting employers to accept them. A batch of about twenty-four apprentices was recently offered to employers in one area, and not one acknowledged the letters written; needless to say, the boys were quickly snapped up by the non-federated employers. If they can pay the rates fixed by the most active of the federated sections what is the difficulty? It appears that they want the labour only when it is a first-class dividend earning factor; if they are interested in the profits of to-morrow they must of necessity shoulder the responsibility of the training of the journeyman and employer of to-morrow. It is now more necessary than ever that employers should put their house in order and boldly accept the inevitable. If we can correctly talk of "Disappearing Craftsmen," let it not be said there is a shortage of employers who are prepared to accept apprentices. There is no reason why an apprentice should not be paid an adequate wage to meet present conditions. Decorators' Federation have agreed to a scale of wages that should encourage any boy who desires to enter the craft. Not only does he receive a good and reasonable remuneration, but also an opportunity of receiving definite and progressive instruction, and the scheme is embraced by both operative and employer. If will go far to provide the employer in even a small way of business with suitable craftsmen.

THE NATIONAL ASSOCIATION OF WATER USERS.

At a largely-attended and representative gathering at the Connaught Rooms, Great Queen-street, W.C., on Wednesday last week, it was resolved to form "The National Association of Water Users." Mr. T. A. McIntyre (Shanks & Co.), presided.

The Chairman explained that they had met that afternoon to receive the report of the committee appointed to draft the constitution of the Association.

The report of this committee, which, after amendments, was adopted, was as follows:—

The Association to consist of such consumers of water, manufacturers of water fittings, manufacturers of water pipes, builders and builders' merchants, property owners, sanitary authorities, architects, plumbers, hot-water engineers, and others interested as shall from time to time be elected or re-elected with the following objects:—

To scrutinise all applications by water authorities or associations for statutory powers to make or enforce regulations and to take steps to prevent powers being granted which in the opinion of the Association are unnecessary or undesirable; to oppose all attempts on the part of the water authorities or associations to use unduly or to increase unduly their existing powers; to scrutinise, and, if found desirable, oppose all attempts on the part of water authorities or associations to impose any standard specification of water pipes and/or fittings to the exclusion of all other pipes and fittings which are sound, suitable and efficient; to procure the modification of any existing powers and/or regulations which are or may become onerous and unduly exacting and tend to increase the cost of building; to promote legislation or to take such other steps in connection therewith as the Council may decide; to assist members with advice on all questions between them and water authorities or associations and if so resolved by the Association to act on behalf of such members; to collect and collate evidence relating to the activities of water authorities or associations in any matter affecting water consumers; to inform members from time to time of legal decisions or of efforts to resist any attempts to enforce regulations or "requirements" which have no force; to interchange information and to co-operate with other societies and associations in furthering the objects of the Association; to do all such other acts as the Council may consider necessary or expedient in the interests of the members of the Association, and other consumers of water; that the Association be named "The National Association of Water Users"; that the association be controlled by a council consisting of a President and three Vice-Presidents (*ex officio*) and other members to be elected in general meeting; at least ten or other sufficient number of the places on the Council should be reserved for the nominated members of each separate and distinct interest among the members of the Association; the subscription of ordinary members (firms or individuals) to be not less than £2 2s. per annum. Institutes and associations applying as such for membership to be admitted on such terms as the Council shall from time to time decide.

During the general discussion on the report of the Drafting Committee, Mr. F. W. Davy, B.A., who acted as secretary, said they wanted to get in the Association the best expert opinion possible in regard to every section of interests concerned.

The Chairman referred to the attempts of water authorities to impose standard specifications in relation to water fittings, and pointed out how the Association would oppose such claims. Some water authorities claimed to have such powers, he said, but some also had no right to make such a demand.

The following members were appointed to the Council, with power to add to their number:

E. Barber (Messrs. E. Barber & Co.), E. J. Brown (London Master Builders' Association), J. F. Carlile (Messrs. W. N. Froy & Sons, Ltd.), S. F. Corby (Messrs. Doulton & Co., Ltd.), W. H. Eason (Messrs. John Bolding & Son, Ltd.); P. M. Fraser (Royal Institute of British Architects), H. Falkner (Builders' Materials Central Committee), A. Gray (The National Association of Master Heating and Domestic Engineers), G. Gummer (Messrs. Gummers, Ltd., Rotherham), R. H. Hellyer (Messrs. Dent & Hellyer, Ltd.), A. Jones (Messrs. Tylors (Water & Sanitary), Ltd.), F. Love (Messrs. Frank Love, Ltd.), T. A. McIntyre (Messrs. Shanks & Co., Ltd.), A. Moore (Improved Industrial Dwellings Co., Ltd.), A. Mousley (Messrs. Charles Winn & Co., Ltd., Birmingham), H. R. Selley (Property Owners' Association and Federation of House Builders), J. C. Smith (Associated Master Plumbers), T. A. Wheatley (Messrs. Beck & Co., Ltd.).

Mr. T. A. McIntyre was unanimously elected President.

The question of the appointment of a secretary was referred to the Council.

KELLY'S "BUILDING TRADES' DIRECTORY."

THE fourteenth edition of Kelly's "Directory of the Building Trades" (price, 50s. net), has just been received. The usual amount of care appears to have been expended on the preparation of this volume to bring it up to date and make it as complete as possible. It contains lists of those engaged in building and the various allied trades and professions, starting with many pages of indices, and followed by an alphabetical arrangement of places under the various counties of England, Scotland, and Wales; a classified trades' section of London and suburbs; a separate section under the same heading for England, Scotland and Wales; and a list of the principal towns in Ireland. A noteworthy feature of this edition, introduced for the first time, is the last section, relating to proprietary articles and trade names arranged in alphabetical order. This useful addition to the book consists of over one hundred pages, and the information is printed on green paper to make it distinctive and easy for reference. The book is almost indispensable to all those interested in building, comprising as it does every trade and profession in any way connected with architecture and the building trades.

VENEERING.

MESSRS. F. Rendell & Sons, builders and contractors, of Devizes, write:—

"We are carrying out a contract for an architect who wishes to line the cupboards in the bedrooms with cedar wood veneer. Some of these cupboards come in brickwork recesses with simply a deal front. We see no difficulty in applying the veneer to the woodwork but, as regards its application to the brickwork, we are proposing to plaster same out in Portland and Parian cement, give it one coat of sharp colour, and attach the veneer to this.

"The timber merchants whose views we have asked are of an opinion that this will not be satisfactory, but before definitely deciding as to its application we should esteem it a favour if you would let us have your opinion upon it, and also perhaps you could suggest some other method."

[We should not advise Messrs. F. Rendell & Sons to veneer direct on to the painted plaster surface. If they were to veneer a sound three-ply sheet and fix it to grounds on the brickwork this should meet their case. Makers of veneered surface three-ply parquetry floors do not, we believe, guarantee results if their products are laid without an intermediate floor of boarding below. They evidently fear that moisture would attack the work, even through a layer of bitumen mastic, if their three-ply were laid direct on screeded concrete. As an experiment our correspondent's suggestion would be extremely interesting, however.—ED.]

L.C.C. AND PRIVATE ENTERPRISE HOUSING.

THE London County Council is prepared to give financial and other assistance to builders, investors and others in order to encourage the provision of housing accommodation.

Among the general conditions are the following:—No grant will be made in respect of a house the construction of which is begun before plans are approved by the Council and a qualifying certificate issued, and no portion of the grant will be payable until the house is completed. Not more than one grant will be payable in respect of any one house. A house in respect of which a money grant is made by the Council shall not, for a period of at least three years, be used otherwise than as a separate dwelling-house, and no addition thereto or enlargement thereof shall be made without the consent of the Council. In order to qualify for one of the money grants, or for the grant of a building lease, a house must be completed before October 1, 1925, and must be either a two-storied house (which may contain an attic) with a minimum of 620 and a maximum of 950 superficial feet; or a structurally separate and self-contained flat or a one-storied house with a minimum of 550 and a maximum of 880 superficial feet.

The Council is prepared to make money grants in respect of approved houses and flats, erected and maintained *for letting* for residential purposes at inclusive weekly rents fixed by comparison with the rents of existing houses in the same neighbourhood. For a house with not more than two bedrooms, with or without a parlour, a grant of £9 a year for 20 years; for a house with more than two bedrooms, a grant of £8 a year for 20 years. As an incentive to the production of approved houses in large numbers, an addition of 5 per cent. will be made to the grant in respect of each house in excess of 100 provided by one agency—making it £9 9s. or £8 8s., as the case may be, and a further addition of 5 per cent., making it £9 18s. or £8 16s. in all, will be made in respect of each house over 300 so provided. The grants will be made to the person by whom the rates on the houses are payable and will be paid by annual sums, or under such other arrangements as will ensure that the houses remain available *for letting*. Assistance under this head may, if so desired, take the form of an undertaking by the Council to provide part of the periodical sums payable to a building society or other body or person in respect of interest on, or repayment of, advances made for the purpose of building or purchasing a house.

A purchaser of a new house *for his own occupation* (including any person employing a builder to erect a house in which he intends to reside), provided that he satisfies the Council, after due consideration of his financial resources, as to the need for a grant, will be eligible to receive from the Council a grant equivalent to £6 a year for 20 years, or a lump sum of £75.

The Council is prepared before October 1, 1926, to consider applications for advances on loan from persons or bodies of persons (*a*) constructing or altering or undertaking to construct or alter houses, or (*b*) acquiring or undertaking to acquire houses the construction of which was begun after April 25, 1923.

The Council is prepared before October 1, 1926, to consider proposals for guaranteeing the repayment to an incorporated building society or an industrial and provident society of any advances made by such society in excess of the amounts which the society ordinarily lends to its members to enable them to build houses or to acquire houses the construction of which was begun after April 25, 1923, provided that the total amount advanced in any case (including the amount guaranteed by the Council) does not exceed 90 per cent. of the borrower's interest in the property to be acquired by means of such advance. Such guarantee may be given in respect of houses situated within the county of London of an estimated value (including the value of the freehold site) of not more than £1,500. A guarantee may be given in respect of a house for a money grant is also made. The supe area of any dwelling in respect of which guarantee is given must not be less tha feet if it comprises two stories (with po an attic), nor less than 550 feet if it consi a flat or a one-storied house.

Permanent facilities are provided unde Small Dwellings Acquisition Acts for to persons desiring to purchase the fre interest in possession, or the leasehold in in possession of at least 60 years unexpir the date of the purchase in houses (either al built or to be built) for their own occup The market value of the freehold shal exceed £1,200.

Requests for forms of application shou addressed to the Clerk of the Council, The C Hall, Westminster-bridge, S.E.1, or persona the County Hall (Room 307). Persons de of obtaining building leases of sites o housing estates of the Council should to the Valuer to the Council, The Old C Hall, Spring-gardens, S.W.1.

HISTORY OF THE PLUMBERS' COMPAN

PERHAPS it is because we have grown a tomed to perfection of workmanship in plumbing service that we demand it as a and are ready to see in any small defect occ to revile the plumber, for, in other days, simpler state of existence, when the scie and sanitary side of his work was far less vanced than it is to-day, he seems to have held in the highest esteem. Mr. F. J. Wald his historical account of the Worshipful pany of Plumbers of the City of Londo which body he was master in 1921, bring light many interesting facts concerning ancient guild, including a translation of Ordinances of Edward III governing the conduct of the plumbers' trade in A.D. 13

The book is illustrated with a frontis in colour, showing the armorial bearings of Plumbers' Company, reproduced from original grant made by Robert Cook, Clarenc King of Arms (1588), under Queen Elizab The text of the "Grant of Arms" indic the change in spelling that has occurre the English language since the time of Sha peare, the Herald signing his name and ti "Robt. Cooke, alias Clarencieulx Roy d'Arm Science is written "Seyence"; continue "contynewe"; and faith with a double and a final "e."

The crest of a silver fountain suggest brighter and gayer side of plumbing in con tion with the water supply and ornamenta of gardens that all artists and craftsmen wish to see revived in England.

The book also contains instructions, "I to Become a Plumber—Freedom and Li of the Company," and a list of fees to be by the members of different grades or rank

BOOKS RECEIVED.

STRATFORD-UPON-AVON FUTURE DEVEL MENT. By Patrick Abercrombie and Lasce Abercrombie. (Liverpool: The Univer Press, and London: Hodder & Stoughton, L Price 7s. 6d. net.

TIMBER AND WOODWORKING MACHINE Price 1s. 6d.

THE CATHEDRAL CHURCHES OF ENGLAND. William Burnet Tuthill. (New York: Macmillan Company.) Price 10s. 6d. net.

BLASTING WITH HIGH EXPLOSIVES. By Gerard Boulton. (London: Sir Isaac Pitn & Sons, Ltd.) Price 5s. net.

* "A Short History of the Worshipful Company Plumbers of the City of London," by F. J. Waldo, M M.D. (Cantab.), Master of the Worshipful Compan Plumbers, 1921. London: Published by the Wors ful Company of Plumbers, 1923. Price 5s. (copyrig Second edition.

W BUILDINGS IN LONDON.

circus.—The installation of the shop Cuba mahogany, which were executed . Hall, Beddall & Co., Ltd., builders, l Wharf, S.E.1, completes the first f Messrs. Jays' new building, and s proceeding. The second portion of ng has been commenced by the above nd will form the completion of Messrs. nner's scheme of reconstruction of this thoroughfare. The sub-contractors nerally those associated with the first

treet, W.—Alterations to this town are being executed by Messrs. Hall, Co., Ltd., under the direction of rey Wornum, F.R.I.B.A., architect, ion-street, W. An artistic scheme of is being carried out to the interior or of the premises. The Chinese style pplied to the principal apartments, and llent effects have been produced by ous use of Chinese wall-papers and ted panels executed by the architect. —RECONSTRUCTION.—Messrs. Ham- arr, Ltd., are reconstructing No. 277, d, Chelsea, for Messrs. Leader. The sists of reconstructing the premises ique furniture gallery. The architect . Keynes, of 60, Brompton-road.

-street. — ALTERATIONS.— Alterations tions are being carried out at Arundel rundel-street, Strand, by Messrs. & Barr, Ltd., for Messrs. Herbert Co., Ltd., Old Broad-street, E.C. consists of constructional alterations, s and sanitation.

Hill Gate.—SHOP.—A new shop with er floors is now being erected at ill Gate by Messrs. Hammond & Barr, 52, Beauchamp-place, S.W.3, for H. Perry & Sons. The architect is Davidge, F.R.I.B.A., of 5, Victoria- V.1.

bridge.—SANITATION.—A contract is carried out by Messrs. Hammond & ., at 19, Hill-street, Knightsbridge, r Messrs. J. & W. Vokings, of St. uare. The work comprises a new ystem and decorations.

ter.—HOTEL.—A block of buildings -gardens, Bayswater, have been recon- r a residential hotel for the Lee & Paul Ltd. The work cost approximately The proprietors hope to open the owards the end of next month. Mr. n, of 53, Russell-road, W.14, is the and the builders are Messrs. Hammond td., of 52, Beauchamp-place, S.W.3.

BROKESHIRE BUILD- TRADE EMPLOYERS.

journed meeting for the formation of Trade Employers' Association for shire was held recently at Haverford- ect officers. There was a good atten- esided over by Mr. William Cole Haven). The following were the first ppointed for the new association: Mr. R. W. Phelps (Milford Haven); Mr. J. O. Morgan, J.P. (Prendergast, west); Committee, Messrs. W. Lewis Haverfordwest), F. Lloyd and W. Cole Haven).

esolved to hold the ordinary meetings

Anderson (technical adviser to the ales Regional Federation), gave an n the new Housing Act and dealt Milford Haven wage dispute. He ut that the minutes of the Regional Cardiff, in May, 1922, recorded the e by the Council of the down-grading l Haven area to Grade A2 for three nd then placed the area in Grade B, le the wage scale at present applicable r hour for craftsmen and 1s. 0¾d. for

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Labourers.	Plasterers
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0		
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4		
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½		
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Cambridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0		
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0		
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Colchester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0		
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Dudley	1/6½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½		
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½		
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0		
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½		
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Great Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0		
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½		
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0		
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½		
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4		
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½		
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0		
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Norwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0		
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½		
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0		
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½		
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	0/11½		
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0		
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½		
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½		
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½		
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½		
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2		

(For rates of wages in the Building Trade in Scotland, see page 742.)

THE SCOTTISH BUILDER

NEW BUILDINGS IN SCOTLAND.

Leith.—HOUSES.—The Edinburgh Corporation have decided to invite tenders for the erection of 18 houses at Sheriff Brae, Leith.

Edinburgh.—HOUSING SCHEME.—A joint committee recently visited the Lochend Estate, which was purchased some time ago by the T.C., with a view to considering how to lay it out to the best advantage. The Housing Committee are anxious to acquire about 90 acres for its housing scheme, while the Parks Committee want 40 or 50 acres for additional recreation facilities, including the extension of Craigentinny Golf Course.

Falkirk.—VARIOUS.—The Dean of Guild Court has passed plans submitted by the Provost, Magistrates and T.C. for the extension of the boiler-house, and erection of a cooling tower and steel chimney at the Corporation electrical power station. The estimated cost of the proposed work was £3,700. The following plans were also passed: Falkirk Iron Co., Ltd., to erect a canteen at their works, to cost about £900, and a garage estimated to cost £200; Mr. William L. Hannah, Ladysmill, Falkirk, to erect a bungalow in Albert-road; and Messrs. J. A. Towers, Grahams-road, to erect a storage shed at their brickworks in Grahamston.

Glasgow.—SLUM CLEARANCES.—The Board of Health has approved of the slum clearance scheme formulated by the Corporation, which involves the demolition of about 2,000 houses in various areas, and the provision of alternative accommodation in different parts of the City. The clearances will be made in Cowcaddens, Gorbals, Anderston, Calton, and Mile End, and the districts chosen for the new houses will include Hamiltonhill, Yorkhill, Polmadie, Belvedere, and Springburn. The scheme is to be pressed forward immediately.

Paisley.—TRAMS SUB-STATION.—The Dean of Guild Court has passed plans for the erection of a tramway sub-station in Abercorn-street; also a double villa in Gartmore-road, and a bungalow in Glasgow-road.

Clydebank.—FOOTBALL STAND.—Plans have been passed for a new stand, to seat 1,500 persons, at Clydeholm Park, for the Clydebank Football Club, Ltd.

Coatbridge.—VARIOUS.—The Dean of Guild Court has passed the following plans: A. B. Brown, Ltd., to erect a garage in Mauldslie-street, at an estimated cost of £500; Scottish Tube Co., to erect a galvanising shop and an oil store at the Union Tube Works.

PAYMENT OF POOR RATE ARREARS.

AN interesting point to ratepayers has been decided in the two cases, Gill *v.* Mellor and Gill *v.* Monday (*Weekly Notes*, October 27), which were heard together. The Appellant Gill was an assistant overseer and rate collector and the two respondents were ratepayers who had been summoned for non-payment of sums in respect of Poor Rate. The point in the case was that the sums sued for were arrears brought forward from the previous year and the Respondents contended that as the demand for payment was made after the expiration of the year for which the rate was laid no order for payment ought to be made. The rate was made April 2, 1921, the demand was made September 26, 1922, and the summons was served March 15, 1923. The Justices had held that they had no power to make the order for payment because the demand for payment and the proceedings to recover payment should have been made and taken within the year in which the rate was made.

A case was stated for the High Court, and the Court held that there was an absence in the provisions of the Statutes dealing with the recovery of Poor Rate of any requirement that the demand should be made within the year; equally there was absence in the provisions of the Public Health Act, 1875, which governed the levying and mode of collection of the general district rate that the demand should be made within the year in which the rate was laid, and it followed *a fortiori* that proceedings need not be taken within the year. The case was therefore sent back to the magistrates with a that a demand within the year was un

THE RENT ACTS
POSSESSION.

A CURIOUS case is reported in *T* October 23, from the Shoreditch Cou A man, aged 88, was applying for an possession. He had owned the house to obtain possession of for over 20 ye was let at 18s. 11d. a week. He was l his wife in rooms, two of which he occu his wife, and in the same house his da war widow, lived with her child, but to remove into his own house bu occupy the ground floor. The Cou Judge, according to the report, held Rent Acts only provide for a case landlord "reasonably" requires to o whole house, and an order could not for possession, where as in this case the required possession of only part of t and to let the other part.

This case seems to disclose a serious the Acts. Where part of a house is let s so as to be a dwelling house itself u Acts the landlord can claim possession of the house, but in that case the ho the purposes of the Acts divided separate entities. This is clear from subsection (1) of the latest Act, that Here the whole house was let as one, landlord in seeking possession was under section 4 subsection (1) (*d*), a that subsection he had to show th dwelling house was reasonably requ occupation as a residence for himself any of the specified persons. The exi alternative accommodation in a case present is dispensed with by paragrap the same subsection since the landlor the landlord before June 30, 1922.

The difficulty in this case appears to h that the landlord could not comply subsection because he was not prepared could either by himself or his family o residing with him occupy the whole a residence, yet the very case here put is dealt with in the Acts but only in c with a landlord who became the landl service with the forces during the wa paragraph (*f*). That paragraph is wo way which seems to suggest that eve case a possible loophole was afforded possession, for it provides that posses be granted to a landlord who has t landlord after service who "requires t for his personal occupation and offers th accommodation in the same dwellin such accommodation being considere Court as reasonably sufficient in the stances."

The point is under paragraph (*f*), the has to show he "requires the house personal occupation," although he intend to occupy the whole of it, and the position in this case. Could the not therefore have applied for possessi whole house as reasonably required by occupation as a residence for him (although alternative accommodation necessary to be proved in his case) hav the remainder of the house to the t accommodation? The tenant, howeve not accept part of the house, and the might not be willing to take the risk c the whole house upon his hands, and form of this application no doubt it h refused, and in any case as we hav there would be difficulty in granting the Acts strictly construed, and the ca fore seems to indicate a flaw in the Act such times as these the application by a to occupy part of his own house seems an reasonable one which should be provid this restrictive legislation.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns o Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters. Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Masons' Labourers.	Plasterers' Labourers.
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/-	
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2	
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 741.

CONTRACTS, COMPETITIONS, &c.

some contracts still open, but not included in this List, see previous issues. Those with an asterisk dvertised in this number. Certain conditions beyond those given in the following information aposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any r; that a fair wages clause shall be observed; that no allowance will be made for tenders; and deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

date given at the commencement of each paragraph is the latest date when the tender, or the names e willing to submit tenders, may be sent in; the name and address at the end is the person from whom ce where quantities, forms of tender, &c., may be obtained.

UILDING AND PAINTING.

EMBER 10.—**Durham.**—PAINTING.—Painting, schools at West Herrington, Hetton-le-Hole High Usworth Domestic Centre, Springwell School Science Room, Newbottle Boys (only), k Stile, Biddick, Washington Colliery, Hetton-le-Girls' and Infants', for the Durham C.C. Mr. . Tulip, District Clerk, Council School, New-Houghton-le-Spring.

EMBER 10.—**Harrogate.**—HOUSES.—Erection of ses, type "A," and the construction of roads, &c., for the T.C. Mr. C. E. Rivers, Borough er, Municipal Offices, Harrogate.

EMBER 10.—**Manchester.**—GREENHOUSE.—Erec- a greenhouse at Baguley Sanatorium, for the ity Architect, Town Hall, Manchester. Deposit

EMBER 10.—**Renfrewshire.**—OFFICES.—The ion Authority invite offers for mason, joiner, el works in connection with the erection of ministrative offices. Mr. J. Hamilton Pullar, ve Officer, County Education Offices, 28, High- Paisley. Deposit 10s.

EMBER 10.—**Totnes.**—FLOORS, &C.—Taking up aying the whole of the boarded floors on the floors of the Totnes Housing Scheme; and for with stone the front fence to Totnes Housing Messrs. Adshead & Ramsey, 46, Great street, W.C.1.

EMBER 10.—**West Hartlepool.**—HOUSES.— n of thirty-six houses, for the T.C. Mr. Francis Borough Engineer, West Hartlepool.

EMBER 12.—**Conisbrough.**—HOUSES.—Erection on-parlour type houses in pairs, and 8 parlour uses in blocks of four, at Dayland's Site, off ad, Conisbrough, for the U.D.C. Mr. H. ll, Surveyor, Council Offices, Conisbrough. £2.

EMBER 12.—**Desborough.**—HOUSES.—Erection houses, for the U.D.C. Mr. C. D. Rochester, t, Castle Chambers, Rothwell.

EMBER 12.—**Durham.**—PAINTING.—For paint- renovation of the following Council Schools: Hill, Blaydon West, Greenside, Whickham, ille, Highfield, Barlow and Blaydon East. G. Maguire, Education Office, Lloyds Bank rs, Blaydon-on-Tyne.

EMBER 12.—**Garston.**—HALL.—Erection of the tion of the Garston Masonic Hall, for the Com- Mr. E. B. Bailey, 9, Cook-street, Liverpool. £1 1s.

EMBER 12.—**Kingston-upon-Thames.**—EXTEN- For the erection of a laboratory and classrooms Grammar School London-road, for the Borough. h Surveyor's Office, Clattern Lodge, Kingston- hames. Deposit £1 1s.

EMBER 12.—**Kingston-upon-Thames.**—WALL.— erection of a stone wall adjoining St. Peter's London-road, for the Borough. Borough r's Office, Clattern Lodge, Kingston-upon- .

MBER 12.—**Liskeard.**—HOUSE.—Erection of d house, for Mr. W. Gard. Mr. E. C. Higman, t, St. Cleer, Liskeard. Deposit £1 1s.

MBER 12.—**Morpeth.**—OFFICES, &C.—For &c., for Messrs. Swinney Bros., Ltd., Morpeth. Franklin Murphy, architect, Lloyds Bank rs, Morpeth. Deposit £3 3s.

MBER 12.—**North Berwick.**—CONVENIENCE.— ction of new convenience at the Harbour, for Burgh Surveyor, North Berwick.

MBER 12.—**Nottingham.**—PAINTING.—Internal and painting Dame Agnes-street Branch Room and Library, and Hermit-street Branch Room, for the T.C. City Engineer's Depart- ottingham. Deposit £1.

MBER 12.—**Oldham.**—HOUSES.—Erection of es, in pairs, for the T.C. Borough Engineer, all, Oldham. Deposit 10s. 6d.

MBER 12.—**Pengam.**—EXTENSIONS.—For extensions to the Pengam and Fleur-de-Lis and Institute, for the Trustees. Mr. D. J. , M.S.A., architect, Blackwood (Mon). £3 3s.

MBER 12.—**Sheffield.**—PAINTING.—For painters' (1) Central Reference Library; (2) Brightside ; (3) Walkley Library; (4) Ruskin Museum. E. P. Edwards, City Architect, Town Hall, .

MBER 12.—**Tyldesley-with-Shakerley.**—STABLES. ion of stables, &c., in the Council Yard, for .C. Mr. F. E. Jones, Surveyor, Council Offices, y. Deposit £2 2s.

MBER 12.—**Wombwell.**—HOUSES.—Tenders are r the erection of 30 type "A" houses on a site n King's-road, Wombwell. Mr. D. H. Roberts, "Cliffe House," Wombwell. Deposit £2.

MBER 13.—**Ammanford.**—POST OFFICE. ion of a new post office at Ammanford, Carmar- e, for the Commissioners of His Majesty's Works. Contracts Branch, H.M.O.W., King street, London, S.W.1. Deposit £1 1s. (cheques to the Secretary).

MBER 13.—**Chorley.**—RE-FLOORING.—For re- of four class-rooms at the Duke-street Council Education Office, Town Hall, Chorley.

MBER 13.—**Hazel Grove.**—SUB-STATION, &C.— tion of electric sub-station at Bramhall; ations to Council Offices, for the U.D.C. Pidgeon, Clerk, Council Offices, Hazel Grove. £1 1s.

NOVEMBER 13.—**London, N.W.**—EXTENSION AND ALTERATIONS.—Erection of an extension to the Nurses' Home and alterations to the Administrative Block at the Park Royal Hospital, Acton-lane, Willesden, for the Guardians of the Parish of Willesden. Messrs. Northcroft, Neighbour & Nicholson, 55 and 56, Chancery-lane, W.C. Deposit £5 (which will be returned on receipt of a bona fide tender).

NOVEMBER 13.—**Rotherham.**—SCHOOL.—Erection of a Council school to accommodate 250 children at Badsley Moor-lane, for the T.C. Mr. Chas. A. Broadhead, A.R.I.B.A., St. George's Hall, Rotherham. Deposit £1 1s.

NOVEMBER 14.—**Aberbargoed.**—CLEANING AND CEMENTING.—For carrying out, for the trustees, the work of cleaning off old work and cementing pine end of Arthur Balfour Conservative Club, Aberbargoed. Mr. William Bywater, Secretary, at Club address.

NOVEMBER 14.—**Birmingham.**—CONCRETE HOUSES.—Tenders for building houses of cement concrete construction in contracts of about 200 to 250 houses, for the City of Birmingham Public Works and Town-Planning Committee. The Engineer and Surveyor, The Council House, Birmingham.

NOVEMBER 14.—**Birmingham.**—WALL.—Construction of about 129 yds. of brick and concrete retaining wall and other incidental works on the west side of the River Rea, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

NOVEMBER 14.—**Blackburn.**—POST OFFICE.—Extension of Blackburn Post Office, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

NOVEMBER 14.—**Castleford.**—ROOFING.—Repairs to the corrugated roof of temporary building at Castleford Temple-street Council School. Education Department, County Hall, Wakefield.

NOVEMBER 14.—**Clewer.**—HOUSES.—For the erection of 32 houses, for the Corporation. Office of the Borough Surveyor, Alma-road, Windsor.

NOVEMBER 14.—**Elland.**—WALLS.—Pulling down and re-erection of boundary walls to additional land at Elland South End Council School. Education Department, County Hall, Wakefield.

NOVEMBER 14.—**Exeter.**—HOUSES.—Erection of 45 houses, in blocks of 9, 10, 11 and 15, on the Buddle-lane site, and 8 houses in two blocks on the Isca-road site, for the Council of the City of Exeter. City Architect, 2, Southernhay West, Exeter. Deposit £2 per set.

NOVEMBER 14.—**Glasgow.**—PAVILIONS.—For works in connection with the erection of a pavilion, &c., at the Sanatorium, Lanark, for the Corporation. Mr. John Lindsay, Town Clerk. Deposit £3 3s.

NOVEMBER 14.—**Liverpool.**—FLOORS, &C.—(1) Laying new floors in No. 2 Ward, City Hospital N., Netherfield-road; (2) pointing brickwork, City Hospital N., Netherfield-road; (3) pointing brickwork, City Hospital S., Grafton-street; (4) pointing brickwork, City Hospital E., Mill-lane, Old Swan; (5) interior painting, City Hospital S., Grafton-street; (6) interior painting, City Hospital E., Mill-lane, Old Swan; (7) repairs to asphalt paths, City Hospital N., Netherfield-road; (8) repairs to asphalt paths, City Hospital E., Mill-lane, Old Swan. Land Steward and Surveyor, Municipal Buildings, Liverpool.

NOVEMBER 14.—**Manchester.**—PAINTING.—For painting at the Bradford and Cheetham Baths, for the T.C. City Architect, Town Hall, Manchester. Deposit 10s. 6d. each.

NOVEMBER 14.—**Pontardawe.**—EXTENSIONS.—For building an extension to the administrative block at the Isolation Hospital, Gellinudd, Pontardawe, for the Hospital Committee, and for making other building alterations. Messrs. C. S. Thomas & Herbert Jones, FF.S.I., Wind-street, Swansea. Deposit £2 2s.

NOVEMBER 14.—**West Riding.**—VARIOUS WORKS.—(1) Erection of brick boundary wall at Methley Scholey-hill Council School: (2) installation of low pressure hot-water apparatus at Thurcroft New School; (3) installation of new boiler and extensions to heating apparatus at Addingham High Council School; (4) additions required at Glasshoughton Cutsyke Council School. Education Department, County Hall, Wakefield.

NOVEMBER 15.—**Birkenhead.**—HOUSES AND TENEMENTS.—Builders are invited to submit plans of typical houses and tenements, the erection of one or more of which they are prepared to undertake as contractors for the Corporation of Birkenhead. Borough Engineer and Surveyor, Town Hall, Birkenhead.

NOVEMBER 15.—**London, E.C.**—PAINTING.—Internal painting at the Custom House, Lower Thames-street, E.C., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

NOVEMBER 15.—**Tedburn St. Mary.**—TOOL HOUSE, &C.—Erection of tool house, and painting and repairing Mortuary in Tedburn St. Mary Cemetery, for the P.C. Mr. G. Sparkes, Metford House, Tedburn St. Mary.

NOVEMBER 16.—**Amlwch.**—HALL.—Erection of a memorial hall at Amlwch (by converting old Council School); seating accommodation, 850. Mr. L. Wynne Williams, architect, Amlwch.

NOVEMBER 16.—**Attleborough.**—REPAIRS.—Adapting and repairing the farm buildings at Haverscroft House Farm, Attleborough, for the Norfolk C.C. Mr. Victor Playle, County Land Agent, Shirehouse, Norwich. Deposit £1 1s.

NOVEMBER 16.—**Belfast.**—REBUILDING.—For rebuilding of St. Finian's Monastery National School. Mr. T. J. M'Donald, St. Peter's Presbytery, Milford-street, Belfast.

NOVEMBER 16.—**Bootle.**—PARTITIONS.—Supplying and fixing of one sliding and folding partition in four schools, for the T.C. Borough Engineer, Town Hall, Bootle.

NOVEMBER 16.—**Dublin.**—BUILDING WORKS.—For works required at Royal Hibernian Military School, Phœnix Park. Mr. J. J. Healy Office of Public Works, Dublin.

NOVEMBER 17.—**Aberavon.**—EXTENSIONS.—For extensions to the Elim C.M. Hall, Velindre, Aberavon, for the trustees. The proposed new wing measures about 45 ft. by 26 ft., with vestries, &c., in addition. Messrs. Thomas & Morgan & Partners, architects, 23, Gelliwasted-road, Pontypridd.

NOVEMBER 17.—**Ayr.**—BUILDINGS.—For buildings to be erected at Springvale-place, Saltcoats, for the Weights and Measures Dept. of the County of Ayr. Mr. Hugh Thomson, architect, 60, Hamilton-street, Saltcoats. Deposit £1.

NOVEMBER 17.—**Cwmtaff (Breconshire).**—HOUSES.—For erection of a pair of semi-detached houses at Cwmtaff (Breconshire) for the Cardiff Waterworks Committee. Mr. C. H. Priestley, M.Inst.C.E., City Hall, Cardiff. Deposit £2 2s.

NOVEMBER 17.—**Ebbw Vale.**—PAINTING.—For painting the interior and exterior of the Ebbw Vale Council public offices. District wage conditions. Mr. P. I. Davies, Surveyor, Council Offices, Ebbw Vale.

NOVEMBER 17.—**Edinburgh.**—LAVATORY.—Erection of a public lavatory for women at Tollcross, for the T.C. Mr. A. Horsburgh Campbell, Burgh Engineer, 329, High-street, Edinburgh.

NOVEMBER 17.—**Felling.**—HOUSES.—Erection of 24 houses (which may be increased to 50), for the U.D.C. Mr. C. W. Hall, Architect, Council Buildings, Felling.

NOVEMBER 17.—**Inverness.**—HOUSES.—Erection of two blocks of four-roomed houses at Lochalsh-road, Inverness, and painter and glazier work in connection with the erection of three blocks of three-roomed houses on the same site. Mr. J. Hinton Gall, architect, Lombard-street, Inverness.

NOVEMBER 17.—**Manchester.**—X-RAY ROOM.—Erection of an X-ray room at Baguley Sanatorium, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

★NOVEMBER 19.—**Barnes.**—HOUSES.—Propesals for the erection of about 76 houses at Mortlake wanted from builders. Council's Surveyor, High-street, Mortlake.

NOVEMBER 19.—**Derby.**—SHED.—For extension to car shed, Nottingham-road, for the T.C. Mr. C. A. Clews, Borough Surveyor, Babington-lane, Derby. Deposit £1 1s.

NOVEMBER 19.—**Heads Nook.**—HALL.—Erection of a village hall at Heads Nook. Messrs. Higginson & Slack, architects, Lowther-street, Carlisle.

★NOVEMBER 19.—**London, S.W.18.**—HOUSES.—Erection of 52 houses on three selected sites on the Southfields Housing Estate, for the Wandsworth Borough Council. Mr. G. Leonard Elkington, A.R.I.B.A., Council's Architect, 7, Laurence Pountney-hill, E.C.4.

★NOVEMBER 19.—**Scarborough.**—HOUSES.—Erection of ten pairs of semi-detached and one block of four houses in Scamer-road and Hinderwell-road, for the T.C. of Scarborough. Mr. S. H. Poole, P.A.S.I., Housing Superintendent, Town Hall, Scarborough.

★NOVEMBER 19.—**Southend-on-Sea, Essex.**—COURT HOUSE.—Erection and completion of a court house and work incidental thereto at Central Police Station, Alexandra-street, for the Corporation of the County Borough of Southend-on-Sea. Mr. Robert H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £2 2s.

NOVEMBER 20.—**London, N.W.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Mill Hill, N.W., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

NOVEMBER 20.—**Portsmouth.**—SHELTERS.—Erection of tramway shelters on different sites, for the T.C. Mr. V. G. Liorni, Tramways Engineer, Portsmouth. Deposit £2 2s.

NOVEMBER 20.—**Tottenham.**—PAINTING.—For painting of the external woodwork of cottages on the White Hart-lane Estate, Tottenham, for the U.D.C. Surveyor, Town Hall, Tottenham.

NOVEMBER 22.—**Hull.**—SCHOOL.—Erection of first portion, Dairycoates School, Hessle-road, for the T.C. Mr. Joseph H. Hirst, City Architect, Guildhall, Hull. Deposit £2 2s.

NOVEMBER 22.—**Yorks.**—TELEPHONE EXCHANGE.—Erection of a post office and telephone exchange at Shipley, Yorks, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

NOVEMBER 23.—**Aberystwyth.**—HOUSES.—Erection of seven houses on a site at Glanrafon-terrace, Trefechan, within the Borough of Aberystwyth, for the Corporation. Borough Surveyor's Office, Smithfield-road, Aberystwyth. Deposit £1 1s.

NOVEMBER 24.—**Middlesex.**—HOUSES.—Erection of 32 houses near the Ride, Boston-road, Brentford, for the Middlesex County Council. County Engineer, Middlesex Guildhall, Westminster, S.W.1. Deposit £2 2s.

NOVEMBER 27.—**Ilford.**—MATERNITY HOME AND MEDICAL OFFICER'S RESIDENCE.—Erection and completion of the following buildings at Hatch-lane, Ilford, for the Ilford U.D.C.: (1) Maternity home; (2) medical officer's residence. Mr. H. Shaw, M.Inst. C.E., Engineer and Surveyor to the Council, Town Hall, Ilford. Deposit £5 5s.

★NOVEMBER 30.—**London, S.W.**—TELEPHONE EXCHANGE.—Erection of Sloane new telephone exchange, Scolding-street, S.W., for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit one guinea (payable to the Secretary).

NOVEMBER 30.—**Singapore.**—POST OFFICE.—**Erection of new general post office, Singapore. Crown Agents for the Colonies, 4, Millbank, S.W.1. Deposit £10.**

NO DATE.—**Cold Heseldon.**—CHURCH.—Erection of United Methodist Church at Cold Heseldon. Mr. William Dent, M.S.A., architect, 45, John-street, Cold Heseldon. Deposit £1 1s.

NO DATE.—**Dumbarton.**—HOUSES.—For the erection of nine blocks, comprising 26 houses, at Old Kilpatrick, and of seven blocks, comprising 22 houses, at Duntocher, under the second development of the Old Kilpatrick and Duntocher housing schemes, for the Eastern District Committee; also painter work in connection with the first development at Duntocher, of eight blocks, comprising 28 houses. Mr. Joseph Weekes, architect, 88, College-street Dumbarton.

NO DATE.—**Edinburgh.**—BUILDINGS.—For new premises at West Bryson-road, Edinburgh, for the Edinburgh and Dumfriesshire Dairy Co. Mr. M. Purdon Smith, architect, Tower Buildings, Lockerbie.

NO DATE.—**Ilkley.**—ALTERATIONS.—For alterations and additions to Highfield, Denton, Ilkley, for Mr. Arthur Green. Mr. J. W. Broughton, architect, &c., 19, High-street, Skipton.

NO DATE.—**Leeds.**—HOUSES.—Erection of two semi-detached houses in Street-lane, Roundhay. Mr. W. P. Peters, architect, 89, Albion-street, Leeds.

NO DATE.—**Miles Platting.**—BUILDINGS.—Erection of a large block of office buildings at Park Works, Miles Platting, for Messrs. Mather & Platt, Ltd. Messrs. Dixon, Hill & Co., 240, Royal Exchange, Manchester; and 52, Union-street, Oldham.

NO DATE.—**Otley.**—HOUSE.—Erection of country house, West Chevin, Otley. Mr. Oswald Holmes, architect, 41, Boroughgate, Otley.

NO DATE.—**Salisbury.**—SCHOOL.—Erection of new school buildings in three blocks at Highbury-avenue, for 540 children, for the T.C. Messrs. John Harding & Son, architects, 65, New-street, Salisbury. Deposit £1 1s.

NO DATE.—**Silloth.**—VILLA.—Erection of a villa at Green-row, Silloth. Mr. G. Armstrong, architect, 24, Bank-street, Carlisle.

NO DATE.—**Trowbridge.**—CLUB.—For new club premises for the Trowbridge Trades and Labour Club and Institute. Mr. W. W. Snailum, architect, Church-street, Trowbridge.

NO DATE.—**Tynemouth.**—HOUSES.—For the erection of 51 houses on the Balkwell Estate, Chirton, North Shields, for the T.C.

FURNITURE, MATERIALS, etc.

NOVEMBER 12.—**Bristol.**—MATERIALS.—Supply of materials to the Port of Bristol. Mr. Thomas A. Peace, Engineer, Chief Engineer's Office, Avonmouth Dock.

NOVEMBER 12.—**Dublin.**—SLEEPERS.—Supply of 60,000 Scotch fir (home grown) or alternatively 60,000 Baltic red wood sleepers, to the Midland Great Western Railway of Ireland Co. Chief Engineer, Broadstone Terminus, Dublin.

NOVEMBER 12.—**Dublin.**—STORES.—Supply of various stores to the Great Northern Railway (Ireland) Co. Secretary, Amiens-street Station, Dublin. Charge, 1s. per schedule (48).

NOVEMBER 12.—**Margate.**—RAGSTONE.—Supply of tarred Kent ragstone to the T.C. Mr. Ernest A. Borg, Borough Surveyor, 13, Grosvenor-place, Margate.

NOVEMBER 12.—**South Africa.**—PAINT.—Supply of red oxide paint in paste to the South African Railways and Harbours. Department of Overseas Trade, 35, Old Queen-street, S.W. Reference 12338/ED/CC/(2).

NOVEMBER 13.—**Dublin.**—MATERIALS.—Supply of stores for six or twelve months to the Midland Great Western of Ireland Railway Co. Storekeeper, Broadstone Station, Dublin.

NOVEMBER 14.—**Cardiff.**—BRICKS.—Supply of 200,000 or 600,000 blue and brindle bricks during the next six or eighteen months to the T.C. Mr. C. H. Priestley, City Hall, Cardiff. Deposit £2 2s.

NOVEMBER 14.—**Dublin.**—BITUMEN.—Supply of 300 tons of Trinidad Lake bitumen to the T.C. City Engineer, Castle-street, Dublin.

NOVEMBER 14.—**Manchester.**—FURNITURE.—Supply of school cupboards, desks, and tables. Education Offices, Deansgate, Manchester. Deposit £1 1s.

NOVEMBER 15.—**London.**—MATERIALS.—Supply to the Director-General, India Store Department, of (1) Wrought-iron bolts and nuts; (2) mild steel rivets; (3) brushes, paint and varnish. Branch No. 12, Belvedere-road, S.E.

NOVEMBER 16.—**Glasgow.**—MATERIALS.—For the materials and jobbing work required by the Parks Department for six months. Mr. Edward Matthews, Director of Parks, City Chambers, 249, George-street, Glasgow.

NOVEMBER 16.—**Swindon.**—MATERIALS.—Supply of stores to the Great Western Railway Co. Stores Supt., Swindon.

NOVEMBER 17.—**Bootle.**—MATERIALS.—Supply of granite setts, channels, concrete flags, cement, &c., to the T.C. Borough Engineer, Town Hall, Bootle.

NOVEMBER 17.—**Lewes.**—MATERIALS.—Supply of granite, tarred macadam and tar to the East Sussex C.C. Mr. F. J. Wood, County Surveyor, County Hall, Lewes.

NOVEMBER 19.—**Bradford.**—STORES.—Supply of stores to Bradford Corporation Tramways. Mr. R. H. Wilkinson, General Manager, 7, Hall Ings, Bradford.

NOVEMBER 19.—**Chichester.**—MATERIALS.—Supply of road materials to the West Sussex C.C. Mr. H. W. Bowen, County Surveyor, Southgate House, Chichester.

NOVEMBER 19.—**Chichester.**—TAR.—Supply of about 200,000 gallons of tar to the West Sussex C.C. Mr. H. W. Bowen, County Surveyor, Southgate House, Chichester.

NOVEMBER 19.—**Dublin.**—STORES.—Supply of stores for six months to the Dublin United Tramways Co. Offices, 59, Upper Sackville-street, Dublin.

NOVEMBER 19.—**Rhondda.**—TARRED SLAG MACADAM.—For supply to the Rhondda U.D.C. of 1,000 tons of tarred slag macadam in various gauges of 2½, 1½ and ¾ ins. Material to be delivered to G.W.R. Stations at Porth, Trealaw, Ystrad, Tylorstown, and Ferndale. Mr. E. Taylor, Surveyor, Council Offices, Pentre (Rhondda).

NOVEMBER 20.—**Glasgow.**—MATERIALS.—Supply of materials, for six months, to the Tramways Department. Mr. James Dalrymple, General Manager, 46, Bath-street, Glasgow.

NOVEMBER 20.—**Warrington.**—STORES.—Supply of stores for twelve months to the Cheshire Lines Committee. Stores Superintendent, Cheshire Lines, Warrington.

NOVEMBER 21.—**London.**—FIRE APPLIANCES.—Supply to H.M. Works Commissioners of fire and sand pails, and smothering cloth tubes, &c. Controller of Supplies, H.M. Office of Works, &c., King Charles-street, S.W. 1.

NOVEMBER 23.—**Swindon.**—MATERIALS.—Supply of oils and turpentine, electrical wire and cable, &c., to the G.W.R. Co. Stores Supt., Swindon.

NOVEMBER 28.—**Glamorgan.**—FURNITURE.—For supply of bedding and furniture for the use of the Glamorgan Constabulary, to the Glamorgan Standing Joint Committee. Office of the Chief Constable, Canton, Cardiff.

ENGINEERING, IRON AND STEEL

NOVEMBER 12.—**Bermondsey.**—LAUNDRY EQUIPMENT.—Supply and erection of public washhouse equipment at the public washhouse, for the B.C. Mr. Fredk. Ryall, Town Clerk, Town Hall, Spa-road, S.E. Deposit £1 1s.

NOVEMBER 12.—**Hawick.**—ELECTRIC LIGHTING.—Rewiring of the electric lighting installation of Hawick High School, for the County of Roxburgh Education Authority. Mr. William A. Edward, Executive Officer, Education Office, Newtown St. Boswells.

NOVEMBER 12.—**Keynsham.**—ELECTRIC LIGHT.—For electric lighting installation of Poor Law Institution at Keynsham. Master at the Institution.

NOVEMBER 12.—**Southampton.**—PIPES.—Supply of 114 tons of 12 in. cast iron pipes and 2 tons of special castings to the T.C. Waterworks Engineer, Southampton. Deposit £1 1s.

NOVEMBER 12.—**Walton.**—PUMPING PLANT.—**Eight water-tube boilers, piping, &c., at the Walton Pumping Station, for the Metropolitan Water Board. Mr. Henry E. Stilgoe, Chief Engineer, 173, Rosebery-avenue, E.C.1. Deposit £3 3s.**

NOVEMBER 13.—**Bampton.**—RESERVOIRS.—Construction of two covered concrete reservoirs, one with a capacity of 20,000 gals. and one of 60,000 gals.; engine house, with oil engine and pump; and the laying of mains, &c., for the U.D.C. Mr. Henry Monson, Surveyor, Bampton, Devon.

NOVEMBER 13.—**Liverpool.**—BOILERS.—Supply of three Lancashire boilers and fittings at the Public Baths. Chief Superintendent, Bath Department, 75, Dale-street, Liverpool. Deposit £1 1s.

NOVEMBER 13.—**Southall-Norwood.**—BRIDGE.—Construction of ferro-concrete bridge over Grand Junction Canal, for the U.D.C. Mr. J. B. Thomson, Surveyor, Town Hall, Southall.

NOVEMBER 14.—**Currans.**—BRIDGE.—Repair of the masonry arch under bridge No. 127 at Currans, between Farranfore and Gortatlea, for the Great Southern and Western Railway. Chief Engineer, Inchicore, Dublin. Deposit 10s. 6d.

NOVEMBER 14.—**Dinmore.**—BRIDGE.—Rebuilding Cornett Bridge, 4¼ miles from Dinmore Station, G.W.R., for the Herefordshire C.C. Mr. G. H. Jack, County Surveyor, High Town, Hereford. Deposit £1 1s.

NOVEMBER 15.—**Edinburgh.**—PIPES.—Supply of about 410 tons of cast-iron pipes of 27 in. diameter, for the T.C. Messrs. J. & A. Leslie & Reid, 29, Waterloo-place, Edinburgh. Deposit £5.

NOVEMBER 15.—**Edinburgh.**—VALVES, &C.—Supply of valves and hydrants required for the new filters at Fairmilehead, for the T.C. Messrs. J. & A. Leslie & Reid, 29, Waterloo-place, Edinburgh. Deposit £5.

NOVEMBER 15.—**London.**—STEEL SHEETS.—Supply to the Director-General, India Store Department, of galvanised corrugated mild steel sheets. Branch 12, Belvedere-road, S.E.

NOVEMBER 15.—**Torquay.**—PIPES.—Supply of about 2,160 tons of 14 in., 12 in., and 7 in. diameter cast-iron pipes and special castings, for the T.C. Mr. Samuel C. Chapman, Waterworks Engineer, Municipal Offices, Torquay. Deposit £2 2s.

NOVEMBER 15.—**Wallasey.**—PONTOON.—Supply of one pontoon, 90 ft. by 10 ft. by 5 ft. 6 in., to the T.C. Ferries. General Manager, Seacombe, Wallasey.

NOVEMBER 16.—**Aberdeen.**—PIPES.—Supply of about 7 miles of 40 in. diameter pipes and specials of the following alternative types, viz.:—(A) Cast iron, (B) mild steel (lapwelded), (C) reinforced concrete (spun and ordinary). Water Engineer, 41½, Union-street, Aberdeen. Deposit £5.

NOVEMBER 17.—**Annaghkilly.**—BRIDGE.—Reconstruction of a steel viaduct at Annaghkilly, between Newbliss and Clones, for the Great Northern Railway (Ireland). Mr. J. B. Stephens, Secretary, Amiens-street Station, Dublin. Deposit £2 2s.

NOVEMBER 19.—**Belfast.**—PIPING.—Supply of steam, water and other piping at the Harbour Power Station, for the T.C. City Electrical Engineer, Belfast. Deposit £2 2s.

NOVEMBER 19.—**Hastings.**—RESERVOIR.—For enlarging Ecclesbourne Reservoir, for the U.D.C. Mr. P. H. Palmer, Borough Engineer, Town Hall, Hastings. Deposit £2.

NOVEMBER 19.—**Havant.**—ELECTRIC LIGHT.—For electric lighting installation at Hospital of the Havant Joint Hospital District Board. Particulars at Hospital.

NOVEMBER 20.—**Burnham-on-Crouch.**—CONCRETE TANK.—Construction of a covered reinforced concrete sedimentation tank (of about 15,000 gallon capacity), for the U.D.C. Mr. E. Dilliway, Clerk, Council Offices, Burnham-on-Crouch. Deposit £1.

NOVEMBER 20.—**France and Belgium.**—STONES.—Total supply of 25,000 headstones, and delivered f.o.r., to be divided into a number tracts, none of which shall be for less than 10 stones, for the Imperial War Graves Commissio Secretary, Works Dept., Imperial War Grave mission, 82, Baker-street, London, W.1, "Headstones Contract 5079/S.," "Headstone tract 5079/T."

NOVEMBER 20.—**New Zealand.**—PLATE SPANS.—For supply of plate girder spans Pihama and Opunake Section Bridges and T Bridge, for the Public Works Tender Board, ton. Department of Overseas Trade, 35, Old street, S.W.

NOVEMBER 21.—**London.**—CRANES.—Supply East Indian Railway Co. of electric overhead tr cranes. Mr. G. E. Lillie, Secretary, 73–76 William-street, E.C. 4. Charge £1 1s.

NOVEMBER 21.—**Manchester.**—ELECTRICAL —For electrical drive for ammonia compressor, T.C. Mr. A. Chadwick, General Superint Markets Department, Town Hall, Manchester

NOVEMBER 21.—**Reigate.**—PUMPS.—Supp electrically-driven drainage pumps, for the T.C C. H. Wordingham, 7, Victoria-street, S.W. £1 1s.

NOVEMBER 21.—**Rhiw.**—PIER REPAIRS.—to the Pier at Rhiw, near Aberdaron, for the Wales Iron and Manganese Co., Ltd. Mr. John Irwell Chambers, Fazakerley-street, Liverpool

NOVEMBER 26.—**Girvan.**—WATER W Construction of a reservoir on the Penwhapple including embankment, outlet culvert, valve waste weir, waste water channel, and meter for the T.C. Messrs. Warren & Stuart, 94, Hope Glasgow. Deposit £2.

NOVEMBER 27.—**Carlton.**—BRIDGE.—Constru a steel girder road bridge of 150 ft. clear spa abutments and two flood openings, over the Ri at Carlton, near Snaith, for the West Ridi West Riding Surveyor, County Hall, Wa Deposit £1.

★NOVEMBER 27.—**Gravesend, Kent.**—HOT-SUPPLY AND HEATING.—Hot-water supply to the of the Poor Law Institution, together with heati part of the building, for the Guardians of the Pa Gravesend. Particulars on personal applicat Mr. Challinor, the Master of the Institution, Trafalgar-road, Gravesend, on the 14th, 16t 19th inst., between 10 and 4 o'clock each day.

NOVEMBER 30.—**Grangemouth.**—WATER P Supplying 820 tons of 12 in. diameter cast-iro and specials, or alternatively, for supplying tons of 12 in. diameter cast-iron pipes and s to the T.C. Mr. David A. Donald, Water Er Town Hall, Grangemouth.

NOVEMBER 30.—**Sydney.**—BRIDGE.—Consti **of the superstructure and substructure of a ca bridge across Sydney Harbour; also an alte** tender for the construction of the superstructu substructure of an arch bridge across Sydney H Agent-General for New South Wales, Australia Strand, W.C.

DECEMBER 3.—**Sydney.**—SWITCHGEAR.—**High switchgear. for Municipal Council.** Departm Overseas Trade (Room 52), 35, Old Queen-street.

DECEMBER 31.—**Kempton Park.**—ENGINES, Supply and erection of two reciprocating engi pumps at Kempton Park Pumping Station, Metropolitan Water Board. Chief Engineer's ment, 173, Rosebery-avenue, Clerkenwell, E.C posit £3 3s.

MAY 1, 1924.—**China.**—BRIDGE.—The Com Councillor at Peking has forwarded to the Depa of Overseas Trade copies of the official text of a tenders by the Hai Ho Conservancy Commissi the erection of a bridge over the Hai Ho at T Tenders must be in the hands of the Commissio noon on May 1, 1924. The cost of erecting t bridge has been roughly estimated at Tls. 700,0 £105,000. Department of Overseas Trade, 3 Queen-street, S.W. 1. Reference 11647/F.E./E

NO DATE.—**Bradford.**—PIPING.—Installat about 600 ft. of 2 in., ¾ in., and ½ in. copper at St. Luke's Hospital, for the Board of Gua Mr. Fred Holland, Engineer, 22, Manor-row, Br

NO DATE.—**Bristol.**—DOCKS.—For the const of eastern arm of Royal Edward Dock; a construction of two three-floor ferro-concrete transit sheds, each 500 ft. long; and a ferro-c built silo granary of about 6,000 tons capacit Thomas A. Peace, Chief Engineer's Office, Avon Docks. Deposit £15.

NO DATE.—**Southport.**—PUMPING PLANT.—and erection of a small electrically-driven pu plant, for the Southport, Birkdale and West Lan Water Board. Manager, 14, Portland-street, port.

NO DATE.—**Ystradfellte (Glam).**—DRIVAGE driving a new level at Ystradfellte. Thomas T. Efail Isaf.

ROAD, SANITARY, AND WAT WORKS.

NOVEMBER 12.—**Barnes.**—ROAD.—Resurfacin tion of Lower Richmond-road, Mortlake, for the Mr. G. Bruce Tomes, Surveyor, Council House street, Mortlake, S.W.14.

NOVEMBER 12.—**Basford.**—WATER MAIN.—Pr and laying about 550 yds. of 3 in. cast-iron pip main, &c., at Pyehill, for the R.D.C. Mr. S. Surveyor, Public Offices, Rock House, Stockh Basford. Deposit £1 1s.

NOVEMBER 12.—**Enfield.**—SEWERS.—Construc three stoneware sewers, for the U.D.C. Mr. Crabb, Surveyor, Public Offices, Enfield. £2 2s.

NOVEMBER 12.—**Hertford.**—ROADS.—For the and paving of footpaths in Ware-road, for t Borough Surveyor, The Castle, Hertford. £2 2s.

NOVEMBER 12.—**Llanelly.**—VAGRANT WARDS.—For e erecting of additional vagrant wards at the Llanelly nion Workhouse. Messrs. W. Griffiths & Sons, leon Chambers, Llanelly. Deposit £2 2s.

NOVEMBER 12.—**Slough.**—WATER MAINS.—For lay- g about 4,000 yds. of cast-iron water mains, for the D.C. Mr. A. Bromley, Water Engineer, Slough.

NOVEMBER 12. — **Southampton.**—ROADS.—Recon- ructing a portion of the Western Esplanade roadway ith asphalte and reinforced concrete foundation, for e T.C. Borough Engineer, 33, French-street, South- npton. Deposit £1 1s.

NOVEMBER 12.—**Southampton.**—WATER MAINS.—For ying cast-iron water mains from The Avenue to Hill- ne, for the T.C. Waterworks Engineer, Southamp- n. Deposit £1 1s.

NOVEMBER 12.—**Walton-on-Thames.**—SEWER.—Con- ruction of about 460 yds. of 9 in. stoneware pipe rface water sewer, for the U.D.C. Mr. R. Wilds, rveyor, Council Offices, Walton-on-Thames. De- sit £2 2s.

NOVEMBER 12. — **Whitley and Monkseaton.** — OADS.—For the widening and reconstruction of ields-road, from Hill-heads to Rake-lane, for the D.C. Mr. A. J. Rousell, Council Offices, Whitley y. Deposit £1 1s.

NOVEMBER 12.—**Worsborough.**—FOOTPATH.—For aking-up of footpath on the Genn House-road, ard Green, for the U.D.C. Mr. T. Shield, Council's rveyor, Saville House, Worsborough Bridge. De- sit £1 1s.

NOVEMBER 13.—**Bushey.**—ROADS.—For surfacing rtain footpaths (having an area of about 9,900 yards per) with tarpaving, for the U.D.C. Mr. Ernest E. rder, Surveyor, Bushey. Deposit £2 2s.

NOVEMBER 13.—**Docking.**—ROADS.—For resurfacing Hunstanton, Ringstead-road, and (2) Heacham, ach-road, for the R.D.C. Mr. R. W. Hindhaugh, rveyor, Burnham Westgate, Norfolk.

NOVEMBER 13.—**Leeds.**—ROADS.—(*a*) Paving, con- ting, &c., for portions of highways in New Briggate, wer Briggate, Hunslet-road, Low-road (Hunslet), nningley-road; (*b*) granited rock asphalte surfacing New Briggate (highways) and Lower Briggate (tram- y track), for the T.C. Mr. J. B. Hamilton, Commer- l Manager, 1, Swinegate, Leeds. Deposit £1 1s.

NOVEMBER 13.—**Neath.**—ROADS.—For the streng- ening and resurfacing with tar macadam of main d district roads, for the T.C. Mr. H. Alex. Clarke, rough Engineer, Neath.

NOVEMBER 13.—**Trowbridge.**—SEWERS.—Construc- n of 90 yds. of salt-glazed pipe sewer, &c., for the D.C. Surveyor, Trowbridge.

NOVEMBER 14. — **Barton-upon-Irwell.** — ROADS.— ivate street improvement works in certain streets the township of Flixton, for the R.D.C. Mr. E. L. eming, Council Offices, Green-lane, Patricroft. eposit £2.

NOVEMBER 14.—**Birmingham.**—SEWERS.—Construc- n of about 1,893 yds. of brick and concrete sewers, d 386 yds. of stoneware pipe sewers, in King's Heath, the T.C. Mr. H. H. Humphries, City Engineer, uncil House, Birmingham. Deposit £2.

NOVEMBER 14.—**Edmonton.**—TENNIS COURTS.— nversion of four grass tennis courts at Pymmes rk, Edmonton, into hard courts composed of brick- st and sand, for the U.D.C. Mr. Cuthbert Brown, rveyor, Town Hall, Edmonton, N. 9.

NOVEMBER 14.—**Marlborough.**—SEWAGE WORKS.— r laying drains and re-construction of outfall drains, the T.C. Messrs. H. Humphreys & Sons, 28, ctoria-street, S.W. Deposit £3 3s.

NOVEMBER 14.—**Pontardawe.**—ROAD RECONSTRUC- N.—For carrying out, for the Pontardawe R.D.C., reconstruction of Upper Colbren-road, Gwauncae rwen. Mr. E. D. Jones, M.S.A., Architect, Council ices, Pontardawe.

NOVEMBER 14.—**Rochdale.**—ROADS.—For making-up te-street and Midhurst-street, for the T.C. Borough rveyor, Rochdale.

NOVEMBER 14.—**Thurcroft.**—SANITARY.—Supplying sanitary fittings, also supplying and fixing the ak-room fittings required at Thurcroft New School. ucation Department, County Hall, Wakefield.

NOVEMBER 14. — **Wembley.**—ROADS.—Reconstruc- n and widening of Forty-lane, including the con- uction of a reinforced concrete bridge, for the U.D.C. C. R. W. Chapman, Surveyor, Council Offices, mbley. Deposit £5 5s.

NOVEMBER 14.—**Wembley.**—ROADS.—Surfacing of new concrete carriageway of Forty-lane with uminous asphalte 2 in. in thickness, for the U.D.C. C. R. W. Chapman, Surveyor, Council Offices, mbley. Deposit £1 1s.

NOVEMBER 15.—**Holborn.**—ROADS.—For paving sewer works, for the B.C. Mr. E. F. Spurrell, ough Surveyor, Council Offices, Holborn, W.C.

NOVEMBER 15.—**London, W.C.1.**—STREETS.—(*a*) plying and laying complete 2 in. compressed rock halte and repairs to concrete foundation in certain cts within the Borough; (*b*) for sewer work in t-street (approximately 114 ft. lin. of new sewer repairs to existing sewer), for the Metropolitan ough of Holborn. Mr. E. F. Spurrell, Borough veyor, Council Offices, 197, High Holborn, W.C.1.

NOVEMBER 15.—**Royston.**—WATER MAIN.—For ng about 670 lineal yds. of 6 in. cast-iron pipes, the U.D.C. Mr. J. R. Fox, Waterworks Office, n ley.

NOVEMBER 16.—**Aberdeen.**—WATER MAINS.—Laying ut 7 miles of 40 in. piping and ancillary works veen Crathes and Culter, for the T.C. Water ineer, 41½, Union-street, Aberdeen. Deposit £5.

NOVEMBER 16. — **Doncaster.** — SEWERS.—Construc- of a 12 in. sewer for about 700 yds. along Lords d-lane, Warmsworth, and about 640 yds. on land oining the Colliery Co's sidings, for the R.D.C. W. R. Crabtree, Surveyor, Nether Hall, Doncaster.

NOVEMBER 16.—**Epsom.**—ROADS.—For the widening ander Green-lane, Cheam, and the laying of drains, the R.D.C. Mr. T. Ware, Council Offices, 14, erloo-road, Epsom.

NOVEMBER 16. — **Witham.** — SEWAGE DISPOSAL RKS.—Construction of sewage disposal works, for .D.C. Messrs. Sands & Walker, Milton Chambers, ingham. Deposit £3 3s.

NOVEMBER 17.—**Bootle.**—ROADS.—Reconstruction with granite setts on concrete of five roads, for the T.C. Borough Engineer, Town Hall, Bootle. Deposit £1 1s.

NOVEMBER 17.—**Chesterfield.**—WATER MAIN.—For laying 1,500 yards of 6 in. cast-iron water main at Ashover, for the R.D.C. Mr. Gilbert Frith, Water Works Engineer, Chesterfield. Deposit £1 1s.

NOVEMBER 17. — **Hayes.** — ROADS. — Making-up various streets, for the U.D.C. Mr. D. C. Fidler, Surveyor, Council Offices, Hayes, Middlesex. Deposit £2.

NOVEMBER 17.—**Southend-on-Sea.**—BOWLING GREEN. —Laying-out of land and the construction of bowling green, with boundary walls, fencing, &c., at Young's Nursery, for the T.C. Mr. Robert H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £2.

NOVEMBER 17.—**Tilbury.**—ROADS.—Reconstruction in reinforced concrete of Montreal-road and part of St. Chads-road, for the U.D.C. Mr. S. A. Hill-Willis, Surveyor, Council Offices, Tilbury. Deposit £1.

NOVEMBER 19.— **Caerphilly.** — PRIVATE STREET WORKS.—For carrying out, for the U.D.C., the kerbing, paving, sewering, forming, metalling, &c., of Brynymynach-avenue and Brynview-avenue, Ystrad Mynach. Mr. T. H. Richards, Surveyor, Council Offices, Caerphilly. Deposit £1 1s.

NOVEMBER 19.—**East Preston.**—ROADS.—Execution of tar paving and other works at the Workhouse, East Preston, near Littlehampton, for the East Preston B.G. Mr. J. W. Calvert, Clerk, East-street, Littlehampton.

NOVEMBER 19.—**Edmonton.**—ROADS.—For making-up roads at the Edmonton Sewage Farm, for the U.D.C. Mr. Cuthbert Brown, Town Hall, Edmonton, N. 9.

NOVEMBER 19.—**London, E.C.**—PAVING.—Repairing of the footways of London Bridge with York stone and the maintenance thereof for nine years, for the Corporation of the City of London. City Surveyor, Guildhall, E.C.2, between the hours of 10 a.m. and 4 p.m. Deposit £2 2s.

NOVEMBER 19.—**Maldon.**—ROADS.—For laying 160 yards super of stone slab paving and 80 yards lineal kerbing to footway in High-street, for the T.C. Borough Engineer, Municipal Offices, Maldon.

NOVEMBER 19.—**Southborough.**—WATER MAINS.—Provision and laying of about 1,550 yds. of 6 in. cast-iron water mains, for the U.D.C. Messrs. G. & F. W. Hodson, Engineers, Bank Chambers, Loughborough. Deposit £5 5s.

NOVEMBER 19.—**Urmston.**—ROADS.—For improvement works in Victoria-street, for the U.D.C. Surveyor, Council Offices, Urmston. Deposit £1 1s.

NOVEMBER 19.—**Waltham.**—ROADS.—For the widening of Honey-lane, for the U.D.C. Mr. W. C. Holloway, Surveyor, Town Hall, Waltham Abbey.

NOVEMBER 20.—**Lees.**—ROADS.—Making-up Turner-street, for the U.D.C. Mr. W. J. Lomax, 11, Fold-street, Bolton. Deposit £5.

NOVEMBER 20. — **Maesteg.**—ROAD WORKS.—For widening and reconstructing Llwydarth-road and Bethania-street, Maesteg, for the U.D.C., in connection with relief of unemployment. Unskilled labour to be employed. Mr. S. J. Harpur, Surveyor, Talbot-street, Maesteg. Deposit £2 2s.

NOVEMBER 20. — **Salford.** — ROADS. — For tar-macadamising the surface and completing Upper Park-road, and reconstructing the surface of Littleton-road with rock asphalte on concrete. Borough Engineer, Town Hall, Salford. Deposit £1 1s.

NOVEMBER 21.—**Birmingham.**—TRAMWAYS.—Construction of about 700 yds. of solid construction double track tramway, and about 3,000 yds. of wooden sleeper construction double track tramway, in Bristol-road, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £5.

NOVEMBER 21.—**Kinghorn.**—WATER MAINS.—For supplying and laying about three miles of cast-iron pipes, for the T.C. Messrs. Crouch & Hogg, C.E., 17, Lynedoch-street, Glasgow. Deposit £1 1s.

NOVEMBER 21.—**Thornton.**—SEWERAGE WORKS.—For construction of sewerage works, for the U.D.C. Mr. H. Hindle, Engineer, 5, Cedar-street, Blackpool. Deposit £5 5s.

NOVEMBER 22. — **Windsor.** — SEWAGE DISPOSAL WORKS.—For construction of sewage disposal works at Sunninghill, for the R.D.C. Mr. J. H. Blizard, 7, Victoria-street, S.W. Deposit £10 10s.

NOVEMBER 23.—**Hexham.**—SEWER.—For taking up the existing conduit sewer and laying new 6 in., 9 in. and 12 in. pipe sewers in the Parish of Corbridge, for the R.D.C. Clerk to the Parochial Committee, Corbridge-on-Tyne. Deposit £1.

NOVEMBER 23. — **Mitcham (Surrey).** — ROADS.— Making-up of certain roads on the Council's Housing Estates, for the Mitcham U.D.C. Mr. B. Bullock, Council's Surveyor, Broadway House, Lower Mitcham.

NOVEMBER 26.—**Camberwell.**—ROADS.—Making-up Dovercourt-road, East Dulwich, for the B.C. Mr. William Bell, Borough Engineer, Town Hall, Peckham-road, Camberwell, S.E.5.

NOVEMBER 26.—**Enfield.**—SEWAGE DISPOSAL WORKS. —Construction of sewage disposal works at Cuckoo Hall-lane, for the U.D.C. Mr. H. R. Crabb, Surveyor, Public Offices, Enfield. Deposit £5 5s.

NOVEMBER 27.—**Dover.**—ROADS.—Widening of the Folkestone-road to a width of 60 ft. for a distance of approximately 600 yds., for the T.C. Mr. Wm. B. Smith, Borough Engineer, Maison Dieu House, Dover. Deposit £2 2s.

NOVEMBER 30.—**Lauder.**—CEMETERY EXTENSION.— For building stone and brick walls, draining and levelling, in connection with an extension of the cemetery. Mr. Geo. L. Broomfield, Lauder.

NOVEMBER 30. — **Witham.** — SEWAGE DISPOSAL WORKS.—Construction of sewage disposal works, for the U.D.C. Messrs. Sands & Walker, Milton Chambers, Nottingham. Deposit £3 3s.

DECEMBER 11.—**Gosforth.**—SEWERS.—Laying new sewers and formation of roadway on housing site, for the U.D.C. Mr. Geo. Nelson, Surveyor, Council Chambers, High-street, Gosforth.

Competitions.

(*See Competition News, page* 714.)

Auction Sales, Tenders, etc.

NOVEMBER 13.—**London, S.W.**—Messrs. Veryard & Yates will sell, without reserve, at 255, Clapham-road, S.W. (a few yards from "The Swan"), a large and well-assorted stock of timber, fittings, and building material. Auctioneers, 365, Norwood-road, S.E.27.

✱NOVEMBER 14, 15 AND 16.—Messrs. Robertson & Foote will sell, by direction of the George Cohen & Armstrong Disposal Corporation, household and office furniture, building material, huts and erections, &c.; will be held in the Central Institute, H.M. Factory, Gretna. Auctioneers, 104, West George-street, Glasgow.

✱NOVEMBER 17. — **Reading.** — ADDITIONS. — The director of Messrs. M. Venner & Sons, Ltd., Reading, are prepared to consider names of builders and contractors who would be prepared to submit tenders for the erection of additions to the Berkshire Bacon Factory, Reading. Mr. Frederick G. Sainsbury, M.S.A., M.I.Struct.E., architect, 154, Friar-street, Reading.

NOVEMBER 20. — **East Kent.** — Messrs. Worsfold & Hayward (in conjunction with Messrs. S. Hinds & Son) will sell, at the Wingham Colliery, between Dover and Canterbury, valuable colliery plant and machinery. Market-square, Dover, and Walmer, Kent.

NOVEMBER 20.—**London, E.C.**—Messrs. St. Quintin. Son & Stanley are instructed to offer for sale Crown lands, by direction of the Commissioner of His Majesty's Woods, Forests and Land Revenues, at Winchester House, Old Broad-street, E.C.2, valuable corner freehold building site, known as 110 to 116 (even), Curtain-road, and 1 to 10, Union-place, E.C.; also various sites will be let by auction, by Order of the Corporation of the City of London. Auctioneers, 50 Threadneedle-street, E.C.2.

NOVEMBER 21. — **Hayes (Middlesex).** — Messrs. Henry Butcher & Co. have received instructions to sell, by order of Messrs. Sir Robert McAlpine & Sons, on completion of Hayes housing contract, at Hayes, Middlesex, surplus building material, plant and stores office furniture, &c., including several temporary and dismantled wooden workshops, offices, huts, &c. Auctioneers, 63 & 64, Chancery-lane, London, W.C.2.

✱NOVEMBER 21.—**Newhaven.**—Messrs. Fuller, Horsey & Co. will sell in lots, by order of C. J. Wills & Sons, Ltd., on account of completon of contract at Newhaven Harbour, contractors' plant, including a 10-ton Wilson loco. crane. Auctioneers, 11, Billiter-square, E.C.3.

✱NOVEMBER 22.—**London.**—Messrs. Kemsley will offer for sale at the London Auction Mart, block of freehold building land known as the Chingford Hall Estate, of approximately 40 acres; sewer, gas and water available. Auctioneers, Broad-street House, E.C.2.

NOVEMBER 28.—**Rotherhithe, S.E.16.**—Messrs. J. T. Skelding & Co. will sell (by kind permission of Messrs. Scantlin, Taylor & Co.), at Appleby's Yard, Silwood-street, Rotherhithe, S.E.16, well-seasoned, dry stock of timber of a large variety of various woods. Auctioneers, 48, Gresham-street, Guildhall, E.C.2.

NOVEMBER 28.—**Windsor.**—Messrs. Knight, Frank & Rutley will sell, at Windsor, Berkshire, about two miles from the Royal Borough and 20 miles from London, the freehold residential property known as the St. Leonard's Hill Estate, the noble mansion and other property from the estate, the whole extending to about 630 acres. Auctioneers, 20, Hanover-square, London, W.1.

DECEMBER 13.—**London, E.C.**—Mr. Joseph Stower will sell, with vacant possession, freehold property containing the important area of about 75,000 ft., or nearly 1¾ acres, prominently and conveniently situate on the north side of and fronting the main Bow-road. Auctioneers, 43, Chancery-lane, London, W.C.2.

Public Appointments.

NOVEMBER 12.—**Mitcham, Surrey.**—General Assistant required by the Mitcham Urban District Council to act under the direction of the Engineer and Surveyor. Clerk to the Council, Vestry Hall, Mitcham, endorsed "General Assistant."

✱NOVEMBER 14.—**Liverpool.**—Temporary Architectural Assistant required in the Housing Department by the Housing Committee of the City of Liverpool. Mr. Walter Moon, Town Clerk, Town Clerk's Office, Municipal Buildings, Dale-street, Liverpool, endorsed "Assistant, Housing Department."

✱NOVEMBER 15.—**London, S.W.4.**—Applications for the position of (*a*) Staff Joiner at the L.C.C. School of Building, Ferndale-road, Clapham, SW.4; (*b*) Carpenter and Joiner at the L.C.C. Paddington Technical Institute, Saltram-crescent, W.9, required by the London County Council. Education Officer (T.I.*a*), The County Hall, S.E.1 (stamped addressed envelope necessary), for form.

✱NOVEMBER 26.—**Eastbourne.**—General Foreman in the Borough Engineer and Surveyor's Department required by the County Borough Council of Eastbourne. Mr. Leslie Roseveare, M.Inst.C.E., Borough Engineer, Town Hall, Eastbourne.

✱DECEMBER 6.—**Greenwich, S.E.10.**—The Council of the Metropolitan Borough of Greenwich is prepared to receive applications for the following appointments:—(1) Grade B Clerk in the Works Department; (2) Grade A Clerk (between the ages of 17 and 21), in the Town Clerk's Department. Mr. Frederick J. Simpson, Town Clerk, Town Hall, Greenwich-road, S.E.10, endorsed "Grade B Clerk," or "Grade A Clerk," as the case may be.

Control of the Cement Industry.

The *Daily Express* understands that control of the Associated Portland Cement Company has passed to a newly-registered company, named the Associated Anglo-Atlantic Corporation. The new Corporation has for its chairman Sir Philip Nash, who holds, among other positions, that of chairman of the Metropolitan Vickers Company.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ASHTON-UNDER-LYNE.—The T.C. is proposing repaving of Cowhill-lane and Junction-street, reconstruction of tramway track and portion of Manchester-road, conversion of percolating filters at the sewage works, and construction of sludge lagoons, estimated to cost about £62,000.

AUDENSHAW.—Plans passed by U.D.C.: Extensions Delta Works, for Mr. Austin Hopkinson, M.P.; villas, Kershaw-lane, Mr. Lomas; four houses, Droylsden road, Mr. S. Hadfield.

BASLOW.—A proposal is on foot to relieve the traffic over the narrow Baslow bridge. A scheme for a new bridge over the Derwent is being considered.

BELFAST.—Plans passed: Villa and garage, Lansdowne-road, for Messrs. Thomas McKee & Sons (architects, Messrs. Hobart & Heron); alterations and additions to shops on Woodstock-road, for Mr. A. Fusco (architect, Mr. S. J. McAvoy); eight villas, Bloomfield-road, for Mr. Joseph McMaster (architect, Mr. Hugh Gault); dining-room for factory of Messrs. W. Ewart & Sons, Bedford-street (builders, Messrs. McLaughlin & Harvey); villa and garage, Myrtlefield Park, for Mr. F. C. Hughes (architect, Mr. T. R. Eagar); two semi-detached villas, Stranmillis-gardens, for Mr. William Pollins, builder; shop, house and store in Crimea-street, for Mr. W. Mackey (architect, Mr. James H. Beggs; builders, Messrs. Rea & Beggs); Home for Aged Men, Ravenhill and Ormeau roads, for the Nazareth Home (architects, Messrs. McDonald, Lamont & McDonald); addition to lecture hall, Stranmillis-road, for the Select Vestry of St. Bartholomew's (architect, Mr. A. H. S. Warren); villa, Myrtlefield Park, for Mr. R. P. McGregor (architect, Mr. T. R. Eagar); bungalow, Ormiston-crescent, for Capt. T. Robinson (builder, Mr. W. Scott); villa and garage, Shandon Park, for Mr. W. J. Shields (architect, Mr. R. S. Sutcliffe; two large greenhouses and nursery on Knock-road, for Mr. Ernest Camlin (architects, Messrs. Munce & Kennedy); villa and garage at Beechlands, Malone-road, for Professor Gregg Wilson (architects, Messrs. Blackwood & Jury); Parochial Hall, Donegall Pass, for the Select Vestry of the Magdalene Church (architect, Mr. J. St. J. Phillips); villa in Sydenham-avenue, for Mr. Gordon Rogers (architect, Mr. C. A. Aickin); additions to houses, Glenburn Park, for Mr. Jacob W. Lester; additions to the Belfast Pure Ice & Cold Storage Co.'s premises, Great Victoria-street (architects, Messrs. Ferguson & McIlveen); 24 houses, St. James's-road, for the White Cross Building Society (architects, Messrs. F. & J. McArdle)

BLYTH.—Plans approved by T.C.:—Two cottages, Ridley-avenue, for Messrs. Lund & Tynemouth.

BRACEBRIDGE.—The Lindsey C.C. has agreed to the provision of a water-tower and pump at Bracebridge Mental Hospital as a protection against fire, at an expenditure not exceeding £3,000.

BRADFORD.—Plans passed: B. Swailes, Toller-lane and Scotchman-road, house; Bradford Council of Social Service, Shuttleworth Hall Estate, 104 houses; P. Pickering, Quarry-street, Heaton, bungalow; Fred Schofield, Hollybank-road, bungalow; John Rodwell, Buttershaw-lane, house; W. Garnett & Co., Parkavenue, Thackley, four houses; Dalby & Hutchinson, Moor Park-drive, bungalows; J. H. Pitchers & Sons, Moor Park-drive, semi-detached houses; Wilfred Turner, Royds Hall-lane, cottage.

BRIDGEND.—Plans passed by U.D.C.: Temporary garage at Park-street, for Dr. Bryan, and temporary garage, Park-street, for Dr. Jenkins.—The Penybont (Bridgend) R.D.C. is applying to buy land at Sarn for erection of 30 houses. The Council has called for estimates for fencing the Pyle and Sarn Housing sites.

BRIDLINGTON.—The T.C. has decided to accept a scheme by Mr. Haiste, consulting engineer, of Hull, for an extension of the floral pavilion on the Prince's Parade, and for the construction of an overhead promenade, at a cost of £10,500, to be completed, if approved by the Ministry of Health, by next spring.

CARLISLE.—Plans passed: Twelve cottages at Cummersdale, for Messrs. Stead, McAlpin & Co., and a bungalow for Mr. James Noble, at Cargo Hill.

CARMARTHEN.—The R.D.C. has received 43 applications for grants for house erection, the total number of buildings numbering 81.—The County Council has instructed preparation of plans for new buildings in connection with the County Offices, including provision of a Council Chamber.—The County Council is drafting a main roads improvement scheme with assistance from unemployment relief grant.

CHAPEL-EN-LE-FRITH.—Plans passed by R.D.C.: Bungalow, Lesser-lane, Combs, Mr. E. L. Bellhouse; two houses, Sheffield-road, Thornhill, Mrs. E. Bywater; two houses, Chapel-en-le-Frith-road, Castleton, Messrs. A. L. Wheat & Son; bungalow, Leaden Knowl, Chinley, Dr. Babington.

CHELTENHAM.—The T.C. is to invite tenders for the erection of 15 houses.—Plans passed by T.C.: P. Witts, four semi-detached houses, Old Bath-road; Cheltenham College Council, new wing to "Southwood," Lyplatt-road.

CHESTER-LE-STREET.—The R.D.C. have empowered their Estate Surveyor to prepare plans for the erection of 50 houses at Eighton Banks, 50 at Kibblesworth, 50 at Sunniside, and 100 at Edmondsley on sites already decided upon. These will be built under the subsidy scheme. The Council have approved a block plan for 16 houses at Kibblesworth for Messrs. J. Bowes & Partners, and for seven houses at Brown's Buildings, Birtley, for Messrs. The Lambton and Hetton Collieries, Ltd., and agreed to the subsidy being granted. Subsidy was also authorised for ten houses at the Gables, North Biddick, plans for which were submitted by Mr. J. J. Paget. The Council also approved of a plan for a mineral water factory at Beamish, for Mr. J. T. Johnson.

DARLINGTON.—The T.C. Housing Committee has received the Ministry of Health approval to the erection of 150 houses, with subsidy.

DOVERCOURT.—A scheme to develop Dovercourt, near Harwich, into a first-class watering place has been submitted by the local Town-Planning Association to the Ministry of Health.

DUBLIN.—Plans passed: Rebuilding, 34, Merchant's-quay, for Miss Julia Nea: alterations to Carlton Cinema, for the proprietors; factory, South Circular-road, for Messrs. Twinem Bros.; foundations of tobacco factory, South Circular-road, for Messrs. Wm. Clarke & Son, Ltd.; extension of hall, Lower Gardiner-street, for the Co-operative Butchers' Society.

DUNMOW.—The Essex C.C. has passed plans for a new Council school at Great Dunmow and the adaptation of existing buildings as a cookery and manual instruction centre.

EASTRY.—Plans passed by R.D.C.: A. J. Baker, bungalow at Poulders-road, Woodnesborough; E. P. Forsythe, bungalow, Eythorne; Miss W. Stokes, alteration to Haven House, Church-path, Mongeham; W. Beeston (Dover), village hall, at Nonington.

EDINBURGH.—At the last session of the Dean of Guild Court 31 cases came before the Court for consideration; out of 12 full petitions 11 were granted as follows:—Four flatted houses at Barnton-grove, for the Barnton Building Co.; two semi-detached houses at Cramond, for Mr. John R. Gray; bungalow at Davidson Mains, for Mr. John Grieve; detached house at Davidson Mains, for Mr. Robert Hadden; conversion of two houses into offices at Forth-street, for Mr. H. B. Paterson.—Linings granted at Dean of Guild Court: Mr. William Adams and others, two additional stories to workshops, 18, Shandwick-place; Mr. P. M. MacArthur, workshops at Burdiehouse; Callender Coal Company, offices and stables, Canal Basin, Fountain-bridge.

FALKIRK.—At the Dean of Guild Court plans were passed on the application of the T.C. for the extension of the boiler-house, and erection of a cooling-tower and steel chimney at the Corporation electric power station. The estimated cost of the proposed works was given at £3,700. Warrant was granted Falkirk Iron Co., Ltd., to erect at an estimated cost of £900 a canteen at their works, as well as a garage estimated to cost £200. Lining was granted Wm. L. Hannah, Ladysmill, Falkirk, for a bungalow in Albert-road, the cost being £820.—Plan passed: Storage shed at Grahams-road Brickworks, for Messrs. J. & A. Towers, Ltd., estimated cost £220.

GLASGOW.—The Corporation's Housing Scheme at Knightsbridge, which has been approved by the Ministry of Health, is estimated to cost £486,997 for all trades.

GLOUCESTER.—Plans passed by T.C.: Twelve houses, Tuffley-avenue, for A. J. Colborne; six houses, Newton-street, and two houses, Pembury-road, for J. M. Halls; parsonage, Reservoir-road, for Tuffley Church Council; bakehouse, 296, Barton-road, for Mr. Brown; two houses, Gladstone-road, for C. Baldwin; two houses, Gladstone-road, for H. A. Parsons.

GLYNCORRWG.—The U.D.C. has submitted schemes to Ministry of Transport for road improvements at Cymmer, Blaengwynfi and Glyncorrwg, and for erection of bridge at Blaengwynfi, and for a bridge crossing the valley from the old South Wales mineral railway to G.W. Railway. The latter project has also been made subject of a grant application to G.W.R. Co. The Council has also interviewed, by deputation, the Health Ministry for assent to construction of a new storage reservoir at Glyncorrwg.

GOLCAR.—The U.D.C. is seeking permission to erect 30 more houses. Plans passed: Conversion of a mistal into a house at Drummer-lane, for Mr. J. H. Tweed; warehouse and oil recovery plant in Dale-street, for Messrs. C. & J. Hirst & Sons.

GREASBOROUGH.—Plans by Mr. J. Totty, architect, of Rotherham, for eight bungalows to be erected in Croft-street and of 30 houses to be built in Scrooby-street, have been approved by the U.D.C.

HALTWHISTLE.—The R.D.C. are preparing a scheme for the erection of a new isolation hospital.

HAVERFORDWEST.—Plans passed by T.C.: Five houses in Abbot-street, and new bungalow in New-road, for Messrs. W. A. Elkington.—The Council is to re-invite tenders for renovating inside of Stepney-terrace premises.—The Council has received applications from C. T. Butler and W. A. Elkington for building sites at rear of Stepney-terrace.—Grant has been applied for to lay new concrete pavements at Cartlett.—The area having been classified as necessitous, the B.C. has prepared schemes to give employment, involving expenditure £4,200, for new sewers: £2,000 on Haven-road; new gas mains, £650; new water mains, £2,180; new reservoir, £900, &c., and will apply for grant to carry out same.

HETTON.—Plan passed by U.D.C.: Bungalow, for Mr. Dooney.

KEIGHLEY.—Plans passed by R.D.C.: House at West Bank, Riddlesden, for Mr. F. Dickinson.

KIDDERMINSTER.—Plans passed by R.D.C.: Bungalow in Chester-road, for Mr. S. Capewell; bungalow at Franché, for Mr. S. A. Booth, Birmingham; bungalow at the Sladd, for Mr. L. D. Beare.

LANCASTER.—Plans passed by T.C.: Bungalo the Hall Park Estate, for Mr. T. Hunter; cottag the Westfield Estate, for the Westfield War Me Committee; house on the Hall Park Estate, for M Jemson.—Sanction has been given by the T.C. expenditure of £5,500 to provide a 10 in. mai improve the pressure of the water supply to Hey and Morecambe. It was further resolved to app the Ministry for a grant toward a new filtration sc costing £25,000, which will ensure purity of the cambe water supply.

LEEDS.—The E.C. proposes to seek sanctio borrow £52,000 for building and equipping a secon school at Roundhay.

LEICESTER.—A Ministry of Health inquiry int application of the T.C. for sanction to borrow £1 for the erection of a covered market has been held

LIVERPOOL.—Plans passed by the Corporation name of the architect is given in parenthesis):—F Croxteth-road, for Mrs. J. N. Clegg (Gray & Eva six houses, Caldy-road, for Mr. T. Spencer (W Spencer); house, Sandforth-close, for W. Tomkins Son (Fraser & Ainley); house and garage, Garden for Mr. R. Bosket (Fisher & Burnand); house garage, Calder-drive, for Mr. R. Crail (T. Wainw & Sons); garage, Eleanor-street, for J. A. Wel & Co. (W. P. Horsburgh); stores and office, F worth-street, for Pilkington Bros., Ltd. (Brigg Thornely); new premises, Wakefield-street, for Wirral Estate (Quiggin & Gee); three flats, Sand Park, for Mr. F. Cartwright (Brown & Sande new parish hall, Upper Pitt-street, for St. Mich Church (G. F. Renner); four houses, Broad Gr road, for Peter Walker & Sons, Ltd. (selves); gar Calder-drive, for Mr. G. H. Thornton (T. Wainw & Sons); dwellings, Prince Edwin-street, for Liverpool Corporation (Director of Housing); 12 sh Queen's-drive & Cherry-lane, for Mr. Edward Tow (Williams & Kelly); eight houses, Long-lane, Wool road, for D. Roberts & Sons, Ltd. (R. Owen & S two houses, Mersey-avenue, for Mr. Robert Cle (Brown & Sanders); four houses, Rose-lane, Moss hill, for Mr. W. J. Williams (R. Owen & Son); bungalows, Melbreck-road, for the Mersey Building (selves); house, Honey Green-lane, for Mr. Osw Walters (J. Davies); house, Mersey-road, for John Hughes (R. Owens & Son); house, Calder-dr for Mr. R. Turnock (Roberts & Sloss); two hou Sandforth-road, for W. Tomkinson & Sons (selv rebuilding after fire, Eccles-street, for the Vaux Tanning Co. (R. Routledge); two houses and gara New-road, Aigburth-road, for Riverbank Estate, (Gray & Evans); four houses and garages, Quee drive, Walton, for Hollinghurst & Power (W. Clarke); seven houses, Aigburth-road, for C. R. & Jones (R. Owen & Son); house, Honey Green-lane, Mr. Joseph Davies (O. Williams); bungalow, Gard lane, for Medcalf & Medcalf (E. Medcalf); two hou Lynmouth-road, for Brierly Estate, Ltd. (selv two houses and garages, Rutherford-road, for G & Evans (T. Jones); two houses and garages, Rut ford-road and Sinclair-drive, for Gray & Evans Jones); house, Sandforth-close, for W. Tomkinso Sons (W. Armstrong); house, Almonds-green, for Bage & Son (J. Hindle); four houses, Rice-lane, R. Owens & Son (O. J. Williams); new office, Et street, for Tysons, Ltd. (Rea Metal Casements); hou Menlove-gardens, for Isaac Dixon (selt); house garage, Queen's-drive, for J. W. Jones (R. J. Jon house, Derby-road, for W. T. Lancashire (F. J. Gibb workshop, Preston-street, for A. E. Shennan Mathews & Son); new shop, Church-street, for No Robin & Wilsden (C. & A. Modes, Ltd.); matern hospital, Arrad-street, for the Liverpool Matern Hospital Committee (Gilbert Fraser.)

LLANELLY.—Captain Jack Evans, architect, submitted to the committee plans for proposed ext sion of the Liberal Club.

LONDON (CITY).—Two important City street impro ments are recommended by the Improvements Finance Committee. One of these concerns a sch for the widening of Houndsditch to 50 ft. from junction with Bishopsgate to Phil's-buildings, and fr 45 ft. from thence to Cutler-street. The improvem on the northern side of the thoroughfare will £192,460, and it is suggested that the London Cou Council be asked to contribute half this sum. In 1 the Corporation adopted a scheme for the widenin Old Broad-street on the south-east side betw Palmerston House and Adam's-court to 43 ft. committee now recommend the widening of thoroughfare in front of Nos. 23 to 27 (Gresham Hou towards which the London County Council has agr to contribute half the net cost, not exceeding £15,

LONDON.—Four new tramway extensions are p posed by the Highways Committee of the L.C. involving a total expenditure of £598,746. Council is also asked to agree to the construction o new bridge at Lambeth, in place of the existing o at an estimated cost of £600,000. In order to fi employment, the Minister of Health has agreed to development by the London County Council of anot section of the Becontree Estate by the erection of ab a thousand houses. The Council also propose to spe £166,400 in road-making and other works at Downh and Becontree.

MANCHESTER.—Plans passed by the Corporati For A. Critchlow, house, Tan Yard Brow, Gorto Electricity Committee, electricity sub-station, Cha man-street, Chorlton-on-Medlock; J. H. Squires, Lt addition to warehouse, Oliver-street, Openshaw Slack & Cox, Ltd., premises, 24-28, Hyde-road, a Toll Bar-street, W. Gorton; S. Jepson, alterations a additions to works, Viaduct-street, Ardwick; Bradwell 42 houses, Butler-street, Cooper-stre Kenyon-street, and Clarence-street, Gorton; Bleackley, revised plan of portion of Wilfred-str and Bomney-street, Moston; A. Redfern, dedicati plan and section of new streets, North-avenue, Bl ford-road, Kendall-road, and Welford-road Middleto road, Crumpsall; Fire Offices Committee, technic institute, Queen's-road, Cheetham; F. G. Rigby, hou

* See also our List of Contracts, Competitions, etc.

umpsall; Circuit Cinemas, Ltd., revised
e theatre, Cheetham Hill-road, Beckenl Albyn-avenue, Cheetham; J. Taylor, d additions to 2, Bury New-road, Cheetaylor, conversion of house into shop and hdale-road, and Shepley-street, Harpurowarth, additions to premises, Factory-: Club Committee, Grove House Lads' , Elizabeth-street, Cheetham; Memorial dditions to Jewish Memorial Hospital, et, Cheetham; H. Arnall, shop and lock-up shops, Victoria-avenue and Hill-y: Western Homesteads, Ltd., four ps.ll-lane and Bank-road, Crumpsall; s, revised dedication plan and section of Sussex-avenue, Fog-lane, Didsbury; very Co., Ltd., alterations to "Waggon Stockport-road and Birch-lane, Rushamford, revised plan of billiard room to lade-lane, Levenshulme; Love & Comouses, Grange-avenue, Levenshulme; dition to printing works, Jordan-street, —The application for the acqui- acres of land in Burnage having , the Housing Committee intends to t 70¼ acres and to erect 666 houses. d cost of the houses, based on actual ed and recommended to the City Council e, is £295,030. Streets, sewers, and works are to cost over £66,000. It is ffer the remainder of the land not required eation Committee to private persons, others who desire to erect houses for lasses under the City Council's scheme assistance on land owned by the Cor-Works proposed to be carried out ester Corporation: Alterations to "The er Moss Fields, Didsbury; repair to the nd the rebuilding of the Palm House at rk, Moss Side, estimated to cost £1,000. baths at the Osborne-street Baths require epair of asphalte paths at Queen's Park, 00. The Education Committee have oposals for alterations and additions to ester Grammar School premises. The ommittee are considering the proposal to ol on the Crowcroft Park Estate. The ommittee have agreed to pay one-half of e electric light installation in St. Brigid's rd, Manchester. They also agree to pay e cost of the installation of electric lighting Trinity School, Blackley, and half-cost of g boiler in the St. Margaret's School, he Markets' Committee have approved the rd to the electrification of steam plant at t Cold Storage. The Parks and Cemeteries pprove the plan showing proposed roof at St. George's Park, and the work to be he works which might be carried out by ed during the coming winter. The Paving, tee approve of the plans to construct a Chepstow-street, Manchester, in connection ford-street Picture House. Applications ing privileges acceded to on certain confix four pilasters at No. 108, Oldham-road, g; to construct a loading crossing in t, Strangeways, and to erect a swinging o. 3, Cross Keys-street, Manchester. The approved in regard to the flooding of r-lane and Reddish-lane, South Gorton, sewer will connect with the main drainage ount-street, Gorton. Instructions were Tramways Committee for the construction in Lloyd-street South, at the same time as is being constructed by the Paving Com-City Engineer is authorised to advertise ork required in the bridge over the Rochon the new road from Moston-lane to —The directors of the Manchester Ship ny, it is understood, are considering a t three new warehouses at Stretford-road, docks, where all classes of merchandise for shipment or retransportation. The will find employment for a large number tated, will cost over £500,000.

MARTHEN.—The Llanfrechfa and Llantarnam decided to build a new reservoir.—Plans mpleted for the joint erection of casual Abergavenny and Crickhowell Guardians. or reports to Wynyddislwyn Council that for carrying out widening of Blackwood- to be soon made.—Plans have been ickhowell Council for new garage near r Messrs. P. Wilks & Son.—A proposal swimming baths is to be decided by a h meeting.

.—Plans passed by the T.C.: Pair of houses in Windsor-road, for Mr. William pair of semi-deatched houses in South-H. E. Moody; house in South-road, for rrington, and one in West End-road, for t, together with a pair of semi-detached y-grove, for Messrs. F. Moore & Co. E.C. has submitted for approval plans temporary schools.

MON).—The Education Committee has acquisition of two large houses for s; both will be adapted. Hatherleigh, -Hill, and St. Julian's House and part of he premises in view, the latter to be use by mentally defective children. f Transport has agreed to make 50 per widening of Newport–Caerphilly road, r which is £8,000.

RLAND.—The C.C. has adopted a road cheme at an estimated cost of £53,442.

he Fialdau Colliery Co. has notified arw Council of intention to immediately ouses at Pontycymmer.

The Ministry of Health has sanctioned U.D.C. of 22 houses.

To provide work for the unemployed to expend £26,000 on a new reservoir, and are also proposing to erect a further 46 houses at Castle Park.

PONTEFRACT.—Plans passed: House at Townville, for Mr. Turner; lock-up shop, Townville, for Mr. Phillipson; new store, South Baileygate, for the Pontefract Industrial Co-operative Society, Ltd.; house, Townville, for Mr. F. Whitehead; bungalow, Halfpenny-lane, for Mr. J. W. Wright; and electric mains at Half-penny-lane and Bream Stile, for the West Riding Tramways Co.

PONTYPOOL.—The Ministry of Labour has promised U.D.C. 50 per cent. of cost of reconstructing the old Town Bridge conditional to 50 per cent. of the labour being drawn from Llanfrechfa district. The Council has accepted offer.

PORT TALBOT.—The B.C. has received a scheme from the Master Builders to erect 300–400 houses on approved Corporation sites subject to conditions of 1923 Housing Act subsidy, capitalised, grant being adopted by Council. Local railwaymen have also undertaken to erect 200 houses on same conditions. The Council has decided to apply for sanction to make the agreement asked.—The Council has received plans for 82 houses from applicants for subsidy assistance. Mr. Vaughan John has submitted plans for 46 houses at Groeswen.—The Council has received plans for erection of new mortuary.

PRESTON.—The local branch of the League of Young Liberals is raising funds to erect new premises. The secretary is Mrs. E. M. Gaffrey.

ROTHERHAM.—Plans passed by T.C.: Mr. F. S. Butcher, Broom-road, house; Mrs. Turley, Ridge-road, four brick-built bungalows.

ST. NEOTS.—Plan passed by R.D.C.: House, Buckden-Gratham-road, for Mr. C. H. Collis.

SENGHENYDD.—A mass meeting of Senghenydd workmen has approved of an extension scheme, estimate £3,000, for the Workmen's Institute and Library. The proposals include new wing of three floors, extension of billiard rooms, and conversion of basement to an assembly room for 250 people. Mr. James Harris is the librarian.

SHEFFIELD.—Plans passed by T.C.: Four houses, Osborne-road, for Messrs. Abbott & Bannister; bungalow, Dalewood-road, for Mr. G. Waller; bungalow, Beighton-road, Woodhouse, for Mr. J. M. Thurston; six houses, Brooklands-crescent, for Mr. W. Sanderson; bungalow, Dalewood-road, for Mr. A. E. Silvey; two houses, Chesterfield-road, for Mr. R. Jones; 12 houses, Brooklands-crescent and Whiteley-lane, for Mr. T. Pye; two houses, Louth-road, for Mr. Watson; seven houses, Peveril-road, for Mr. R. Watson; seven houses, Rundle-road, for Mr. W. Ramsay; four houses, Brooklands-crescent, for Mr. G. Womersley; house, Ecclesall and Gisborne-roads, for Mr. W. Ramsay; house and shop, Plumpers-road and Norcross-avenue, for Mr. T. H. Bailey; house, Carnaby-road, for Mr. S. Parkin; 10 houses, Ringinglowe-road and Dobbin-hill, for Mr. A. Shaw; bungalow, Abbey-lane, for Mr. Jenkins; bungalow, Derbyshire and Norton Lees-lanes, for Mrs. A. Parkin; two houses, Huntingtower-road, for Mr. M. Simpson; house, Sandford Grove-road, for Mr. W. A. Wright; two houses, Bristol-road, for Mr. James Samuel; 10 houses, road off Storth-lane, for Mr. James Samuel; two houses, road off Storth-lane, for Mr. James Samuel; house, Moorbrook-road, for Mr. Fred Ibbotson; house, Dalewood-road, for Mr. A. S. Battie; four houses, Abbey-lane, for Messrs. Jas. Laver & Sons, Ltd.; 14 houses, Chesterfield-road, for Messrs. Jas. Laver & Sons, Ltd.; two houses, Abbey-lane and Linden-avenue, for Messrs. Jas. Laver & Sons, Ltd.; house, Hollinsend-road, Gleadless, for Mr. H. Lee; two houses, Warminster-road, for Mr. A. S. Woodhead; 22 houses, Havercroft, Firbeck, and Todwick-roads, for Mr. Jos. Enock; house, Stanley-road and Carfield-avenue, for Mr. C. T. Morton; house Muskoka-avenue, for Mr. J. Bower; two houses, Rupert-road, for Messrs. Horseman & Corley; house, Glenorchy-road, for Mr. A. Smith; two houses, Donavenue, for Mr. G. Hardwick; eight houses, Cobnar-road, for Mr. C. H. Leadbeater; two houses, Firbeck-road, for Mr. C. H. Leadbeater; house, Dalewood-road, for Mr. E. Matthews; house, Selborne-road, for Miss Ada Dickinson; bungalow, Gleadless-common, for Mr. S. C. Boul; house, Roscoe Bank, for Mr. T. E. Laming; house, Carnaby-road, for Mr. Bell; seven houses, Hunter House-road, for Mr. A. J. Belton; four houses, road off Dykes-lane, for Mr. T. Flint; 12 houses, Muskoka-avenue and Muskoka-drive, for Mr. G. M. Taylor; bungalow, Abbey-lane, for Mr. W. Chamberlain; two houses, Abbey-lane, for Mr. J. H. Stevens; house, High Storrs-road, for Mr. M. Spencer; house, Long-lane, for Mr. Hy. Gosney; house, off Abbey-lane, for Mr. G. Tye; bungalow, School Green-lane, for Mr. H. Belk; bungalow, Roscoe Bank, for Mr. J. Nixon; 20 houses, Trap-lane, and new roads, for Messrs. W. Malthouse, Ltd.

SILLOTH.—A Public Hall & Recreation Co., Ltd., is being formed. The first scheme requires £5,000 capital for the erection of a concert hall and meeting hall to accommodate 560 persons, a reading room, library, store room, billiard room, &c.; and the second scheme £2,000 for a billiard hall, reading room, library, store room, and accommodation for indoor games.

SOUTH SHIELDS.—Plans passed by T.C.: Mr. F. W. Newby, for Messrs. The Trustees of the P.M. Church, Harton, P.M. school and hall, west side of Sunderland-road, Harton; subsidies have been granted to J. T. Armstrong for twenty houses, to Ridley & Swale for eight houses, and to Carruthers & Salt for two.

STAFFORD.—Plans passed by R.D.C.: Two cottages at Milford, for Capt. W. S. B. Levett; three bungalows, for Mr. C. Pye, at Milford; eight houses at Moss Pit, for Mr. F. Wood, of Acton.

STRABANE.—The U.D.C. is seeking authority to build 12 houses.

TADCASTER.—Plans passed by R.D.C.: Two houses in Station-road, Scholes, for Messrs. S. E. Flood and R. C. Mosedale; two houses at Peckfield, for the Micklefield Coal and Lime Co.; three houses in Station-road, Allerton Bywater, for Messrs. Robinson, Jackson & Sutcliffe; and six houses at Butt-hill, for Messrs. W. Green & Sons.

TROWBRIDGE.—Plans passed by T.C.: Pair of semi-detached villas on the Down, for Messrs. E. Linzey & Son; and a bungalow at Bradley-road, for Mrs. H. J. Goater.

WALLASEY.—Plans passed by T.C.: Conversion of 95, Wallasey-village into house and shop, for Mr. P. Priest; fourteen houses, Clare-crescent and School-lane, for Mr. S. Colquhoun; eight houses, Sedbergh road, for Mr. J. H. Lindley; fourteen houses, Eric road, for Mr. W. L. Jones; two houses, Harewood-road, for Mr. H. Lyon; thirty-three houses, Norwood-road, Mostyn-street, for Mr. R. W. Rowlands; four houses, Radley-road, for Messrs. Jones & Glenn; six houses, Dawlish-road, for Mr. W. J. B. Bellis; six houses, Dawlish-road, for Mr. J. T. Taylor; seven shops and houses and eight garages, Albion-street and Montpellier-crescent, for Mr. D. J. Hughes; fourteen garages, Bernard-avenue, for Mr. K. Hess; conversion of shop and house, 279, Liscard-road, into lock-up shop and house, for Messrs. J. Pegram & Co.; house and garage, Willoughby-road, for Mr. Wilson Stocks.

WALSALL.—The T.C. proposes to proceed with the erection of 51 additional houses, 36 of which will be in Ida-road, and Scarborough-road, and 11 in Carl-street, Birchills.

WELLINGTON.—The Board of Guardians has adopted the scheme to install laundry machinery and plant at the Poor Law Institution, as well as electrical equipment for electric lighting. It has also decided to make substantial alterations at the Children's Home. The estimated cost of the whole of the work is put at about £4,000.

WHITLEY AND MONKSEATON.—The Housing Committee of the U.D.C. has received intimation that the Ministry of Health has approved their proposal to erect 25 houses at Hotspur-avenue, also the immediate commencement of 50 of the 200 houses in their housing scheme.

WIGAN.—Messrs. Fairhorst Bros., builders, of Wigan, have secured housing contracts at Barnsley for over £103,000.——The War Memorial Committee has been authorised to invite eminent architects or sculptors to submit designs for a suitable war memorial (at a cost estimated between £2,500 and £5,000), with full power to appoint the architect or sculptor who, in the opinion of the War Memorial Committee, submits the design most suitable to the position and surroundings, and also power to place the contract for the work.——The foundation-stone has just been laid for the erection of the new north wing of St. Joseph's College, Upholland, which is part of a large scheme of extension to the present buildings. The scheme includes a new east and south wing and a new chapel.

WIMBLEDON.—Plans passed by B.C.: Rickard & Son, two houses, Dora-road; Gelder & Kitchen, mission hall and shops, &c., at corner of Durnsford and Ravensbury-roads; Universal Housing Co., Ltd., house in Parkside-gardens; W. W. Gibbings, house, Wimbledon Hill-road; J. Burges & Sons, shop premises, garage, &c., Merton-road: H. Coombs & Sons, four houses, Arterberry-road; W. H. Whitehead & Co., house, 6, Montana-road; E. H. Sealey, house, Ryfold-road; R. J. Thomson, house, Ridgway-place South; A. Durling, four houses, Durnsford-road; T. Roker, house, Griffiths-road; A. & F. J. Leather, rebuilding of factory, South-road; Gibbard & Sons, Ltd., conversion into house of stables at Gothic Lodge, Woodhays-road; Messrs. Triggs & Co., house, 9, St. Mary's-road; W. Froom, conversion of house and office, 61 and 61A, Hartfield-road, into shop premises; J. S. H. Abbott, two houses, Queen's-road.

WOLVERHAMPTON.—Plans passed by T.C.: F. M. Hall, house, Goldthorn Hill-road; The Crane Foundry Co., Ltd., grinding shop, Lower Horseley Fields; J. L. Wood, house, Richmond-road; The Chillington Tool Co., lavatories, Works; Mr. Kilvington, bungalow, Birches Barn-road; J. Knight, house, Compton-road; The Governors of the Grammar School, lavatories, Compton-road; E. Clark, house, Birches Barn-road; M. A. Payne, two houses, Goldthorn Hill; G. Denning, house, Birches Barn-road; Mander Bros., mess room, John-street; The Managers, St. Luke's Church Schools, classroom, Bromley-street; C. H. Dain, house, Richmond-road.

WORKINGTON.—The T.C. has withdrawn their acceptance of a tender for 100 houses at the Salterbach Estate. The Borough Surveyor is to estimate for the erection of 24 houses by direct labour instead. Eighteen are to be of the non-parlour type, and six parlour type.

WORKSOP.—The B.G. is considering erecting a new board room and a nurses' home at the Kilton-hill Infirmary.

WORTHING.—Plans passed by T.C.: Two houses, Park-avenue, J. E. Lund, for F. H. Butler; house, Georgia-avenue, R. R. W. Hyde, for A. W. Howe; house, Georgia-avenue, F. G. Abell, for Mrs. Marshall; two flats, High-street, Tarring, A. M. Butler, for E. Browning; three houses, Pavilion-road, for S. G. Grevatt.

Fire.

BIRMINGHAM.—Damage to the extent of £6,000 to £7,000 has been caused by fire at a Birmingham furniture factory, carried on by Messrs. W. Williams & Son, Bromsgrove-street.

New Road Across Scotland.

It is now practically certain that the new mid-Scotland road between Edinburgh and Glasgow will be proceeded with. There is a possibility that the work of construction may be started this winter. The sole obstacle to the scheme—that of costs—appears to have been removed by the various authorities interested signifying their approval of a substantial proportion of expenditure which the Government is prepared to meet. The estimated cost of the scheme is £1,865,000.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquir

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	2 15 3	Do. Bullnose	10 1 6
Do. Bullnose	3 8 3	Blue Wire Cuts	7 11 6
Best Stourbridge Fire brick :—			
2½ in.	11 3 0	3 in.	13 2 0
GLAZED BRICKS—			
Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
Headers	21 10 0	One Side and two Ends	31 10 0
Quoins. Bull-nose and 4½ in. Flats	28 10 0	Two Sides and one End	32 10 0
		Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. ,,	2 5	4 in. ,,	3 7

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	,, ,,
Thames Sand	15 6	,, ,,
Best Washed Sand	15 6	,, ,,
¾ in. Shingle for Ferro-Concrete	14 0	,, ,,
½ in. ,,	15 0	,, ,,
¾ in. Broken Brick	10 6	,, ,,
Pan Breeze	5 6	,, ,,

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test 51/– alongside at Vauxhall in 80-ton lots.	£2 18 0 to £3 3 6
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
,, ,, Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
,, ,, White	3 12 6
,, Fine	5 12 0
Sirapite, Coarse	3 9 6
,, Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

	s. d.
Small random blocks, up to 10 ft. cube. Per ft. cube	7/–
Random blocks from 10 ft. and over ,,	17/–
Sawn two sides ,,	27/–
Sawn three or four sides ,,	32/–

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto ,,	5 9
3 in. sawn two sides slabs (random sizes) ,,	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) ,,	1 5¾
1½ in. to 2 in. ditto, ditto ,,	1 3
HARD YORK—	
Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto ,,	6 0½
4 in. sawn two sides slabs (random sizes) ,,	2 10
3 in. ditto. ditto ,,	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

	s. d.
Delivered in London Area in full van loads.	
Plain per ft. cube	6 6
Moulded ,, ,,	7 9
Cills ,, ,,	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅞	21/–	1¼	33/6
⅝	23/–	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING. Inches.	per sq.	MATCHINGS (BEST). Inches	per sq.
1	26/6	⅝	17/6
1¼	33/6	⅞	22/–
1½	38/6	1	26/–

Inches	BATTENS	s. d.
⅞ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¾ in. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube	0	1 4	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt.	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
,, Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2⅞ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. ,,	1/9¾	1/4	2/0½
3 in. ,,	2/1½	1/8	2/5½
3½ in. ,,	2/6½	1/11½	2/10½
4 in. ,,	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. ,,	3 6½	2 5½	3 3½
3 in. ,,	4 2¼	2 8	4 0½
3½ in. ,,	4 7	3 3½	4 8½
4 in. ,,	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. ,, ,,	6 3	6 8	11 4
5 in. ,, ,,	7 6	11 6	18 2
6 in. ,, ,,	8 10	14 4	23 5

	Per ton in London. £ s. d.	£ s. d.
IRON—		
Common Bars	13 10 0 to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0 ..	15 0 0
Staffordshire "Marked Bars"	17 0 0 ..	18 0 0
Mild Steel Bars	12 10 0 ..	13 10 0

METALS (*Continued*).

	£ s. d.	
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..
Hoop iron, basis price	16 10 0	..
,, Galvanised	31 0 0	..
Soft Steel Sheets, Black—		
Ordinary sizes to 20 g.	15 0 0	..
,, ,, ,, 24 g.	16 0 0	..
,, ,, ,, 26 g.	18 0 0	..
Sheets Flat Best Soft Steel, C.R. & C.A. qu		
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..
Flat and Galvanised Corrugated Sheets—		
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..
Sheets Galvanised Flat, Best quality—		
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..
Best Soft Steel Sheets, 26 g.	26 0 0	..
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..

METAL WINDOWS—Standard sizes suitable plete houses, including all fittings, pa coats, and delivery to job, average price to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)

LEAD—Sheet, English, 4 lb. and up	
Pipe in coils	
Soil Pipe	
Compo pipe	
NOTE—Country delivery, 30s. per ton extra: 3 cwt., 2s. per cwt. extra and over 3cwt. a cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s.	
Old lead, ex London area, at Mills per ton	27 0 0 ..
Do., ex country, carriage forward per ton	28 0 0 ..

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2
29/	45/–	76/-	153/-	246/-	510

NEW RIVER PATTERN SCREW DOWN STOP UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in
41/6	62/–	92/–	174/–	300/-	588/

NEW RIVER PATTERN SCREW DOWN MAIN

½ in.	¾ in.	1 in.
39/6	60/–	116/6 per d

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/–	14/-	23/–	30/-	42/-

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/–	29/–	36/-	63/-

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/–	12/–	20/–	24/–	31/– pe

NEW RIVER PATTERN CROYDON BALL VALV

½ in.	¾ in.	1 in.	1¼ in.	1½
35/–	56/–	98/–	162/-	228/

DRAWN LEAD P. & S. TRAPS WITH BRASS SCREW.

	1¼ in.	1½ in.	2 in.	
8 lbs. P. traps	33/–	41/–	56/-	101
8 lbs. S. traps	35/–	45/–	66/-	126

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	..
Thin ,, ,,	0 2 4	..
Copper nails ,,	0 2 3	..
Copper wire ,,	0 2 4	..
TIN—English Ingots ,,	0 2 1	..
SOLDER—Plumbers' ,,	0 1 0	..
Tinmen's ,,	0 1 2	..
Blowpipe ,,	0 1 4	..

PAINTS, &c.

Raw Linseed Oil, in pipes per gallon	
,, ,, ,, in barrels	,,
,, ,, ,, in drums	,,
Boiled ,, ,, in barrels	,,
,, ,, ,, in drums	,,
Turpentine in barrels	,,
,, in drums (10 gall.)	,,
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms, "Park," "Supremus" and other bes brands (in 14 lb. tins) not less than 5 cwt lots per ton delivere	
Red Lead, Dry (packages extra) per ton	
Best Linseed Oil Putty per cwt	
Filocot per cwt	
Size. XD Quality fkn	

[*Concluded on next page.*]

* The information given on this page specially compiled for THE BUILDER and is Our aim in this list is to give, as far as p *average* prices of materials, not necessarily or lowest. Quality and quantity obvio prices—a fact which should be remembere who make use of this information.

RRENT OF MATERIALS (*contd.*)

GLASS.

EET GLASS IN CRATES OF STOCK IN SQUARES IN ORDINARY SIZES.

Per Ft.		Per Ft.
.... 3½d.	32 oz. fourths	8½d.
.... 4½d.	32 ,, thirds	10½d.
.... 5d.	Obscured Sheet, 15 oz.	4d.
.... 6½d.	21 ,,	5½d.
.... 6d.	Fluted 15oz. 6½d., 21oz.	9½d.
.... 7½d.	En'lled 15 ,, 5½d., 21 ,,	7½d.

cording to size and substance for squares k.

OLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
e.....	4½d.
ed	5½d.
ed	5½d.
olled, Oxford Rolled, Baltic, Oceanic, , Stippolyte, and small and large h white.....	6½d.
nted	9d.
et	6d.
ed Cathedral.....	5½d.
do.	7½d.

te is same price as rough rolled.

VARNISHES, &c.

		Per gallon £ s. d
.....Outside		0 14 0
.....	ditto	0 16 0
.....	ditto	0 18 0
.....	ditto	1 0 0
riage	ditto	1 4 0
.....	ditto	1 12 0
.....Inside		0 18 0
r	ditto	0 18 0
inet.....	ditto	1 2 6
ting.....	ditto	1 0 6
ak	ditto	0 18 0
ng Oak.....	ditto	0 19 0
nish	ditto	1 0 0
.....	ditto	1 2 0
.....	ditto	1 12 0
old Size.....		0 12 0
an.....		0 12 0
gany Stain (water).....		0 12 0
ack.....		0 9 0
.....		0 14 0
ent)		1 5 0
ush Polish.....		0 17 6
in Terebine.....		0 9 0
Enamel.....		0 7 0

- DEPARTMENTAL 'PHONES AT THE COUNTY HALL.

interest evinced in the New County London County Council has been he recent completion and putting of an extensive "Strowger" lephone installation in that build- constitutes the largest private automatic telephone exchange in n. The new installation not only ly and essentially private inter- on between some 650 different in the building, but also gives gh an associated manual telephone to the public telephone exchange the many outlying districts and gh administrations which come risdiction of the London County entire equipment has been and installed on behalf of the Telephone Department by the lephone Manufacturing Co., Ltd.,

ge operates on what is known as basis. The act of calling any e system entails three successive the dial attached to the telephone alling party. This manipulation tip is, however, extremely simple six seconds only. Assuming the to be disengaged the response is d in the event of an engaged line udible signal is at once heard in t the calling station. Clearing at n of a conversation follows the f the receiver upon the switch- instantaneous, the line therefore tely available for another call. ured, and it is impossible for a interrupt or to listen in to a already in progress. For the aining connection with the public hange system an eight-position board has been intalled as a the automatic installation.

FIRE INQUIRIES.

THE report of the Royal Commission on Fire Brigades and Fire Prevention, dated July 20, 1923, just published, contains some interesting findings on fire prevention.

Regarding fire inquiries, the Commission states that it cannot recommend that the coroner's functions should be extended to the holding of fire inquiries where no fatality has occurred, but that such inquiries should be conducted by persons possessing special technical qualifications in building construction, engineering, fire extinction, &c., that for this purpose a panel of persons with such qualifications and experience and resident, so far as possible, in convenient centres throughout the country should be drawn up by the Secretary of State, and that the individual to hold any particular inquiry should be chosen from this panel as occasion requires. The two authorities to be responsible for initiating the inquiry should be the Secretary of State in any case where it appears that such an inquiry would be in the public interest, and the county councils and the councils of county boroughs should also have power to initiate an inquiry into any fire within their areas.

To the above suggestion a reservation was made by the Chairman (Sir Percival Maitland Laurence), to which Sir Maurice Fitzmaurice (formerly Chief Engineer to the L.C.C.) also agreed, to the effect that, in cases where there is suspicion of incendiarism, the powers conferred on the coroner by the City of London Act, 1888, combined with the inherent powers of his office, seem well calculated to serve that purpose. As in many cases, other matters—such as building materials, structural conditions, the provision of means of escape, &c., would have to be investigated, it would be desirable to appoint an officer having special qualifications which the local coroner in many cases would not possess. In such cases, however, should there have been any fatality, the coroner would still be required to hold an inquest. In suitable cases, he might be empowered to take the evidence of experts or receive the assistance, if deemed advisable, of a technical assessor. If, on the other hand, an *ad hoc* tribunal should be constituted, and the initiation of proceedings were to depend on the discretion of the local authority, cases would occur from time to time in which the discretion or administrative action of the local authority itself—*e.g.*, in granting a licence for an hotel or theatre, in providing for means of escape from factories or other buildings, in the equipment and organization of the fire service, or in other respects—might be called in question, and in which, therefore, there might be some disinclination to initiate an inquiry into the circumstances of the fire.

The report continues: "References have been made to the practice in the City of London, where many such inquiries have been held by the present coroner (Dr. Waldo), who gave the Commission much useful information as to the history of the subject and his own experience and methods, and by his two immediate predecessors in office. It certainly seems somewhat anomalous that Dr. Waldo should be empowered at his discretion to investigate any fire occurring in the City, but should have no similar power in Southwark, where he holds the same office." (Dr. Waldo has for several years past suggested in his annual reports the extension of the City Act to Southwark.)

Dr. Waldo, in his evidence, pointed out the frequency of fires due to defective electrical installations and the need of a model set of regulations similar to those of the Institution of Electrical Engineers. A recent instance of this danger was exposed at the non-fatal fire inquest held before Dr. Waldo at 8, Redcross-street, City, E.C. The installation was out of date, and electric wires, 'phone wires, and composite leaden gas pipes were in close apposition. The Commission in their Report, in connection with this subject, recommend that electrical installations should be periodically inspected and tested in the case of all old buildings, and defective installations should, so far as practicable, be brought up to modern standards.

Dr. Waldo also stated that the following bodies were in favour of an extension of fire inquiry as carried out in the City of London during the past thirty-two years: (1) The Home Office Departmental Committee, in their Report published in 1909; (2) the Coroners' Society of England and Wales; (3) the Associated Chamber of Commerce; (4) the Association of Professional Fire Brigade Officers; (5) the Borough of Portsmouth, in one of their (General Powers) Bills; (6) the Association of Municipal Corporations; and (7) the Insurance Institute of London.

A HOUSING SUGGESTION AT DOVER.

OUR attention has been drawn to a report in the *Dover Express and East Kent News*, of October 5, concerning an offer made to the Dover Corporation by Mr. W. H. Grigg to build twenty houses in the Borough, the Corporation to take a lease of them on a 5 per cent. basis, and afterwards, at an agreed date, the houses to become a gift to the town in the form of almshouses for the poor. The conditions proposed were that for a period not exceeding fifty years Mr. Grigg should receive 5 per cent. on his expenditure. Trustees were to be nominated, and Mr. Grigg would convey to them the land, &c., undertaking to erect the twenty houses at a cost not exceeding £400 to £450 per house, to be approved by the Council and the Housing Committee. The trustees would invest £2,000, which was £100 a house subsidy, which the Corporation had already agreed to give per house erected, and this would be used for maintaining the houses. If the income from the houses exceeded the interest payable, the balance should be invested.

The two points raised by the Corporation appear to have been, first, that whereas Mr. Grigg was anxious that the maximum price of the houses should be £450, so that they might be worthy of the town and capable of being subsequently converted into two separate flats when used as almshouses, it was feared that, if the houses exceeded £400, the scheme might be jeopardised, as the higher the cost the less likely were the houses to produce the requisite 5 per cent. The second point was more formidable: That the Corporation had no power to give a guarantee that the 5 per cent. would be paid, even though the risk involved in such a guarantee might be extremely slight.

Without entering into the questions at issue, we would point out that Mr. Grigg's offer is certainly a generous one, since under it, at the best, he gets a guaranteed 5 per cent. for fifty years, and nothing more; whereas, if he put the same money judiciously into trustee securities, he could obtain, not only the 5 per cent. but retain his capital to use or re-invest at the end of the period. We hardly imagine that the Corporation will forego so generous an offer over any technicalities that may require adjustment, and we only wish that other public-spirited persons would make similar offers elsewhere.

Builders' Dinner-Time.

The national leaders of the building trades operatives have, it is understood, endorsed the action of the London employers, in regard to the dispute which has arisen over the meal-time interval in the London area. There was a conference on Tuesday night between the employers and the men's national leaders. The outcome of it was that the employers will on Thursday post notices on all the works notifying the men that the dinner interval will be half-an-hour only, from twelve to 12.30, and that the whistle will go for work to terminate at 4.30 p.m.

The London Regional Council of the Operatives' Federation has ordered the men to take an interval of one hour for dinner. In view of the endorsement of the employers' interpretation by the national leaders, it is not expected that the dispute will be pressed to a serious issue.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

Deal wrot moulded and rebated	per foot cube		
Plain deal jamb linings framed	per ft. sup	1" 1/8	1¼" 1/
Deal shelves and bearers	"	1/5	1/
Add if cross tongued	"	2d.	2d

STAIRCASES.

Deal treads and risers in and including rough brackets	1" 2/1	1¼" 2/4	1½" 2/9	2" —
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/

Housings for steps and risers	each
Deal balusters, 1 in. × 1¼ in.	per ft. run.
Mahogany handrail; average 3 in. × 3 in.	" "
Add if ramped	" "
Add if wreathed	" "

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	
Sash fasteners	11½d.	Mortice locks	
Casement fasteners	1/5	Patent spring hinges	
Casement stays	1/2	letting in to floor	
Cupboard locks	1/5	making good	

FOUNDER AND SMITH.

Rolled steel joists	per cw
Plain compound girders	"
Do. stanchions	"
In roof work	"

RAIN-WATER GOODS.

		3"	4"	5"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7
Ogee Do. Do.	"	2/4½	3/1	3/1
Rain-water pipes with ears	"	2/9	3/7	
Extra for shoes and bends	each	4/4	5/11	
Do. stopped ends	"	1/11	2/4½	3/7
Do. nozzles for inlets	"	2/2	2/7	3/1

PLUMBER.

Milled lead and laying in flashings and gutters	per cwt.
Do. Do. in flats	"
Extra labour and solder in coated cesspools	each
Welt joint	per ft. run.
Soldered seam	" "
Copper nailing	" "

		½"	¾"	1"	1½"	2"
Drawn lead waste	per ft. run	11d.	1/8	1/11	3/5	4/2
Do. service	"	1/7	2/1	2/6	3/10	
Do. soil	"					
Bends in lead pipe	each					3/3
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6
Red lead joints	"	11d.	1/-	1/3	1/11	2/4
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6
Lead traps and cleaning screws	"				14/7	19/6
Bib cocks and joints	"	6/4	9/7	15/4	41/-	
Stop cocks and joints	"	15/4	17/2	25/8	64/-	

PLASTERER.

Render, float and set in lime and hair	per yard sup
Do. Do. Sirapite	" "
Do. Do. Keen's	" "
Add sawn lathing	" "
Add metal lathing	" "
Portland cement screed	" "
Do. plain face	" "
Mouldings in plaster	per 1 girth
One-and-a-half granolithic pavings	per yard sup

GLAZIER.

21 oz. sheet plain	per foot sup
26 oz. Do.	" "
Obscured sheet	" "
⅛ in. rolled plate	" "
¼ in. rough rolled or cast plate	" "
½ in. wired cast plate	" "

PAINTER.

Preparing and distempering, 2 coats	per yard su
Knotting and priming	" "
Plain painting 1 coat	" "
Do. 2 coats	" "
Do. 3 coats	" "
Do. 4 coats	" "
Graining	" "
Varnishing twice	" "
Sizing	" "
Flatting	" "
Enamel	" "
Wax polishing	per foot sup.
French polishing	" "
Preparing for and hanging paper	per piece 2/-

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges, percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole information given on this page is copyright.

TENDERS.

plications for insertion under this heading should ssed to "The Editor," and must reach him not n Tuesday evening.
es accepted. † Denotes provisionally accepted.
es recommended for acceptance.
es accepted subject to modifications.

N.—For erection of new kitchens and laundry, lterations at the Poor Law Institution, for rdians. Clerk to the Guardians, 46, High-lton, Hants :—
. Gaze & Sons, Ltd., Kingston-on-Thames £8,473
man, Lowry & Puttick, Haslemere 7,998
. & Sons, Hartley Wintney..... 7,998
lon, Ball & Co. Farnham, Surrey 7,950
& Sons, Farnham..... 7,700
elwhite & Son, Basingstoke..... 7,654
Kemp, Alton..... 6,981

OR (N. WALES).—For the erection of new ildings in five blocks, at University College :—
ope & Colls, London £66,800

TON.—For (*a*) two additional class-rooms, ional out-offices; and (*b*) removal of sloping Boys' and Girls' Departments at Nether-ool, for the Nottingham C.C. :—
. W. Brough, Beeston .. £1,740 9 8
. W. Brough, Beeston.... 161 11 6

FORD.—For extensions to shop premises at ningham-lane, for Mr. Elliott. Messr riggs, architects, Morley-street, Bradford :—
n—J. G. Burgess, Manningham.
r—J. W. Holdsworth, Bradford.
ber—W. Smith, Bradford.
alter—Messrs. Tunstall's Rock Asphalte Co., Leeds.

FORD.—For the erection of condensing , for the new 20,000 kilowatt generator at ration's Electricity Works, Valley-road :—
Marchant & Morley, Bradford.

OL.—For erection of public convenience at nyth Park, for the T.C. Mr. L. S. McKenzie, neer, Bristol :—
& Slaughter £2,662
nown 2,640
Hayes & Son 2,584
alters & Son 2,516
eeks & Sons, Ltd..... 2,295
(All of Bristol.)

N BAY.—For alteration of new pier for the U.D.C. :—
nwaite, Birmingham.....£3,650

STER.—For extensions at Workhouse for Balby B.G. :—
nkinson & Sons, Ltd., Doncaster..£7,500

BAKE.—For installation of heating appara-ol, for the Nottingham C.C. :—
ufty, Gotham £276 10

AVE.—For extensions, for Mr. Norman at "Town Head" :—
arnley & Sons, Bradford.

ON.—For erection of 12 houses in Sanctuary-he T.C. Borough Surveyor, Helston :—
Pengilley, Camborne..... £4,125
tenders : £4,440, £4,793 10s., £5,272 15s., 5,556 5s., £5,820. For one block of our houses, £1,776.

N.—For construction of public convenience adway, for the U.D.C. Mr. A. O. Knight, Town Hall, Hendon :—
ood & Sons, Luton £2,850 0 0
r & Payne, Finchley 2,605 7 11
Hill, Hendon 2,513 0 0

Y.—For erection of shop, office and dwelling-tle-street. Mr. T. G. Archibald, architect, quare, Huntly, Aberdeen. Quantities by

on & Tipp .....
nder Tronach .....
Milner.....
f Douglas .....
e McKay .....
& Fraser .....
(All of Huntly.)
} £970

LANCASTER.—Erection of 28 houses on the Scotforth Housing Site, for the T.C. :—

Draining, asphalting, bricklaying, excavating, carpentry and joinery work—
*Thompson & Morris, Lancaster.... £8,400 0

Plumbing work—
*W. Turner, Lancaster..... 1,159 0

Slating and plastering work—
*Thompson & Bailey, Lancaster.... 2,156 0

Painting—
*C. Stevenson..... 224 10

LONDON.—Erection of second section of school on Bellingham Estate, for the L.C.C. :—

H. Kent	£25,560	0	0
Thomas & Edge	25,000	0	0
W. F. Blay, Ltd.	24,588	6	0
Edwards Construction Co., Ltd.	24,576	7	4
Grace & Marsh, Ltd.	23,769	0	0
G. Parker & Sons, Ltd.	23,155	0	0
Prestige & Co., Ltd.	22,827	0	0
Leslie & Co., Ltd.	22,770	0	0
Douglass, Halse & Co., Ltd.	22,708	0	0
William Downs, Ltd.	22,555	0	0
Triggs & Co.	22,315	0	0
J. Smith & Sons, Ltd.	22,276	0	0
F. & H. F. Higgs, Ltd.	22,251	0	0
J. Carmichael (Contractors), Ltd.	22,000	0	0
J. & C. Bowyer, Ltd.	21,946	0	0
J. Garrett & Sons	21,885	0	0
F. & T. Thorne	21 863	0	0
G. E. Wallis & Sons, Ltd.	21,760	0	0
L. H. & R. Roberts	21,593	0	0
W. J. Maddison, Ltd.	21,100	0	0
W. Akers & Co., Ltd.	20,892	0	0
*T. D. Long, Deptford	20,756	0	0

LONDON.—Reconstruction of drainage at 38, Aybrook-street, Marylebone, for the Metropolitan Water Board :—

Webb & Son	£134
Kelland & Sons, Ltd.	128
E. B. Holmes, Ltd.	105
*B. & E. Lea, Ltd.	102

LONDON.—For reconstruction of sewer in College Hill, for the City Corporation :—

G. J. Anderson	£3,262
D. R. Patterson, Ltd.	2,866

LONDON.—For provision of low pressure heating apparatus at Bethnal Green Coroner's Court, for the L.C.C. :—
*J. Jeffreys & Co..... £195

LONDON.—In our last issue it was stated that the tenders for painting at Parks for the L.C.C. were all accepted. The tender of Messrs. Roy Gibson, Barnes, was accepted.

LONDON.—For alterations at Cannon-street Fire Station, for the L.C.C. :—

W. J. Maddison, Ltd., Minories	£2,205	0	
L. H. & R. Roberts, Hackney	2,141	0	
John C. Mather, Islington	2,042	0	
Edwards Construction Co., Ltd., Eltham	1,802	10	
John Marsland & Sons, Ltd., Westminster	1,646	0	
Triggs & Co., Clapham	1,620	0	
W. J. Dixon & Son, Bermondsey	1,572	0	
*C. P. Roberts & Co., Ltd., Hackney	1,459	0	

LONDON.—For supply and erection of pipe work and de-aerating plant at Greenwich Generating Station, for the L.C.C. :—

The Kestner Evaporator & Engineering Co., Ltd., S.W.1	£7,798	2	0
Hick, Hargreaves & Co., Ltd., Bolton	7,603	0	0
W. H. Allen, Sons & Co., Ltd., Bedford	4,308	0	0
Richardsons, Westgarth & Co., Ltd., Hartlepool	4,205	10	0
*G. & J. Weir, Ltd., Cathcart, Glasgow	3,407	12	6

LONDON.—Supply and fixing of hot-water heating apparatus and hot-water service at the new Finsbury gas meter testing office, for the L.C.C. :—

B. Finch & Co., Ltd., Lambeth	£916	0	
Palowkar & Sons, E.C.	832	0	
Comyn, Ching & Co., Ltd., Long Acre, W.C.	814	0	
The Hardware Trading Co., W.C.	794	0	
Clark, Hunt & Co., Ltd., Shoreditch	759	9	
Heywood & Bryatt, Dartmouth-hill	739	0	
*W. G. Cannon & Sons, Ltd., Southwark	705	0	

LONDON, W.—For erection of new married quarters at Crawford-street, W. Mr. G. Mackenzie Trench, A.R.I.B.A., F.S.I., Police Architect and Surveyor. Quantities by Messrs. Thurgood, Son & Chidgey, 18, Adam-street, W.C. :—

Lole & Co.	£93,530
J. Jarvis & Sons, Ltd.	86,868
Rice & Son	85,776
John Mowlem & Co., Ltd.	85,123
Perry & Co. (Bow), Ltd.	84,375
F. G. Minter	84,250
Holliday & Greenwood, Ltd.	83,989
Dove Bros., Ltd.	83,726
T. H. Adamson & Son	83,655
Trollope & Colls, Ltd.	82,444
G. Godson & Sons, Ltd.	82,210
F. & H. F. Higgs, Ltd.	81,980
Leslie & Co., Ltd.	81,957
Holland & Hannen & Cubitts, Ltd.	81,196
Prestige & Co., Ltd.	80,461
Holloway Bros. (London), Ltd.	78,445
Patman & Fotheringham, Ltd.	77,677
A. Syme	76,364

LONDON.—For erection of second section of the Huntingfield-road School, for the L.C.C. :—

W. Lawrence & Sons, Finsbury-square	£14,914	0	0
F. & H. F. Higgs, Ltd., Herne-hill	14,290	0	0
Leslie & Co., Ltd., Kensington	13,991	3	6
G. Parker & Sons, Ltd., Peckham	13,825	0	0
C. P. Roberts & Co., Ltd., Dalston	13,300	0	0
Galbraith Bros., Ltd., Camberwell	13,250	0	0
J. Garrett & Son, Balham	13,241	0	0
Triggs & Co., Clapham	13,198	0	0
J. Carmichael (Contractors), Ltd., Wandsworth	13,000	0	0
J. & C. Bowyer Ltd., Upper Norwood	12,997	0	0
Prestige & Co., Ltd., Westminster	12,928	0	0
G. E. Wallis & Sons, Ltd., Maidstone	12,834	0	0
E. A. Roome & Co., Ltd., Hackney	12,822	0	0
Holliday & Greenwood, Ltd., Battersea	12,728	0	0
Holloway Bros. (London), Westminster	12,624	0	0
Unit Construction Co., Ltd., Regent-street	12,527	19	4
Allen Fairhead & Son, Enfield	12,481	0	0
W. J. Maddison, Ltd., Minories	12,385	0	0
*W. Akers & Co., Ltd., South Norwood	12,249	0	0

MANCHESTER.—For the City Council :—
For sanitary fittings—
*Doulton & Co., Ltd., Paisley.
Electricity sub-station, City-road, Hulme—
*B. Morton & Sons.
Sub-contractors—
Joiner—I. F. Gibson, Manchester.
Slater—Joseph Toff, Patricroft.
Plumber—C. H. Coop, Ashton-under-Lyne.
Steelwork—Robinson & Kershaw, Manchester.
Painter—Ferguson & Co., Manchester.

For erection of two gas compressors and condensing plant at Bradford-road Gas Works—
*Browett, Lindley & Co., Ltd., Patricroft.

For repairs to shelters, bowl-house, bandstand, tennis pavilion, lodges, &c., at Birch Fields Park—
*Forshaw & Co., Manchester.

For resurfacing (with granite rock asphalte) of carriageway on Upper Brook-street and Anson-road, from High-street to Dickeson-road—
*J. H. Bradshaw, Ltd., Manchester.

For the erection of 666 houses on the Burnage Estate—
*J. Gerrard & Sons, Ltd., Swinton.

For the erection of 44 houses on the Newton Heath Estate—
*Co-operative Wholesale Society, Ltd., Manchester.

Sub-contract for houses on Blackley Estate (Messrs. Gerrard's, Ltd., general contractors)—
*Staters, Beaumont, Ltd., Manchester.

Sub-contract for houses on Newton Heath and Fallowfield Estates (C.W.S., general contractors)—
**Tar-paving*—J. Hadfield & Sons, Sheffield.

MIRFIELD.—For the erection of 51 houses, for the U.D.C., near Battyeford Goods Station :—
*S. Johnson & Sons, Mirfield.

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NEWCASTLE-UNDER-LYNE.—Erection of 28 houses, for the T.C. :—

*Ball & Robinson £8,960

PONTEFRACT.—For carrying out private street works, for the Corporation :—

*M. Arundel, East Ardsley—

Back Colonel's Walk	£205
Back Nutt-street	203
Back Coburg-street	179
Nutt-street	116
Coburg-street	116

REDCAR.—For erection of 20 cottages, for the T.C. Borough Engineer, Municipal Buildings, Redcar :—

*W. J. Wilkinson, Middlesbrough £6,620

RUFFORD RAINWORTH.—For erection of permanent school for 696 scholars, with central hall, two rooms for practical instruction, and caretaker's house, for the Notts C.C. :—

*T. Bow, Nottingham..... £14,600

SHEFFIELD.—For stripping the existing glazing and fixing new glazing on boiler house roof, at Neepsend Power House, for the T.C. :—

*Mellowes & Co. £510

SHEFFIELD.—Fittings for new offices for Medical Officer's Dept., for the T.C. :—

T. G. Woof, Ltd. £425

SHEFFIELD.—Erection of wall and fence in Benlane, for the T.C. :—

*G. Longden & Son £1,050

SHEFFIELD.—Erection of houses on Manor Estate, for the T.C. :—

*J. S. Teanby & Son, Ltd., Sheffield	(50)	£16,063 15 7
*J. Laver & Sons, Ltd., Sheffield	(94)	32,728 12 0

SHEFFIELD.—Supply of 300 four-inch and 150 three-inch cast-iron pipes to the T.C. :—

Staveley Coal & Iron Co. £381 14 2

SHEFFIELD.—For excavation work, walls, &c., in connection with abattoir site, for the T.C. :—

*A. Waddington & Son..... £6,106 2

STAFFORD.—Supply of 6 in. cast-iron pipes for water main, for the T.C. :—

*Stanton Ironworks Co. £923 8 2

STONE ALLEYNE.—For erection of new wing and alterations at Grammar School, for the Staffordshire C.C. :—

*H. Goulding & Co., Longton..... £2,430

WARSOP.—For erection of permanent school for 600 scholars, with two central halls and caretaker's house, for the Notts C.C. :—

*A. Eastwood & Sons, Warsop..... £12,058

WIMBLEDON.—Supply of concrete mixing machine, for the B.C. :—

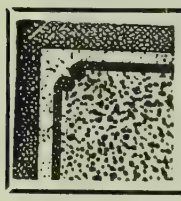
*Builders' & Contractors' Plant, Ltd..... £198

WIMBLEDON.—For supply of combined sewage flow recorder and integrator to the B.C. :—

*Lea Recorder Co., Manchester..... £149

WYCOMBE.—For erection of bathroom at Children's Home at Bledlow, for the B.G. Mr. B. L. Reynolds, Clerk, 12, Eaton-street, High Wycombe :—

Mills & Poole, High Wycombe	£125 0
F. Clarke, High Wycombe	112 0
*A. C. Dean, High Wycombe	87 10



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CXXV.—No. 4215 NOVEMBER 16, 1923.

INDUSTRIAL RESEARCH.

HE work of the man of science is of importance not on'y to scientists, but to the world at large, and though this truism is less recognised in this country than in most others it has surely been brought home to the most indifferent during the last decade. the many practical applications resulting directly work of the laboratory were wont to be accepted by an without any acknowledgment of their source of n or the discovery of the basic principles upon which lustrial application can proceed. The war and the competition have changed this attitude. The indus- now not only tolerant of science, but of necessity o scientific men to solve the problems by which he is d in his search for improved processes and economies ction. As the war has proved, scientists hold the their power, and were they to combine could easily fortunes for good or evil. These reflections come to e result of the perusal of the Annual Report of the ee for Scientific and Industrial Research* which gives nt of the year's work in initiati ng, co-ordinating, and ways stimulating research in this country as applied ractical needs of a vast number of industries upon ie life of the nation depends. The exigencies of economy which have fallen with so heavy a hand on nment Departments have not spared the work of this e; nevertheless, a perusal of this report reveals sive activity which indicates no slackening of effort, e of the developments which we shall touch upon ve a particular interest for our readers, the develop- which we refer being associated with the Building Board. The Department controls such important ions as the National Physical Laboratory, which extensions in prospect, and the Geological Survey Britain, and, besides special Boards of its own, supports workers and associations by grants of money, and co-ordinating centre to prevent overlapping and to information. It thus keeps workers in a given ther, though separated geographically; and, more than raws attention to points of contact which experience ur frequently in researches of very diverse character. search associations receive, as a rule, grants for five d are warned in this report that except in special nces such grants will not be renewed at the close of d. We read that only one new association has been uring the year under review, no doubt owing to trade n and the Government's policy of economy.

tion should be drawn to the Forest Products Research orking in association with Kew Gardens as far as otanical matters are concerned, but having at Farn- a research station at the aircraft establishment. easoning plant, part of which is on a commercial been erected, together with a laboratory. Experi- on warping and twisting under different conditions ing and on sterilisation are being undertaken here, chanical tests are projected. For many years the stitute of British Architects has urged upon the nt the need for researches upon dry rot and like timber which cause such a heavy annual expenditure , and it is interesting to note that this need is referred the Board "is endeavouring to initiate concerted the matter." We hope that this long-overdue endeavour will soon reach fruition, and would direct the Department to an opinion, expressed long ago by the R.I.B.A. Science Committee, that an initial urgent need is to regulate the storage of timber in quantity to prevent the spread of infection. Only this week one of our architect contributors has informed us that he is spending £20,000 on one building, due to the ravages of "dry rot" and "beetle."

The Building Research Board, under Mr. H. O. Weller, continues its activities, and after turning its attention to methods of construction for small houses—which, in passing, we venture to think has shown that ordinary bricks still hold their own—this Board has been carrying out researches on the setting and hardening of cements, on slag and iron cements, and allied problems. Another fundamental research is that on the decay and preservation of stone, but this work is now merged in that of a special committee appointed for this purpose, under the chairmanship of Sir Aston Webb, on which the various aspects of the subject are well represented. The Home Office Committee on Industrial Paints recently recommended, among its findings the setting-up of a committee to make impartial experiments upon paint materials, which investigation will presumably be carried out as to experimental work by the Research Department, which has already made a few tests on special paints. Another important matter brought to the notice of the Department by the R.I.B.A. is the use of plastic floorings, usually magnesite cements; many of those on the market have not proved wholly reliable, and the wide use of these jointless floors calls for some proper specification which will carry a guarantee of reliability. We understand that the Department has carried out investigations in this direction with very encouraging results, which may lead to both cheaper and more satisfactory products for this purpose. Heat transmission through walls and roofs has been under investigation at Teddington and Acton, while the economical firing of brick kilns, the weathering of bricks and tiles, the production of waterproofing solutions and distemper, form other subjects which have come under investigation. Finally, as far as our special interests are concerned, the question of architectural acoustics is coming under consideration, and the sound conductivity of certain materials has been taken up.

Remembering that the work to which detailed reference has been made is only a part of the field of investigation covered by the Department's activities, it may be fairly contended that matters dealing with building and engineering construction are now receiving a suitable share of attention, in spite of the restrictions placed upon activities at the present time. These are days in which no stone can be left unturned to render building operations less costly in the long-sighted aspect of this word. True economy in building means the use of the most efficient materials, and efficiency can only be ensured by a thorough understanding of materials, which involves a scientific knowledge of their properties only to be attained by long and patient investigation. In the past those concerned with these materials have not perhaps been keenly interested in their scientific history, but the difficulties of these latter days should awaken a greater appreciation of what science can do for us. In conclusion we return to the note upon which we began—the great value and weight of scientific investigation, and the elucidation of scientific principles in all things material. For these principles we must look to the trained chemist, physicist, botanist and geologist, and the more support he is given by outside interests the more will his work tend to assist those who give him such support.

of the Privy Council Committee for Industrial Research, 1923. nery Office. Price 4s. net.)

NOTES.

The Influence of Buildings.

True as is the saying that "No man liveth to himself," we are all very apt to lose sight of the significance of the fact; and, sure as it is in regard to our character and acts, it is well to remember how vital a truth it is in regard to our buildings. After a generation is dead the buildings it created carry on their influence for long years after, and much of our vulgar meretricious building of to-day influences the lives of the present generation as well as many which follow. We suppose this only needs to be stated to meet with ready acceptance but it is well that those who are anxious for the production of fine architectural work should ever seek to remind those who have the power to call it into being of their responsibility. The long list of buildings which disgrace our cities, towns and villages largely results through either ignorance or carelessness, and we can only hope for better things when building owners and those who control building designs become really determined to get the best results. People are perhaps more really interested in architecture than architects give them credit for, but, even if they are, that does not imply any ability to know what is the best work or how to secure it. As an illustration of the varying point of view of the public we may note that many buildings are intended to form a conspicuous advertisement for the owners or occupiers, and we can compare this fact with Professor Reilly's statement in the first of his articles on modern architecture in the *Weekly Westminster* that in the eighteenth century "any excessive expression of individuality or of personal importance in a building was considered bad manners." As Mr. Tryston Edwards is writing a book on good and bad manners in architecture we may find cause seriously to question the quality of many modern buildings. We may not all agree as to what constitutes the best architectural expression, but it would be well if a few more thousands of our citizens could be made to take a real interest in the quality of the buildings they see.

Waterloo Bridge.

Yet another London bridge is now receiving public attention. Waterloo Bridge, so rightly and so much admired, though of rather gloomy character is one which should on no account be interfered with—our record of modern bridges is much too poor—and we are glad to notice the objections made to any alterations by Mr. H. V. Lanchester in his interview with a representative of the *Observer*. It is not even, as he states, a "safe proposition," while there is every objection to alteration on æsthetic grounds, as any widening scheme must necessarily mutilate its original character. Nor is there sufficient evidence that on grounds of traffic convenience such a change is necessary; while any such scheme may prejudice the far more desirable one of a new bridge at Charing Cross. Mr. Lanchester goes on to suggest—in the interview to which we have referred—as an alternative, a new bridge connecting with the eastern arm of Aldwych by St. Clement Danes' Church which he considers would make "a very nice symmetrical arrangement." We are inclined to think, however, there is real objection to cutting up the river with a further bridge so near to Waterloo Bridge and so obscuring the view, if it can be met in another way, and the scheme for a new bridge at Charing Cross would avoid this and go far to meet the necessary traffic adjustments, without any such disturbance of the open course of the river. The Charing Cross scheme holds the field, and it appears to us that the aim should be to concentrate on this.

Armistice Day.

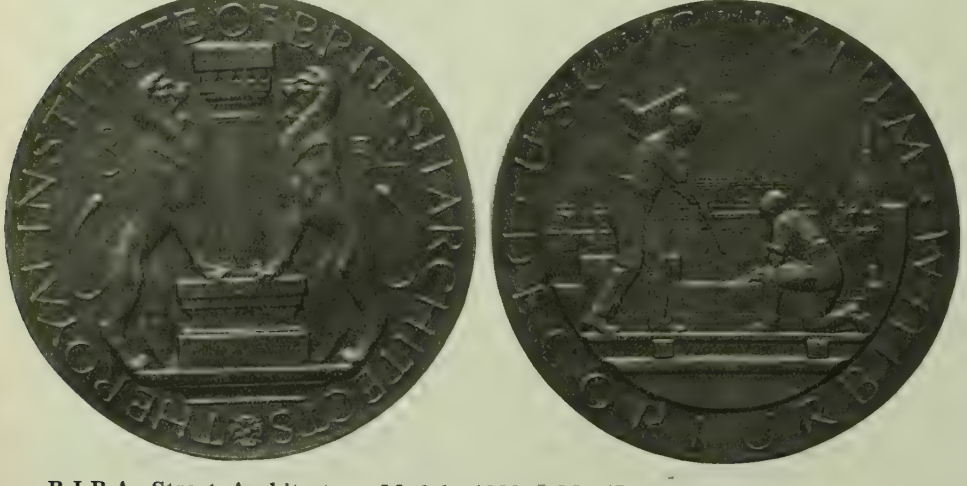
It can hardly be amiss to dwell for a moment on the Armistice Day celebration which has just passed with its poignant and tremendous memories for each one of us. For in one sense it is deeply necessary, in considering prospects, to dwell on more t economic adjustments, the new on which we hope to rely, and to beware of too easy solutions a sighted panaceas. Something m the restoration of our economic li required if civilisation is to re- itself in better ways, in that it only our economic but our spir that fell into ruins. And such c tions should appeal particularly t and all those whose work assum thing more to them than buying ling—for it is through them, thro arts generally, that the leaven mu In the case of architecture at the time, for instance, there are p of great moment if it is to retain it freedom, and these ask of us than a restatement of our be spiritual revaluation of the imp of art to life, and of the claim our work makes upon us; these furthered by genial optimisms. only through facing the funda issues that art can go forward of its service to humanity; a thus will the artist secure the that his work requires.

Citizenship and Art.

It is sometimes sai some appearance o that citizenship before art and th first duty lies here. But this is o the truth, for the best citizen revealed through faithfulness to the of the citizen's work and the that this makes upon us is greate pride of the tax-paying citizen m come an expensive luxury if he his independence at the cost of a world war, and there is a higher of citizenship. What this means each one will best interpret for h as he understands where his pense lies; but if we ask where th be found, it lies mostly in the thi have forgotten, in service which more than self-interest, in a si which captures more than success. may not lead the arts to wealth world understands it, but it wi splendour to art; it will not giv to the artist, but it might chan face of the world.

Medals and the Machine.

We are constantly s the resource of short art in the mistaken ignoring its inexoral quirements. Unfortunately for thos like Sir Edward Iliffe, find in "sculpture" the compromise whic make it easier for us, there are n compromises which do not involve t of the very quality which can preserve art's freedom to expr Mechanical accuracy—the "faithf production" of a modelled design, w by the reducing machine or by "



R.I.B.A. Street Architecture Medal, 1923. Mr. Langford Jones, Sculptor.

Presented to Mr. Curtis Green, A.R.A., for Wolseley House, Piccadilly, W. *(See our last issue.)*



sion of H.M. Office of Works.
t to Hammer Beam of No. 2 South Side, Great Hall, on Court Palace. (*See p.* 760.)

" will not help, as is wisely ut by Mr. Steward in his letter *mes*. You must have the artist re in a work of art, and there are utes by which you can reach art im. And it is just because of our medals remain commonplace out artistic intention. The does not feel, is not inspired, useful servant to man in other d it is because we forget this ue, in Sancho Panza phrase, to cat with two tails. The remedy inted out in the letter to which eferred lies " in the employment e artist-engravers, or the com- of sculptor and the engraver apable of realising the artistic of the designer." Happily the his need is growing, and it will supersede the fiction of " short nd the fallacy that through al reproduction we can reach art.

JUST as we notice the in- tensified perception of sound in primitive races, so also is seen an alertness of observa- eyesight revealing much that he ordinary person in a more civilisation. Miss Claire Gaudet, who continues her interesting lectures on recent archæological excavations, illustrated this intensified observation in the case of the scratched outlines on stones representing animal life in the Flint Age. These suggest attitudes and quick movements of animals, such as we only find revealed through the retarded photograph, and which our eyesight does not ordinarily perceive. Her account of the development of building in Egypt shows how the natural form of the material governed the appearance. Building first in mud and reeds—reeds or palms bound together and coated with mud—the ties of these formed a waist at either end, and when they ceased to build in these materials, and used stone, they reproduced a similar form, such as may be seen in the columns of temples, and so we are able to trace the original natural source from out of which grew the more advanced building. The form having grown out of the material, it continued to influence later developments. The Egyptians measured their time by Sothic cycles, that is the revolution of the Dog-Star, which takes 1,460 years. Much interesting information was communicated by the lecturer concerning the tomb of Osiris at Abydos. This tomb, measuring 30 by 20 metres, was built of sandstone, in great blocks worked with much finish. It is expected that further work at Abydos may prove very important, as much material may exist down the wells not yet explored.

A Durham Badge.

THE illustration of the Chairman's Badge of Office, which we give this week, shows the badge presented by Sir Frank Brown, formerly Chairman of the Durham County Council, to the Council for its future use. It is executed in gold and enamel by Mrs. K. W. Adshead-Austin, from a design by Mr. H. V. Lanchester, of Messrs. Lanchester, Lucas & Lodge. The centre shield is that of the Palatinate of Durham with gold cross and lions argent on a blue ground. A plain cross is used instead of the cross patonce, or the cross fleury, as being more appropriate to the badge of a civil body. The ship surmounting the shield is an indication of the port and shipbuilding interests of Durham; while on each side a miner's pick and shovel and the miner's lamp below indicate the major industry of the county. The date is that of the foundation of the County Council, and their monogram appears on the small patera from which the badge hangs. The turquoise margin may be regarded as a symbol of the four beautiful rivers that flow through the county, and it will be noticed that it appears in four sections divided by the devices already mentioned. The blue selected is that usual in heraldic work, slightly varied in the direction of the Palatine purple. On the back of the badge is an inscription recording its gift to the Durham County Council.



Durham Badge.
Designed by MR. H. V. LANCHESTER, F.R.I.B.A.



By permission of H.M. Office of Works.
Pendant in No. 3 Bay, South Side, Great Hall, Hampton Court Palace.

GENERAL NEWS.

Professional Announcements.

Mr. Cyril A. Farey, A.R.I.B.A., has removed to 19, Bedford-square, W.C.1. (Telephone: Museum 2420.)

Mr. J. Haigh Baxter, A.M.Inst.C.E., civil engineer and architect, has removed from Muslin-street, Newton, to Norfolk-street, Market-place, Hyde, near Manchester.

Appointment.

Mr. G. B. Lockwood, Deputy County Surveyor to the West Riding County Council, has been appointed County Surveyor to the Cumberland County Council.

Architect's Estate.

Mr. W. P. Park, of Ashton-upon-Ribble, Lancs, retired architect and surveyor, left estate valued at £16,328.

The Rebuilding of Ypres.

On Monday, November 19th, at 8 p.m., Mr. G. Topham Forrest, F.R.I.B.A., the Architect of the London County Council, will read a paper on "The Rebuilding of Ypres," illustrated by lantern slides, showing the city as it was in August, 1914, as it looked in November, 1918, and as it now is after the process of restoration has been largely accomplished. A number of distinguished guests have accepted the Council's invitation to be present, and it is hoped that there will be a large attendance of the general public. The lecture will not be of a professional or technical character. The lecture is one of the R.I.B.A. general meetings, and will take place at No. 1, Wimpole-st., W.

Registration as Probationers R.I.B.A.

On the recommendation of the Board of Architectural Education the Council of the Royal Institute has decided to accept, as the standard of general education required of applicants for the Probationership R.I.B.A., the certificates (covering the required subjects) of the following "Second Examinations" approved by H.M. Board of Education: The Higher School Certificate Examination of the Oxford and Cambridge Schools Examination Board; the Higher School Certificate Examination of the Oxford Delegacy for Local Examinations; the Higher School Certificate of the Cambridge Local Examinations and Lectures Syndicate; the Higher School Certificate Examination of the University of Bristol; the Higher Certificate Examination of the University of Durham; the Higher School Certificate Examination of the University of London; the Higher School Certificate Examination of the Northern Universities Joint Matriculation Board; the Higher Certificate Examination of the Central Welsh Board.

Obituary.

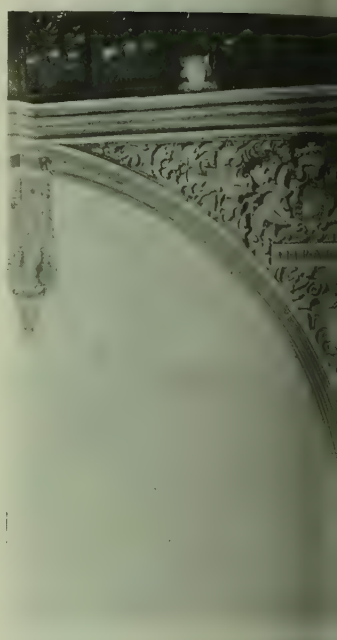
We regret to announce the death of Mr. E. J. Bennett, A.R.I.B.A., of Gravesend, which occurred on November 2. Mr. Bennett was a pupil of Messrs. Habershon & Pite, and was for some time in their office at Newport, Monmouthshire. He entered the office of Mr. H. D. Searles-Wood in 1881, and started practice on his own account in Gravesend in 1898, where his principal works were carried out. He also designed a house for the Right Hon. A. H. D. Acland, at Felixstowe. A correspondent writes, "Mr. Bennett was a careful and conscientious architect, and his work was a great pleasure to him; if possible, at times he was a little over-anxious about it. But all his buildings are excellently designed for their purposes and skilfully carried out."

The death has taken place of Mr. William Bevan, Coity Fields, Bridgend, who formerly held the post of Surveyor to the Bridgend U.D.C.

The death has occurred of Mr. Ernest Flint, F.R.I.B.A., of 80, Coleman-street, E.C.2.



Portrait of Mr. Paul Waterhouse, PP.R.I.B.A.
By SIR WILLIAM ORPEN, R.A., unveiled at the Inaugural Meeting of the Royal Institute of British Architects last week. *(See our last issue.)*



Spandrel to Truss, Great H Hampton Court Palace. *(See p.*

COMPETITION NI

National Painters' and Decorators' Education Committee.

ANNUAL PRIZE COMPETITION, 1923 (Lo

Preliminary Class: Section 1 (F Drawing), 1st prize, A. R. Turner; 2n R. J. Lawrence; 3rd prize, H. W. B special prize, A. Writer. Section 2 (Geo Drawing), 1st prize, R. J. Lawrence.

Class I: Section A (Plain Painting), 1 W. H. Wallington; 3rd prize, H. E. Bis R. G. Bristow (divided). Section D (D 3rd prize, E. G. Osborn.

Class II: (Plant Form), 1st prize, 1 Tubb; (Graining), 2nd prize, W. E. (Theory), 1st prize, C. P. Sharp.

Class III: Section Q (Sketch Boo prize, L. G. Taylor; 3rd prize, W. R Section R (Coloured Drawings), 3rc W. R. Yates. Section T (Stencilled I 1st prize, W. R. Yates. Section Y Painting), 2nd prize, L. G. Taylor. S (Theory), 3rd prize, L. G. Taylor.

Class IV: Section 1 (Plain Paintir prize, H. J. Okill. Section 2 (Colour and Scumbling), 1st prize, H. J. Okill. S (Graining), 2nd prize, H. J. Okill.

Institute Prize: Highly commendec Minett.

Scott Prize: 2nd prize, G. Norris.

Special Prize: C. Minett.

Essays on Concrete.

The Concrete Utilities Bureau, of St. Helen's, E.C. 3, has instituted tw petitions for essays on the uses of con agriculture. Sending-in day, Decem (See our last issue, p. xcvi.)

Edmonton.

Designs for a war memorial for the Ed Urban District Council at a cost not ex £600. Sending-in day: November 26.

Ryde Pavilion Competition.

The Council of the Royal Institute of Architects has expelled a Licentiate for part in this competition, which had been on the ground that its conditions were accordance with the Regulations of the I

New Law Courts, Cairo.

Mem'ers of the R.I.B.A. are adv take no part in this competition u conditions have been revised.

Other Competitions.

For competitions open see our las

ORRESPONDENCE.

ridge Collegiate Buildings Competition.

—The award recently given out in this
competition, to which the undersigned
ects had the honour to be invited, raises
more the fractious question of the asses-
f competitions in this country. In this
he result is thrice unfortunate, since it
a burden of responsibility and of un-
s, not yet removed, on the King's Col-
uthorities, the assessor, and the com-
s.

fly put, the gist of this particular com-
n is, we believe, as follows: For quite
e King's College has been in need of
chambers for its undergraduates, and of
library. It decided to put the entire
n in the hands of a Building Com-
of its own, under the chairmanship of
its most distinguished Fellows, Mr.
rd Keynes. The members of this com-
came to the conclusion that they might
ecure results more in accordance with
rit of the times if they addressed them-
to young architects.

ssessor of unquestionable probity was
in, who, we understand, was specifi-
alled to report upon the planning and
chnical character of the designs sub-
the Building Committee, placing con-
in its ability to judge the artistic
of the elevations, reserved to itself the
f ultimate choice. The proposed new
gs are to stand on one of the most
nt sites of Cambridge, namely, on one
sides of the lawn girdled by Clare
, King's College Chapel, and Gibbs'
ws."

designs were sent in, the assessor re-
on their planning, and the award was
ade Now, after examining all the
, it seems clear that something went
First of all, we are bound to say, in
respect, that the assessor took upon
a great deal of responsibility when he
to recommend the two schemes placed
d second. With regard to the first,
has certainly the advantage of having
staircases, which, on the face of it,
ly well lit, but the winners were able
them as they did at the cost of violat-
ndition thought to be highly desirable,
t six sets of chambers should be pro-
all upper floors, and as many as pos-
the ground floor. The winners pro-
0 as against a possible 22—a re-
e weakness far outweighing the gain
to each staircase. It should not be
ed that other designs had all their
equally well lighted, so we fail to
nd the recommendation of the assessor
iefly based upon this adequateness of
ners.

design placed second has the demerit
g two staircases facing Bodley Quad,
third facing the lawn, though, to be
e entrance to the third is in the pas-
ading from the lawn to Quad. The
to this entrance is exceedingly pre-
and its approaches inconvenient.
e understood it, the Committee, in its
ok the responsibility to endorse the
's judgment, but seemingly it did so
probing at all deeply in the difficult
of artistic merit of all the designs,
result is that a façade—indeed unfor-
-may soon face Clare and rob Gibbs'
ws" of its legitimate prominence.
atment favoured by the winners carries
le and fenestration of Gibbs' on the
e, but the bulk of the proposed new
s is so great that such treatment will
lm Gibbs' for ever. This façade,
r, has the fatal weakness of being
out insincere. Nowhere on its wings
express its contents. Is it possible
Building Committee of King's College
we give credit for the intention to
ncble building—is it possible that it
the character of a façade with win-
dows of different sizes lighting rooms of identical dimensions, with the window of one "gyp" being a mere long, narrow aperture, whilst the one next to it assumes the very proportion of the largest windows of Gibbs' itself, of substantial chimney breasts resting over voids? These discrepancies are due to the planning and treatment followed by the winners, and good modern planning will always turn its back to anything not straightforward or sincere. Such blemishes are not minimised, if we may say so, by the liberal sprinkling of "period" *motifs* made to punctuate both elevations. To reshuffle knowledge rarely increases its value, so to speak, and it is not likely the knowledge of *motifs* made available in this way will be appreciated in the future.

The Building Committee, by its well-meaning but confused action, has once more accentuated the plight of competing architects. No surer way of sapping their confidence could be found than the one which allows conditions laid down in the schedule to competition to be ignored by some of them with impunity, or overlooked by the assessor, who had a hand in drafting them. It is disappointing enough with the usual kind of buildings; it is little short of heartbreaking when the problem to be solved is so pregnant with fine possibilities. To revert to this particular instance. had the Building Committee sought an architect, or, better still, a jury of three architects known, beside their integrity, for their independence of judgment and ability to scrutinise planning and æsthetic considerations, it would have saved itself much of the doubt bound to creep in as reflection operates, and saved most competitors from the paralysing mistrustfulness engendered by unsatisfactory assessing.

THOS. S. TAIT.
GORDON H. G. HOLT.
VERNER O. REES.

"Charlatans and Pests."

SIR,—A medical student, alleged to have practised as a doctor before he had passed his final examination, has recently been denounced by the Woolwich coroner as a "charlatan and a pest." Had such a man chosen to practise as an architect he could have duped the public to his heart's content, without hindrance from the professional organisations or anyone else.

If a "charlatan" is to be defined as a man who practises a profession in which he has passed neither qualifying examination nor received recognised training, then the number of "charlatan architects" must be large, as it is an acknowledged fact that the majority of plans passed by borough and urban councils are prepared by men who have no recognised qualifications.

At present most local authorities employ men as engineers, medical officers, accountants and sanitary inspectors, who hold the recognised qualifications of their respective callings. The architectural department, however, has, in the majority of cases, no qualified chief, but is merely a side line to the duties of the engineer.

The letters "A.R.I.B.A." and "M.S.A." convey little to the man-in-the-street, and any others, such as "X.Y.Z.," would, to many, convey as much. Recent enquiries were made from several people as to what professions "A.R.I.B.A." and "M.S.A." belong, and, not knowing, the guesses were associated with accountancy. Yet "F.I.A." was no "poser" at all owing to the letters continually appearing in the advertisement columns. Auctioneers may advertise, estate agents always advertise, and all these may practise as architects. The architect who is fortunate (*sic*) enough to be a member of either the Royal Institute or the Society may not advertise, neither is he supposed to act as an estate agent, auctioneer or business broker; he is, therefore, competing on most unequal terms with others, being unable to practise in their callings yet being trampled on by them in his own.

It is interesting to note what the governing bodies of architects (G.B.A.) are doing for their members in the matter of this competition. Are the "G.B.A." advertising in any way that A.R.I.B.A.'s and M.S.A.'s are capable of designing houses and other buildings as efficiently as men trained in other callings! No! Do the "G.B.A." write circular letters to local authorities suggesting that architects should be placed in charge of architectural work, and that if a qualified sanitary inspector is necessary then a qualified architect (no capitals) is desirable? No! Have the "G.B.A." ever made a statement to the effect that the slum areas now being demolished as insanitary were not in every case designed by their members? If so, has this statement ever reached the general public? No!

Are the "G.B.A." too busy discussing questions of academic dress to consider removing all restrictions from members desiring to compete with auctioneers, estate agents, and others on equal terms? The present state of affairs, by which the only man not permitted to advertise himself as an architect is the qualified man, is ludicrous. C. F. OVERY, M.S.A.

Training for Decorators.

SIR,—My attention has been drawn to a report in *The Builder* for October 26 of a speech made by myself at the dinner of the Institute of British Decorators. There is some confusion as to the two points I wished to make. The first was that the trade should make itself responsible for the thorough vocational training due to apprentices. Few art schools are in a position to afford or can obtain the technical instruction needed for mastering the many trade processes. I suggested that it was advisable that an industrial student, before visiting an art school, should have an efficient preliminary craft training. The business of a school of art is to relate this intensive vocational practice to the true values which are common to all the arts, and to broaden the student's outlook on the world.

It was in reference to the criticism I ventured to make on the more ambitious work done by the trade apprentices that I touched on a second point. This was a plea for the most enlightened education possible for the students who distinguish themselves, which should go beyond a mere training in processes. Here artists, professors and teachers can be of signal assistance, and can help the decorator to paint what he means and to mean what he paints.

While hoping that these students, after receiving the more humanistic education our schools of art should offer, will return to the industry, I was careful to point out that we have, happily, no caste system in this country, and the Institute must be prepared, in providing scholarships, to find some at least of its most gifted apprentices aiming at the highest branches of decorative painting.

Royal College of Art. W. ROTHENSTEIN.

Ivy on Somerset Church Towers.

SIR,—A year or two ago I wrote to *The Builder* calling attention to the foolish practice of covering the details of our beautiful old towers with ivy. Your readers will be interested to learn that nine of the towers in question have now shed their coat of ivy. The youngest growth was fifty years' old and two of the oldest were one hundred and twenty years. There is still one famous tower to be dealt with, that is Huish Episcopi, near Langport. This, I hope, will be cleared away by Christmas.

EDWARD VALE.

Weston-super-Mare.

Other Letters.

A letter on architectural competitions is given on p. 770; others are unavoidably held over.

The City Churches.

In a letter to *The Times*, Mr. J. Alfred Gotch, P.R.I.B.A., states that the R.I.B.A. protests against the proposal to demolish any of the City churches and pledges itself to do all in its power to prevent the demolition in the capital of the Empire of buildings which are of great historic value and artistic interest.





Westminster Hall Roof: Terminal Figures to Hammer Beams of Roof Trusses.

WESTMINSTER HALL.

WESTMINSTER HALL, the scene of so many events connected with the English Parliament, was a fitting meeting-place for the members of the Empire Parliamentary Association assembled to hear an account, on Monday, of its history and preservation, delivered by Sir Frank Baines, C.V.O., C.B.E., Director of Works, under whose supervision the recent works of repair have just been brought to a successful conclusion.

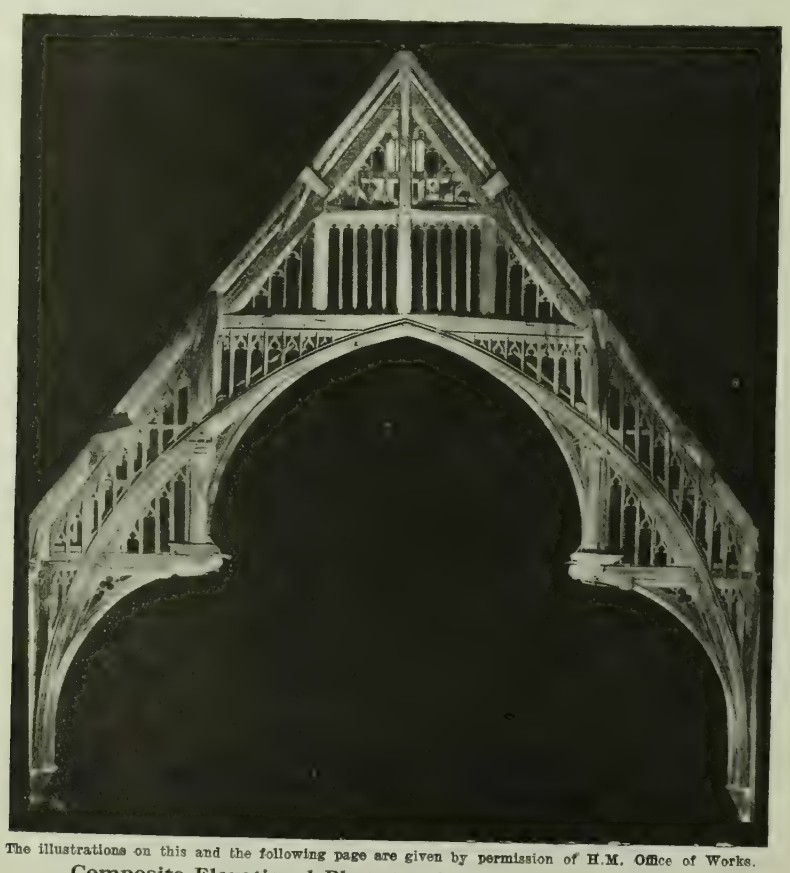
The Speaker of the House of Commons (the Right Hon. J. H. Whitley, M.P.) in introducing the lecturer, appealed to any person in the audience who found himself financially in a position to do so, to come forward and provide the funds necessary for the publication of the valuable records which have been amassed during the repairs of the Hall and through the investigations into its structure and history which have been carried on concurrently with them. Government departments, he said, were in too penurious a condition to spend public funds for this purpose though the extraordinary interest of the subject would be made apparent in the course of the lecture.

The history of the Hall was introduced by the lecturer in a novel fashion. On his mentioning the Norman masonry remaining in the side walls of the building from the time of its original construction by William Rufus, in 1097–1099, some electric lamps were made to throw a flood of light upon examples of Norman columns, capitals and arches to which access doors had been provided in the otherwise uniform stone-sheeted surface of the walls. These veritable fragments of eleventh-century work gave very great additional interest to the illustrations thrown upon the screen of drawings compiled from them to show the beautiful arcades which decorated the walls and t passages which provided for access alon entire length in the Norman period. arcades, or rather the portions of them still exist in a shattered condition behind the stone veneer which, since th of Richard II, has been applied to the faces of the walls, were brought to lig investigated during the course of the r Their presence in the walls, unbonded surrounding work, with large cavities the principal supports of the roof, ra difficult problem, since the pressures on t walls were great and the total weight of t steel trusses was expected to amount t three hundred and thirty tons. A plan Hall, showing the positions of the N fragments in relation to one another the later work of Richard II, indicat haphazard methods of setting out com adequate in the Red King's palace. details in the arcades in the two opposit of the Hall are by no means opposite another, and it is quite possible that th timbers of the Norman roof were ar slantwise across the Hall. (See an arti Mr. William Harvey in our issue of J 5, 1923.)

The great width of 69 ft. was not roo the Normans without intermediate su and a view showing the conjectured appe of the Hall in Norman times exhibited l heavy posts rising from the floor and d the span into three portions of mans dimensions. The size of the Hall is rema since it is approximately 240 ft. long and high to the apex. William Rufus, reply the criticism of his courtiers that the b was too large, is reported to have said was but a bed-chamber compared wit Hall he proposed to build for himself.

As is so frequently the case with archit works, great size is not always recogn and the bare side walls of the Hall with dull linings of Huddlestone stone dwa gigantic timbers above. The grandeur building shone out, however, when at int throughout the lecture the upper light extinguished and the warm tawny col the giant beams was made to glow in r light directed upwards from lamps suppo positions near the floor.

Turning to the works of repair (almost building, since the Norman walls were lessly cut to pieces) instituted by King R II, the lecturer explained that, despite a p tradition that the roof was construct chestnut wood, it is really composed, records show, of English oak obtained fro King's Park of Odiham, the Abbot of St. A Wood at Bernan, and a wood by Kingst Thames. The rich warm colour of the su is due to a harmless fungoid growth whic not penetrate to the interior of the wood. pattern of this unique structure was due King's master carpenter, Hugh Herland seems to have been about seventy years the time he produced this astounding d Gothic masons produced their masterpie



The illustrations on this and the following page are given by permission of H.M. Office of Works.

Composite Elevational Photograph of one of the Trusses after Repair, and after the Steel Reinforcement had been fixed; the latter is practically invisible.

lt of a process of trial and error extending out centuries, but there was no evidence milar roof of anything like the same ns having existed to guide this original who must have created his new work in nce with the foreseeing spirit of scientific ion.

ssurance in daring to place great oak weighing from three to four tons apiece, in the air, was wonderful, and the sup- of each mighty hammer post upon the an angel apparently flying freely in was a stroke of pleasantry of which we ot sufficiently admire the wit.

rief analysis of the functions of the which was practicable in a limited time re a general audience was in substantial nt with an account published in our f June 22, 1923, where the nature of erland's building science, his construc- ius, and his audacious humour, have been set forth.

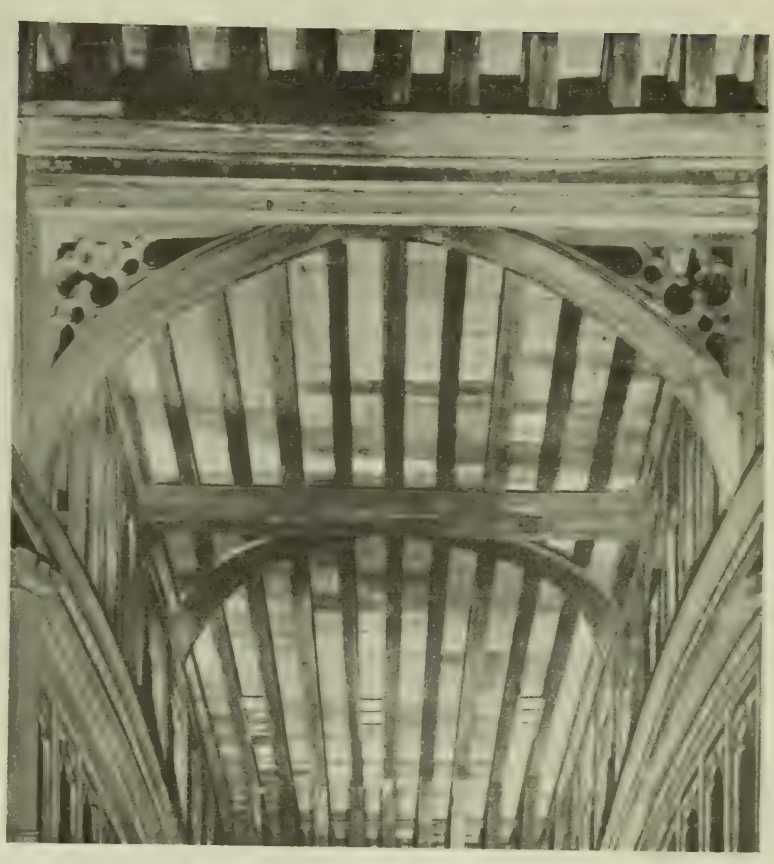
ecay and repair of the timber roof was ed by a series of lantern slides, in e life history of the Death Watch beetle e almost unbelievable extent of its were made apparent. One difficulty ced the conservator was the inability uthorities to recognise the dangerous of the decay. The plain facts were as alarmist rumours, and the roof ced by otherwise sober and truthful to be quite reasonably sound. The e of opinion was sincere, but optimists wed themselves to be deceived by the appearance of soundness in the outer the timbers which had been preserved ly intact owing to the peculiar habit history of the beetle about which little wn at that time. The larva, or wood- urrows for a period of something like ars in the interior of the wood before its one flight hole on the surface. Even e flight hole is often in an obscure and ble part of the roof, so that there is ly nothing to show for its three years erous activity.

r repairs to the roof had very seldom icient, though some stout baulks had ded to the purlins at an early period l to them with curious slotted bolts with aped keys and washers instead of reads and nuts. As time progressed, the rew more futile and burdensome, and rer was able to point out that the roof as as free from obtrusive patches and s it had been at any time for the last dred and fifty years.

esent method of upholding the decaying was selected with a view to retaining as ossible all the genuine ancient work. een objected that the use of steelwork propriate to the sentiment and to the principles of construction, but without f steel 90 per cent. of the old worm-



Label Moulding of Window in West Bay, South Side.



One of the Bays after Repair, and after Steel Reinforcement had been fixed.

eaten timbers would have had to be replaced. By means of the new steel trusses, 90 per cent. of the old woodwork had been preserved. A possible alternative method of repair would have been to insert patches of new wood as and where required and to strap and bolt them together with steel fish-plates. It was well that this fragmentary method was not adopted, since the decay proved to be far worse than had been anticipated, and the strength of the resulting patchwork would have been problematical. Proof of the necessity for a complete steel truss to each old principal of oak was supplied by the breaking of one of the corbels supporting a wall post of the fifth truss from the north end of the Hall. The old patched and disjointed timbers had reached a stage of decay when movements took place which threw all the weight of the wall post on to the free end of the corbel and fractured the mass of solid stone by the excessive pressure and leverage.

An interesting feature of the lecture was provided by the exhibition of a specially prepared cinematograph film explanatory of the construction of the roof. The jointing and assembling of the timbers was demonstrated in a very convincing manner by means of a moving picture showing the various members of a carefully prepared model being placed in position in relation to one another. This idea is excellent and the present film might be improved upon by having the timbers of the model assembled in the order that must have been followed in the construction of the roof itself. A remarkable series of moving pictures of the larvæ of the Death Watch beetle at work gnawing and tunnelling into the oak and of the adult beetle walking upon the surface was also shown. Decay in the various joints of the structure was made comprehensible in a similar way.

The film ended with a view of Their Majesties the King and Queen at the reopening of the Hall to the public after the completion of the repairs.

THE LEICESTER GALLERIES.

There is so much to be seen in the galleries just now that it is not easy for the picture-goer to fit his time to the best advantage. The beautiful decorative drawings by George Sherringham, at the Leicester Galleries, should not be missed, for they represent something of the best we can find to-day in small decorative pictures. The artist has in most cases made his frames a valuable integral part of the effect. Many charming colour harmonies and elaborate dainty drawings are to be found here, and yet when Mr. Sherringham gives us a simple decorative transcript of landscape in ochre and black he is also wonderfully successful.



Boss to Label Moulding of Window in West Bay, South Side.

THE LONDON SOCIETY.

HAMPTON COURT PALACE.

At a meeting of the London Society held on the 9th inst., in the lecture hall at 18, John-street, Adelphi, Sir Frank Baines, C.V.O., C.B.E., addressed a large and interested audience on the subject of Hampton Court Palace, where the Great Hall of King Henry VIII is now being repaired under his direction. The speaker did not, however, deal with these specific repairs, but traced the history of the palace in a critical and descriptive account which enabled his hearers to form some idea of the characteristics of works of different periods in the building.

Calling attention to the fact that the Tudor palace at Hampton Court, as built by Cardinal Wolsey and enlarged by King Henry VIII, was one of the last great architectural works carried out under the guild system of the Middle Ages, the lecturer illustrated, by means of excellent plans and views, the artistic freedom resulting from the direct employment of masters in the various crafts to design themselves the work they were about to carry out. Such references to the guild system were received with applause by the audience, and whatever uncertainty may exist as to the exact conditions of the building trade in King Henry VIII's time the remaining work of the period undoubtedly exercises a great charm upon the present-day public, including both those members of it who are specially trained in the appreciation of the arts and those who are guided by their own good pleasure as sightseers. The extraordinary carved pendants of the oak roof to the great hall were rightly held up as examples of freedom in craftsmanship. Their exuberant detail implies corresponding enthusiasm on the part of the carpenter artist, who seems to have both designed and carved them.

These are not isolated or exceptional instances, but take their places in a scheme where construction and ornament, planning and execution, all embody a similar spirit.

Craftsmanship had outgrown the fetters which had bound it to the expression of rigid constructional truth during the Gothic period, and from this point of view decadence must be admitted. Comparing the elaborate roof of the hall at Hampton Court with the much larger and much simpler roof erected at Westminster Hall in 1394–99, where every timber, including the ornamental tracery, performs a structural function, Sir Frank confessed that the Tudor roof was not so fine as the Gothic. But, though fancy had been allowed to run riot, the lavish decorative detail in carving and gesso covered with gilding and bright applied colour was magnificent in its own way. And that way was the way of freedom, since obedience to the rigid rules of columnar architecture which were to be imported from Italy at a slightly later date had not yet been enforced.

Just how far the master craftsmen were the designers and how far the general scheme was directed by the Cardinal or King we are never likely to know, though it is probably safe to assume that the freedom of the craftsman from the necessity of following the design of an architect could only be attained in an age when the building owner himself knew much more about the building art than do most intending building owners at the present day.

The records show that the Cardinal and the King supplied the materials necessary for the work, and this fact alone bound them to a much more intimate knowledge and interest in the design than the interest of receiving the building upon its completion.

The names of the craftsmen recorded in the accounts are nearly all English, for although the Italians Giovanni da Majano and Benedetto da Rorezgano were brought over by Wolsey in 1521 they were chiefly employed upon ornamental works, such as the terra-cotta roundels and busts of the Roman Emperors which decorate some of the exterior wall faces.

These evidences of the foreign artist are all applied works and do not form an integral part of the structure, differing in this respect from the greater part of the native work where the divorce of structure and ornament, although imminent, was not yet complete. Sound architectural design in which construction and artistry were inextricably blended together is in evidence in the Tudor kitchen with its immense fireplaces and their fine brick chimneys. Remarking upon the beauty of the orderly diminution of the flues from the great arched openings to more moderate dimensions at their upper extremities, the lecturer pointed out that their design consists in the adjustment of material to meet a practical problem rather than the composition of elevations upon a drawing board. The intervention of paper plans and the professional architect who produced them was, he said, by no means an unmixed blessing.

The beginnings of the pernicious modern system of employing rough construction hidden beneath a more finely wrought visible shell of ornamental features was to be seen in the Palace Chapel, where an elaborate wooden vault of great beauty, if considered as modelled form or painted decoration, was really nothing more than a suspended ceiling below the supporting timbers of the roof.

It is possible, said the lecturer, that the designer of this fan tracery in wood may have been Clement, the master carpenter, who designed and executed the roof of the Great Hall, and it is evident that he was familiar with the somewhat similar stone vault of the Choir of Christ Church, Oxford.

The constructional propriety of the delicate stone vault placed upon the old piers of the Church with full knowledge of the statical problems involved is, however, entirely absent from the timber counterfeit at the Palace Chapel.

The Renaissance style substituting the rigid rule of adherence to the Classic orders, with their pretence of structural interest in place of the appeal of genuine necessary construction, soon followed upon the period of freedom and imposed a formality none the less exacting in that it was artificial and only interpreted the natural laws of building science through the foreign tongues of ancient Greece and Rome

The works designed by Sir Christopher Wren, forming part of the remodelling of the palace inaugurated by the magnificent taste of William and Mary about 1689, fortunately escape from the harshest rigours of the revived classic rule. Sir Christopher Wren as a designer invariably showed himself to be a man of infinite common sense as well as a scientist and antiquarian, and his work at Hampton Court can fairly criticised as an attempt to imit glories of Versailles upon a somewhat scale, whatever may have been the in of the architect's royal patron.



By permission of H.M. Office of Works.

Chapel Cloister, Hampton Court Palace.

Some of the problems involved in alterations were indicated by plans an projected upon the screen. The dimen the old cloister green court fixed the of the new Fountain Court, but the long canal of ornamental water in th governed the axis of the new entrance, was of artistic necessity made to face down the long avenue of water and The difference between the centre lines court and the canal is considerable, but h so carefully disguised by Wren as to p noticed. The heights of the new b around the Fountain Court were also ev adjusted to the dual considerations of symmetry and internal convenience, si western range has been kept low on pur admit ample light and air to the co and its surrounding rooms. Architect in a vigorously creative mood in Wren and respect for historical buildings as st not yet come into fashion. Some im parts of the Tudor palace, including th Gallery with its great bay window, wer away to make room for the new work. lamenting the loss of this prototype long galleries, which were to become so in succeeding reigns, the speaker expres satisfaction that so much of the Tudo remained. A plan for still further rem the palace by Wren, in which the Tud would have been retained only as a ve was never carried out. They could not h much of Wren's delightful architecture, h should prefer it to be placed where it wo destroy or come into competition wit historical buildings: a sentiment with the audience evidently concurred. The of Wren to collect together and work in h with a band of experts in sculpture, ironwork and painting, impressing upo his general scheme, yet allowing them f of individual expression, is in evidence t out the beautiful State apartments plan this extraordinary man, with whose well words the lecturer closed his address:

"If I glory," said Wren, in his old age in the singular mercy of God, who has me to begin and to finish my great w conformably to the ancient and true mo



FOUNTAIN COURT.



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SOUTH SIDE OF GREAT HALL.

Hampton Court Palace. (*See p.* 760.)

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ILLUSTRATIONS.

University College, Bangor.

Mr. Alan E. Munby, M.A., F.R.I.B.A., is the architect for the new Science Buildings—Agriculture and Administration Departments—University College of North Wales, at Bangor. The cost is estimated at £66,800. The front will be faced with Portland stone. Internal walls and partitions will be of sand-lime bricks, and considerable use will be made of asbestos-cement pipes for drains. The heating will be by low-pressure accelerated hot water. The total floor space will be about 60,000 sq. ft. The foundation stone was recently laid by the Prince of Wales.

223, Regent-street, W.

This building has been erected by "Isobel," the well-known dressmaker, by whose courtesy these photographs are reproduced. This structure forms part of the general Regent-street reconstruction. The contrast between the black marble base and the Portland stone superstructure is very striking.

The whole of the shop front has been designed with considerable restraint and the silver-bronze shop frames and entrance gates create the atmosphere so essential to this class of business. The interior decorative scheme makes an excellent setting for the gowns for which the House is noted. Black marble and silver-bronze have been extensively used inside, and the staircase is of black marble.

The general contractors were Messrs. Somerville & Co., Ltd. Sub-contractors: Steelwork, Messrs. The Somerville-Barnard Construction Co.; Portland stone, Messrs. F. J. Barnes, Ltd.; metal casements, Messrs. W. James & Co.; silver-bronze gates, balustrading and grilles, Messrs. Wm. Morris & Co., Ltd.; black marble, Messrs. Jenkins & Sons, Torquay; decorative plaster work, Messrs. Martyn & Co., Cheltenham; parquet and wood block floors, Messrs. Hollis Bros.; shop fronts, Messrs. F. Sage & Co., Ltd.; fitting rooms and enclosure, Mr. P. Turpin; heating, Messrs. Mumford, Bailey & Preston; electric light, Messrs. Mann, Egerton & Co., Ltd.; furniture and hangings, Messrs. Maple & Co., Ltd. The architects are Messrs. Yates, Cook & Darbyshire, Great Marlborough-street, W.

Colour Competition.

We give this week, in colour, the first premiated design in the competition organised by Messrs. Thos. Parsons & Sons, Ltd., for colour schemes for the decoration of the vestibule of their premises in Oxford-street, by Mr. E. A. Cox. We reviewed the designs last week.

New Premises for the Holt Line, Liverpool.

In this issue we give three illustrations of the design sent in by Messrs. Willink & Dod in the recent competition for Messrs. Alfred Holt & Co.'s office building, Liverpool.

The design placed first, by Mr. Arnold Thorneley, F.R.I.B.A., and Mr. H. J. Rowse, A.R.I.B.A., was given in our issue for October 12.

MEETINGS.

MONDAY, *November* 19.

Royal Institute of British Architects.—Mr. G. Topham Forrest on "The Rebuilding of Ypres." At 1, Wimpole-street, S.W.1. 8 p.m.

Royal Academy.—Professor A. P. Laurie on "Methods of Wall Painting." 4 p.m.

TUESDAY, *November* 20.

Royal Academy.—Professor A. P. Laurie on "The Theory of Colour and its Application to Painting." At Burlington House, W. 4 p.m.

WEDNESDAY, *November* 21.

Reading Society of Architects.—Mr. H. C. Corlette on "The Mediæval Point of View." At University College, Reading. 8 p.m.

Royal Society of Arts.—Mr. J. A. Knowles on "Forgeries in Ancient Stained Glass." At John-street, Adelphi. 8 p.m.

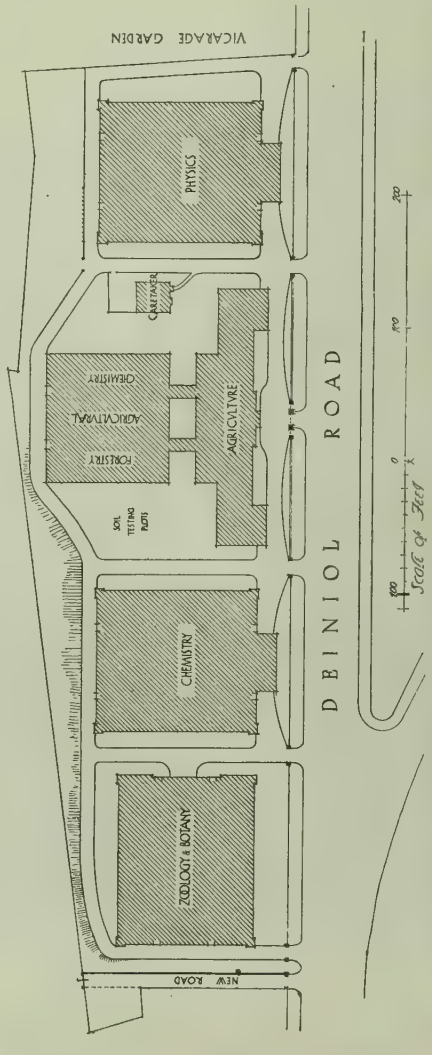
L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Origins and Evolution of the Doric Order." 6 p.m.

Royal Academy.—Professor A. P. Laurie on "Building Materials made of Waste Materials." At Burlington House, W. 4 p.m.

THURSDAY, *November* 22.

Builders' Benevolent Institution.—Annual Dinner. At Hotel Victoria, W.C. 7 p.m.

Architecture Club.—Quarterly Dinner. At Hotel Cecil, W.C. 7.30 p.m.

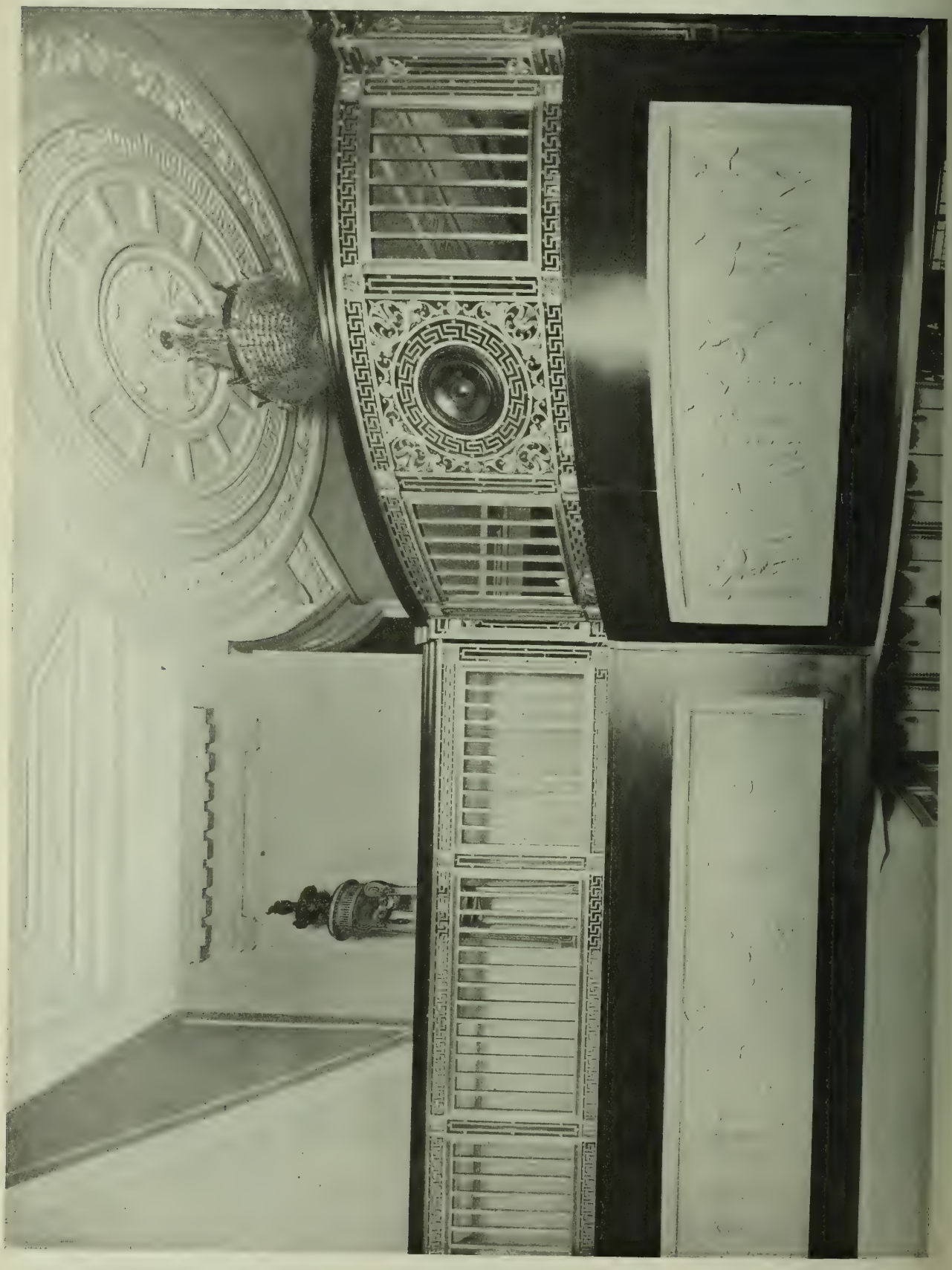




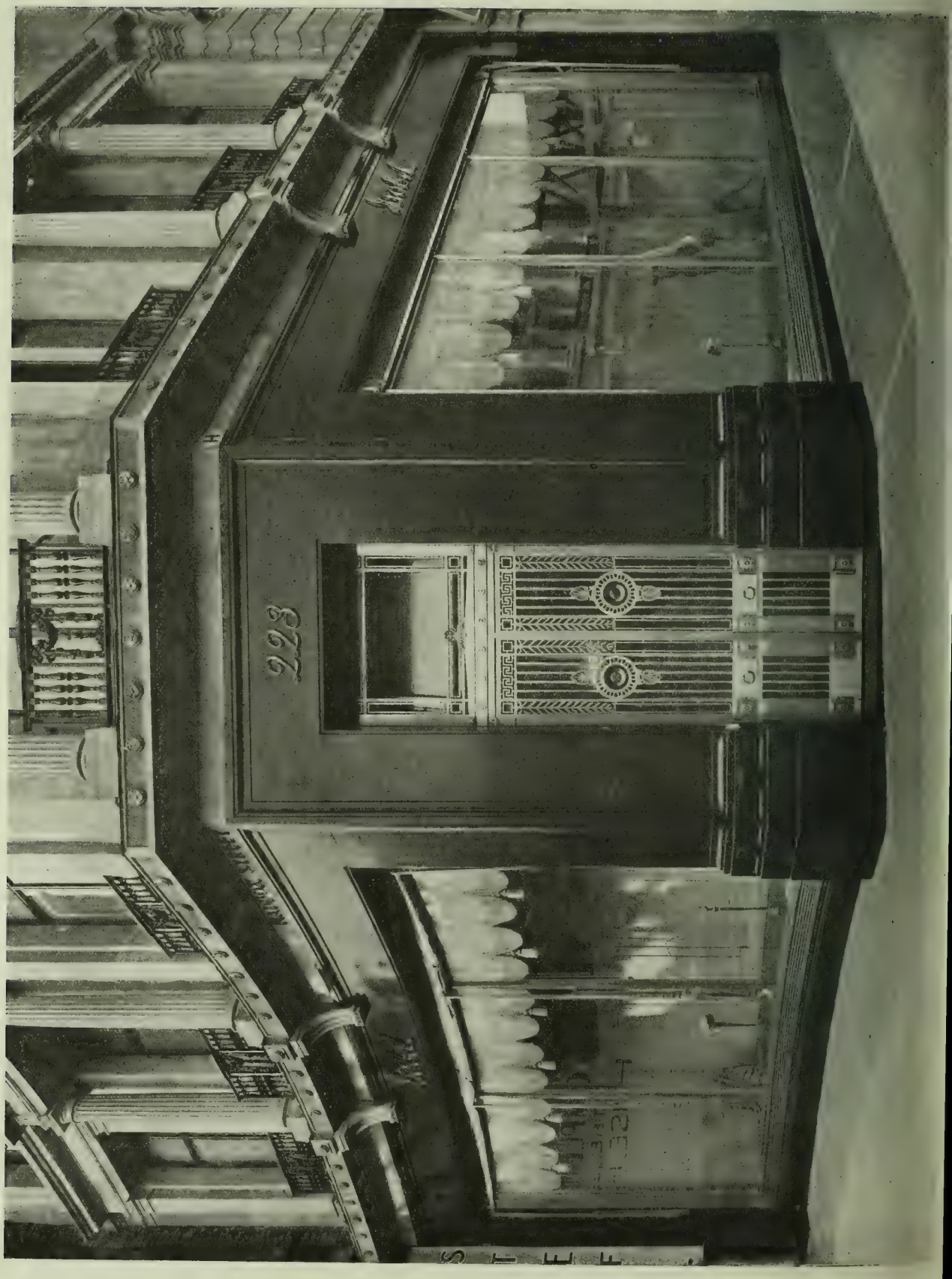


No. 223, Regent-street, W.

MESSRS. YATES, COOK & DARBYSHIRE, Architects.



STAIRCASE AT FIRST FLOOR.


223



SALON : FIRST FLOOR.



SALON : FIRST FLOOR.

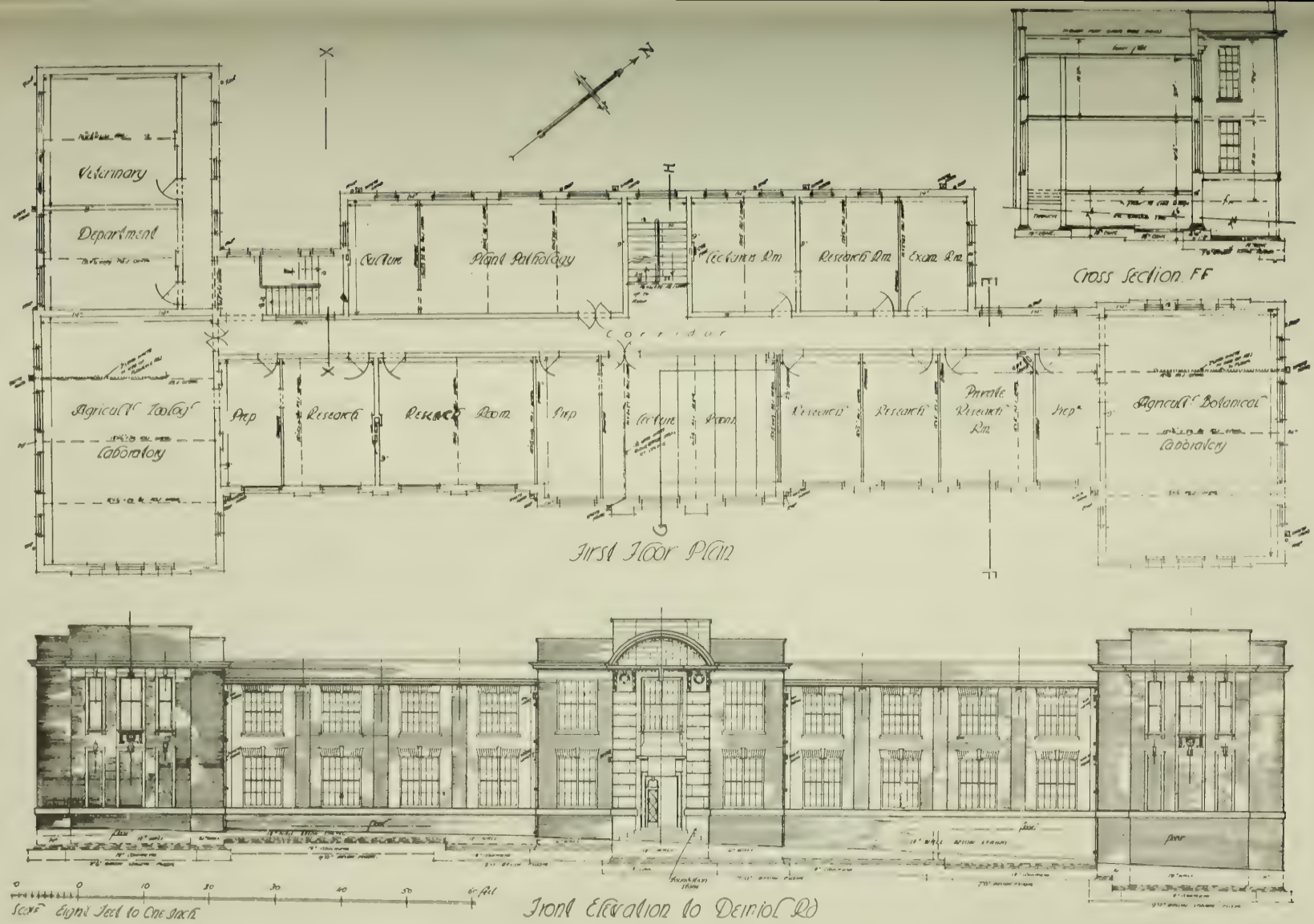
No. 223, Regent-street, W.

MESSRS. YATES, COOK & DARBYSHIRE, Architects.



No. 223, Regent-street, W.: Marble Staircase.

Messrs. Yates, Cook & Darbyshire, Architects.



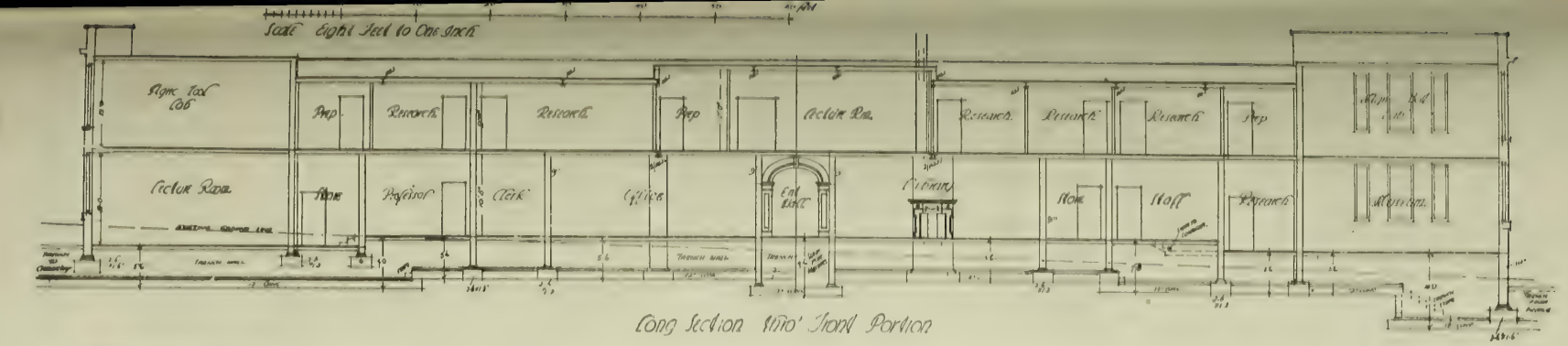
University College of North Wales, Bangor : New Science Buildings—Agriculture and Administration Departments.

Mr. Alan E. Munby, M.A., F.R.I.B.A., Architect.

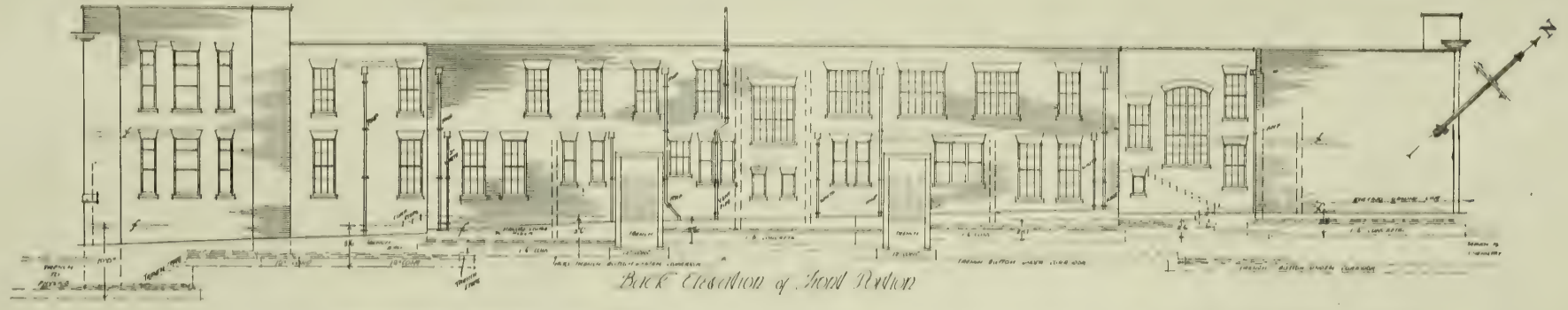


COLOUR SCHEME COMPETITION FOR VESTIBULE OF PREMISES IN OXFORD STREET. W

First Premiated Design, by Mr. E. A. Cox.



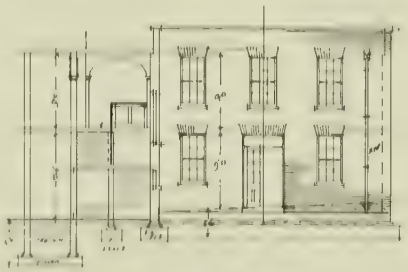
Long Section thro' Front Portion



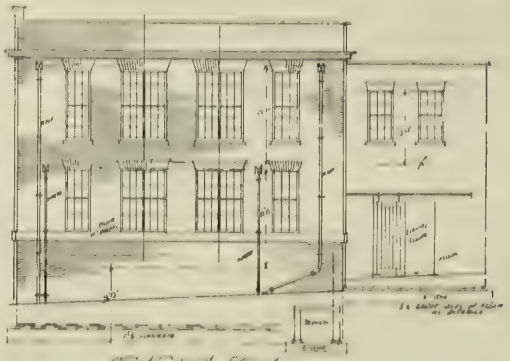
Back Elevation of Front Portion



South-West Elevation



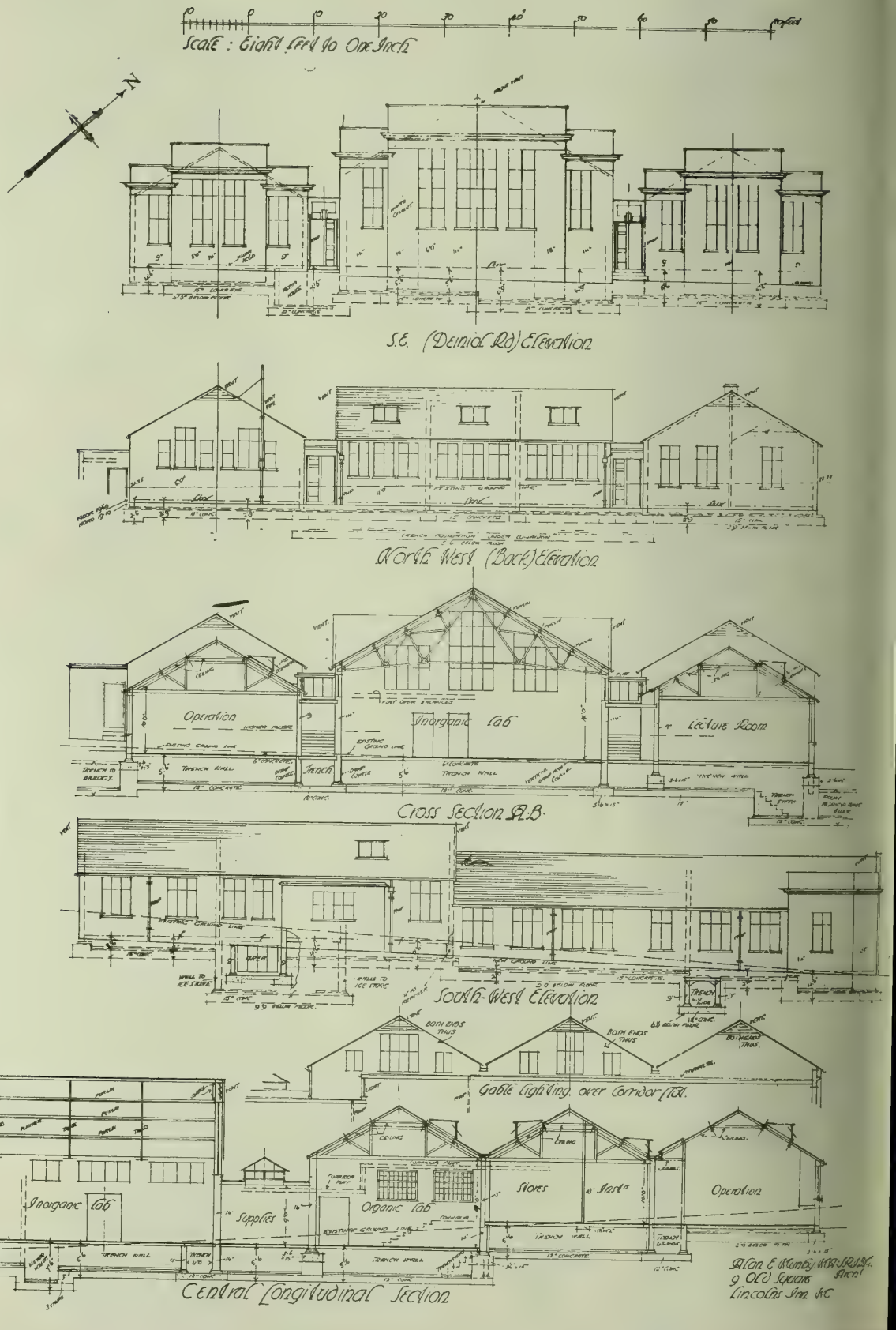
Cross Section Elevation X-X



North-East Elevation

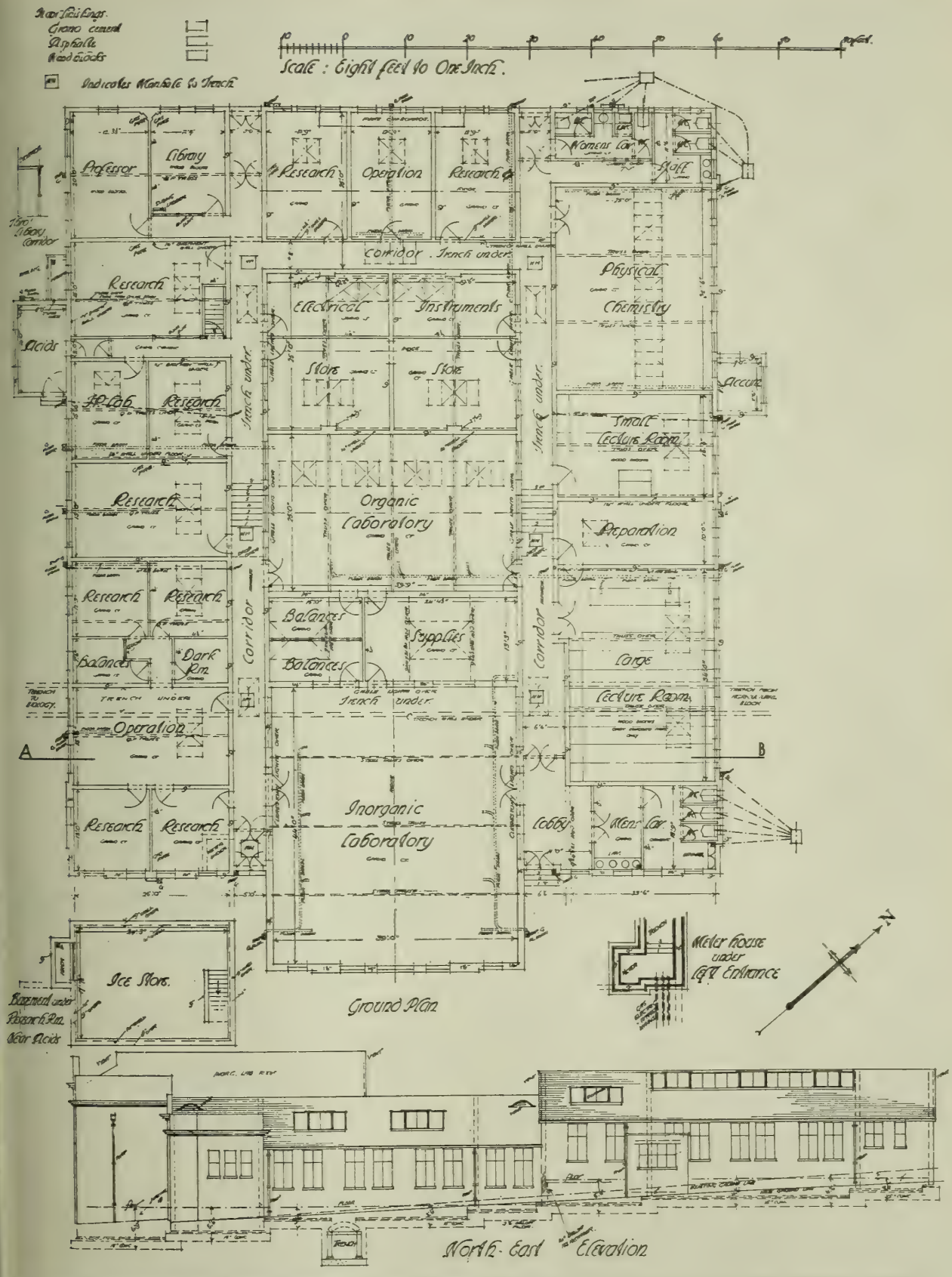
University College of North Wales, Bangor : New Science Buildings—Agriculture and Administration Departments.

MR. ALAN E. MUNBY, M.A., F.R.I.B.A., Architect.



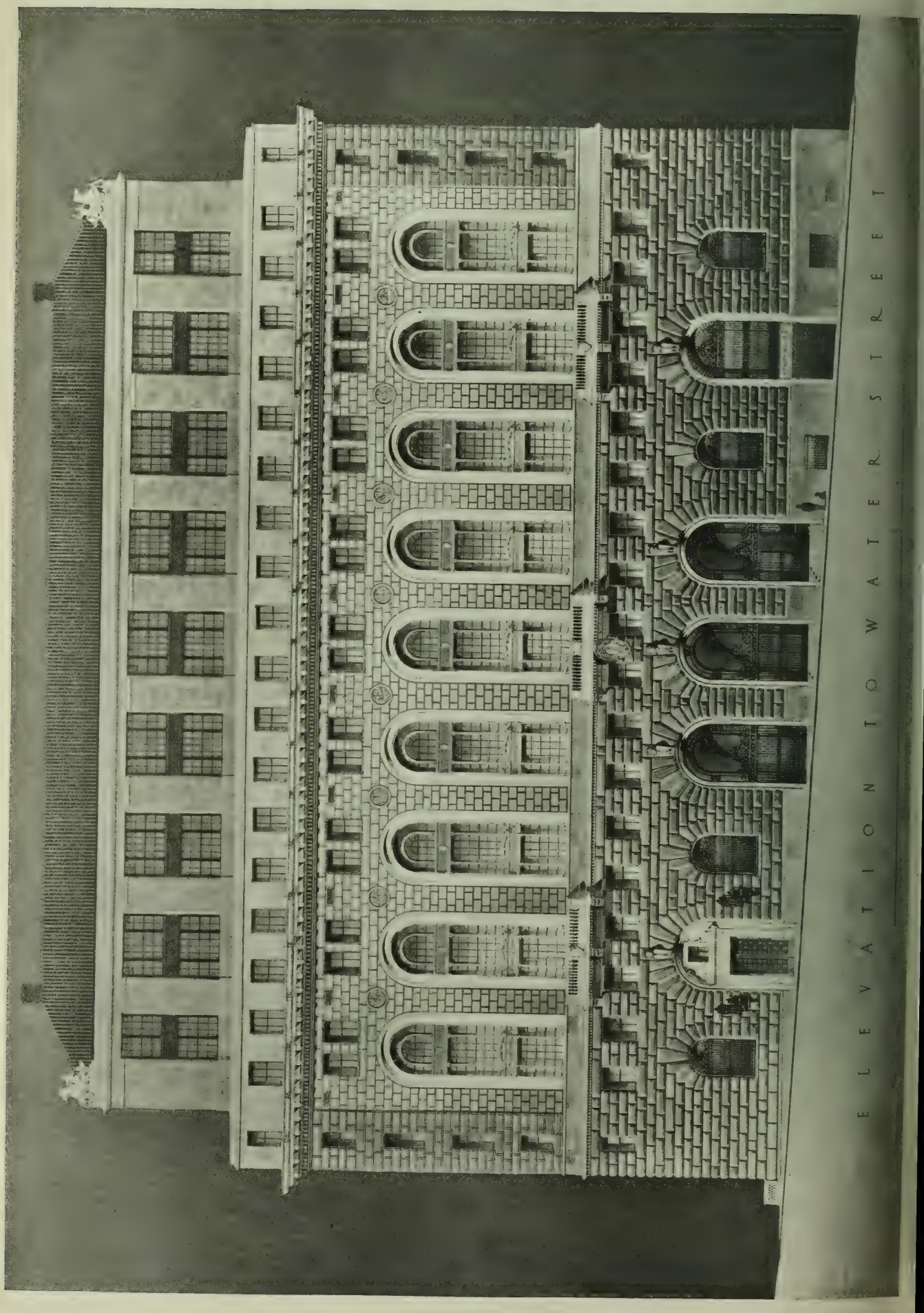
University College of North Wales, Bangor : New Science Buildings—Agriculture and Administration Departments

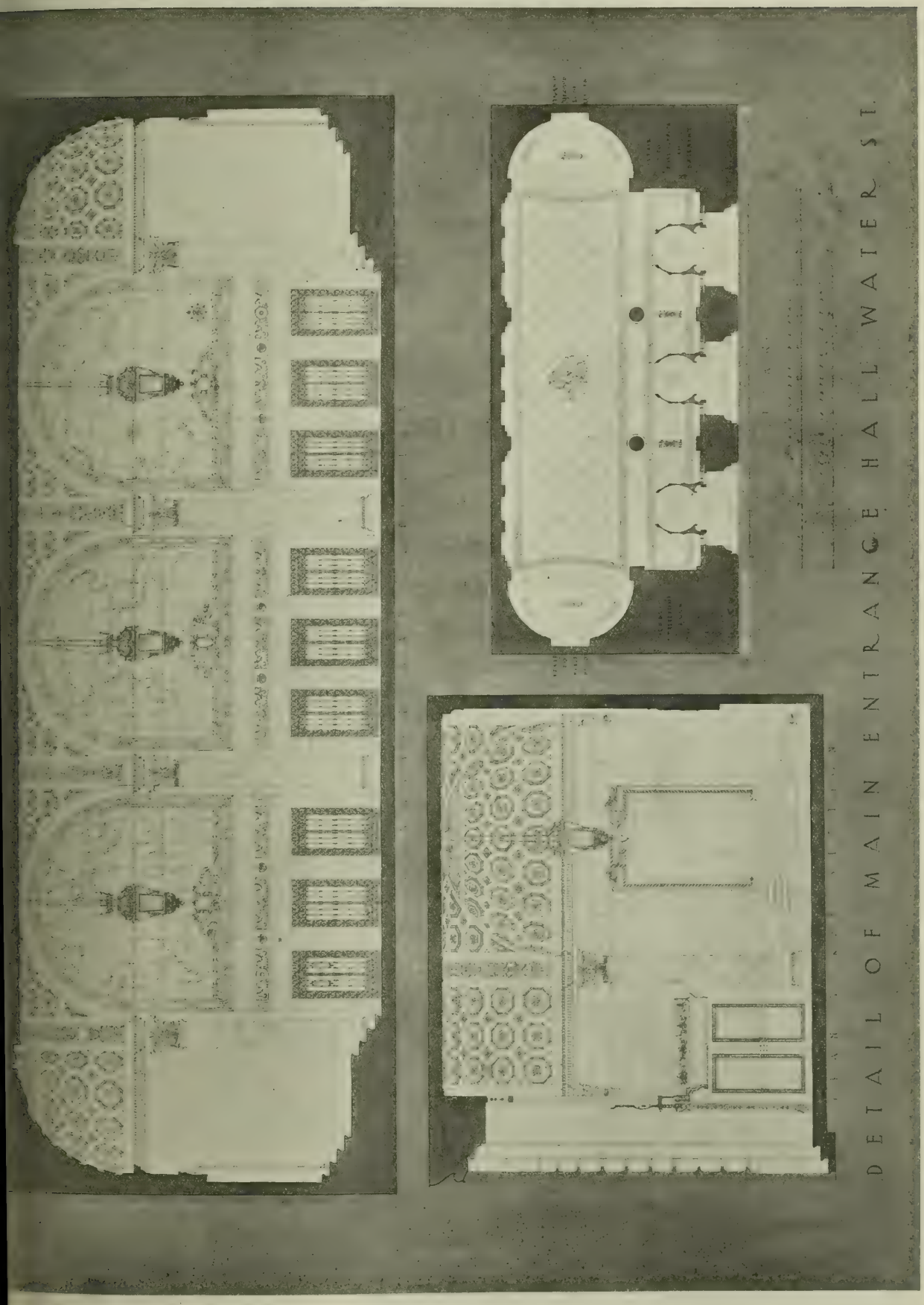
MR. ALAN E. MUNBY, M.A., F.R.I.B.A., Architect.



University College of North Wales, Bangor : New Science Buildings—Agriculture and Administration Departments.

MR. ALAN E. MUNBY, M.A., F.R.I.B.A., Architect.


ELEVATION TO WATER STREET



Design Submitted in the Recent Competition for New Premises for the Holt Line, Liverpool. By Messrs. Willink & Dod.

CONCERNING COMPETITIONS.

MR. HORACE R. APPELBEE writes:—

SIR,—With regard to the question of single assessor *v.* jury, on which I ventured to express some views in a paper at Birmingham many years ago, there is a point which seems to me to be of great importance and yet in danger of being overlooked. To obtain a satisfactory award it is not a question of numbers, but of qualifications of the judge or jury, and it is largely because all qualifications are not combined in one man that more than one becomes necessary. The difficulty is that we have no agreed standard by which to judge the merits of a building either on paper or in reality, and there are three very distinct points of view. Let us call them "A," "B," "C." All architects come under one or the other.

When there are many competitors there will be some of each class. A single assessor is of only one class. It is inevitable that the designs submitted by those of his class will appeal to him, and the other two will not. For exactly the same reason these two classes will fail to appreciate his award. If instead of a single assessor we have a jury everything depends on its constitution. Three men of the "A" class will arrive at very much the same result as a single assessor of the "A" class. The jury should look at the matter from all points of view, and therefore consist of "A," "B," and "C" men, but could it then agree on a verdict? It is an interesting point.

During the past fifty years probably no architect has had a greater reputation as an artist than Norman Shaw, but we instantly associate his memory with houses great and small and some churches. Like others, he had his limitations; what, for instance, did he know of lunatic asylums or public baths and washhouses? He is typical of class "A." Asylums and public baths have often been the subject of competitions. Usually they are among the ugliest buildings in the land. Their planners are of a very different type from Shaw; they are without his artistic ability, but they possess a knowledge of requirements, of sanitation, of special engineering, of organisation, and of the working relation of one part to another in which Shaw was lacking. These are typical of class "B."

Which is the standpoint from which the merits of these buildings should be judged? The practical and financial side (running cost, not the original building cost) or the æsthetic side, or is there a better way than either? The third type, "C," that I had in mind considers that no project is good which loses a single practical point of importance in an endeavour to produce a fine æsthetic effect, and at the same time does not see why a really practical building should suffer in artistic effect.

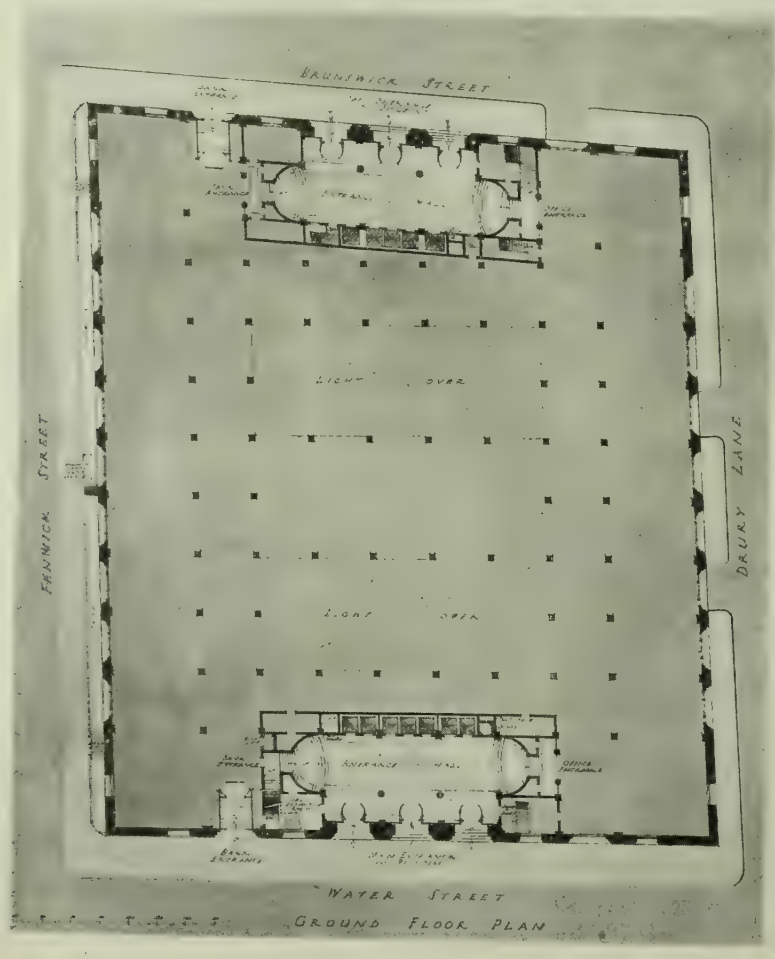
It is difficult to extend this argument as I should like without references to contemporary work, which are undesirable, but I may perhaps be permitted to refer to something which happened twenty years ago.

Chelsea Borough Council desired a public baths, and they stated that they were "anxious to secure a building which shall not only be adapted to their requirements internally, but shall also possess distinct architectural merit externally with as little detail as possible." They appointed Mr. Norman Shaw, R.A., "to act for them their assessor and adviser," with the re that he, in effect, bracketed two for place—that is, he thought No. 45 the plan, but since the Committee asked architectural merit he put No. 21 first best satisfying that requirement. An satisfactory award, of course. A descrip of these plans appears in *A.A. Notes* April, 1902. "Mr. Shaw's model plan of course, the centre of attraction. . . . and women enter on either side of the ti and superintendent's offices; the men for f class private baths pass by the wom waiting-room to obtain their tickets. The for these baths is 40 ft. square and 12 ft. high, with daylight on one side o True 'light over' [perhaps a clerical e for 'ventilation over'] was written near opposite wall, but it was at the bottom o well 5 ft. wide and 14 ft. high. As this is divided up into cubicles with partitions 6 high or so, the place will have to dep largely on artificial light during dayli hours. The first-class swimming bath easily reached, and is well arranged entertainments. We pass a door and en the second-class department—swimming private. The private baths occupy a space the first floor about 112 ft. by 40 ft., with flat ceiling over about one-half the area span roof over another portion, and a lean over the rest—all irregularly set out. Is t planning? On the women's side an 8 corridor at right angles to the front leads the staircase to their second-class bat No. 1 branch to the right leads to the fi class private baths. To reach the swimm baths you must take the second turning to right and the first to the left.

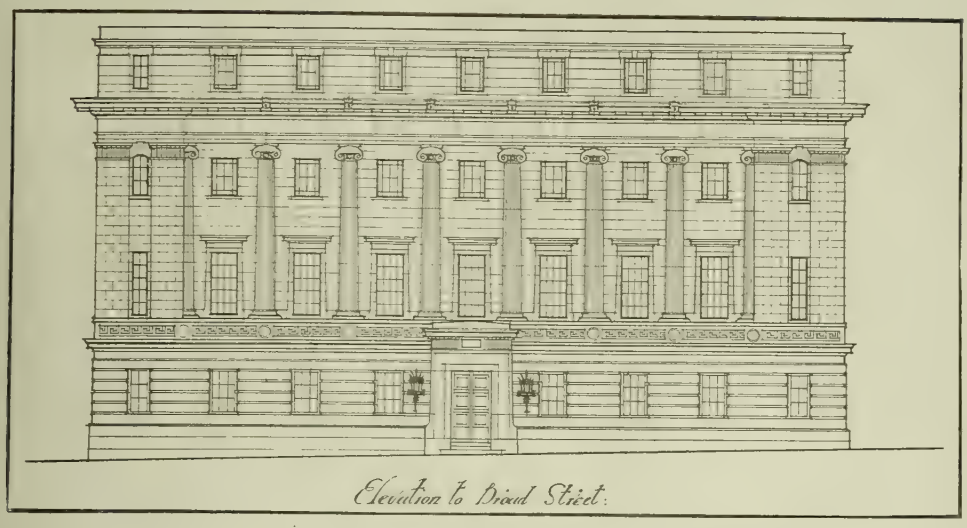
"A most important point in bath plann is the dealing with clean and dirty towels bathing dresses. Usually these are given t bather on taking his ticket, to be left by l in his dressing box or room; thence they h to be conveyed to the laundry, and, a washing, to the store or ticket office. . . . our 'best' scheme the basement is full subways for access to pipes, etc. Shoots arranged anywhere from the baths to the s ways for the dirty linen, for the collection which artificial light must be mostly us To reach the laundry, which is on the grou floor at the back of the site, a lift is provid but it is 60 ft. away from the washhou . . . The boilers are placed amidst a regu crop of columns, and it will be a puzzle get them in or out. The boiler shaft against the boundary of the site, so that foundations will underpin the Town H buildings. As to the elevation, it can readily understood that it did not appeal Mr. Shaw.

"No. 21 is a very artistic and business-l design. The approaches are all direct well lighted. . . . There are no small li shafts on the first floor, light and air ground floor being obtained by a small cou yard in the centre of the front near the stre the first floor being carried across the entra to it on columns. There is a short subw in basement—not daylighted—for tow shoots, with lift direct to laundry. The ele tion is distinctly that of a public buildi with good detail, vastly superior to the des selected by the Committee—or Mr. Shaw. is hard to see where the plan is inferior practical points, and otherwise they cannot compared for a moment."

It appears to me that Shaw approved elevation, general lay-out, and detail (arc tectural) of No. 21, but failed to appreci its excellence on practical points with wh he was not familiar, and some strange in ence was at work to persuade him of advantages of No. 45, which he left Committee little option but to accept. If eminent architect, experienced in baths' wo had been associated with him, the res would probably have been a strong, defin pronouncement in favour of No. 21 on points.



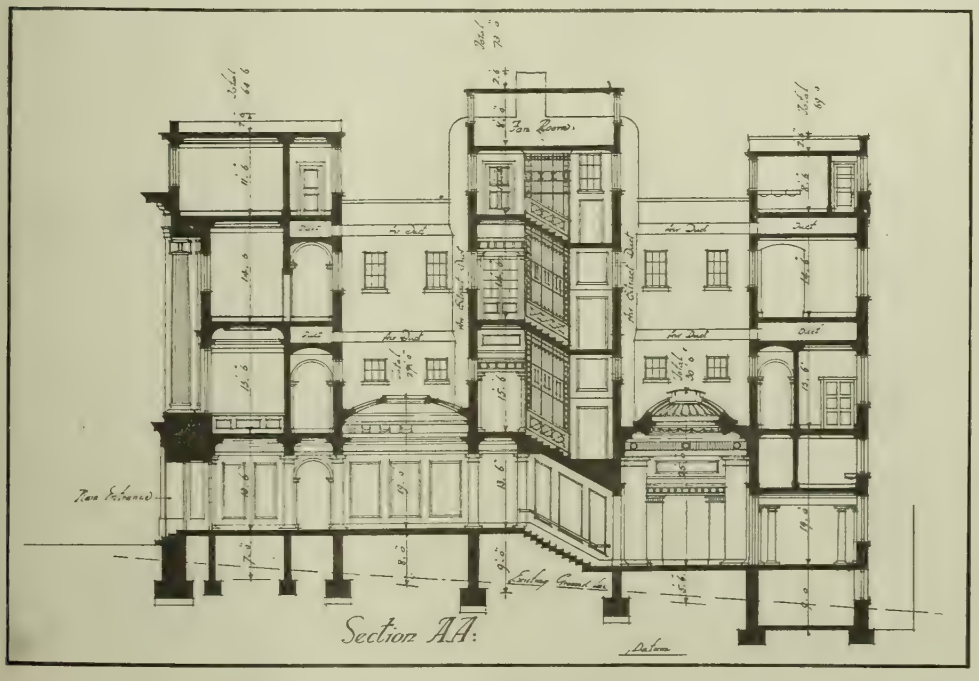
Design Submitted in the Recent Competition for New Premises for the Holt Line, Liverpool. By MESSRS. WILLINK & DOD.



Elevation to Broad Street.



Section B B.



Section AA.

Birmingham Masonic Temple Competition.

Second Premiated Design: By Mr. S. N. Cooke, F.R.I.B.A. (*See p.* **772.**)

TOWN PLANNING.

III.—MEDIÆVAL CITIES.

FOLLOWING is a summary of the third of the series of lectures on Town Planning given by Mr. Wm. Haywood, F.R.I.B.A., at Birmingham University.

There is a general impression—derived largely from historical novels—that mediæval cities were always romantically irregular; but this impression is far from being correct. In the great town-planning period of the thirteenth century many cities were built, the military and political character of which called for virgin sites, and for wholesale building at short notice. Towns built under these conditions are invariably regular in plan, and the simple chequer-board arrangement—varieties of which are found in all ages and places—is obviously the first thought towards orderly planning when there is occasion to build a complete city.

Many such towns were built in Provence after the Albigensian Wars, with the object of consolidating military success by a policy of peaceful penetration. Many also were built in France, England and Wales by Edward I; examples being Montpazier, Hull, Conway and old Winchelsea. Salisbury had a peaceful origin, and perhaps for that reason achieved some improvement in the monotonous effects resulting from the ordinary gridiron arrangement. In A.D. 1220 the old city on the hill was abandoned for a new city in the plain—two miles to the south—which had been built by Bishop la Poer for the greater convenience of the inhabitants; and the wide streets of this town—each with a central stream of water—were much admired by Leland, who visited the city in the sixteenth century.

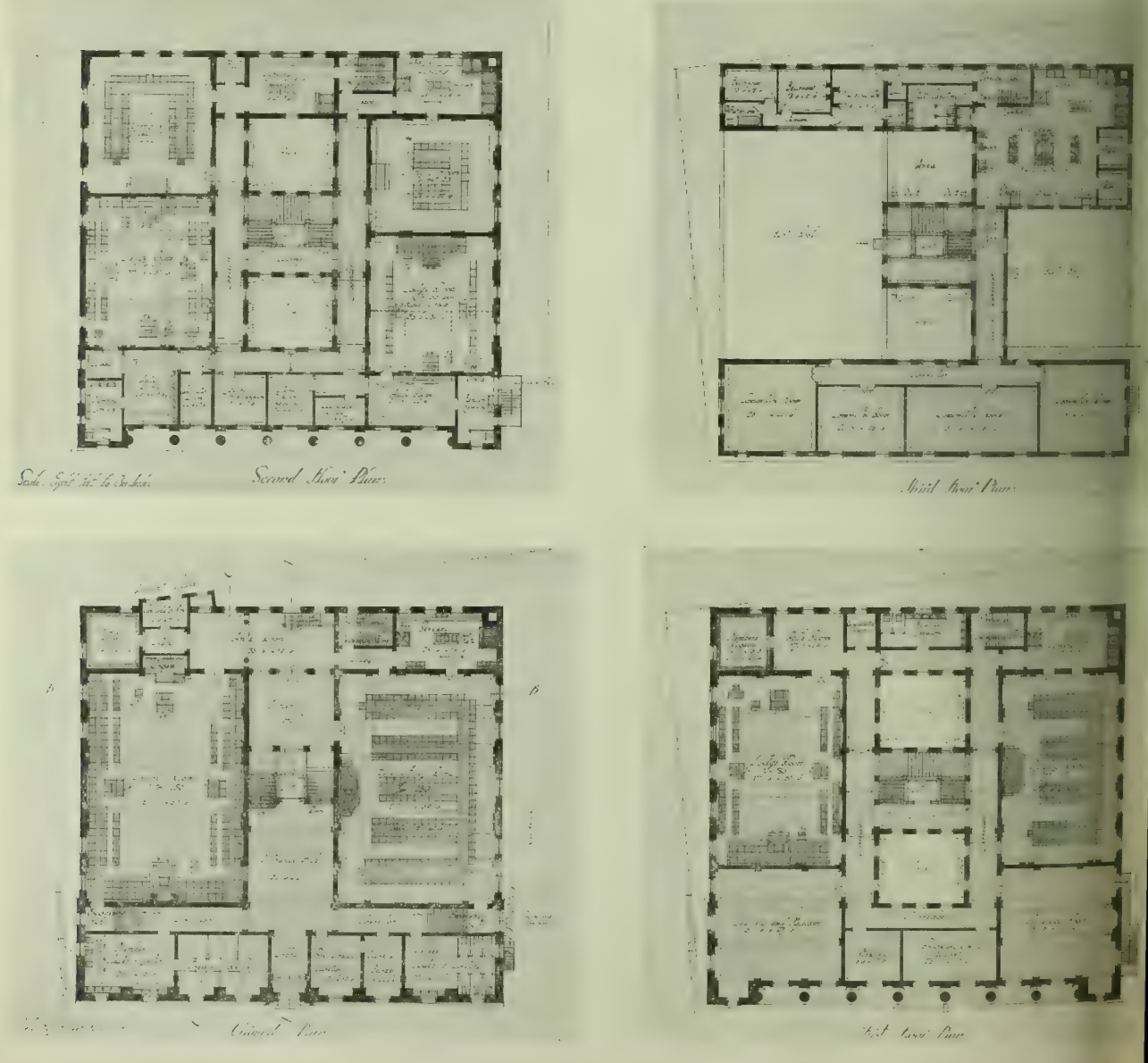
It must not be inferred from the emphasis placed upon formalism in books which treat of ancient town plans, that this quality is desirable, and that irregularity is to be avoided. Both qualities have their use, and in those towns which grow slowly out of local conditions, where irregularities had been found convenient by experience or were compelled by local topography, the mediæval designer built informal settings to enhance the effect of existing buildings, the æsthetic value of which has only recently been fully appreciated.

That such settings were carefully designed and not haphazard is shown by what happened at Ulm, where—the Cathedral precincts having been cleared of nearby buildings, which were thought to obstruct the full play of its beauties—they were found to have so enhanced its effect that equivalent buildings were planned at once to re-establish the old conditions. The utility of designed irregularity is best seen in the mediæval arrangement of churches in narrow streets; where the building is recessed from the line of traffic to give roominess for oc crowds, and at the same time to provid ground suitable to a building of s importance.

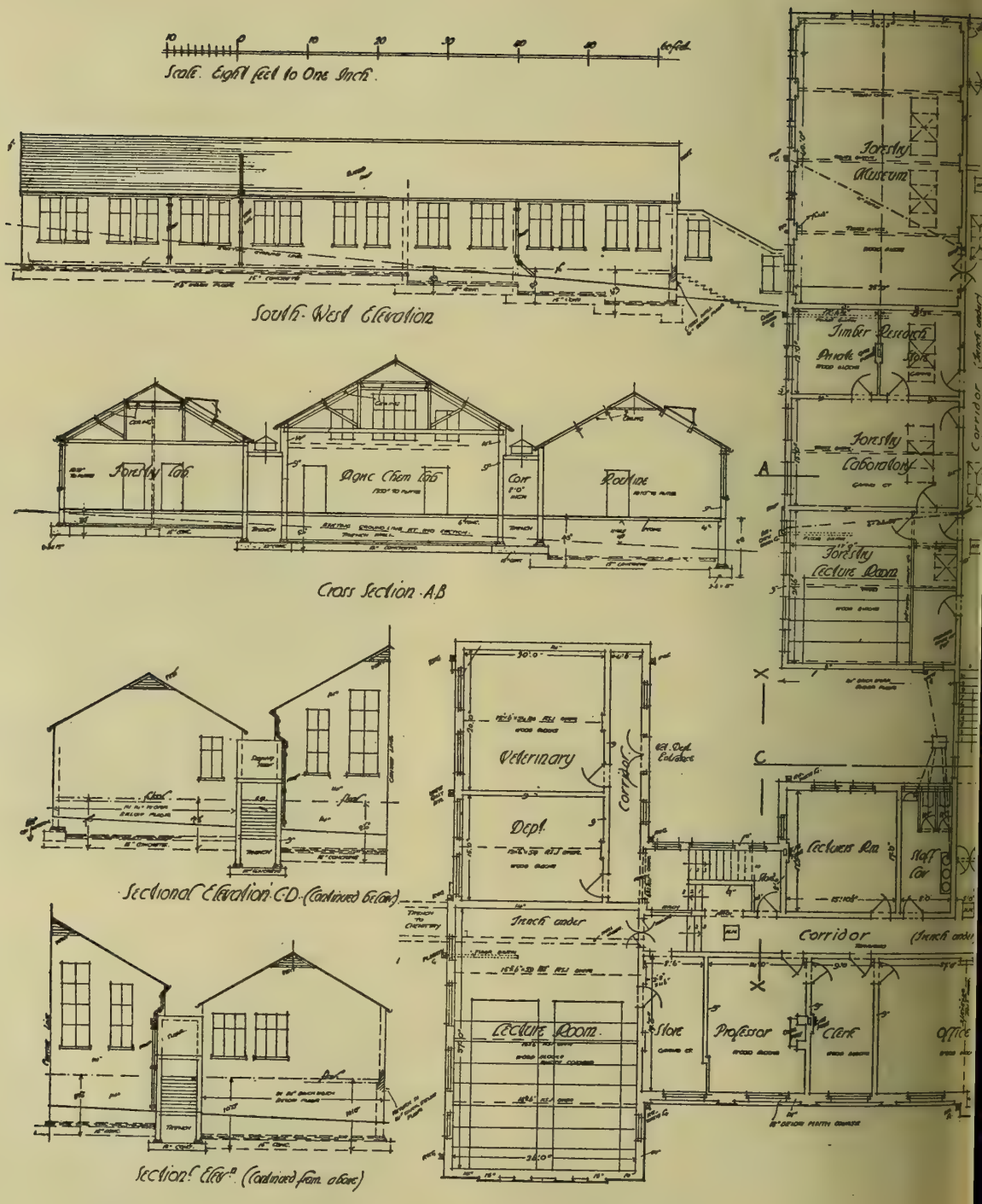
BIRMINGHAM MASC TEMPLE COMPETIT

THE second premium in the recen petition for a Masonic Temple in Birm was awarded to Mr. S. N. Cooke, F.R whose design we illustrate this week motive of the plan is the disposition lodge rooms. These have been plan ensure the utmost quietness, being kep from both the front and the back walls building. Every lodge room is *en sui* its own dining room, and every dining has a service room connected with lifts kitchens, which are placed at the top building, it being considered that ba kitchens are always a nuisance. The lo the site have also been utilised, the larg room and dining room being approache the lower level.

The first premiated design, by Mr. Savage, F.R.I.B.A., was given in our i September 28.



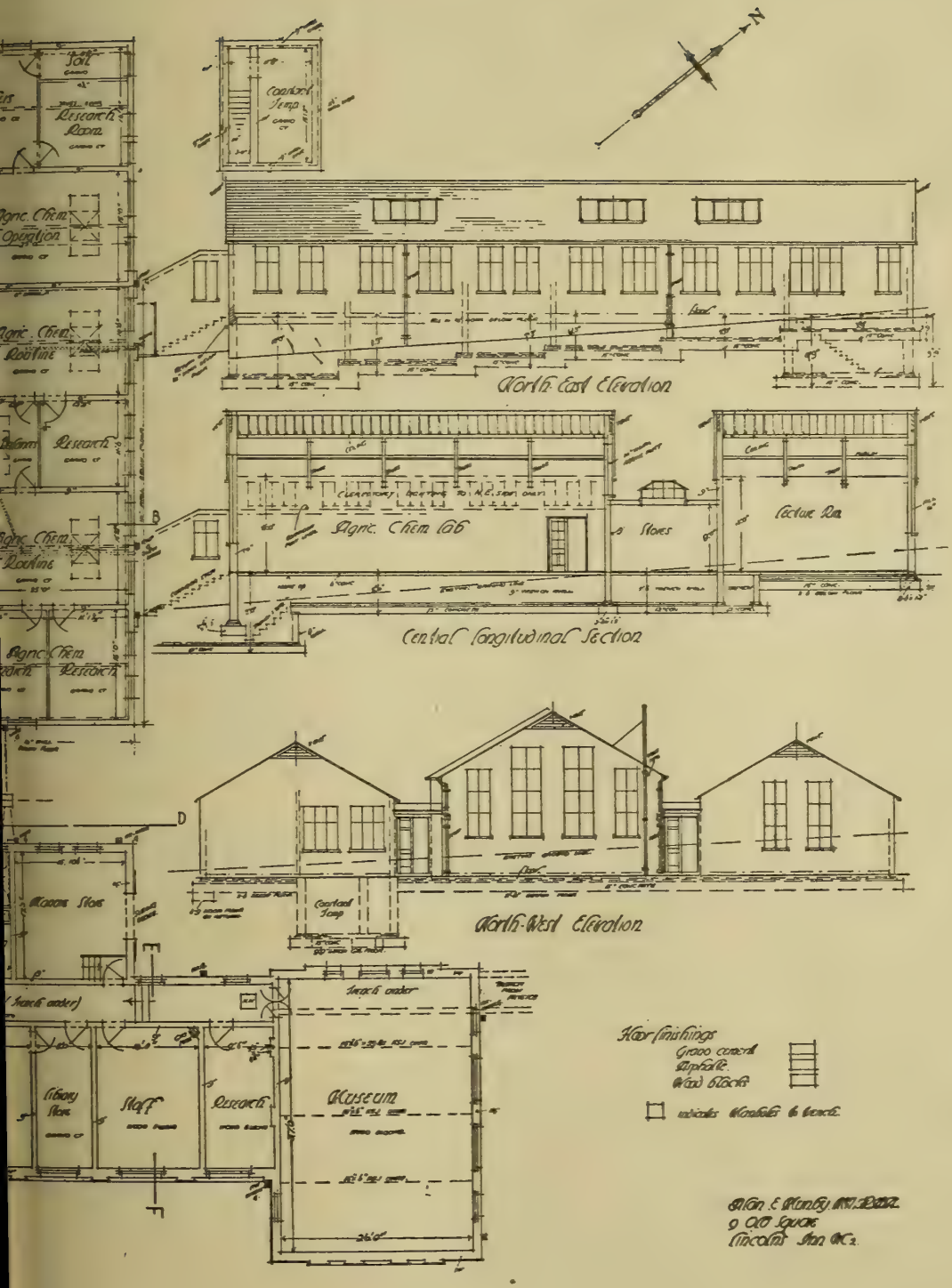
Birmingham Masonic Temple Competition.
Second Premiated Design: By MR. S. N. COOKE, F.R.I.B.A.



UNIVERSITY

NEW SCIENCE BUILDINGS

MR. ALAN



OR.

N DEPARTMENTS.

ADING SOCIETY OF ARCHITECTS.

"The Roman Point of View."

second of a course of four lectures on ecture, arranged by the Reading Society chitects in conjunction with the Reading of the Workers' Educational Association. ven in the large hall at University College, ng, on Wednesday last week, when the chair aken by Mr. Edward P. Warren, F.S.A., B.A., the President of the Berks, Bucks, xon Architectural Association. Some ersons were present. The lecture, which n "The Roman Point of View," was ated by numerous lantern slides.

lecturer, Mr. Paul Waterhouse, opened scourse by disclaiming any intention of g that the Roman people would have rledged a point of view at all. Probably, he best art was spontaneous, they had no ousness of a policy in architecture as a National views on architecture were. very different affairs from the traditions crets within the craft itself.

ing aside as erroneous the notion that omans were mere blind copiers of the and artless appropriators of the achieve- of other and earlier nations, he proceeded aid of slides to develop his opinions on nd of architectural cause and effect in ater periods of Roman supremacy. The ons and problems of Rome had, he said, extraordinary parallel in the circum- of modern England. There was hardly em of our own, however baffling, to which ld not apply the test "What would have done," and very few to which did not supply either an answer or a ion.

Roman position, as regard anterior cture wherever found, was not that it oreign stuff to be borrowed," but that, eing mistress of European civilisation, it ome's. Further, the employment of r forms, developed or undeveloped, was age but merely the carrying out of that of leaning on the past, which was the ceptable method of architecture in any great periods.

OME SCHOLARSHIP ARCHITECTURE, 1924.

Faculty of Architecture of the British at Rome has granted permission to the g to take part in the preliminary com- for the Rome Scholarship and Henry Studentship in Architecture of 1924.

. T. Bloodworth (University of Liver-

D. L. Bridgwater (University of Liver-

. W. Briggs (University of Manchester).
D. Brooke.
. Durnin (University of Aberdeen).
V. B. Edwards, B.Arch. (Liverpool).
A. M. Hargroves.
. C. Howitt (University of Liverpool).
. H. L. Owen (University of Liverpool).
E. Rogers, B.A. (Manchester).
F. T. Silcock (University of Liverpool).
H. S. Silcock (University of Liverpool).
I. A. Sisson (University of London).
. M. Stewart (University of Aberdeen).
H. Thearle (University of Liverpool).
. E. Towndrow, A.R.I.B.A.
. X. Velarde (University of Liverpool).

Books Received.

IC ARCHITECTURE. By Sattar Kheiri. : John Tiranti & Co.) Price 2s. 6d.

TO APPROACH THE ARCHITECT. By Regan. (London: The Architectural Price 2s. 6d.

ERTY OWNERS' GUIDE. By Edwin nd B. G. Evans. (London: Property Protection Association, Ltd.) Price 5s.

D.I.C. HOUSE COMPETITION.

THE site purchased by the D.I.C. House (Cross-street), Ltd., on which it is proposed to erect a building to be known as "D.I.C. House," is situate next to the south-western corner of the Exchange with its front facing Cross-street and its back Half Moon-street, Manchester. The superficial area of the site is about 447 sq. yds. When the new building is erected the front will not extend into Cross-street as far as the present frontage, but will continue the building line of the Royal Exchange, thus relieving a busy corner of much of its traffic pressure. In order to ensure having a new building which, whilst utilising the available space to the best advantage, will be a credit to the city architecturally, the Directors of the Company invited a number of architects to submit plans for the building. Professor C. H. Reilly, O.B.E., M.A., F.R.I.B.A., acted as assessor

The following are extracts from the conditions of the competition:—

"The promoters desire to obtain a building of the greatest possible dignity consistent with the requirements. For this purpose they suggest that the building should be designed both externally and internally in as broad and simple a manner as possible. The building must be constructed of fire-resisting materials throughout, inclusive of floors, roofs and staircases. The drawings must be accompanied by a concise typewritten description of the building, its construction, finish and materials proposed to be used, and giving such information as cannot clearly be shown on the drawings. An estimate of the cost must be attached to the statement based on the total cubic contents of the building including foundations, roof and chimneys. These cubic contents must be given. The total estimate should include for decoration, heating, ventilation, electric light and power, gas, lifts, and all permanent fixtures. A schedule of lettable floor space should be added. Any design adjudged by the assessor to be likely to materially exceed the sum of £42,000 on the building and fittings, as described in the above condition, will be disqualified. The building is to occupy the inner area up to the improved frontage line, the splayed corner being carried up to the full height of the building. The drawings required are:—(1) Plans of the ground floor, the top floor and a typical floor showing how they may be divided for letting purposes, one section and the elevations to Half Moon-street and the Public Passage all to the scale of $\frac{1}{8}$ in. to 1 ft. (2) Elevation to Cross-street to the scale of $\frac{1}{4}$ in. to 1 ft. (3) A perspective view from the opposite side of Cross-street showing the Cross-street front and the splayed corner to the Public Passage on a sheet of paper not greater than Imperial size. All drawings to be rendered in monochrome and mounted on cards.

"*Accommodation Required.*—The building is to be first for ordinary office purposes. The ground floor should be designed for shops with separate entrances for the offices above. The office story immediately above the shops and the basement below should be designed to be let with the shops. Below this basement may be another over a portion of the site for the heating apparatus. The building should be designed for a ground floor story of 15 ft. floor to floor and seven stories of 11 ft. each, making a height of 92 ft. in all. It may be assumed for the purposes of the competition that the promoters have come to arrangements with adjacent owners on questions of light and air. A small flat for the caretaker should be provided as part of the top story."

Thirteen sets of drawings were submitted, and the assessor selected those sent in by Messrs. J. G. Prestwich & Sons, of Manchester and Leigh (illustrated in our last issue), and highly commended the plans by Mr. H. S. Fairhurst, of Manchester, and those jointly designed by Mr. G. H. Willoughby, of Manchester and Blackpool, and Messrs. Rees & Holt, of Liverpool.

When the new building is finished it will be seen as a very simple version of an Italian Renaissance palace design; a straightforward building of Portland stone with plain granite piers on the ground floor. This is literally in accordance with the condition of entry to the competition mentioned above. The whole of the thirteen sets of plans submitted will shortly be exhibited at the Manchester Art Gallery, together with the designs submitted for the Masonic Temple to be built in Bridge-street, Manchester.

It is expected that demolition of the present building will commence shortly, and it is hoped that the new building will be commenced in the early part of the new year.

Professor Reilly, in making his report to Mr. Arnold Williams, the Chairman of the D.I.C. House (Cross-street), Ltd., added the following:—"Finally, I congratulate you on the excellent result of your public-spirited action in holding this competition through which you have obtained a very workmanlike and satisfactory design."

THE OLDEST THRONE IN EUROPE.

IN a lecture on Wednesday last week at the Central School of Arts and Crafts, dealing with the early period of Greek architecture and its remains, Sir Banister Fletcher described the primitive walls of the oldest cities of Greece, called "Cyclopean," from the gigantic blocks of which they are composed. This early work contrasts strangely with the refined and delicate work of the temples erected centuries after, evolved from it by the constructive and artistic spirit of the Greeks. The lecturer described the citadel of "wall-girt" Tiryns, looking out over the sea; the celebrated "Gate of Lions" at Mycenæ, another stronghold, looking over the Argive plain; and the walls of legendary Troy, on the great trade route between East and West.

The remains recently discovered in Crete formed his principal theme. Egypt, Babylonia, and Greece have in turn told us their story of ancient civilisations; but Crete kept her secret until Sir Arthur Evans revealed the site of Minoan civilisation and the birthplace of European architecture by his excavations at Knossos—a story which the lecturer told anew, by the valuable aid of graphic lantern views. The legends of the Minotaur and the labyrinth have been surprisingly objectified in these discoveries, and the plan of the palace is labyrinthine indeed. Views were shown of the throne room, with its world-famous stone chair of the great King Minos—"the oldest throne in Europe," said the lecturer—which still stands there to-day as it stood some 4,000 years before our era. Its appearance may be appreciated from the model in the basement of the British Museum. The theatre and Hall of Double Axes, so called from the mysterious emblems inscribed on the piers, were also described, as were the long corridors of tall and graceful oil-jars, the magazines, the staircases, and other features. The palace was equipped with all the equipments of the time, and some seem startlingly modern, such as the socketed drain and water pipes, baths, and corn chests. A grand staircase leads to the queen's suite, designed for comfort, air, and sanitation. There are no traces of fortification on the island, and we know that the strength of Crete, as of Britain, was in her Navy.

The succeeding lectures will deal with the developed or "Hellenic" period of architecture, the Golden Age of Greece, and a study of the conditions of civilisation which helped to mould it, the chief centres where these great buildings were erected, and the characteristics, structural and decorative, of Greek architecture in general.

THE TOWN-PLANNING INSTITUTE.

Presidential Address.

THE opening meeting of the Town-Planning Institute was held on Friday last week at 92, Victoria-street, when MR. T. H. MAWSON delivered his presidential address.

MR. MAWSON first recalled the town-planning conference called by the Royal Institute of British Architects in 1910, and the pronouncement of Professor Beresford Pite that the problems of town planning were architectural and would be ultimately judged as such. In founding their University Schools of Town Planning and in the Constitution of the Institute they had recognised the necessity of bringing to every town-planning scheme the best brains of the country to solve its legal, financial, constructional, and æsthetic problems, and all these contributors were bound together in mutual enterprise and helpfulness within their constitution. Thus they had had as presidents men famous in the realms of municipal law, economics, surveying, engineering, and architecture, and they had now recognised that landscape architecture had its place and use in the evolution of the city towards its finest expression as a place not for toil only, but for the development of that fuller citizenship which demanded opportunities for recreation and cultured leisure for all its sons and daughters. This age, which was struggling after the conscious expression of civility and elegance, could not any longer afford to regard the landscape architect as a mere contributor to the ease and luxuries of the rich. They must recognise that his first moral obligation was to the masses of their fellows who needed that "refreshment of body and spirits" which contact with Nature always engendered, and for the young healthy exercise, with leisured ease for their elders. The expert engineer might join forces with the expert horticulturalist, but this combination would not give the desired results, for the art which he would endeavour to define for them was not primarily engineering, and it was not horticulture. They must have the trained designer with the soul of an artist, expert in constructional details and possessing at the same time an intimate knowledge of those materials, particularly of all growing things, by which he clothed and expressed his ideals.

For reasons which baffled his understanding they had never thought it essential to train up such a body of experts capable of giving expression to these idealistic principles, and he was getting very anxious for the future. Compare for one moment their country with America, where at least two hundred and fifty students were under training in seventeen universities, seven of which provided four-year courses to post-graduates. The only approach to academic recognition of the art of landscape architecture in this country was the course of six lectures which he gave each year to the students in civic design at the Liverpool University. He was convinced that the price they would eventually pay for this terrible neglect of a noble art would be the loss of the prestige which a mere handful of strenuous enthusiasts had sought to maintain.

Having urged the recognition and study of landscape architecture as a contributing factor in the development of the ideal city, they might reasonably ask him for a definition of the art and the sphere within which it might be exercised. This was all the more necessary in view of the fact that what he had so far urged might apply solely to the design of the park and garden units which were located by some other hand. Personally he could not, and never had, accepted any such limitations of its functions.

"Landscape architecture is primarily a fine art, and as such its most important function is to create beauty in the surroundings of human habitations and in the broader natural scenery of the country; but it is also concerned with promoting the comfort, convenience, and health of urban populations, which have scanty access to natural scenery, and urgently need to have their hurrying workaday lives refreshed and calmed by the beautiful and reposeful sights and sounds which Nature, aided by the landscape art, can abundantly provide."

This was the best definition of landscape art he knew. It was from a letter of Professor Charles W. Eliot to the editors of *Landscape Architecture* in October, 1910. It would bear sincere and earnest analysis. It might be thought at first sight that the definition did not give sufficient place to what they called unspoiled natural scenery, but this was the note which ran through it all like the red strand in the ropes of the British Navy. In its more restricted application he had elsewhere described the functions of the art as topographical architecture or as "the art which attempts to secure the agreeable relationship of parts to the whole." This was its main differentiation from architecture as ordinarily understood, which concerned itself mainly with the design of the unit. This did not, however, complete a definition for landscape architecture: it was also the art which sought to harmonise art and nature, and in Bagshot's phraseology "to determine which shall be conductor and which first fiddle." It was also the art which sought to design and adjust the amenities of a town to the needs of its population and to realise the æsthetic possibilities of the site in consonance with physical conditions and residential needs. If they urged that he was merely confusing issues and applying labels, and calling city planning landscape architecture, he would add that finally it was the art which sought to understand and interpret Nature, and to apply its lessons under varying conditions of site and climate.

To accept this broader definition did not lessen their dependence on the sister arts or contributing sciences in the evolution of their town plan, but it did suggest a new attitude of mind towards creative beauty, and especially the beauty of Nature as a definite moral making for civic betterment.

If they accepted the foregoing, the first question which arose was what was the scope within which the art might legitimately and practically be exercised, and under what conditions, applying Bagshot's simile again, might the landscape architect be conductor and the rest be members of the orchestra? He wished to be frankly fair, and to admit the possibility that all town-planning problems might not "ultimately be judged problems of landscape architecture." They might, for instance, eliminate from his particular sphere of operation the scientific development of a factory area or the planning and construction of great docks, the planning of railway goods-yards and abattoirs, but he might reasonably add that it would be difficult to plan a really beautiful civic centre without some reference to this art.

For the purpose of their inquiry they might divide towns and cities under six headings: (1) Manufacturing cities like Bolton; (2) commercial and distributing cities like Manchester and Liverpool; (3) pleasure cities like Blackpool and Scarborough; (4) University cities and cathedral cities like Oxford and Cambridge, Canterbury and York; (5) Governmental centres such as Washington; (6) composite cities like Salonika in Macedonia and Regina in Western Canada. Five of these six types had each a dominating *motif* for its existence, requiring the controlling influence of specialised professions, but all in due proportion needing the skill of the landscape architect. The manufacturing city in the ample provision and proper location of its recreational facilities for adults and playgrounds for its children. The commu city in the provision of its parks and re tional facilities, and also in the provisi those stately town squares and radi boulevards and open spaces, which al seemed to be the natural way of expre commercial opulence. The University required the planning and arrangement o colleges in relation to each other, and provision of quiet courts suggesting lectual oases, along with those ample pl fields in which so much of the charact young England was developed. Also was the provision of those beautiful bo gardens, so delightful in Oxford and bridge, where love of beauty is so gr promoted. In the cathedral city where the landscape architect come in? If compared the ample, restful, unbroken lawns which formed such a splendid se to Salisbury Cathedral with the ragged roundings of, say, Ely, they would even see the opportunities for the landscape a tect. The capital city called most of al a dignified use of Nature's beautifying to here round the great Parliament and de mental buildings they had to create greatest of all centres, the national c which should epitomise all the attainm and hopes of the nation. In the lay-ou the pleasure city it might with some forc stated that the dominant problems were t of landscape architecture. Here beauty utility, and ugliness intolerable. Such a often lived by the preservation of its na amenities. Cut down the pine woods Bournemouth and develop Boscombe Chin a shopping centre, and they would at produce bankruptcy; take Lord-street ou Southport and what had they left? Or away Princes-street-gardens in Edinbu and what became of Princes-street? Des the boulevards of Paris, and it would large measure lose the quality which attra so much of its wealth. He thought would concede at once that the plan pleasure city should be dominated by its menades, its groves and gardens, its p and recreation grounds, woven together a coherent park system, and that the ti circulation in such a city should be mad contribute to the all-pervading note of a adorned by Art and Nature. Everyt should be subservient to one contro factor, namely, the commercial value sylvan beauty.

As examples illustrating the influenc the landscape architect Mr. Mawson proce to deal with Salonika and Regina, and ad also a visit to the cities of Minneapolis St. Paul as evidence of the achievemen landscape architecture in the provision park system.

Discussion.

PROFESSOR BERESFORD PITE, in movin vote of thanks to the President, said subject of the combination of the beautie Nature with the necessities of civic life practically a modern subject. The civil ditions under which they lived in their were as ancient as they could be alth they were constantly changing and ta new forms, but the problem to which Mawson had addressed himself was a bination of art and natural beauty with requirements of purposeful utility, and it this combination which was so important was so difficult. Fundamentally the fina problem had a great deal to answer fo the brutal ugliness of their bigger cities. President had been fortunate in the citie had had to deal with instead of such a blem as that of Manchester, where would not grow. He trusted that cities v out natural amenities would be inspire consider their own problems, which he fe little architectural instinct and a great of architectural consideration might s They would do no good if they pursued subject from the point of view of art ideals only, for they would find themse complicated by practical difficulties.

al modern standpoint was directly d to the idealistic view of things, and ad to keep themselves in sympathy with ric difficulties of these huge manufac- cities. He suggested with regard to ester, which had a large number of himneys, that had they been set out rically those chimneys might have had thetic value without interference with sefulness. The great smoke stacks of elsea Electricity Works had an æsthetic mply because they were geometrically ed. In the same way the great spoil which defiled the Midlands and the might, if treated geometrically, give a ion of the Pyramids. He suggested, re, that there were possibilities in the hical treatment of factories and land- in districts where trees would not y which they could get something like tural effects from the unpleasing evi- f commercial activity. The interest in ject was modern, for it was doubtful if eeks really enjoyed a garden. The n of ancient Athens would have defied wn planner, and much the same was Rome. At the time of the Renaissance, r, there grew up in Southern Italy, s wealth and aristocracy, a love of the garden. From Italy the fashion spread nce and England, but always as the domain of the wealthy proprietor. vas the first city to democratise, so to the joys of the garden for the benefit whole populace. The subject brought ace to face with the smoke evil. The architectural achievements of history ie to tyrannical despotism, and they as titute associated with engineers and ts represented wealth and power. represented forces which could effect reat reforms, and he hoped they seek by wisdom and study and by co-ordination to use that power to the d.

CARBY HALL seconded the motion, and feeling was that town planning to be ul required a combination of the archi- d surveyor, engineer and landscape r.

motion was carried.

PRESIDENT, in reply, said it was his o raise a greater interest in landscape ture, for they wanted more landscape ts.

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al" of the Town-Planning Institute.

have before us the first number of Volume 10 of this *Journal*, which is notable as a departure from the old form of the Institute's *Journal*. A great deal of criticism was, we understand, directed against the *Journal* in its old form, members complaining that it contained practically nothing but the actual papers read at the meetings. During the current year a sub-committee was appointed by the Institute to consider the possibility of improving it, and it was decided to appoint an honorary editor, which office was finally undertaken by Mr. Reginald Bruce, A.R.I.B.A., and the issue which we are noticing is the result of his work. Both the Institute and their honorary editor are to be congratulated on the advance in usefulness of the *Journal* with this number. It now contains an editorial and notes, a report of the recent Conference at York, nearly two pages of news items of interest to town planners, and various reviews, notices of future events, with comments on Ministry of Health reports, correspondence, etc.

HYGIENE AND ARCHITECTURE.

THE first of a series of Chadwick Public Lectures was given at the Royal Society of Arts, on November 9, by Major Harry Barnes, V.P.R.I.B.A., F.S.I.

The lecturer dealt with the relation between hygiene and architecture, and after quoting a definition of hygiene "as the art of securing a healthy mind in a healthy body," and of architecture "as the index of the mental and moral qualities of a people," proceeded to point out the conclusions which might be derived from these definitions, namely: that in the history of a people their hygienic developments would precede their architectural achievements seemed to be falsified by the facts. There had been two great periods of architectural perfection in European civilisation. The hygiene age, however, was still in the future. In the days (1357) when it was the custom to throw filth and rubbish into the Thames, the genius of Gothic art bloomed to its finest flower. While admitting the attention paid to hygiene in Hellenistic and Latin cities, there was nothing to support the thesis that architecture was the aftermath of hygiene. On the contrary, while architecture achieved its crowning glories when sanitary science was almost unknown, the battle of public health was won when architecture was at its lowest ebb.

The lecturer then proceeded to show that the conditions that gave hygiene its problems and architecture its chances were the conditions which arose from urbanisation. The perception of the fact that architecture was more than the aggregation of precious materials, enriched by craftsmanship, led to the science of town planning, and this science represented the unified conception of the things which were for the health and happiness of a community.

In conclusion, the lecturer insisted that it was the interpenetration of country with town which was the vital essence of town planning. From every town it should be possible to reach the country through an uninterrupted environment of grass, trees and water. Playgrounds, gardens and parks were the links in the chain which should bind the country to the town.

NEW BRIDGE AT READING.

THE new bridge over the Thames at Reading, opened to traffic last month, is a good example of reinforced concrete construction. As may be seen from our illustration, the bridge is of the arch type, the main span being 180 ft. between springings, which is the largest of its type in the country.

The four main ribs forming the arch and carrying the roadway are tailed down on each side of the bridge by mass concrete abutments, about 50 ft. long by 45 ft. wide, which carry a 12-ft. archway, flanked by piers and panel walls forming the approaches.

The bridge is 40 ft. in the clear between parapets, providing a 27-ft. roadway, with two footpaths, each 6 ft. 6 in. wide. Staircases on each side of the river have been constructed to afford access to the towpath and banks.

In addition to the wing walls on the Caversham side, the viaduct and retaining walls on the Reading side are in reinforced concrete, and a towpath has been constructed on piles under the bridge, clear from the bank, on the Reading side.

The parapets of the bridge are in Portland stone throughout, and, with its low rise, the structure presents a distinctly pleasing appearance. The bridge was designed for the standard rolling loads laid down by the Ministry of Transport, and, under test before being opened to traffic, the maximum deflection was found to be only $\frac{1}{4}$ inch.

Messrs. L. G. Mouchel & Partners, Ltd., 38, Victoria-street, S.W.1, acted for the Reading Corporation as consulting engineers, and the construction throughout was carried out by Messrs. Holloway Brothers (London), Ltd., under the supervision of Mr. J. B. Wilson resident engineer.



Reinforced Concrete Bridge at Reading.

THE SURVEYORS' INSTITUTION.

PRESIDENTIAL ADDRESS.

IN the course of his inaugural address at the opening meeting of the present session of the Surveyors' Institution, MR. J. I. DAVIDSON (President) referred to the steps which were being taken by the principal societies concerned for the better organisation and regulation of the profession by means of a Registration Bill. Since the last presidential address, he said, the Landed Property Practitioners' (Registration) Bill had been drafted. Sir E. Chatfeild Clarke introduced it in the House of Commons, and it was read a first time and ordered to be printed, but unfortunately it was crowded out by prior Bills on the Order Paper on the date allotted for its second reading, and consequently made no further progress during the Session. On the whole that was not perhaps to the disadvantage of the Bill. A certain amount of opposition, friendly and otherwise, to the measure in its original form was disclosed, and the Joint Committee of the three promoting societies had since been engaged in considering amendments which had been drafted with the object of eliminating any opposition for which there seemed reasonable ground. He had every reason to hope that the Bill would be re-introduced next Session in a form which might prove more generally acceptable. It was, therefore, important that members should show that in promoting that legislation they were mainly influenced by a desire to improve and regularise the qualifications necessary for the practise of their profession, and thus to advance the interests of the public by making those who practised it more competent to carry out the responsible and often difficult duties entrusted to them.

There were two other matters of such importance to the profession that the Council had thought it desirable to issue to members special explanatory publications thereon. In May last a Memorandum on the Town-Planning Acts, prepared by the Council with the legal assistance of Mr. William Allen, was circulated; while in September they sent out a Memorandum on the Rent and Mortgage Interest Restrictions Act, 1923, prepared by Mr. Graham Mould, and bringing up to date his work on the earlier measure, which was issued in July, 1920.

With regard to the former a statutory obligation had been imposed on all the more important urban authorities to prepare town-planning schemes within the next six years, and that requirement involved the regulation of development over many thousands of acres. Property ripe for building, or likely to become so in the early future, would be affected in all parts of the country, and it was essential, therefore, that surveyors responsible for the management of land liable to be included in schemes should make themselves familiar with the various Acts and the procedure thereunder. It seemed clear that town planning had come to stay, and the heavy expenses in connection with necessary town improvements imposed upon local authorities by haphazard development in the past would alone seem to justify the movement. In order to be successful, however, it must have general support, and mutual co-operation between local authorities and landowners was, therefore, of first importance. If they acted together and agreed upon the broad outline of the scheme, the details would present little difficulty of adjustment. He urged upon those representing landowners in urban and semi-urban districts to get into touch with the executive officers of town-planning committees and with the agents of adjoining estates, in order to lay down mutually-agreed-upon lines of development. With a determination to surmount difficulties, and a single-minded desire to arrive at a settlement, he felt assured that that could be done, and that in the long run the landowners would benefit by the greater feeling of confidence which would be engendered.

The Memorandum on the Rent Restrictions Act dealt with a matter of even wider present application than the Town-Planning Act, though fortunately it had not the permanent character of the latter.

The Council drew up an exhaustive statement upon the position under the 1920 Act, which formed the text of Mr. Gerald Eve's evidence before the Departmental Committee which was set up by the Minister of Health to consider and report upon the position which would arise on the termination of control in June of the present year. While the Council made a number of proposals for removing or modifying difficulties which had disclosed themselves under the original Acts, they strongly urged that the need for emergency legislation of that class was due to the shortage of houses, and that the only real way of doing away with that need was to strike at its very root by putting an end to factors which militated against their erection. One of the principal was the Restrictions Act itself. The control established thereby had done much to destroy confidence among the three classes whose co-operation was needed to provide houses—the builder, the capitalist, and the investor, and until control had been withdrawn and confidence re-established a vicious circle would be set up in which shortage would be followed by restriction, while restriction would not be removed until the shortage had been made good.

The new Act, while not going so far as those looking to the future might wish, at any rate made a beginning in the withdrawal of control. In certain circumstances properties were freed from restriction, while in other cases the restrictions were made less onerous. The life of the principal Act was terminated definitely in June, 1925, but Part II of the new statute gave certain general powers to the Court to relieve sitting tenants from alleged hardship or oppression for a further period of five years. Part II also empowered the Minister of Health to establish reference committees to whom such questions might be referred by the Court for consideration and report. Those provisions had caused a good deal of apprehension among builders and possible investors in property as setting up a precedent which might be dangerously extended by future legislation. They might, therefore, to some extent counteract the good effect of Part I of the Act in restoring confidence in house property as an investment. They must, however, hope for the best, and trust that, with a renewal of activity in the building industry, a sufficiency of houses might be built during the next two years to remove entirely any real ground for further legislation of that character. He thought all who had a personal experience in housing questions would agree that the growing population could be far more economically housed by private enterprise than by public authorities.

Victoria and Albert Museum.

The west half of the Cast Court at the Victoria and Albert Museum has just been re-opened to the public, with the exception of a small strip at the south end. This court now contains an important series of casts from mediæval English sculpture, including the twelfth-century doorway of Barfreston Church, the carved slabs from Chichester and Bradford-on-Avon, and Romanesque sculpture from Durham and York; the magnificent thirteenth-century angels and Annunciation Group from Westminster Abbey, and a number of casts from the south door and the "Angel Choir" at Lincoln, with details of sculpture from Wells and elsewhere; and a rich collection of casts from fourteenth- and fifteenth-century misericordes, besides recumbent effigies and architectural details.

ARCHITECTS' AND SU VEYORS' ASSISTANT PROFESSIONAL UNIO

The Origin of London and its Building

A JOINT meeting of the Metropolitan b of the Architects' and Surveyors' Assis Professional Union and the Associate Me of the Institution of Municipal and C Engineers was held at the Holborn C Offices last week. Mr. C. A. Austin occ the chair, and Mr. W. R. Davidge, F.R.I. gave a lecture, illustrated with lantern s on "The Origin of London and its Bui By-laws."

After outlining the development of Lo the lecturer said the first Building Act passed in 1189, and was still the foundati our building laws; it mainly dealt with walls. Various other Building Acts had passed from time to time which dealt wit height of buildings in relation to the wid the roads, the overhanging of one story the story below, &c., while the present District Surveyors claimed to be the o descendants of the "Surveyors or S visors" appointed in 1667.

Turning to present-day troubles with crowding on site and traffic difficulties, were shown of various proposed schemes, as surrounding the town with a belt of land. The lecturer concluded with va diagrams of rates, density of population, in the Metropolis to-day.

A vote of thanks to the lecturer was prop by Mr. C. A. Austin, seconded by Mr. Akast (Paddington Borough Surveyor's De ment), and supported by Mr. J. A. Gould Secretary, A.S.A.P.U., Metropolitan Distr

ARCHITECTURAL NOT IN KENYA COLONY

THE Municipal Council of Nairobi elected Mr. Harold E. Henderson, F.R.I. of the firm of Messrs. Harold E. Hende F.R.I.B.A., & Partners, as their Mayor for year. Mr. Henderson is the first elected M of the capital of Kenya Colony, and his app ment adds another name to the list of archi who have undertaken mayoral duties.

The East African Institute of Archi (allied with the R.I.B.A.) are formulati Bill for the compulsory registration of archi in Kenya Colony, which it is hoped wi ready for the first Legislative Counci January, 1924.

A competition for the war memorial Kenya Colony, consisting of a large mem hall, offices, and reference library, has res in the selection of Messrs. Wevill & D A.R.I.B.A., as architects. The compet was assessed by a committee having a assessor Mr. Harold E. Henderson, F.R.I. of Nairobi.

The tower of St. Stephen's Church, Nai Kenya Colony, has just been completed the designs of the late Mr. Temple Moore local supervising architect being Mr. Bath.

Extensions to the Y.M.C.A. in Nairobi just been completed from the designs of Me Giles & Geeson.

UGANDA.

The Public Works Department of the Ug Protectorate are about to erect the Ka (King) of Uganda's Palace department from the designs of Messrs. Harold E. Hende F.R.I.B.A., & Partners, selected in competition.

The premises of Messrs. Whiteaway Lai & Co., Ltd., at Kampala, have been compl from the designs of Mr. H. Hurle Bath Nairobi.

E ROYAL ARCHÆO-OGICAL INSTITUTE.

MEETING of the Royal Archæological ite was held in the apartments of the of Antiquaries, Burlington House, illy, W., on Wednesday last week, pre-ver by Mr. Hewart Bell, who announced rofessor Sir W. Boyd Dawkins had been onally elected by the Council as President, ceed the late Sir Henry Howorth.

paper read by Mr. Aymer Vallance, F.S.A., entitled "A Criticism of Thir-Century Architecture," illustrated by slides, he stated that there were other beside the pointed arch which dis-hed Gothic and Norman architecture, , ribbed vaulting and the flying buttress, the latter belonged the place of first ance. Of early work in which there ed at least the germ of rib-vaulting was pt of Gloucester Cathedral (1089–1100), he rib-vault at St. Nicholas' Priory, . There were not only transverse, but al arches, which in spite of their primitive section could justly be described as ntary ribs. The nave of Remigius's ral, Lincoln, was vaulted in 1092, hat in a measure anticipated Durham ral; but the latter was the first great to be rib-vaulted throughout; the choir n 1099 and 1104, and the nave, with its d transverse arches, between 1128 and The primary purpose of the introduction se of ribs was to enforce the groined g with a permanent centring of stone. mplest form of groined vaulting, identical hat practised by the Romans, was a cross formed by the undersection at right of two semi-cylinders of equal diameter. England the introduction of the ribbed did not immediately effect a change from nesque to Gothic, which cannot be said e come about until the second half of the h century. In 1128 the Cistercian order troduced into England; its puritanical which rigorously excluded every kind of tion, was not without effect, and though difices in the early period were bare and active, they were well considered and y built.

180, at Canterbury, flying buttresses first l themselves in the open air, although appeared earlier at Durham Cathedral y hidden under the aisle roof. It had been hat Gothic builders of the best period l to have been physically unable to do ng in bad taste. The design of even the est churches displayed originality and a feeling for beauty which placed them in the front rank of creative artists. Good taste ruled everywhere; never was anything done to offend; but the lecturer was very far from thinking that the work of the thirteenth century was perfect. The builders of that period, he said, had a great deal to learn, which their successors in the fourteenth and fifteenth centuries happily supplied, at any rate in the way of æsthetics. The difficulties which faced them were so tremendous and absorbing that there was little leisure left to devote to secondary considerations. Their attempts at applied decoration lead one to think that their brains must have been thoroughly exhausted with the effort and strain of constructional problems, and that they had no power to develop the ornamental side of architectural composition. Such decoration as did occur was often neither logical nor coherent, and this defect was particularly noticeable in the treatment of the spandrel of thirteenth-century work.

A vote of thanks was passed to the lecturer.

THE BRITISH EMPIRE EXHIBITION.

On Monday the Palace of Industries and the Palace of Engineering at the British Empire Exhibition, Wembley, were, on their completion by the contractors, Messrs. Sir Robert McAlpine & Son, officially handed over to Sir Travers Clarke on behalf of the Board.

After luncheon at the Great Central Hotel, Marylebone, at which Sir Travers Clarke presided, a party proceeded to Wembley for the purpose of inspecting the buildings, and watching the ceremony of handing over the two golden keys—a symbol that the two buildings had been officially handed over.

In a short speech Sir Robert McAlpine said that the best thing he could do would be to let the buildings speak for themselves. He further mentioned that the buildings now reaching completion were the largest concrete buildings in the world. Fifty years ago Scottish peasants would not believe that concrete buildings could possibly keep standing; they were under the impression that the elements would cause them to fall down like a pack of cards. Now, however, his triumph is complete; his faith vindicated. Certainly the white beauty of the Palaces themselves, the delicate minarets, and the graceful bridges spanning the artificial lake, represent something historic in exhibition building.

Sir Travers Clarke, in reply, said that the contractors had actually finished their contract a day before its termination.



Alterations to the "Mitre" Hotel, Oxford.

MESSRS. RICHARDSON & GILL, FF.R.I.B.A., Architects. *(See our last issue.)*

EXHIBITION NOTES.

THE R.B.A.

It is well, perhaps, that a foreword to the catalogue of the 116th exhibition of the Royal Society of British Artists reminds us of the courage of the Society in attempting to discover and help on budding talent, and that upwards of a quarter of a million pounds and numerous commissions have come to artists who have exhibited on the Society's walls. There are many exhibitions afoot nowadays, but budding artists still find it hard enough to find a happy and successful location for their works, notwithstanding the fact that such a large number of pictures would be as well left in the obscurity of the studios. The admirable display of water-colours in the large gallery of the Society should prove attractive to the public, and there are certainly amongst them quite a fair number which deserve their publicity. A strong, vigorous drawing of some distinction is that of Château de Montgorguer (205), by E. A. Cox (the winner of Parsons' decorative colour competition). The "Impotence of Opulence" (204), by Charles Ince, which hangs about the first-named drawing, is a fine study in greys of a ruined castle. A. E. Cooper's two drawings of Ludlow (202 and 206) are telling subjects broadly treated. "Low Tide" (198), by Ernest W. Haslehurst, is a delicate and pleasing impression of grey and green. "The Auld Brig" (190), by A. Carruthers-Gould, is quite a masterly sketch of its sort. A charming and poetic drawing in grey-greens is "Il Monastero" (173), by St. Clair Marston, admirably and —may we not say?—lovingly painted. A clever little impressionist sketch in genuine water-colour is the "Slopes of the Pyrenees" (171), by A. H. Elphinstone. Solomon J. Solomon, the gifted president, is not at his best in his exhibits 167 and 166. A good impressionist sketch of "Entrance to the Old Bailey" (140) is by Barry Pittar. An excellently rendered portrait sketch by Dorothea Sardau de Fano is the Dr. Ernest Barker, M.A., evidently a good delineation of character. In "The Homeland Twilight" (105) Fred F. Foottet gives us another of his striking decorative panels, but this time it appears to us just a little too strident: strong as his work always is he has generally great judgment: his "Dorset Barn" (229) seems to us a very perfect piece of work of its kind. There are several other drawings which claim notice, such as Barry Pittar's large water-colour of the High, "Oxford" (254); "The Horses at St. Mark's, Venice" (268), by Mabel Bruce Low; Leonard Richmond's glowing pictures (38, 276, and 281); Arthur Spooner's dainty figure subjects (320 and 326).

THE WALKER GALLERIES.

At the Walker Galleries there is a wonderful exhibition by the Embroiderers' Guild, showing how beautiful and varied in effect the work of the needlecraft may become. Examples from France, Holland, Spain, and Sweden are remarkably fine and the work contributed by our own and other Queens is a fascinating part of the show. The exhibition will repay a close and critical examination, and prove that in technique we can still compare favourably with almost anything which has been done. A small exhibition of clever impressionist sketches by Mary Hogarth is on view at these galleries.

THE GARDNER COLLECTION.

Time will be all too short for any fair appreciation of the wonderful Gardner Collection at Messrs. Sotheby's, and architects will especially regret the dispersal of such a valuable and amazingly large record of London as was here collected. One realises so fully from these engravings much of the charm of old London, as, for instance, in the folio containing the illustrations of old Buckingham House and Hungerford Market.

THE BUILDING TRADE.

ESTIMATING FOR SMALL BUILDERS.—IX.

By J. H. BARNS, F.I.O.B.

GENERALLY.

It will be observed that in these articles the labour or production costs are mostly stated in money values for work in the London area. If it were desired to obtain comparative figures for some areas where the rate of wages is lower than in London these could be obtained by comparing the wages paid according to the list of local wages in *The Builder*, and the difference can be expressed by a percentage off the money values stated. The practical way of dealing with production costs is by stating them in a money value; the theoretical method is by separating the money value into hours of mechanic's and labourer's time, regardless of the fact that machinery may have to be utilised for the job. Production costs may or may not include cost and use of machinery for particular work in question, as, for instance, the use of crane in excavation or brickwork and motive power for stonework, and it is somewhat unpractical to express such costs in hours of mechanic and labourer when part of the work has been performed by machine. What the average builder wants to know is some idea of the amount that other firms are paying for their production costs; it is then up to him to produce his work at the same or a lower figure, using any mechanical devices which may seem to help in the required direction.

PLUMBING.

The first item is usually lead laying to flats, the total weight being stated, but it is not usual to state the weight of sheet lead in lbs. per foot. If it is a large lead flat it is necessary to carefully set out the size of the bays to fit in with some ordinary size to which sheet lead is rolled, so as to avoid unnecessary cutting and waste. The sheets of lead are rolled to about 30 ft. in length and 7 to 8 ft. in width, and are from 3 to 8 lbs. per ft. super in thickness. Other thicknesses are rolled, but they are not ordinarily used by builders.

The price of sheet lead frequently fluctuates. The following are the current prices of lead in sheets and pipes supplied by merchants and delivered in London:—

Milled sheet lead in sheets 4 lbs. per ft. super and upwards ..	36/6 per cwt.
Do., but 3 lbs. per ft. super, 10/- per ton extra	37/- „ „
If cut to under 15 ft. by 7 ft., that is less than half-sheet is ordered, additional charge	2/- „ „
If cut and less than 5 cwt. is ordered, additional	3/- „ „
If cut into strips under 6 in. wide, say for flashings for a large quantity, extra	2/6 „ „

ADDITIONAL CHARGES IF SMALL QUANTITIES ARE ORDERED.

Under 5 cwt. and not less than 3 cwt., extra	1/6 per cwt.
Under 3 cwt. and not less than 1 cwt., extra	3/- „ „
Under 1 cwt., extra	4/- „ „

The basis price for lead pipes is 10s. per ton, or 6d. per cwt. over the price of sheet lead = 37/- per cwt.

The basis price for lead soil pipe is 3/6 per cwt. over the price of sheet lead = 40/- per cwt.

The same extras for cutting and supplying lead pipe in small quantities as for sheet lead, except that it is not usual to charge for cutting when half-coil of lead pipe is ordered.

The following example will give some indication as to how these charges by the lead merchant work out if under 4 cwt. lead pipe is ordered.

Example:—

Basis price of sheet lead ..	36/6 per cwt.
Extra for pipe	6d. „ „
Cutting to lengths if so ordered	3/- „ „
Extra for small quantity ..	1/6 „ „
Total	41/6 „ „

Example:—

Say 4 cwt. sheet lead cut to any rectangular size required:

Basis price	36/6 per cwt.
Cutting	3/- „ „
Small quantity	1/6 „ „
Total	41/- „ „

Say 1 cwt. sheet lead cut to any rectangular size required:

Basis price	36/6 per cwt.
Cutting	3/- „ „
Small quantity	4/- „ „
Total	43/6 „ „

Say 4 cwt. sheet lead cut into strips, 6 in. wide:

Basis price	36/6 per cwt.
Cutting	3/6 „ „
Small quantity	1/6 „ „
	41/6 „ „

The labour of laying lead to flats, including dressing over the rolls, costs about 10s. per cwt. Gutters and ordinary cover flashings are worth about 12/6 per cwt. The ordinary description of flashings usually includes both cover and stepped flashings. The labour to stepped flashings is considerably more expensive than the ordinary cover flashings, being worth at least 20/- per cwt. for labour, but it is not unusual to price them all at the same rate. Lead soakers cost about 6/- per cwt. for labour, and are often priced at about the same rate as lead flashings.

Lead being a somewhat expensive item, it is necessary for the sheets to be carefully set out so as to be cut with the least possible waste. The amount included for waste—5 per cent.—is an approximate figure to cover the waste and possible loss on the cutting up of the lead sheets. It is not unusual for some firms to set out the exact sizes of the lead required, and get a quotation from the lead merchants for the material ready to fix. The advantage of this method is that the builder can see at once exactly how he stands in relation to his quantities, but in practice this would seem to somewhat retard the progress of the work, as it would be impossible to obtain all the sizes required for the sheet lead at an early stage of the job, and this method would probably result in a delay in getting the material.

Example:—

Cwts.

— Wt. milled lead and labour in laying to flats.

	£	s.	d.
Milled lead, per cwt.	1	16	6
Waste, etc., 5 per cent.		1	10
	£1	18	4
Labour		10	0
	£2	8	4
Profit and oncosts, 15 per cent. ..		7	3
Per cwt.	£2	15	7

Bossed end to rolls, 1s. each.

EXTRA LABOUR AND SOLDER TO CESSPOOLS.

No particular size being stated, it is, therefore, difficult of analysis. All that is involved is the additional labour and the soldered angles of the cesspool. The labour to the lead is already included in the weight, and there is little e labour on the cesspool apart from the a already stated. They are worth from 6s 10s. each. In respect of soldered dots, sinking of the woodwork underneath is us measured in the carpenter, and what is req is to dress the lead into the sinking and brass screw and solder over, and this for la and solder is worth about 1s. 3d. each. buttons for securing lead on top of a s cornice are worth about a similar amo although there are so many sizes of these weight of the lead would be a consider factor in arriving at the price.

With the great advancement made in sani science and the improvement in constructi sanitary apparatus, care is needed in the arra ment of pipes and the selection of materia which they are made. If the water supp to be obtained from the Metropolitan W Board the pipes must be in accordance their requirements as to weight and thick of metal. The weights are:—

½ in. dia. rising main, 6 lbs. yd. run, gene known as 30's, *i.e.*, 30 lbs. per 15 ft. ru

¾ in. dia. rising main, 9 lbs. yd. run, gene known as 45's.

1 in. dia. rising main, 12 lbs. yd. generally known as 60's.

1¼ in. dia. rising main, 16 lbs. yd. generally known as 80's.

For waste pipes or pipes with open ends, usual weight is:—

¾ in.	waste pipes	5½ lbs. per yd. ru
1 in.	„	9 „ „
1¼ in.	„	13 „ „
1½ in.	„	15 „ „
2 in.	„	21 „ „

All the water fittings must be stamped the Metropolitan Water Board that they a accordance with their requirements, and rightly insist upon a good standard of fitting. pipes may be used for water supply, but th the objection that the water causes the pip rust, which is apt to stain the basins. Wro iron pipes are made in three qualities—th welded gas tube, water tube, and steam t The gas tube is supplied painted black, the w tube blue, and the steam tube red.

If the water is not obtained from the W Board, but is obtained from a well sunk or consumer's premises, this may possibly pro very soft water which will have a soft corr effect on the metal, and is likely to make joints and welds of iron pipes leak. Well w will have a similar effect upon boilers whic used for heating water for domestic purp causing a corrosion of the joints and sean the boiler. This can be obviated by tre the boiler with "Bower Barff" process using copper boilers and copper pipes. latter, of course, are very expensive.

Small lead service pipes are usually sol coils of 60 ft., and the larger pipes eithe 36 ft. coils or 10 or 12 ft. lengths. In a c class of work the lead pipes would be fixe the wall with iron wall hooks, and consis with the usual soldered joints. In a b class of work the pipe is secured with lead t which are soldered on to the pipe and fixed nails to wall. The tendency nowadays i make soldered joints (sometimes called "e joints) less obtrusive, and consequently solder would be required for such work.

The amount of solder used for joints is usu calculated by taking the unit amount in of solder, thus:—

1 in. pipe should require 1 lb. solder for j

4 in. joint required 4 lbs. solder.

In practice these figures are likely t somewhat different, as they depend on the of the plumber's mate and the care of plumber. If the plumber's mate lets the p pot get continually red hot the solder will w and turn to dross, and the plumber mus

ıl to see that all the metal he spills is ned to the pot for re-use.

ıple :—

. run ½ in. lead rising main with and ncluding all running joints and fixing, ncluding bends, tacks, &c.

	s.	d.
un ½ in. lead pipe—2 lbs. at 37s. cwt.		8
, say		1
ır, at 4d. ft...		4
	1	1
for soldered joints and nails, say, ½ per cent.		1
	1	2
ɔrofit and oncosts, 15 per cent. ..		2
. run	1	4

LEAD SERVICE PIPE.

Diameter.	½ in.	¾ in.	1 in.	1¼ in.
ıt per ft. run ..	2 lbs.	3 lbs.	4 lbs.	5½ lbs.
ɔer ft run ..	/8	..1/–	..1/4	..1/8
tacks	/1	.. /1	.. /1½	.. /2
ır	/4	.. /6	.. /8	.. /10
	1/1	..1/7	..2/1½	..2/8
soldered joints nails, say, 7½ cent. ..	/1	.. /1½	.. /2	.. /2
	1/2	..1/8½	..2/3½	..2/10
ɔrofit and on- s, 15 per cent.	/2	.. /3	.. /4	.. /5
. .. ..	1/4	..1/11½	2/7½	..3/3

LEAD WASTE PIPES.

ɔle :—

run ¾ in. lead waste pipe with and cluding all running joints, and fixing, cluding bends, tacks, &c.

	s.	d.
ın ¾ in. lead waste pipe—2 lbs. at s. cwt.		8
say		1
r, at 6d. ft...		6
	1	3
ɔr soldered joints and nails, 7½ per nt.		1
	1	4
rofit and oncosts, 15 per cent. ..		2½
run	1	6½

LEAD WASTE PIPE.

iameter.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
Veight.	2 lbs.	3 lbs.	4½ lbs.	5 lbs.	7 lbs.
waste pipe ..	/8	..1 /0½	..1 /6	..1 /8½	..2 /5
cks	/1	.. /1½	.. /1½	.. /2	.. /2
.. ..	/6	.. /8	.. /10	..1/–	..1/2
	1/3	..1/10	..2/5½	..2/10½	3/9
dered joints ails, say, 7½ ent.	/1	.. /1½	.. /2½	.. /2½	.. /3½
	1/4	..1/11½	2/8	..3/1	..4/0½
ɔfit and on- 15 per cent...	/2½	.. /3	.. /4½	.. /5½	.. /7½
	1/6½	..2/2½	..3/0½	..3/6½	..4/8

s are measured separately for all pipes " dia.

lead tacks included are for the simplest ainest description; should heavier or nental " tacks be required the additional ust be added. The labour is for the ing carried out under the most favourable stances. The labour is stated at the same the heavy service pipes and waste pipes. ormer are usually in longer and straighter than the latter. With respect to the per ft. run of lead pipe, should the e state what weight is required, it should fully compared with the Water Board's ons to see that it corresponds, as pro- n another part of the estimate there a clause to state that all the work mply with the regulations of the local ties.

pipes are supplied in about ten different or thicknesses for each diameter of pipe, a list of which can be obtained from lead merchants. Sometimes the pipes are specified to be light, middling, or strong. These are only general indications of what is required.

Example :—

— ft. run 4 in. lead soil pipe and including all running joints and lead tacks soldered on 3 ft. 6 in. apart, and securing with galvanised nails.

10 ft. run 4 in. × 7 lb. lead soil pipe weight 76 lbs., at 40s. cwt. ..	£1	7	2
Waste, 2½ per cent.			8
4 lbs. solder		4	0
Nails, &c.			6
Labour fixing	1	0	0
3 lead tacks, say		1	8
For 10 ft. run	£2	14	0
For 1 ft. run		5	5
Add for profit and oncosts, 15 per cent.			10
Per ft. run..		6	3

It is worth about the same price for labour per ft. run for both 3½ in. and 4 in. diameter lead pipes.

The cost of branch joints will depend upon whether they are wiped on the bench or in position.

LABOUR AND SOLDER TO BRANCH JOINTS.

Size of pipe.	4 in.	3 in.	2 in.	1½ in.
	7/–	..5/9	..4/6	..3/6
Add 15 per cent. profit and on- costs ..	..1/–	.. /10	.. /8	.. /6
	8/–	..6/7	..5/2	..4/–
Size of pipe.	1¼ in.	1 in.	¾ in.	½ in.
	2/9	..2/6	..2/3	..1/9
Add 15 per cent. profit and on- costs ..	.. /5	.. /4½	.. /4	.. /3
	3/2	..2/10½	..2/7	..2/–

EXTRA TO BENDS.

Size of pipe.	4 in.	3 in.	2 in.	1½ in.
	4/6	..4/–	..2/6	..2/–
Add 15 per cent. profit and on- costs ..	.. /8	.. /7	.. /4½	.. /3½
	5/2	..4/7	..2/10½	..2/3½

IRON SOIL PIPE.

L.C.C. "coated" iron soil pipe and fixing with ears, including cutting to lengths and jointing with molten lead joints.

Diameter of pipe.	2 in.	3 in.	4 in.
Per ft. run ..	1/10	.. 2/6	.. 3/9
Bends and fixing	.. 4/3	.. 5/–	.. 7/–
Branches and fixing	.. 5/9	.. 7/3	..10/–

There are many different weights and qualities of plumber's brasswork. The following prices are for a fair average quality of fitting :—

S.D. Stop Valves and Unions (stamped M.W.B.) with unions and two joints and fixing.

	1½ in.	1¼ in.	1 in.	¾ in.	½ in.
	44/–	..28/6	..18/6	..13/6	..10/6
Add profit and oncosts 15 per cent.	6/7½	.. 4/3	.. 2/9	.. 2/–	.. 1/7
	50/7½	..32/9	..21/3	..15/6	..12/1

Crutch top bib taps (M.W.B.) and joints and fixing.

	1 in.	¾ in.	½ in.
	12/9	.. 7/6	.. 5/6
Add profit and oncosts 15 per cent.	.. 1/11	.. 1/1½	.. 10
	14/8	.. 8/7½	.. 6/4

Brass boiler screws and joints and fixing.

	1¼ in.	1 in.	¾ in.	½ in.
	4/10	..4/–	..2/8	..2/2
Add profit and on- costs 15 per cent.	/9	.. /7½	.. /4½	.. /4
	5/7	..4/7½	..3/0½	..2/6

Heavy brass socket thimbles and two joints.

For pipe.	4 in.	3 in.	2 in.
	9/6	.. 8/6	.. 6/6
Add profit and oncosts 15 per cent.	.. 1/5	.. 1/3	.. 1/–
	10/11	.. 9/9	.. 7/6

The cost of fixing sanitary fittings will vary considerably with the quality and style of apparatus. The approximate cost of fixing only to sanitary fittings, including bedding and fixing all valves, overflows, washer plugs, and unions and making all joints required :—

Baths	9/–
Lavatory basins	5/–
W.c.'s and waste preventors ..	9/–
Sinks	4/6

The attendance on these items by other trades is usually measured separately.

There are many types of water waste preventors. Those used in the Metropolitan Water Board area are required to be stamped by them. The most useful type is the valveless waste preventor, as if a cistern is used that has valves in its flushing gear it is likely to be continually getting out of order. A cheap and quite a good type of the valveless cistern is the "Burlington" pattern, which is in fairly general use. It consists of a bell or dome which, when lifted, sets up the syphonic action and causes the flush.

There are many similar makes and patterns, and the only real objection to them is that they are somewhat noisy in use and have rather a heavy pull, otherwise they can be recommended. Waste preventing cisterns can be rendered less noisy by fixing a short length of pipe inside the waste preventor, so that the water from the ball valve discharges at the bottom of the cistern and not at the top, thus obviating the noise caused by the water running in. There are various patterns of what are called silent waste preventors. These sometimes consist of some arrangement of valves which sooner or later get out of order.

The following are the prices of a few of the well-known makes of ordinary cisterns :—

2 gall. "Burlington" light pattern water waste preventor (painted) including brackets and chain pull	12	3	each
Do. do. slightly heavier do.	13	6	,,
Do. do. extra heavy do. ..	15	6	,,
Do. stamped N.R. and do. ..	17	6	,,
(If galvanised, about 8/6 each extra.)			
Shanks' "Reliable" waste preventors (painted)	25	6	,,
Doultons' "Paisley" cistern ..	48	0	,,

These prices are for waste preventors with a good head of water above and fitted with high pressure ball valves, but if a low pressure ball valve is used to be suitable for positions where the head of water is not great the cost would be about 1s. 6d. each extra.

The cheapest kind of flushing pipe are the galvanised steel rustless ones, which are bent and jointed in the centre, being about 3s. 6d. each. They have to be connected to the water preventor and the w.c. basin with a proper cone joint. The cost of w.c. basins will depend upon the type of fitting selected, whether they are earthenware or fireclay, whether they are white inside and out, or cane glazed outside and white inside. They must be glazed on all surfaces including the flushing rim. The prices vary from 15s. to £5 each.

It is customary nowadays to fix the w.c. seat to a lug on the w.c. basin with a couple of nickel-plated bolts, and the seat should be hinged with side hinges. The best are usually made in two thicknesses of wood. Seats with lids are now rarely used.

Deal or whitewood seats ..	9/– to 12/– each
Polished mahogany ..	21/– to 35/– ,,

REPAIRING LEASES: "STANDARD OF REPAIR"

A DECISION of great importance has been given by a judge of the High Court in the recent case Calthorpe *v.* McOscar and others (1923 2 K.B. 573) as to what is the standard of repair which can be required at the expiration of a long lease containing a provision that the premises should be "well and sufficiently repaired," where the character of the neighbourhood has changed.

The facts were shortly as follows. In 1825 a lease of three houses in Calthorpe-street, Gray's Inn-road, had been granted by the plaintiff's predecessor in title to the defendants' predecessor in title for a term of 95 years from June, 1824. Thus the term expired in June, 1919. At the time this lease was granted the houses were newly erected, and the lease provided that the lessee, his executors, administrators, and assigns should "from time to time, and as often as occasion should require during the said term, well and sufficiently repair, support, uphold, maintain, paint, pave, empty, scour, cleanse, amend, and keep the three several messuages and buildings thereby demised, and all such other buildings as should during the said term thereby granted be erected upon the said ground and premises thereby demised, and all the walls, fences, pavements, vaults, cellars, sinks, privies, sewers, drains, watercourses, and other appurtenances belonging or to belong thereto, in, by and with all and all manner (sic) of needful and necessary reparation and amendments whatsoever . . ." and the lease provided that the premises as above defined, being so well and sufficiently repaired and kept, etc., etc., at the end or sooner determination of the said term should be surrendered or given up.

The plaintiff brought the action for a breach of the above covenant, and in that action an order was made by consent that the amount of damages recoverable should be referred to an arbitrator, a surveyor. The arbitrator made his award in the form of a special case for the opinion of the Court. The award stated that there was no dispute, that the measure of damages to be recovered for breaches of the covenant to repair was the cost of the repairs rendered necessary when the term ended by the defendants not having performed the covenant, but that the parties differed as to the nature and extent of the repairs that were necessary for the due performance of the covenant. The defendants contended that the effect of the covenant was limited to imposing an obligation to carry out only such repairs as having regard to the age, character, and locality of the premises, would make them reasonably fit to satisfy the reasonable requirements of reasonably-minded tenants of the class that would be likely to occupy them; but the plaintiffs contending that under the covenant the defendants were made responsible to do all needful and necessary acts, well and sufficiently to repair the premises, in the words of the covenant, without limitation to such repairs as would satisfy the class of persons likely to become occupiers of the premises.

The arbitrator found as a fact that the tenants likely to occupy the premises would only take the houses separately, or only part of a house for short terms on weekly, monthly, or quarterly tenancies, and would not accept any repairing obligations, and that the requirements of reasonably-minded tenants of such class would not include many repairs which in the opinion of the arbitrator were needful and necessary for the repair and maintenance of the property, and he therefore assessed the cost of the repairs on a double basis. If the contention of the plaintiff was correct, then, making due allowance for the age of the premises and the change in the residential character of the locality, he estimated the necessary repairs at £586, but if the defendants' contention was correct he placed the sum at £220.

We are not aware that the point raised here has ever been taken in any case concerning a repairing lease before, and therefore it is necessary to examine the judgment and the cases quoted with some particularity. The judge put the point thus: "The standard of the surveyor is one thing; the standard of the reasonably-minded tenant seems to be another thing." The judge, as regards the change in the neighbourhood, says: "Exerting common knowledge, I presume the meaning of the matter is this—In 1825 the three houses in Gray's Inn-road were country abodes—Gray's Inn-road was then a semi-rural area. With the growth of population it has slowly changed. It is now a busy and central part of a great city. The three houses or parts of them will now be let to small tenants who have their occupation near." And he proceeds to observe that in view of the profusion of case-law it seems impossible that the point of law should now call for decision, but that the question has given him difficulty and the case-law is in a confused state.

We dealt with this question at some length on December 8, 1911, in the case Lurcott *v.* Wakely (1911, 1 K.B. 905), where we reviewed the decisions, but most of them have turned rather upon the point whether the age of the structure had changed its character, so that it could not be put in the condition required by the covenant without practically creating a new house, and in Lurcott *v.* Wakely the majority of the Court of Appeal appear to have taken the extreme view that a covenant that required the tenant to "well and substantially repair and keep in thorough repair and good condition" might even involve replacing the house as a whole, but, as a matter of fact, the point decided in that case was that the operation required the erection of the front external wall, was only a subsidiary operation, and came within the covenant. A great deal of confusion in the cases has been caused by the variety of the terms of the covenant to repair, and the different construction placed upon the various expressions, and therefore it is important to note that the judge in the case we are considering, after having read and reviewed the decided cases, came to the following conclusion: "I am of opinion that none of the expressions in the various decisions cited by me add anything to the word 'repair.' That word denotes or connotes all that which is indicated by the words 'well' or 'proper' or 'substantial' or 'sufficient' or 'good' or 'necessary' or 'tenantable.' This is, I think, a useful and convenient rule to establish and it is agreeable to the bulk of authority."

This is a most important pronouncement, and if it is adopted it will do away with most of the difficulties which are experienced in practice from the multitude of decisions turning on small differences in covenants to repair, but hitherto the Courts have distinguished between the various expressions. The decision relied upon by the tenant in this case was Proudfoot *v.* Hart (25, Q.B.D. 42), and the words of the covenant in that case were "tenantable repair." We believe that case only turned on the condition of certain woodwork in a house, but the headnote to the case is "Under an agreement to keep a house in good tenantable repair and so leave the same at the expiration of the term the tenant's obligation is to put and keep the premises in such repair as, having regard to the age, character and locality of the house would make it reasonably fit for the occupation of a tenant of the class who would be likely to take it." We have not the full report of that case before us and, therefore, are unable to say how far the question of change in locality was argued, but the judge, in the case we are considering, held that that decision did not turn on any special words in the covenant or on any special facts, and that it was applicable to the case before him, and he adopted it and fixed the cost of the repair at the lower figure named by the arbitrator.

He is reported as saying that in his opinio Proudfoot *v.* Hart supplies a useful workin rule for the normal covenants to repair, how ever variously they may be worded; tha some standard must be taken, and if the ex treme views of both landlord and tenant ar excluded then the views of that hypothetic person, the reasonable man, can only be take as supplying the test, and that person is ind cated in Proudfoot *v.* Hart.

This judgment is a common-sense jud ment, and if, in the course of time, it allowed to stand as the law by the courts appeal the law of landlord and tenant wi have been materially simplified to the bene of both landlord and tenant, for to understar the law is nine-tenths of saving the costs the law in litigation. We must add one wo on the question of the varying words used covenants, for it is necessary to say that t judge expressly excluded such speci covenants as to paint at particular period and confined his observations to the gener expressions used in such covenants.

RAILWAY COMPANIES' LIABILITY FOR DAMAGES.

IN the recent case, Nunan *v.* Southern Railwa Company (*Weekly Notes*, November 3), the Cou of Appeal has decided a point of importan where a passenger has been killed by negligenc and the claim is made for the death of th deceased under Lord Campbell's Act.

The deceased passenger was a workman bei carried on the express terms of a workman ticket with the condition, "The liability of th Company is limited to a sum not exceedi £100." This action was being brought by h widow under Lord Campbell's Act for damag for his death, and the question raised was wheth her claim to damages was limited by the agre ment between her deceased husband and th Company as to the limit of damages, and it important to note that the Court of Appe decided that this is not the case. Section 1 Lord Campbell's Act (The Fatal Accidents Ac 1846) provides: "Whensoever the death of person shall be caused by wrongful act, negle or default and the wrongful act, neglect, default is such as would have entitled the par injured to maintain an action and recov damages in respect thereof, the person wh would have been liable if death had not ensue shall be liable to an action for damages no withstanding the death of the person injured Section 2 provides that the action shall be f the benefit of the wife, husband, parent, an child of the deceased person, and "in eve such action the jury may give such damag as they may think proportioned to the injur resulting from such death to the parties respe tively for whom and for whose benefit suc action shall be brought."

The Court of Appeal held that, since it w established by a series of authorities, includi Seward *v.* Vera Cruz (1884, 10 App. Cas. 5 and British Electric Railway Co. *v.* Genti (1914, A.C. 1034), that the cause of action giv to the widow was entirely distinct from th cause of action the deceased would have ha involving a different measure of damages, th only point for the Court to consider under th Statute was whether the deceased could ha maintained an action and recovered damag if death had not ensued, and here the deceas could have recovered some damages, thou the amount might have been less than he w entitled to by reason of his agreement, therefo the action could be brought by his widow, an her action being separate from the cause action of the deceased, was not subject to th limit of damages contained in the agreeme with the deceased. The Court below ha awarded £800, and the appeal of the defenda Company was dismissed.

UNEMPLOYMENT INSURANCE.

The report of the Minister of Labour on employment Insurance, a summary of which peared in *The Times*, October 25, contains tter of great importance, as it covers the iod of ten years since the last report. The tative scheme of 1912 only covered some and a quarter million of workpeople ployed in certain specified industries, but Act of 1920, which extended this scheme, lies to some eleven and three-quarter lions.

Ve have always regretted that the war erfered with the working of the scheme from point of view of accurate actuarial statistics, has prevented the normal working of rance schemes from being accurately ged. The limited scheme of 1912 was erfered with by the stress of war making mployment unduly small, whilst the after-th of war since 1921 has inflated unemploy-nt to an unprecedented extent, and thus this nt experiment has never been working in mal conditions. In the year 1918–1919 the -of-work donation paid to civilian workers, for sixteen months longer to ex-Service men women, also upset the statistics, as persons e not allowed to draw from both sources, hence the unemployment benefit funds efited, for the donation rate was the higher he two.

he Act of 1920 came into operation in ember of that year, just about the time t it became apparent that a period of mployment must be looked for, as a conse-nce of falling trade, and therefore it is venient to start from the statement con-ed in the prefatory note to the report which es: "During the past two and a half years unemployment insurance scheme has been principal means of coping with a volume of mployment unprecedented in the industrial ory of the country—£128,000,000 has been d in benefit in that period. Of this large a three-fourths has been provided by, or will a future charge upon, insured workpeople their employers. Not more than one-rter of the sums now being paid in benefit of the costs of administration is provided the taxpayer." This represents at the sent time the whole of the Exchequer tribution to the scheme.

n connection with this statement it is portant to observe that the sum borrowed meet the excessive strain put upon the rance fund, largely due to the granting of ncovenanted benefit" during the present ress up to the end of June last, was ,600,000, and it is this sum which is spoken as the future charge which will be repayable the workpeople and employers, but the ort states: "This, though a large sum, is at all disproportionate to the resources of unemployment fund, which has at present annual revenue of over £47,000,000," and nat the debt is not so large that it cannot paid off in a comparatively short space of e as soon as trade revives" and the financial bility of the scheme can be re-established.

he report desires to combat a widespread pression that unemployment benefit, or at rate so much of it as is "uncovenanted," provided by the taxpayer, and states that -fourth and no more of the sums now being d in relief and of the cost of administration s upon the Exchequer. The "uncovenanted" ef as distinguished from covenanted benefit explained—"Covenanted benefit" is benefit wn as of right by virtue of contributions; ncovenanted benefit" is a discretionary nt to unemployed persons who were normally ge earners in insured trades, and were uinely seeking whole-time employment, but o have exhausted their rights derived from ment of contributions, or who, in excep-nal cases, have even paid no contributions. e report points out the distinction between ncovenanted benefit" and poor law relief. Only persons who are normally insured can draw the former, "which is, in fact, in the nature of an advance made on the faith of future payment of contributions." During the year 1922–3 it is stated that the sum of £9,450,000 in poor law out-door relief was paid to persons falling within the unemployment insurance scheme, and their dependants, in England and Wales, but "the proportion of persons in receipt of unemployment benefit also drawing relief is not precisely known." In Birmingham, where this question was tested, the proportion was about 17.3 per cent., but this, the report states, cannot be taken as typical of other areas.

The ratio of administrative expenses is 8.3 per cent., and this includes not only the organisation required for collecting benefit and assessing and paying it, but also 95 per cent. of the whole cost of the unemployment exchanges. The total contributions from employers, employed, and the Exchequer from the initiation of the scheme in 1912 to July 31, 1923, are employers, £48,000,000; employed, £44,600,000; Exchequer, £31,500,000; and the loan above mentioned and the interest thereon are repayable by the employers, employed, and the State approximately in the proportions indicated above. From this very short review it will be seen that the report is full of information which deserves careful consideration.

BOOK REVIEW.

The British Acetylene and Welding Handbook. (London: 30, Red Lion-square, W.C. 1.) Price 7s. 6d. net.

This eminently practical handbook should be read and kept for convenient reference by all users of acetylene in any form if the best results are to be obtained and risk of explosion avoided. Acetylene is either a very safe and convenient or an extremely unsafe and inconvenient form of illuminant and heating agent, according to the methods employed in producing, storing and using it. It is not only necessary that all apparatus connected with its use should be designed to be practically fool-proof, but every person proposing to employ it should be instructed in detail as to the points to observe in handling the apparatus and dealing with the gas.

These matters are set forth in this book, issued by the British Acetylene and Welding Association, from both the theoretical and the practical point of view, and notes on the history and chemistry of acetylene will be found in it, together with instructions in the practice of metal cutting and welding by the use of the oxy-acetylene flame. Although the high temperatures produced have caused the oxy-acetylene combination to be associated chiefly with metals of high melting point, the authors also recommend its use for making joints in lead and other easily fusible metals.

For minor operations, such as paint burning, an acetylene-air blowpipe has been produced for which it is claimed that it is far more efficient and cleaner than the old-fashioned blowlamp, and permits of the paint being removed with a wide scraping edge in something like half the time formerly taken to do the work.

Some micro photos of steel sections, showing the crystalline character of the material, are highly interesting in that they indicate the degree of union that can be obtained under good conditions by the use of a suitable feed wire and pure acetylene, and the failure that is liable to follow the use of unsuitable material and impure gas.

Acetylene lighting installations are described and illustrated by diagrams of generators made by several firms. The points claimed in favour of acetylene as an illuminant for isolated buildings, or in places where the supply of coal gas or electricity is dear and inefficient, are: (1) The small amount of attention necessary to keep plant and fixtures in good running order; (2) safety; (3) cleanliness; (4) the cost of installation; (5) the cost of maintenance and general upkeep; (6) the quality of the light.

"The softness of the light and the absence of glare (experienced with other modern forms of lighting) puts acetylene far ahead of other illuminants." Some suggestions are made as to the utilisation of the residue left after the production of acetylene from calcium carbide. The residue is in fact slaked lime with some impurities, and can be used with advantage for making mortar and various agricultural and horticultural purposes.

INFRINGEMENT OF TRADE MARK.

In the Chancery Division, on November 6 Mr. Justice Tomlin had before him a motion by Major & Co., of High-street, Borough, S.E., against the Dorset Farmers' Union to restrain the latter from passing off creosote and similar preparations as "Solignum," and from infringing the plaintiffs' trade mark.

Mr. Greene, K.C., for the plaintiffs, said that his clients were the makers of a well-known product called "Solignum," which was a good preservative from the ravages of the death watch beetle and was very destructive to that insect. It had become somewhat largely used, but it differentiated largely from the ordinary creosote. It had, however, become known to the plaintiffs that creosote was being passed off as "Solignum," though the latter was a very expensive article, costing 4s. 6d. a gallon, while ordinary creosote could be bought at 1s. 7d. It was known that manufacturers had great difficulties in detecting infringements and passings-off of this kind, but in the present case it was a very different state of affairs. A Captain Hewart ordered from the Wimborne branch of the defendants' Union a ten-gallon drum of "Solignum." In response to that order he received a ten-gallon drum followed by an invoice which made the charge as 17s. 6d., which worked out at a price of 1s. 9d. per gallon. He was suspicious of the goods, perhaps more from the quality than the cheapness, and he communicated with the plaintiffs, suggesting that they should analyse the goods. The result was that the article supplied was found to be ordinary creosote or some mixture, and it was another article. The defendants were communicated with in turn by the plaintiffs, who said they could offer no explanation, but added that they understood Captain Hewart wanted ordinary creosote, and they had no intention of forcing upon him the creosote for the plaintiffs' "Solignum," as was shown by the price charged.

His Lordship granted a perpetual motion against the defendants, who consented to it being taken as the trial of the action, and made the usual order for the defendants to pay the costs.

LONDON MASTER BUILDERS' SPORTS' ASSOCIATION.

(Football Section.)

League Table up to and including Nov. 3, 1923.

	P.	W.	L.	D.	Goals F.	Goals A.	Pts.
Perrycobow	5	4	0	1	24	3	9
Minter	4	3	1	0	16	4	6
Holloway	4	3	1	0	11	3	6
Trocoll	3	2	1	0	32	2	4
Holancube	4	1	2	1	4	7	3
Vigor	1	1	0	0	5	1	2
Higadillo	2	1	1	0	5	7	2
Higgs	5	0	5	0	5	26	0
Whitehead	4	0	4	0	2	50	0

London Chamber of Commerce.

At the meeting of the Council of the London Chamber of Commerce on November 8, Mr. A. de V. Leigh, M.B.E., M.A., was appointed Secretary of the Chamber in succession to the late Mr. Charles E. Musgrave.

NEW BUILDINGS IN LONDON.

Embankment. — SHELTER. — Messrs. J. McManus, Ltd., of 237, Hammersmith-road, W.6, are erecting a weather shelter at the Victoria Embankment near Blackfriars Bridge, for the London County Council in accordance with the drawings and specification prepared by the Architect to the Council, Mr. G. Topham Forrest, F.R.I.B.A.

Kensington High-street. — ALTERATIONS. — Alterations are being carried out at Nos. 5–7, Young-street, by Messrs. Hall, Beddall & Co., Ltd., under the direction of Mr. Edgar S. Underwood, F.R.I.B.A., for Messrs. Story & Co., Ltd. The works consist of removing roof to rear portion, and constructing additional story, and thoroughly re-conditioning and re-organising the culinary department. The steelwork is being executed by Messrs. Drew-Bear, Perks & Co., Ltd., and other sub-contracts are now being arranged.

Isleworth.—BANK.—A new bank is now in course of erection for the Westminster Bank, Ltd., at Isleworth. The builders are Messrs. J. McManus, Ltd., of 237, Hammersmith-road, W.6, and the architect is Mr. G. W. Stanley Burmester, F.R.I.B.A., F.S.I., of 15, Queen Anne's-gate, S.W.1. All sub-contracts have been let.

Hammersmith.—BUILDING.—A new contract has recently been entered into by Messrs. J. McManus of 237, Hammersmith-road, W.6. The contract is for the demolishing of the old building and erecting a new block of premises in Hammersmith Bridge-road, for Messrs. Palmer's Stores (1903), Ltd. The architects for the work are Messrs. J. S. Quilter & Son, 3, St. James's-street, S.W.1. The sub-contracts are all let.

BRISTOL EMPLOYERS AND HOUSING.

THE housing shortage was discussed at considerable length at a meeting of the heads of many of Bristol's most important industries, and as an outcome it has been decided to re-form the old Bristol Garden Suburbs Company under the name of Bristol Housing, Ltd., with a capital of £120,000.

The Lord Mayor presided, and said the suggestion was that those who had large businesses might feel inclined to help by putting part of their reserve fund into this undertaking. They would make sure of a dividend, and at the same time would be helping what was now a trouble to every right-thinking man. The chairman of the company since its incorporation, Mr. G. H. Oatley, had consented to act for a period of two years, if desired, while Mr. Frank N. Cowlin had agreed to act as managing director for two years from the date of the prospectus. Both were willing to act without any remuneration to help the situation.

Mr. F. N. Cowlin said a subsidy of £120 per house would be obtainable, and the houses could be built to show a return of five per cent. on the investments of the company. A capital of £120,000 would enable the company to build 300 houses, assuming that they sold none, on a rental basis of 11s. 6d. per week, on a cost of £425. They could be sold for about £450 each, and the purchaser could borrow 90 per cent. of the value, and by a payment of 10s. 1d. or 12s. 1d. per week, including ground rent, could own the house in 20 years, and be a property owner in the city, which would be a valuable asset to the city. He read a letter from the Imperial Tobacco Company offering to invest £50,000, and he said it seemed to him that the only way they could get on was for a company of business men to get together to take the place of the speculative builder. His own firm was prepared to subscribe £5,000 and assist the company in any way it could.

Promises of support were given by most of the heads or representatives of the firms present, and at the end of the meeting the Lord Mayor announced that £71,000 had definitely been promised.

RATES OF WAGES IN THE BUILDING TRADE

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:

	Masons.	Bricklayers.	C'p'ters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brentwood	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Colchester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Great Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/3	1/6	1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Norwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Helen's	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	1/2½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	0/11½
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/0½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	

(For rates of wages in the Building Trade in Scotland, see page 783.)

THE SCOTTISH BUILDER

NEW METHODS OF BUILDING.

the opening of the session of the Royal ical College Architectural Craftsmen's y, Glasgow, a paper was read by Mr. Houston, A.R.I.B.A., on "New ds of Building."

al conditions, he said, governed to a extent the construction which should be n various districts. For instance, in a g area the best method to adopt was the frame structure, veneered with stone, , concrete, or cement reinforced with ded metal. In this type of construction forced concrete raft was laid over the site and the steel framework erected it. The roof might also be of concrete anging inverted rolled steel tees on the oof principals, placed about 2 ft. 6 in. s, and between the tees placing pre-oncrete slabs 2½ in. in thickness, thus ating almost entirely the use of timber roof.

act, it was possible to do without timber ing expanded metal lathing to support aster. A roof of this kind was very sful for garages and fireproof buildings, ery speedy and economical in building. ys gone by it was the usual practice, erecting a concrete roof, to prepare an ate system of timber centering with a of timber underneath to support the e while it was wet; and for a period days or thereabouts, to give the concrete time to set, other tradesmen were hampered, and the progress of the very seriously delayed until the timber ng was removed.

and concrete was successfully used birnie, and the advantage of a roof of nd for fireproof construction must be ly clear to the thinking man. The might be jointed in bitumen instead of , which would give a certain amount ticity to the roof for expansion and tion, thus overcoming one of the great-ficulties of a roof made of solid con-which had no elasticity and would crack it would yield. The outer surface of of might then be treated with bitu-solution of various colours, or, if the were made of breeze, might even be with slates, tiles, or any other l to suit the amenity of the district in the house might be built. It might be t that this was an expensive system, was actually as cheap as any other.

in estates laid down definite rules as nature of the buildings to be erected ld the amenity of these areas, and this ten a great barrier to the progress of g, on account of the high cost if rk were demanded. In this connection ription of a system now being used to e this might be of interest. With stem pulverised stone, reduced to the of sand, from any desired quarry, red or white, could be applied in a state to the concrete blocks while they et, thus ensuring perfect cohesion of face treatment with the concrete back-he result of this method was that ad the appearance of the real stone, actually showed the silica, alumina, tering parts of mica, etc., and could nost stand a microscopic test for sand-With the use of this material, arches, s. etc., and indeed any type of work ould be done in stone, could be made t of 50 per cent. less than real stone.

merica perhaps one of the most inter-new methods of construction was that the walls were formed on the ground. n the flat, hinged at the base, and then raised to the perpendicular by means of winches. The expense and danger involved, however, did not justify the result. The late T. L. Watson, at one time a director of that College, improved on that system by forming the walls also on the horizontal, but hinged along the centre of gravity of the walls, and in that way deleted entirely the use of machinery.*

The underlying principle was the discarding of moulds or blocks in wall construction. The walls of the house were formed on horizontal platforms a few feet above the ground, and hinged as nearly as possible along the centre of gravity, so that when the concrete had set each wall was turned over on its hinges into the exact position. As the platform in its horizontal position balanced in the middle, due allowance being made for door and window openings, it followed that the lower half of the wall, in descending, automatically raised the upper half. No force was required and no apparatus employed (other than rope). The platform was adjusted to its vertical position before the concrete was applied, and the wall naturally assumed its destined place with accuracy.

The door and window frames were laid down on the platform before the concrete was filled in, so that the house was then ready for its roof and internal finishings. The platforms were formed of the roof spars and boarding, and the greater part of the material was, therefore, on the site and ready for use. The time taken to erect the four walls after the concrete had set was only one and a half hours.

Another patent system of some interest was one devised by Principal A. P. Laurie, of Heriot-Watt College, Edinburgh, in which breeze slabs are used for the inner part of the hollow wall in lieu of brick. The most interesting part of the system is the use of breeze bricks steeped in tar.

It was interesting to note that the mud hut of their prehistoric forefathers had blossomed into the pisé-de-terre dwelling of to-day. It was hardly creditable that a building made of mud could take its place with dignity amongst the modern perfectly equipped dwellings demanded by the present generation, but such was the case. Pisé-de-terre was dry earth thrown between shuttering, and rammed until consolidated. The shuttering used was 10 ft. long and 2 ft. 9 in. high, 9 in. of which, however, overlapped the completed course, so that 2 ft. was added to the wall at each operation. The same shuttering was then removed from the finished course and raised into position to take the next layer above. Red marl was the best soil for pisé building, but, with the exception of clay, almost any earth would do, providing it was free from vegetable matter. Clay and sand were unsuitable.

The next best earth to use was brick earth, or clay that had been well-weathered, broken up, and exposed to the wind and frost.

The humble dwelling of pisé-de-terre, or the modest concrete cottage, were commendable efforts to solve the problem of housing the poor, and many beautiful results had been obtained, but some people looked upon these with contumely.

The modest concrete cottage did not appeal to them, but it must be accepted that concrete for home building was particularly suitable for the low-cost house. For the structure which was built with hard-earned savings, and where economy must be practised, but where permanence, beauty and safety from fire were essential, concrete offered more for the money spent than any other material. The best type of plan for the concrete house was that which was the most simple and compact, and novel types would invariably be found more expensive than a straightforward arrangement.

There was another system whereby buildings

* Illustrated and described in *The Builder*.

BUILDING TRADE WAGES IN SCOTLAND.*

The following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters. Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-Masons' Labourers.	Plasterers' Labourers.
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/–	
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 782.

which gave one an impression of being in a ruinous and dilapidated state could now, at small cost, assume the massive rusticated appearance of the Palazzo Riccardi. For several years a builder in the north of Scotland had been performing these transformations in his native town. The whole secret lay in the use of cement panels, the average size of which was 16 in. by 8 in. by 1 in. in thickness. Their composition was two of sand to one of Portland cement. They were easily handled, easily packed for transport, and had stood the test of the rigorous climate of the north. The cost of this "clothing," whether for an old wall or for a new timber frame building, or for a completely fireproof steel-framed structure, was trifling indeed, and many an old building of comparatively little value to the proprietor, an eyesore to the community, might be greatly improved in appearance.

In summing up, he assured them that, whilst much thought had been given, perhaps too much, to patent systems of construction, yet, for the present at any rate, he had formed the impression that for domestic work the 12 in. hollow brick wall built in cement mortar was difficult to beat either for efficiency or economy. It would be a great pleasure to all there, he was sure, if they could return once more to the development of good Scottish masonry, where their craftsmen could have a chance to exhibit their skill, but, just as the written language of modern times had overpowered the native speech of older Scotland, the architecture of modern times had so overpowered the native style that one rarely saw any new work bearing traces of real Scottish feeling. The tide of education was advancing so rapidly that the people must respond to the new environment, and the new conditions resulting from the war had imposed on them the duty of erecting comfortable homes for the people at a price within the reach of all.

Chesham House, Regent Street.

Messrs. Thomas Faldo & Co., Ltd., of Windsor House, Kingsway, W.C.2, inform us that they have been appointed sub-contractors for the whole of the asphalte work involved in this building, which was illustrated in our last issue.

NEW BUILDINGS IN SCOTLAND.

Kirkcudbright.—ACADEMY.—It is proposed to reconstruct the Academy at Kirkcudbright at an estimated cost of £10,000.

Greenock.—CATTLE MARKET.—The Dean of Guild Court has granted the Greenock Harbour Trust permission to reconstruct the cattle auction mart in Laird-street. The mart was destroyed by fire some time ago.

Aberdeen.—HOUSES, &C.—The Corporation Plans Committee has passed plans as follows:—House at Hammersmith-road, for Mr. W. Grant; a house, Broomhill-avenue, for Mrs. Third; two houses at Ashley-gardens, for D. & J. R. M'Millan; two houses at Ashley-road, for James Philip and John Rodger; bungalow at Queen's-road, for Mr. John A. Cook, Ellon; bungalow, Anderson-drive, for Mr. James B. Gray; alterations to the hall of the Woodside Parish Church, and a meeting hall in St. Nicholas-street, for the East Parish Church. The Committee passed plans for the erection and alterations of buildings to the value of £6,550 in all.

Perth.—FACTORY.—The T.C. has been recommended to approve of plans for a new bacon factory near the harbour.

Irvine.—HOUSES.—The Board of Health has granted permission for the erection of 20 two-apartment houses under the new housing and slum area clearance scheme. A site for the proposed new houses has not been definitely fixed.

Lockerbie.—HOUSING.—The T.C. has forwarded plans of a new housing scheme to the Board of Health for their approval. The scheme has been prepared by Mr. David M'Jerrow, the Town Clerk.

Glasgow.—HOUSES.—The Housing Committee has promised the Board of Health that it will endeavour to erect, within the two years allowed by the Act, 5,000 houses, tenders for 2,400 of which are either already in the hands of the Committee or are being asked for. The Committee seeks authority to acquire part of the lands of Garscadden estate, adjoining the Bankhead-Knightswood housing scheme, and enable the main roads and main drainage to be carried out.

LAND FOR SCHOOL EXTENSION

MR. HOWARD MARTIN, Official Arbitra sitting at 5, Old Palace-yard, Westminster, he a claim by Mr. Simon Green against the Chisw Urban District Council concerning the Coun compulsory acquisition of a piece of la approximately 860 square yards, at the rea Nos. 342 to 348B (even), High-road, Chisw for the purpose of the extension of Belm Schools. Mr. S. A. Wilde (of Messrs. F brother, Ellis & Co., auctioneers and survey of Fleet-street, E.C.), giving evidence for claimant, submitted a valuation of £2,5 based on the assumption that School-road wo be continued, and that there would be o a nominal apportionment of rent under existing lease. Mr. G. S. Wain, District Va for West Middlesex, on behalf of the Ur Council, detailed a valuation of £900.

The award is as follows: "That the acquir authority is to pay the claimant the sum £1,446 as compensation, it being agreed that rent reserved under the existing lease is no be apportioned, and that the acquiring autho is to extend the School-road across the lan be acquired so as to give the remaining l of the claimant a frontage to the south sid the extension, the extension to be made maintained at the expense of the acqui authority, and I order the acquiring autho to pay the stamp duty and contribute £31 towards the costs of the claimant."

Municipal Elections.

Alderman J. Cook Rees, in 1917 Presider South Wales Institute of Architects, has b appointed Mayor of Neath.

Newport (Mon.) Borough Council has pointed Mr. Charles F. Williams, retired buil Mayor for the ensuing twelve months.

Councillor Evan Hopkins (Messrs. J Hopkins & Son, builders) has been ele Mayor of Cowbridge.

The re-elected Mayor of Monmouth is C cillor A. H. Williams, builder and contract



Reinforced Concrete Bridge at Kinlochleven, Argyllshire.

[Total length, 180 ft. Span of arch, 100 ft. Designed by MESSRS. MOUCHEL & PARTNERS.]

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk re advertised in this number. Certain conditions beyond those given in the following information re imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any ender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and hat deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names f those willing to submit tenders, may be sent in; the name and address at the end is the person from whom r place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

NOVEMBER 17.—**Aberavon.**—EXTENSIONS.—For extensions to the Elim C.M. Hall, Velindre, Aberavon, r the trustees. The proposed new wing measures out 45 ft. by 26 ft., with vestries, &c., in addition. essrs. Thomas & Morgan & Partners, . rchitects, . Gelliwasted-road, Pontypridd.

NOVEMBER 17.—**Ayr.**—BUILDINGS.—For buildings be erected at Springvale-place, Saltcoats, for the ights and Measures Dept. of the County of Ayr. r. Hugh Thomson, architect, 60, Hamilton-street, lrcoats. Deposit £1.

NOVEMBER 17.—**Cwmtaff (Breconshire).**—HOUSES.—r erection of a pair of semi-detached houses at rmtaff (Breconshire) for the Cardiff Waterworks mmittee. Mr. C. H. Priestley, M.Inst.C.E., City ll, Cardiff. Deposit £2 2s.

NOVEMBER 17.—**Ebbw Vale.**—PAINTING.—For painting the interior and exterior of the Ebbw Vale Council blic offices. District wage conditions. Mr. P. I. vies, Surveyor, Council Offices, Ebbw Vale.

NOVEMBER 17.—**Edinburgh.**—LAVATORY.—Erection a public lavatory for women at Tollcross, for the T.C. . A. Horsburgh Campbell, Burgh Engineer, 329, High-eet, Edinburgh.

NOVEMBER 17.—**Felling.**—HOUSES.—Erection of 24 uses (which may be increased to 50), for the U.D.C. . C. W. Hall, Architect, Council Buildings, Felling.

NOVEMBER 17.—**Inverness.**—HOUSES.—Erection of o blocks of four-roomed houses at Lochalsh-road, verness, and painter and glazier work in connection h the erection of three blocks of three-roomed houses the same site. Mr. J. Hinton Gall, architect, mbard-street, Inverness.

NOVEMBER 17.—**Llanedy.**—SCHOOL.—For erection school to accommodate 100 children at Llanedy, ntardulais, for the Carmarthenshire Education thority. Date given is not last date of tender, but e by which names and addresses of prospective nderers must be sent to Mr. W. Vincent Morgan, unty Architect, County Offices, Carmarthen.

NOVEMBER 17.—**Manchester.**—X-RAY ROOM.—ection of an X-ray room at Baguley Sanatorium, for T.C. City Architect, Town Hall, Manchester. posit £1 1s.

NOVEMBER 17.—**Saltcoats.**—BUILDINGS.—Buildings be erected at Springvale-place, Saltcoats, for the ights and Measures Department of the County of r. All particulars from Mr. H. Thomas, architect, Hamilton-street, Saltcoats. Deposit £1.

NOVEMBER 19.—**Barnes.**—HOUSES.—Proposals for erection of about 76 houses at Mortlake wanted m builders. Council's Surveyor, High-street, Mort-e.

NOVEMBER 19.—**Blackburn.**—PAVILION.—Erection of avilion at Rockville Recreation Ground, for the T.C. . A. T. Gooseman, Borough Engineer, Town Hall rkburn.

NOVEMBER 19.—**Bristol.**—FOUNDATIONS.—Construction foundations for water-screening plant at Feeder-d Power Station, for the T.C. Mr. H. Faraday ector, Chief Engineer, The Exchange, Corn-street, stol. Deposit £2 2s.

NOVEMBER 19.—**Carlisle.**—PAINTING.—For painting overed markets, parks, &c., for the T.C. Mr. Henry Marks, City Engineer, 18, Fisher-street, Carlisle.

NOVEMBER 19.—**Colchester.**—HOUSES.—Erection of rk of six houses on Harwich-road site, and block four houses on Defoe-crescent site, for the T.C. . H. Collins, Borough Surveyor, Colchester.

NOVEMBER 19.—**Derby.**—SHED.—For extension to shed, Nottingham-road, for the T.C. Mr. C. A. ws, Borough Surveyor, Babington-lane, Derby. posit £1 1s.

NOVEMBER 19.—**Heads Nook.**—HALL.—Erection of illage hall at Heads Nook. Messrs. Higginson slack, architects, Lowther-street, Carlisle.

NOVEMBER 19.—**Hull.**—PAINTING.—For internal inting at Guildhall and external painting of certain operties, for the T.C. City Architect, Guildhall, ll.

NOVEMBER 19.—**Kirkcaldy.**—WAR MEMORIAL.—For ection of memorial and laying-out of site. Messrs. aston & McKay, architects, 72, George-street, Perth. posit £1 1s.

NOVEMBER 19.—**London, S.W.18.**—HOUSES.—Erection of 52 houses on three selected sites on the South-ds Housing Estate, for the Wandsworth Borough uncil. Mr. G. Leonard Elkington, A.R.I.B.A., uncil's Architect, 7, Laurence Pountney-hill, E.C.4.

NOVEMBER 19.—**Lytham St. Annes.**—EXTENSION.—tension of the Ashton Pavilion, for the T.C. Borough rveyor, Town Hall, St. Annes-on-the-Sea.

NOVEMBER 19.—**Plymouth.**—REPAIRS.—For repairs premises at 49, Julian-street, for the T.C. Medical ficer of Health's (Housing) Department, Town Hall, ouse, Plymouth.

NOVEMBER 19.—**Scarborough.**—HOUSES.—Erection of ten pairs of semi-detached and one block of ur houses in Seamer-road and Hinderwell-road, for e T.C. of Scarborough. Mr. S. H. Poole, P.A.S.I., using Superintendent, Town Hall, Scarborough.

NOVEMBER 19.—**Southend-on-Sea, Essex.**—COURT USE.—Erection and completion of a court house d work incidental thereto at Central Police Station, exandra-street, for the Corporation of the County rough of Southend-on-Sea. Mr. Robert H. Dyer, rough Engineer, Municipal Buildings, Southend-Sea. Deposit £2 2s.

NOVEMBER 20.—**Bradford.**—COLOURING.—For colouring, &c., required to be done at the various schools, for the T.C. City Architect, Town Hall, Bradford.

NOVEMBER 20.—**Liverpool.**—ADDITIONS, &c.—(1) Additions to Council School, Larkhill Estate; and (2) rebuilding portion of Domestic Science Centre, Granby-street Council School. Land Steward and Surveyor (Architectural Dept.), Municipal Buildings, Liverpool. Deposit £2 2s.

NOVEMBER 20.—**London, N.W.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Mill Hill, N.W., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

NOVEMBER 20.—**Manchester.**—PAINTING.—For painting interior of the Victoria Arcade, Victoria Buildings, for the T.C. City Architect, Town Hall, Manchester. Deposit 10s. 6d.

NOVEMBER 20.—**Portsmouth.**—SHELTERS.—Erection of tramway shelters on different sites, for the T.C. Mr. V. G. Liorni, Tramways Engineer, Portsmouth. Deposit £2 2s.

NOVEMBER 20.—**Tottenham.**—PAINTING.—For painting of the external woodwork of cottages on the White Hart-lane Estate, Tottenham, for the U.D.C. Surveyor. Town Hall, Tottenham.

NOVEMBER 20.—**Tyldesley.**—HOUSES.—The erection of 32 houses for the U.D.C. Mr. F. E. Jones, Housing Architect, Council Offices, Tyldesley. Deposit £2 2s.

NOVEMBER 20.—**Woolwich.**—ALTERATIONS.—For stage alterations at Woolwich Town Social Club, Mount Pleasant, Plumstead, S.E.18. Secretary at the Club.

NOVEMBER 21.—**Dewsbury.**—HOUSE.—Erection of a detached residence off Wakefield-road, Dewsbury. Messrs. Firth, Son, & Blackburn, Architects, 22, Wellington-road, Dewsbury.

★NOVEMBER 21.—**Woolwich.**—REPAIRS, &c.—For works of repair, painting, &c., at the Dispensary, 99, Rectory-place, for the Board of Guardians. Mr. Arthur Holder, Clerk, 99, Rectory-place, Woolwich, S.E.18.

★NOVEMBER 22.—**Dover.**—HOUSING, &c., ACT, 1923, BOROUGH OF DOVER, ROPEWALK.—(1) Erection of houses: Erection of 23 houses (21 type "A," and 2 type "C"), at the Ropewalk Meadow. Mr. A. T. Miller, architect, 16, Castle-street, Dover. Deposit £1 1s. (2) Road, Sewers and Water Main: Construction of a road, sewers and laying of a water main and other incidental work in connection with the above scheme. Borough Engineer, Maison Dieu House, Dover. Deposit £1 1s.

NOVEMBER 22.—**Hull.**—SCHOOL.—Erection of first portion, Dairycoates School, Hessle-road, for the T.C. Mr. Joseph H. Hirst, City Architect, Guildhall, Hull. Deposit £2 2s.

NOVEMBER 22.—**Liverpool.**—SWITCH HOUSE.—Erection of new high-tension switch house, Garston Old-road, for the T.C. Land Steward and Surveyor's Department, Municipal Offices.

NOVEMBER 22.—**Silsden.**—WAREHOUSE.—For rebuilding four-story warehouse. Mr. J. Hartley, architect, Skipton.

NOVEMBER 22.—**Southend-on-Sea.**—PAINT SHOP.—Erection of a paint shop for tramway cars at the London-road Depot, for the T.C. Mr. Robert H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £2.

NOVEMBER 22.—**Stockton.**—PAINTING.—For painting and decorating the Male Hospital at Portrack Lodge Institution, for the B.G. Mr. T. W. T. Richardson, architect, 57, High-street, Stockton-on-Tees.

NOVEMBER 22.—**Yorks.**—TELEPHONE EXCHANGE.—Erection of a post office and telephone exchange at Shipley, Yorks, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

NOVEMBER 23.—**Aberystwyth.**—HOUSES.—Erection of seven houses on a site at Glanrafon-terrace, Trefechan, within the Borough of Aberystwyth, for the Corporation. Borough Surveyor's Office, Smithfield-road, Aberystwyth. Deposit £1 1s.

NOVEMBER 23.—**Bristol.**—HOUSES.—For erection of 40 houses on the Fishponds Housing site, for the T.C. City Engineer, Housing Department, 51, Prince-street, Bristol. Deposit £1.

NOVEMBER 23.—**Eastbourne.**—BATHING CHALETS.—Erection of 36 bathing chalets for the T.C. Mr. L. Roseveare, Borough Engineer, Eastbourne.

NOVEMBER 23.—**Liverpool.**—ADDITIONS.—For new married quarters and forecourt to same, Old Swan Fire Station, for the T.C. Land Steward and Surveyor (Architectural Department), Municipal Buildings, Liverpool. Deposit £1 1s.

NOVEMBER 23.—**Sheffield.**—GLAZIERS' WORK, &c.—For plumbers' and glaziers' work required for general repairs during the year 1924, for the E.C. Education Committee, Leopold-street, Sheffield.

NOVEMBER 23.—**York.**—HOUSES.—Erection of one block of three houses at Newton-upon-Ouse, for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £2 2s.

NOVEMBER 24.—**Dorchester.**—REPAIRS, &c.—(1) Repairs to roofs at 21, North-square; (2) painting and repairs to dressing-rooms at Corn Exchange, for the T.C. Mr. H. D. Strange, Borough Surveyor, 21, North-square, Dorchester.

NOVEMBER 24.—**Huddersfield.**—HOUSES.—Erection of 24 houses (in six blocks of four houses each), in Hanging-Stone-road, Berry Brow, for the T.C. Borough Architect, 26, Ramsden-street, Huddersfield.

NOVEMBER 24.—**Lyminge.**—REPAIRS.—For repairs and painting to pair of cottages and farm buildings at Valley Farm, Lyminge, for the Kent C.C. Mr. P. W. Cox, Chief Agricultural Officer, Sessions House, Maidstone.

NOVEMBER 24.—**Middlesex.**—HOUSES.—Erection of 32 houses near the Ride, Boston-road, Brentford, for the Middlesex County Council. County Engineer, Middlesex Guildhall, Westminster, S.W.1. Deposit £2 2s.

NOVEMBER 26.—**Hove.**—PAINTING.—For colouring and painting portions of the interior of the Town Hall. Borough Surveyor, Town Hall, Hove.

NOVEMBER 26.—**Woking.**—ALTERATIONS.—For alterations and additions to the Pavilion at the Recreation Ground, for the U.D.C. Mr G. J. Wooldridge, Surveyor, Council Offices, Woking.

NOVEMBER 27.—**Glasgow.**—HOUSES.—Erection of 200 houses at Merryflats, Govan, for the T.C. Mr. J. Lindsay, Town Clerk, City Chambers, Glasgow.

NOVEMBER 27.—**Ilford.**—MATERNITY HOME AND MEDICAL OFFICER'S RESIDENCE.—Erection and completion of the following buildings at Hatch-lane, Ilford, for the Ilford U.D.C.: (1) Maternity home; (2) medical officer's residence. Mr. H. Shaw, M.Inst. C.E., Engineer and Surveyor to the Council, Town Hall, Ilford. Deposit £5 5s.

NOVEMBER 27.—**Lurgan.**—HOUSES.—Erection of 22 cottages in the rural district of Lurgan, for the Government of Northern Ireland. Mr. W. D. Scott, Assistant Secretary, Ministry of Finance, 15, Donegall-square West, Belfast. Deposit £1.

NOVEMBER 27.—**Truro.**—ADDITIONS.—For additions and alterations to 14, High Cross, Truro. Mr. Alfred J. Cornelius, architect, Truro.

NOVEMBER 28.—**Harrogate.**—PAINTING.—For painting, &c., at Royal Bath Hospital and Rawson Convalescent Home. Mr. E. P. L. Dixon, secretary, Harrogate.

NOVEMBER 30.—**London, S.W.**—TELEPHONE EXCHANGE.—Erection of Sloane new telephone exchange, Scolding-street, S.W., for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit one guinea (payable to the Secretary).

NOVEMBER 30.—**Singapore.**—POST OFFICE.—**Erection of new general post office, Singapore. Crown Agents for the Colonies, 4, Millbank, S.W.1. Deposit £10.**

DECEMBER 1.—**Adisham.**—RE-SHINGLING.—For the re-shingling of Adisham Church tower. Mr. T. F. W. Grant, 11, Buckingham-street, Adelphi, W.C.2.

★DECEMBER 3.—**Barnet, N.**—HOUSES.—Erection of 23 houses and contingent work on land adjoining May's-lane and May's-lane-road, for the Barnet U.D.C. Mr. W. B. Chancellor, Engineer and Surveyor, Council Offices, Barnet.

DECEMBER 3.—**Leominster.**—HOUSES.—Construction of 10 parlour-type and 10 non-parlour-type houses, for the T.C. Mr. James Budd, Borough Surveyor, Town Hall, Leominster.

★DECEMBER 4.—**Bodmin.**—NEW POST OFFICE.—Erection of a new post office at Bodmin, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s (payable to the Secretary).

★DECEMBER 5.—**Brighton.**—HOUSES.—Erection of 87 houses on a portion of the Queen's Park Housing Site, for the County Borough of Brighton. Either member of the Panel of Architects: Messrs. Clayton & Black, 10, Prince Albert-street: Messrs. T. Garrett & Son, 34, Ship-street; Mr. E. Wallis Long, 56, East-street: Mr. W. H. Overton, 22, Ship-street. Deposit £1.

★DECEMBER 18.—**Hackney, E.8.**—BUILDING WORKS.—Building works, being extension and completion of the electricity sub-station at Dalston-lane, Hackney, for the Metropolitan Borough of Hackney. Borough Electrical Engineer, 306, Mare-street, Hackney, E.8, on and after November 26. Deposit £1 1s.

★DECEMBER 19.—**Featherstone.**—HOUSES.—Erection of 20 houses at Little-lane, Purston, near Pontefract, for the Featherstone U.D.C. Mr. Samuel Chesney, A.R.I.B.A., Council Offices, Featherstone, near Pontefract. Deposit £2 2s.

DECEMBER 19.—**Hawksworth.**—FARMHOUSE, &c.—(*a*) Farmhouse and buildings at Lane Side Farm, Hawksworth; (*b*) alterations and repairs to existing farm buildings at Lane Side Farm, Hawksworth, for the West Riding Small Holdings' Committee. Land Agent, County Hall, Wakefield. Deposit £1.

NO DATE.—**Grantham.**—ALTERATIONS.—For alterations and additions to Finkin-street Wesleyan Church, Grantham. Mr. A. E. Lambert, architect, 28, Park-row, Nottingham. Deposit £2 2s.

★NO DATE.—**Higher Openshaw.**—MISSION HALL.—Building Baptist Mission Hall at Higher Openshaw. Mr. J. A. North, 46, Toxteth-street, Higher Openshaw, Manchester.

FURNITURE, MATERIALS, etc.

NOVEMBER 17.—**Bootle.**—MATERIALS.—Supply of granite setts, channels, concrete flags, cement, &c., to the T.C. Borough Engineer, Town Hall, Bootle.

NOVEMBER 17.—**Lewes.**—MATERIALS.—Supply of granite, tarred macadam and tar to the East Sussex C.C. Mr. F. J. Wood, County Surveyor, County Hall, Lewes.

NOVEMBER 17.—**Tredegar.**—SUPPLIES.—For supply to U.D.C. for its various departments of (1) 50 cloth overcoats, 50 pairs of leather leggings, 50 oilskin coats and overalls; and (2) 100 cloth overcoats, 100 pairs of leather leggings, and 100 oilskin coats and overalls. Mr. J. T. Phillips, Clerk to the Council, Bedwellty House, Tredegar.

NOVEMBER 19.—**Bradford.**—STORES.—Supply of stores to Bradford Corporation Tramways. Mr. R. H. Wilkinson, General Manager, 7, Hall Ings, Bradford.

NOVEMBER 19.—**Chichester.**—MATERIALS.—Supply of road materials to the West Sussex C.C. Mr. H. W. Bowen, County Surveyor, Southgate House, Chichester.

NOVEMBER 19.—**Chichester.**—TAR.—Supply of about 200,000 gallons of tar to the West Sussex C.C. Mr. H. W. Bowen, County Surveyor, Southgate House, Chichester.

NOVEMBER 19. — **Dublin.** — STORES. — **Supply of stores for six months to the Dublin United Tramways Co.** Offices, 59, Upper Sackville-street, Dublin.

NOVEMBER 19.—**Rhondda.**—TARRED SLAG MACADAM.—For supply to the Rhondda U.D.C. of 1,000 tons of tarred slag macadam in various gauges of 2½, 1½ and ⅜ ins. Material to be delivered to G.W.R. Stations at Porth, Trealaw, Ystrad, Tylorstown, and Ferndale. Mr. E. Taylor, Surveyor, Council Offices, Pentre (Rhondda).

NOVEMBER 20.—**Glasgow.**—MATERIALS.—Supply of materials, for six months, to the Tramways Department. Mr. James Dalrymple, General Manager, 46, Bath-street, Glasgow.

NOVEMBER 20.—**Islington.**—MATERIALS.—Supply of (*a*) 650 tons of granite or slag macadam; and (*b*) castings and other ironwork, to the B.C. Borough Engineer, Municipal Offices, Islington.

NOVEMBER 20.—**Warrington.**—STORES.—**Supply of stores for twelve months to the Cheshire Lines Committee.** Stores Superintendent, Cheshire Lines, Warrington.

NOVEMBER 20.—**Wealdstone.**—ROAD MATERIALS.—Supply of 1,000 tons of 2 in. bituminous granite for bottoming; 150 tons of ½ in. bituminous granite topping; and 50 tons of ¼ in. granite or limestone chippings, to the U.D.C. Mr. H. Walker, Surveyor, Wealdstone.

NOVEMBER 21.—**Dublin.**—NOTICE PLATES.—Supply to the Office of Public Works post office notice plates. Mr. J. J. Healey, Secretary, Dublin.

NOVEMBER 21.—**London.**—FIRE APPLIANCES.—Supply to H.M. Works Commissioners of fire and sand pails, and smothering cloth tubes, &c. Controller of Supplies, H.M. Office of Works, &c., King Charles-street, S.W.1.

NOVEMBER 22. — **Newcastle-on-Tyne.** — STORES.—Supply of stores to the Tyne Improvement Commission for six or twelve months. Mr. A. Blacklock, Secretary, Bewick-street, Newcastle-on-Tyne.

NOVEMBER 23.—**Liverpool.**—MATERIALS.—Supply of tramway material to the T.C. City Engineer, Municipal Buildings, Liverpool.

NOVEMBER 23.—**Swindon.**—MATERIALS.—Supply of oils and turpentine, electrical wire and cable, &c., to the G.W.R. Co. Stores Supt., Swindon.

NOVEMBER 26.—**Barnet.**—MATERIALS.—Supply of flints, hoggin, ballast, sand, granite chippings, &c., to the U.D.C. Mr. F. P. Kindell, Surveyor, Council Offices, Friern Barnet-road, N.

NOVEMBER 28.—**Glamorgan.**—FURNITURE.—For supply of bedding and furniture for the use of the Glamorgan Constabulary, to the Glamorgan Standing Joint Committee. Office of the Chief Constable, Canton, Cardiff.

ENGINEERING, IRON AND STEEL.

NOVEMBER 17. — **Annaghkilly.** — BRIDGE.—Reconstruction of a steel viaduct at Annaghkilly, between Newbliss and Clones, for the Great Northern Railway (Ireland). Mr. J. B. Stephens, Secretary, Amiens-street Station, Dublin. Deposit £2 2s.

NOVEMBER 17.—**Brynamman.**—DRIVAGE.—For constructing a drift to cross measure dip head. Length, 140 yds.; width, 9 ft. in arms; collars, 6 ft. in arms; height, 6½ ft. from top of sleeper. Gradient, 9 in. per yd. Manholes, 3 × 4 × 6ft. Work to be done for. Rhosamman Colliery Co., Ltd., to include all labour for rubbish clearing, &c. Compressed air and boring drills supplied by Company. Mr. R. E. Rees, Manager, Rhosamman Colliery, Brynamman.

NOVEMBER 19. — **Belfast.** — PIPING. — Supply of steam, water and other piping at the Harbour Power Station, for the T.C. City Electrical Engineer, Belfast. Deposit £2 2s.

NOVEMBER 19.—**Bristol.**—ROOF TRUSSES, &C.—(1) Provision and fixing of five mild steel roof trusses to kitchen at Stapleton Institution; and (2) provision and fixing of galvanised wire guards to four fire escape staircases at Stapleton Institution, for the B.G. Mr. Thos. S. Lamb, Clerk, St. Peter's Hospital, Bristol.

NOVEMBER 19.—**Bristol.**—WIRING.—Re-wiring for electric lighting of Liverpool Shed, The Grove, Bristol, for the Docks Committee. Mr. T. A. Peace, Chief Engineer, Port of Bristol. Deposit £2.

NOVEMBER 19.—**Hastings.**—RESERVOIR.—For enlarging Ecclesbourne Reservoir, for the U.D.C. Mr. P. H. Palmer, Borough Engineer, Town Hall, Hastings. Deposit £2.

NOVEMBER 19.—**Havant.**—ELECTRIC LIGHT.—For electric lighting installation at Hospital of the Havant Joint Hospital District Board. Particulars at Hospital.

NOVEMBER 20.—**Burnham-on-Crouch.**—CONCRETE TANK.—Construction of a covered reinforced concrete sedimentation tank (of about 15,000 gallon capacity), for the U.D.C. Mr. E. Dilliway, Clerk, Council Offices, Burnham-on-Crouch. Deposit £1.

NOVEMBER 20. — **France and Belgium.** — HEADSTONES.—Total supply of 25,000 headstones, packed and delivered f.o.r., to be divided into a number of contracts, none of which shall be for less than 100 headstones, for the Imperial War Graves Commission. The Secretary, Works Dept., Imperial War Graves Commission, 82, Baker-street, London, W.1, marked "Headstones Contract 5079/S.," "Headstones Contract 5079/T."

NOVEMBER 20.—**New Zealand.**—PLATE GIRDER SPANS.—For supply of plate girder spans for the Pihama and Opunake Section Bridges and Turapiro Bridge, for the Public Works Tender Board, Wellington. Department of Overseas Trade, 35, Old Queen-street, S.W.

NOVEMBER 20.—**Soyland.**—WATER PIPES.—Supply of about 210 yards of 4 in. cast iron water pipes and other specials, for the U.D.C. Mr. Holmes Hey, Water Inspector, Council Offices, Ripponden.

NOVEMBER 20.—**Wandsworth.**—GUARDS.—Providing and fixing 20 new wire guards to radiators at St. John's Hospital, for the B.G. Mr. F. J. Curtis, Clerk, Offices, St. John's-hill, Wandsworth, S.W.

NOVEMBER 21.—**Hurst.**—GATES.—Providing and fixing 406 lineal yards of wrought-iron gates, with cast-iron pillars. Mr. Samuel Shirt, Surveyor, Council Offices, Lower King-street, Hurst.

NOVEMBER 21.—**London.**—CRANES.—Supply to the East Indian Railway Co. of electric overhead travelling cranes. Mr. G. E. Lillie, Secretary, 73–76, King William-street, E.C.4. Charge £1 1s.

NOVEMBER 21.—**Manchester.**—ELECTRICAL PLANT.—For electrical drive for ammonia compressor, for the T.C. Mr. A. Chadwick, General Superintendent, Markets Department, Town Hall, Manchester.

NOVEMBER 21.—**Reigate.**—PUMPS.—Supply of electrically-driven drainage pumps, for the T.C. Mr. C. H. Wordingham, 7, Victoria-street, S.W. Deposit £1 1s.

NOVEMBER 21.—**Rhiw.**—PIER REPAIRS.—Repairs to the Pier at Rhiw, near Aberdaron, for the North Wales Iron and Manganese Co., Ltd. Mr. John Dunn, Irwell Chambers, Fazakerley-street, Liverpool.

NOVEMBER 21.—**Wallingford.**—WATER TOWER.—Erection of water tower in either iron or ferro-concrete, and steel tank of 70,000 gallons capacity, for the T.C. Manager, Waterworks, Wallingford.

NOVEMBER 21.—**Whitby.**—ELECTRIC LIGHTING.—For the installation of electric lighting at the new band pavilion and promenade extension at the Spa, West Cliff, for the U.D.C. Electrical Engineer, 45, Flowergate, Whitby. Deposit 5s.

NOVEMBER 22.—**Dungannon.**—PIPES.—Supply of water pipes to the R.D.C. Mr. William M'Guffin, Clerk, Workhouse Board-room, Dungannon.

NOVEMBER 22.—**Edinburgh.**—FENCING.—For supplying and erecting 137½ yds. of malleable iron fencing, 5 ft. high, for the T.C. Burgh Engineer, City Chambers, Edinburgh.

NOVEMBER 22.—**Kensington.**—WEIGHBRIDGE.—Construction of a new weighbridge of 20 tons capacity at wharf in Kensal-road, for the B.C. Borough Engineer, Town Hall, Kensington, W.8.

NOVEMBER 24.—**Plymouth.**—GAS PLANT.—Supply of new section of carburetted water gas plant, &c., to the T.C. Mr. W. P. Tervet, Manager, Gas Works, Keyham, Devonport. Deposit £2 2s.

NOVEMBER 26. — **Girvan.** — WATER WORKS. — Construction of a reservoir on the Penwhapple Burn, including embankment, outlet culvert, valve tower, waste weir, waste water channel, and meter house, for the T.C. Messrs. Warren & Stuart, 94, Hope-street, Glasgow. Deposit £2.

NOVEMBER 26.—**London.**—PUMPS.—For two centrifugal pumps, together with pipes, fittings, &c., for the Isle of Dogs Pumping Station, for the L.C.C. Chief Engineer, Old County Hall, Spring Gardens, S.W.1. Deposit £5.

NOVEMBER 27.—**Carlton.**—BRIDGE.—Construction of a steel girder road bridge of 150 ft. clear span, with abutments and two flood openings, over the River Aire at Carlton, near Snaith, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

NOVEMBER 27. — **Gravesend, Kent.** — HOT-WATER SUPPLY AND HEATING.—Hot-water supply to the wards of the Poor Law Institution, together with heating one part of the building, for the Guardians of the Parish of Gravesend. Particulars on personal application to Mr. Challinor, the Master of the Institution, at 10, Trafalgar-road, Gravesend, on the 14th, 16th, and 19th inst., between 10 and 4 o'clock each day.

★NOVEMBER 27.—**Lambeth.**—ELECTRIC LIGHT AND FITTINGS.—Provision and installation of electric light wiring and fittings at the Lambeth Hospital, Brook-street, Kennington, S.E., for the Guardians of the Poor of the Parish of Lambeth. Clerk to the Guardians, Guardians' Board Room and Offices, Brook-street, Kennington-road, S.E.11, between the hours of 10 and 5 (Saturdays excepted). Deposit £2.

NOVEMBER 27.—**Willesden.**—ROLLER.—For one tandem type steam roller, for the U.D.C. Mr. F. Wilkinson, Engineer, Town Hall, Dyne-road, Kilburn.

NOVEMBER 28.—**Manchester.**—HEATING.—Providing and fixing a low-pressure heating apparatus at the Orford-street Municipal School, for the Education Offices, Deansgate, Manchester. Deposit £1 1s.

NOVEMBER 29.—**London.**—BRIDGES.—Supply of 14 girder bridges, 60 ft. clear deck spans, for the India Store Dept. Branch 10, Belvedere-road, S.E.

NOVEMBER 30.—**Grangemouth.**—WATER PIPES.—Supplying 820 tons of 12 in. diameter cast-iron pipes and specials, or alternatively, for supplying 1,411½ tons of 12 in. diameter cast-iron pipes and specials, to the T.C. Mr. David A. Donald, Water Engineer, Town Hall, Grangemouth.

NOVEMBER 30. — **Hemsworth.** — BRIDGE. — Reconstruction of Oldlake Bridge (8 ft. span), on the Doncaster and Selby main road, within the rural districts of Hemsworth and Pontefract, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

NOVEMBER 30.—**Newcastle-on-Tyne.**—CRANE.—For 20-ton hydraulic crane with accumulator and electrically-driven force pump, for the Tyne Improvement Commissioners. Mr. R. Aughton, General Manager, Bewick-street, Newcastle-upon-Tyne. Deposit £1.

NOVEMBER 30. — **Sydney.**—BRIDGE.—**Construction of the superstructure and substructure of a cantilever bridge across Sydney Harbour; also an alternative tender for the construction of the superstructure and substructure of an arch bridge across Sydney Harbour. Agent-General for New South Wales, Australia House, Strand, W.C.**

★DECEMBER 1. — **London, W 10.** — ELECTRICAL WORK.—Electrical work required to be done at the St. Marylebone Hospital, Rackham-street, Notting Hill, W.10, in connection with the X-ray Department and Lecture Room for Nurses, for the St. Marylebone Board of Guardians. Messrs. Jarvis & Richard, architects, 60, Tufton-street, S.W.1, between the hours of 10 a.m. and 5 p.m. on November 13, 14 & 15. Deposit £1 Treasury Note.

DECEMBER 3.—**Sydney.**—SWITCHGEAR.—**High tension switchgear, for Municipal Council. Department of Overseas Trade** (Room 52), 35, Old Queen-street, S.W.1.

DECEMBER 6.—**St. Pancras.**—PUMP.—Supply of vertical electric motor-driven condensing water pump to deal with 750,000 gallons per hour, for the B.C. Electricity Dept., St. Pancras. Deposit £1.

DECEMBER 7.—**London.**—STEELWORK, &C.—(1) ... work for bridges, (2) cast-iron pipes and valves ... South Indian Railway Co. Offices, 91, Petty Fr... Westminster, S.W.1. Charge 5s. each.

★DECEMBER 11.—**Temple Cloud, near Bris...** HEATING (HOT-WATER).—Installing, for the Cl... B.G. in their Institution, a system of hot-water he... and hot-water service, together with sundry ... improvements. The Engineer, Clutton Union, T... Cloud, near Bristol.

DECEMBER 20.—**South Africa.**—MATERIALS, ... Supply to the municipality of Graaf-Reinet of (*a*) ... iron water-pipes, valves and fittings; (*b*) cru... engines, generators and street equipment. D... ment of Overseas Trade, 35, Old Queen-street, S.W...

DECEMBER 31.—**Kempton Park.**—ENGINES, ... Supply and erection of two reciprocating engine... pumps at Kempton Park Pumping Station, f... Metropolitan Water Board. Chief Engineer's D... ment, 173, Rosebery-avenue, Clerkenwell, E.C. ... posit £3 3s.

JANUARY 17, 1924.—**New Zealand.**—PIPES, ... Supply of 10 in., 12 in., and 21 in. steel pipes ... fittings, for the Orongorongo-Karori Water ... Department of Overseas Trade, 35, Old Queen-s... S.W.1.

MAY 1, 1924.—**China.**—BRIDGE.—The Comm... Councillor at Peking has forwarded to the Depart... of Overseas Trade copies of the official text of a c... tenders by the Hai Ho Conservancy Commissio... the erection of a bridge over the Hai Ho at Tie... Tenders must be in the hands of the Commission ... noon on May 1, 1924. The cost of erecting th... bridge has been roughly estimated at Tls. 700,00... £105,000. Department of Overseas Trade, 35... Queen-street, S.W.1. Reference 11647/F.E./E...

NO DATE.—**Lambeth.**—LAUNDRY PLANT.—Pro... and installation of laundry plant at the No... School, for the B.G. Mr. James L. Goldspink, ... Guardians' Offices Brook-street, Kennington, S...

ROAD, SANITARY, AND WATE... WORKS.

NOVEMBER 17.—**Bootle.**—ROADS.—Reconstr... with granite setts on concrete of five roads, f... T.C. Borough Engineer, Town Hall, Bootle. ... posit £1 1s.

NOVEMBER 17.—**Chesterfield.**—WATER MAIN... laying 1,500 yards of 6 in. cast-iron water m... Ashover, for the R.D.C. Mr. Gilbert Frith, ... Works Engineer, Chesterfield. Deposit £1 1s.

NOVEMBER 17. — **Hayes.** — ROADS. — Maki... various streets, for the U.D.C. Mr. D. C. Fidle... veyor, Council Offices, Hayes, Middlesex. Depo...

NOVEMBER 17.—**Southend-on-Sea.**—BOWLING G... —Laying-out of land and the construction of b... green, with boundary walls, fencing, &c., at Y... Nursery, for the T.C. Mr. Robert H. Dyer, Bo... Engineer, Municipal Buildings, Southend-o... Deposit £2.

NOVEMBER 17.—**Tilbury.**—ROADS.—Reconstr... in reinforced concrete of Montreal-road and p... St. Chads-road, for the U.D.C. Mr. S. A. Hill... Surveyor, Council Offices, Tilbury. Deposit £1.

NOVEMBER 19. — **Caerphilly.** — PRIVATE S... WORKS.—For carrying out, for the U.D.C., the ke... paving, sewering, forming, metalling, &c., of Bry... nach-avenue and Brynview-avenue, Ystrad M... Mr. T. H. Richards, Surveyor, Council Offices, ... philly. Deposit £1 1s.

NOVEMBER 19.—**East Preston.**—ROADS.—Exe... of tar paving and other works at the Workhouse ... Preston, near Littlehampton, for the East Presto... Mr. J. W. Calvert, Clerk, East-street, Littlehar...

NOVEMBER 19.—**Edmonton.**—ROADS.—For m... up roads at the Edmonton Sewage Farm, f... U.D.C. Mr. Cuthbert Brown, Town Hall, Edm... N. 9.

NOVEMBER 19.—**London, E.C.**—PAVING.—F... ing of the footways of London Bridge with York ... and the maintenance thereof for nine years, f... Corporation of the City of London. City Sur... Guildhall, E.C.2, between the hours of 10 a.m ... 4 p.m. Deposit £2 2s.

NOVEMBER 19.—**Maldon.**—ROADS.—For layir... yards super of stone slab paving and 80 yards ... kerbing to footway in High-street, for the T.C. Bo... Engineer, Municipal Offices, Maldon.

NOVEMBER 19.—**Poole.**—ROADS.—Making-u... 1,200 yds. of road to Banks-road; (*b*) part of ... road; and (*c*) forming sea wall at Sandbanks, f... T.C. Mr. S. J. Newman, Borough Surveyor, ... Deposit £2 each.

NOVEMBER 19.—**Southborough.**—WATER MA... Provision and laying of about 1,550 yds. of 6 in ... iron water mains, for the U.D.C. Messrs. G. & ... Hodson, Engineers, Bank Chambers, Loughbo... Deposit £5 5s.

NOVEMBER 19.—**Tipton.**—SANITARY.—Convers... privies in various wards, for the U.D.C. Mr. ... Jukes, Surveyor, Public Offices, Tipton. D... £2 2s.

NOVEMBER 19.—**Urmston.**—ROADS.—For im... ment works in Victoria-street, for the U.D.C. Sur... Council Offices, Urmston. Deposit £1 1s.

NOVEMBER 19.—**Waltham.**—ROADS.—For the ... ing of Honey-lane, for the U.D.C. Mr. W. C. Holl... Surveyor, Town Hall, Waltham Abbey.

NOVEMBER 20.—**Acton.**—ROADS, &C.—For m... up various roads, laying-out and levelling open s... painting railings, &c., for the U.D.C. Bo... Surveyor, Municipal Offices, Acton.

NOVEMBER 20.—**Glasgow.**—ROADS.—Construct ... a main road at Cardonald, 60 ft. wide and 1,30... in length, for the T.C. Director of Housing, ... Town Hall.

NOVEMBER 20.—**Lees.**—ROADS.—Making-up T... street, for the U.D.C. Mr. W. J. Lomax, 11, ... street, Bolton. Deposit £5.

NOVEMBER 20.—**Maesteg.**—ROAD WORKS ... widening and reconstructing Llwydarth-road ... Bethania-street, Maesteg, for the U.D.C., in conn... with relief of unemployment. Unskilled labour ... employed. Mr. S. J. Harpur, Surveyor, Talbot-... Maesteg. Deposit £2 2s.

MBER 20. — **Salford.** — ROADS. — For tar-misingl the surface and completing Upper ad, and reconstructing the surface of Littleton-th rock asphalte on concrete. Borough Engi-own Hall, Salford. Deposit £1 1s.

MBER 21.—**Aberkenfig (Glam).**—ROAD WORK. rrying out, for the Penybont R.D.C., the im-nts proposed for the district roads between nd main roads, Aberkenfig. Mr. C. Jenkins, r, 83, Nolton-street, Bridgend.

MBER 21.—**Birmingham.**—TRAMWAYS.—Con-n of about 700 yds. of solid construction rack tramway, and about 3,000 yds. of wooden construction double track tramway, in Bristol-the T.C. Mr. H. H. Humphries, City Engineer, House, Birmingham. Deposit £5.

MBER 21.—**Kinghorn.**—WATER MAINS.—For g and laying about three miles of cast-iron r the T.C. Messrs. Crouch & Hogg, C.E., edoch-street, Glasgow. Deposit £1 1s.

MBER 21.—**Morley.**—ROADS.—For paving of 584 super yds. of carriageway with granite and dge setts, for the T.C. Mr. F. Turner, B.Sc., Engineer, Town Hall, Morley. Deposit 10s.

MBER 21.—**Thornton.**—SEWERAGE WORKS.—struction of sewerage works, for the U.D.C. Hindle, Engineer, 5, Cedar-street, Blackpool. £5 5s.

MBER 22. — **Windsor.** — SEWAGE DISPOSAL —For construction of sewage disposal works at hill, for the R.D.C. Mr. J. H. Blizard, 7, -street, S.W. Deposit £10 10s.

MBER 23.—**Barking.**—ROADS.—For widening dge-road and Ripple-road, for the U.D.C. r, Clock House Chambers, East-street, Barking.

MBER 23.—**Blean.**—SEWER.—Construction of 71 yds. lineal of 9 in. stoneware pipe sewer, &c., arish of Reculver, for the R.D.C. Mr. F. A. urveyor, Blean Institution, Herne Common, Bay.

MBER 23.—**Hexham.**—SEWER.—For taking existing conduit sewer and laying new 6 in., 12 in. pipe sewers in the Parish of Corbridge, R.D.C. Clerk to the Parochial Committee, e-on-Tyne. Deposit £1.

MBER 23.—**Middleton.**—SEWER.—Construction for the T.C. Borough Engineer, Town Hall, n.

MBER 23. — **Mitcham (Surrey).** — ROADS.— p of certain roads on the Council's Housing for the Mitcham U.D.C. Mr. B. Bullock, Surveyor, Broadway House, Lower Mitcham.

MBER 24.—**Morley.**—SANITARY.—For carrying tary improvements at Bridge-street property, T.C. Mr. F. Turner, Borough Engineer,

MBER 26.—**Camberwell.**—ROADS.—Making-up urt-road, East Dulwich, for the B.C. Mr. Bell, Borough Engineer, Town Hall, Peckham-mberwell, S.E.5.

MBER 26.—**Driffield.**—WELL.—For the sinking boreholes, 150 ft. deep, and providing and ree borehole hand pumps, at Garton-on-the-or the R.D.C. Mr. George Harker, 17, Ex-treet, Driffield.

MBER 26.—**Enfield.**—SEWAGE DISPOSAL WORKS. ruction of sewage disposal works at Cuckoo e, for the U.D.C. Mr. H. R. Crabb, Surveyor, ffices, Enfield. Deposit £5 5s.

MBER 26.—**Mitcham.**—ROADS.—For forming 0 super yds. footways at Tamworth Recreation for the U.D.C. Messrs. Chart, Son & Reading, rs, Croydon. Deposit 10s.

MBER 27.—**Dover.**—ROADS.—Widening of estone-road to a width of 60 ft. for a distance ximately 600 yds., for the T.C. Mr. Wm. B. Borough Engineer, Maison Dieu House, Dover. £2 2s.

MBER 27.—**Leyton.**—ROADS.—Reconstruction ns of Lea Bridge-road with reinforced concrete nite sett paving, for the U.D.C. Mr. E. H. urveyor, Town Hall, Leyton. Deposit £10.

MBER 27.—**Newton Abbot.**—WATER MAIN.— g and laying 1,100 yds. of 3 in. cast-iron ain, in the parish of Kingskerswell, for the Mr. R. A. Rogers, surveyor, Union-street, Abbot.

MBER 28.—**Birmingham.**—SEWERS.—Construc-bout 2,135 yds. of brick and concrete sewers, yds. of stoneware and cast-iron pipe sewers, T.C. Mr. H. H. Humphries, City Engineer, ncil House, Birmingham. Deposit £2.

MBER 28.—**Manchester.**—ROADS.—For sewering, kerbing, ballasting, &c., roads on the Burnage Estate, for the T.C. City Engineers (District r's Department), Town Hall, Manchester. £1 1s.

MBER 30.—**Adwick-le-Street.**—SEWAGE DIS-ORKS.—For construction or sewage disposal Skellow, for the R.D.C. Mr. George Gledhill, r, Council Offices, Adwick-le-Street, near er. Deposit £2.

MBER 30.—**Hay (Breconshire).**—RESERVOIR TRUCTION.—For (*a*) Carrying out, for the the reconstruction of the watertight lining of r bed at the waterworks at Hay Common; for erecting unclimbable iron fencing round and filter bed. Tenders for whole of work) or (*b*). Mr. H. Gilby, surveyor, Hay. De-1 1s.

MBER 30.—**Lauder.**—CEMETERY EXTENSION.— ling stone and brick walls, draining and levell-onnection with an extension of the cemetery. L. Broomfield, Lauder.

MBER 30. — **Witham.** — SEWAGE DISPOSAL —Construction of sewage disposal works, U.D.C. Messrs. Sands & Walker, Milton rs, Nottingham. Deposit £3 3s.

DECEMBER 3.—**Barnsley.**—ROADS.—For making up of Salisbury-street, Kensington-road, Canning-street (Worsbro' Common), Dillington-square, and Dumfries-row, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley.

★DECEMBER 3.—**London.**—TAR PAVING WORKS, &c.—For carrying out tar paving works, &c., to the Council's elementary and other schools and other premises or sites provided or maintained by the Council for a period of twelve calendar months commencing on January 1, 1924, and thereafter until determined by three calendar months' notice given by either party, for the L.C.C. Architect to the Council, The County Hall (Room 3), Westminster Bridge, S.E. 1.

DECEMBER 8. — **Kidderminster.**—PAVING.—Laying reinforced concrete foundation and paving with granite setts in Station Hill, for the T.C. Mr. J. Hawcroft, Borough Engineer, Town Hall, Kidderminster. Deposit £2 2s.

DECEMBER 11.—**Gosforth.**—SEWERS.—Laying new sewers and formation of roadway on housing site, for the U.D.C. Mr. Geo. Nelson, Surveyor, Council Chambers, High-street, Gosforth.

★NO DATE.—**Wallasey.**—WATER CULVERT AND PUMP ROOM.—Building of a water culvert and pump room below ground level, for the County Borough Council of Wallasey. Borough Electrical Engineer and Manager, Mr. B. T. Hawkins, at his office, Seaview-road, Wallasey.

Competitions.

(*See Competition News, page* 756).

Auction Sales, Tenders, etc.

NOVEMBER 17. — **Reading.** — ADDITIONS. — The director of Messrs. M. Venner & Sons, Ltd., Reading, are prepared to consider names of builders and contractors who would be prepared to submit tenders for the erection of additions to the Berkshire Bacon Factory, Reading. Mr. Frederick G. Sainsbury, M.S.A., M.I.Struct.E., architect, 154, Friar-street, Reading.

NOVEMBER 20. — **East Kent.** — Messrs. Worsfold & Hayward (in conjunction with Messrs. S. Hinds & Son) will sell, at the Wingham Colliery, between Dover and Canterbury, valuable colliery plant and machinery. Market-square, Dover, and Walmer, Kent.

NOVEMBER 20.—**London, E.C.**—Messrs. St. Quintin, Son & Stanley are instructed to offer for sale Crown lands, by direction of the Commissioner of His Majesty's Woods, Forests and Land Revenues, at Winchester House, Old Broad-street, E.C. 2, valuable corner freehold building site, known as 110 to 116 (even), Curtain-road, and 1 to 10, Union-place, E.C.; also various sites will be let by auction, by Order of the Corporation of the City of London. Auctioneers, 50 Threadneedle-street, E.C. 2.

NOVEMBER 21. — **Hayes (Middlesex).** — Messrs. Henry Butcher & Co. have received instructions to sell, by order of Messrs. Sir Robert McAlpine & Sons, on completion of Hayes housing contract, at Hayes, Middlesex, surplus building material, plant and stores office furniture, &c., including several temporary and dismantled wooden workshops, offices, huts, &c. Auctioneers, 63 & 64, Chancery-lane, London, W.C. 2.

NOVEMBER 21. — **Newhaven.** — Messrs. Fuller, Horsey & Co. will sell in lots, by order of C. J. Wills & Sons, Ltd., on account of completion of contract at Newhaven Harbour, contractors' plant, including a 10-ton Wilson loco. crane. Auctioneers, 11, Billiter-square, E.C.3.

★NOVEMBER 21.—**North Cheam.**—Messrs. Veryard & Yates will sell (adjoining on Victoria Hotel) useful building materials, &c. Auctioneers, 365, Norwood-road, S.E.27.

NOVEMBER 22.— **London.**— Messrs. Kemsley will offer for sale at the London Auction Mart, block of freehold building land known as the Chingford Hall Estate, of approximately 40 acres; sewer, gas and water available. Auctioneers, Broad-street House, E.C.2.

★NOVEMBER 27.—**Richmond.**—Messrs. J. T. Skelding & Co. will sell, *re* W. D. Morris & Co., Ltd., in voluntary liquidation (by order of the Liquidator, E. K. Hawkins, Esq., F.S.A.A., Bowden Works, Grove-road, Richmond) the whole of the stock and plant of the above firm of builders and decorators. Auctioneers, 48, Gresham-street, Guildhall, E.C.2.

★NOVEMBER 28. — **Berkshire.** — Messrs. Knight, Frank & Rutley will sell, at Windsor (about 2 miles from the Royal Borough and 20 miles from London), the freehold residential property known as the St. Leonard's Hill Estate. The noble mansion, with garages and stabling, a dower house known as St. Leonard's Dale, four agricultural dairy holdings, the whole extending to about 630 acres. Auctioneers, 20, Hanover-square, W.1.

NOVEMBER 28.—**Rotherhithe, S.E.16.**—Messrs. J. T. Skelding & Co. will sell (by kind permission of Messrs. Scantlin, Taylor & Co.), at Appleby's Yard, Silwood street, Rotherhithe, S.E.16, well-seasoned, dry stock of timber of a large variety of various woods. Auctioneers, 48, Gresham-street, Guildhall, E.C.2.

★DECEMBER 4 AND 5.—**London, E.9.**—Mr. F. H. Clark will sell, at the National Projectile Factory, Hackney Marshes, E.9, all the materials contained therein, including a quantity of building materials, portable buildings, glass, &c. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W.18.

DECEMBER 13.—**London, E.C.**—Mr. Joseph Stower will sell, with vacant possession, freehold property containing the important area of about 75,000 ft., or nearly 1¾ acres, prominently and conveniently situate on the north side of and fronting the main Bow-road. Auctioneers, 43, Chancery-lane, London, W.C.2.

Public Appointments.

★NOVEMBER 21.—**Hull.**—ARCHITECTURAL ASSISTANTS.—Two temporary Architectural Assistants, capable of surveying and levelling in the City Architect's Department, by the Corporation of the City of Hull. City Architect, Guildhall, Hull.

★NOVEMBER 22.—**Godstone.**—Buildings Inspector required in the office of the Surveyor by the Godstone R.D.C. Mr. Christopher Phillips, Clerk to the Council, Council Offices, Oxted, Surrey.

NOVEMBER 26.—**Eastbourne.**—General Foreman in the Borough Engineer and Surveyor's Department required by the County Borough Council of Eastbourne. Mr. Leslie Roseveare, M.Inst.C.E., Borough Engineer, Town Hall, Eastbourne.

NOVEMBER 26. — **Islington, N.** — Competent Quantity Surveyors for taking off, preparation and issue of bills of quantities for an extension of the municipal offices, and for two housing schemes by the Metropolitan Borough of Islington. Council's Architect, Mr. E. C. P. Monson, F.R.I.B.A., F.S.E., &c., of Finsbury-pavement House, 120, Moorgate, London, E.C.2.

★NOVEMBER 28.—**Manchester.**—LECTURER.—Lecturer in Architecture and Master in Design required at the University of Manchester. The Internal Registrar, University of Manchester.

DECEMBER 6.—**Greenwich, S.E.10.**—The Council of the Metropolitan Borough of Greenwich is prepared to receive applications for the following appointments:—(1) Grade B Clerk in the Works Department; (2) Grade A Clerk (between the ages of 17 and 21), in the Town Clerk's Department. Mr. Frederick J. Simpson, Town Clerk, Town Hall, Greenwich-road, S.E.10, endorsed "Grade B Clerk," or "Grade A Clerk," as the case may be.

★NO DATE.—**Cardiff.**—Architectural Assistant required in the County School Architect's Office; also a Quantity Surveyor. Mr. D. Pugh-Jones, County Architect, County Hall, Cardiff.

THE WEEK IN PARLIAMENT.

WESTMINSTER, *Wednesday.*

PARLIAMENT reassembled for the Autumn Session on Tuesday, November 13th.

Houses Sanctioned and Completed.

Sir Kingsley Wood asked the Minister of Health for the number of houses respectively sanctioned, built, and in course of erection under The Housing, &c., Act, 1923.

Sir W. Joynson-Hicks said that 57,830 houses were provided for in schemes approved under The Housing, &c., Act, 1923, so far as returns had been furnished by local authorities, 1,849 houses had been completed ready for occupation and 10,854 were in course of erection on the 1st instant.

Answering a further question, Sir Wm. Joynson-Hicks said that by November 1, 10,854 houses had been commenced and 1,849 houses completed under The Housing, &c., Act, 1923. In addition 1,366 houses were commenced and 2,523 houses completed since August 1 last in connection with uncompleted schemes under The Housing, Town-Planning, &c., Act, 1919. Statistics were not available as to the number of working class houses erected without State assistance during the period, but from returns which he had recently obtained approximately 20,000 new houses of a rateable value not exceeding £26 had been completed during the six months ending September 30 last and over 22,000 containing five rooms or less were in course of construction at that date.

Schemes Sanctioned.

Sir W. Joynson-Hicks informed Sir Walter de Frece that schemes had been approved under The Housing, &c., Act, 1923, providing for the erection of 26,705 houses by local authorities, 3,040 houses by societies, trustees and companies acting under Section 3 of the Act, and 28,085 houses by other forms of private enterprise. Those schemes covered practically the whole country and embrace the areas of nearly 600 local authorities.

Lt.-Col. Guinness said that on November 5, 1923, which was the latest date at which the information was available, 727,331 notices of appeal against the new assessments of property to Income Tax, Schedule A, had been entered. Of this number 620,600 had been disposed of, leaving 106,731 still to be dealt with.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERDARE.—Agreement has been reached between the Aberdare and Mountain Ash U.D.C. for joint purchase of the old Aberdare Canal at approximate cost of £2,400. It is proposed to complete works estimated to cost £42,000, as follows, in the canal bed; improvement, Mountain Ash and Abercynon main road, and construction of new road on canal side Abercynon lock to Town Hall, Mountain Ash; improvement of road, Cwmbach to Mountain Ash. Formal notice of acquirement intention has been given by parties concerned.

BEWDLEY.—Bungalow, for Mr. Clement Bell.

BRECONSHIRE.—The Ministry of Health is to examine ground of proposed new Trefeeca sewer scheme by Hay R.D.C.——Sanction to expenditure by Hay Council of £4,000 on new cattle market has been received subject to site being suitable.——The Brecon (Town) Public Works Committee has passed plans as follows: New sports pavilion for Christ College, Brecon; new theatre for Messrs. R. W. Phillips & Sons. The T.C. has applied for sanction to borrow £7,000 for new high-level water works, stipulating all material used to be British made.

BRENTWOOD.—Plan passed by U.D.C.: Shop, Crown-street, for Larkin & Sons.

BRIGHTON.—Plans passed by T.C.: Conversion into flats, 38, Montpelier-crescent, for Executors of E. J. Reeves; four houses, Hollingbury-road, for W. J. Burstow.

BRISLINGTON.—The Sutton Trustees propose to erect 193 houses in Brislington, all of which are to rank as subsidy houses.

BROMLEY—Plans passed by R.D.C.: Mr. J. Lewis, two detached bungalows, Aperfield-road, Biggin-hill; Mr. E. P. Fitch, two detached bungalows, Aperfield-road, Biggin-hill; Mr. W. F. Miles, detached bungalow, Sutherland-avenue, Biggin-hill; Mr. L. Fosbrooke, garage at Ashlands, Cudham-lane; Mr. H. Lynch-Watson, bungalow, Longdon Wood-avenue, Keston; Mr. E. E. Morris, bungalow at Main-road, Leeson's-hill, St. Paul's Cray; Mr. C. P. Pooley, bungalow, Honeyden-road, North Cray.

CARDIGANSHIRE.—The County Council has decided to make grant towards erection of three bridges at Rhyd, Trebedw, and Henllan by the Llandyssul Council. The Cardigan R.D.C. has applied for grant towards reconstruction of Llechryd-Aberporth road; estimate £7,300.

CALLINGTON (CORNWALL).—The U.D.C. has decided to lay down two hard courts for tennis and a bowling green in Saltash-road recreation field, at an estimated cost of £475

CHISLEHURST.—Mr. T. R. Ferens has given another £10,000 so that the extension to the Farrington Girls' School may be carried out.

DALTON.—Plans passed by U.D.C.: Bungalow at Ireleth, for Mr. H. T. Davidson; new shippon and alterations at Sandside Farm; new shippon and alteration at Billincoat Farm.

DARLINGTON.—The Streets Committee has approved plans for 200 houses, with respect to which the subsidy will be applied for. Sixteen are for the Darlington Co-operative Society.

DEVON.—The C.C. Public Health and Housing Committee is appealing to the Ministry of Health to be allowed to complete the children's pavilion at the Hawkmoor Institution for tuberculous patients.—— The Committee has decided to acquire a site of not less than four acres within reasonable distance of Exeter upon which to erect a hospital.

DUMBARTON.—At Dean of Guild Court plans were passed for an additional 40 houses to be built at Silverton, forming the fourth development of the municipal housing scheme. Mr. W. A. Macartney, the burgh engineer, stated that the cost of the house would be about £400 for the three-apartment variety, and about £475 for the four-apartment variety.

EAST COWES.—Plans for a pair of houses in Oakfield-road, for Messrs. Brading & Son, and a house in York-avenue, for Mr. J. Nayler, have been approved by the U.D.C.

EAST LOTHIAN.—The East Lothian Water Board has decided to put in hand two water extension works, with a view to relieving unemployment and securing an adequate supply to the colliery districts. One scheme, estimated to cost £54,291, involves the laying of a 12 in. main from the Hopes Valley to a service reservoir to be constructed near Haddington. The other, estimated to cost £30,625, provides for the laying of a new trunk main, together with radiating mains, to the existing system.

FALMOUTH.—Mr. P. M. Crosthwaite and Dr. W. V. Shaw, Inspectors of the Ministry of Health, have held an inquiry into the application of the T.C. for sanction to borrow £80,000 for a sewerage scheme.

FLINTSHIRE.—Mr. H. N. Gladstone, of Hawarden Castle, Lord Lieutenant of Flintshire, has offered the Flintshire County Council £7,000 towards establishing a maternity home for Flintshire, subject to the institution being called the "Catherine Gladstone Memorial Home."

GILLINGHAM.—Plans passed by T.C.: Lock-up shop, Woodside, Wigmore, by Mr. E. J. Hammond, for Mr. F. Knight; shop, with dwelling, junction of Barnsole-road with Park-avenue, by Mr. Marshall Harvey, for Mr. Miller; 120 houses, Larkfield and Alexandra-avenues, by Mr. A. W. Little; shop and dwelling, Woodside, Wigmore, by Mr. E. J. Hammond, for Mr. F. Knight; lock-up shop, Gad's-hill, by Mr. Davenport, for Mr. A. Hart; bungalow, Wigmore-road, by Mr. E. J. Hammond, for Mr. F. Parham; bungalow, Barnsole-road, by Mr. E. J. Hammond, for Mr. G. C. Swain.

GLAMORGAN.—The Glamorgan County Council is to proceed with following works: New school and additions at Tymeinwr to accommodate 550 children; new school at Larleston for 150 children; additions to schools at Kenfig-hill for 50 additional scholars; additions to school at Plasnewydd, Maesteg, for 277 children and additions to Derwen Deg Schools, Gellygaer, for 100 children. The Gower R.D.C. is to borrow £6,470 to carry out Penclawdd-Llanrhidian road improvement.

GLASGOW.—The Dean of Guild Court have passed the following: Double cottages on the south-west side of St. Bride's-road, Newlands, for Mrs. Baird and Mrs. Samson; six semi-detached villas in Courthill-avenue, Cathcart, for Messrs. Andrew Aitken & Co.; alterations and additions to the works of Messrs. Alexander Ferguson & Co., Ruchill-street, Maryhill; alterations and additions to the works of Messrs. Schweppes, Ltd., Killean-street, Possilpark; extensions to works for Messrs. Fred Braby & Co., Darnick-street, Springburn; additions to the factory of Lang's Bread Co., in Wesleyan-street; a house to be erected at Belvedere Hospital, by the Health Department of the Glasgow Corporation; double bungalow in Springburn-road, for James Hodgnes; and a verandah at Cowcaddens, Kintergarten, for Health Department of the Glasgow Corporation.

HASTINGS:—Plans passed by T.C.: Pair semi-detached houses, Victoria-avenue, Mr. W. J. Emerton, owner; alterations to London Joint City and Midland Bank, 4, Robertson-street, London Joint City & Midland Bank, owners, Whinney, Son & Austen Hall, architects; workshops, Gas Co.'s yard, Queen's-road, Mr. J. Simonds, owner; conversion of 60, High-street, into shops, Mr. W. Pollard, owner, Messrs. Callow & Callow, architects; shop, Bexhill-road, Mr. W. Pulman, owner; house, Filsham-road, Mr. F. Mumford, owner; two semi-detached houses, Beaufort-road, Mr. J. E. Jerham, owner, Mr. J. Hunt, architect; detached house, Collier-road, Miss E. M. Newman, owner, Mr. H. W. Coussens, architect.

HAY.—The Ministry of Health has assented to the U.D.C. borrowing £2,750 for water works improvements

HAYES.—Plans have been approved by the U.D.C. for two houses in Cromwell-road, for Mr. W. Brooks; extensions to the factory of Messrs. Harrison & Sons, and for 50 houses for the G.W.R. Garden Village Society.

HEBDEN BRIDGE.—A scheme has been launched for the erection of a new Trades Club, and the nucleus of a building fund has been formed by a loan of £3,000 from the local trade unions. An early start is to be made.

HECKMONDWIKE.—Plans passed: Alterations and additions in Beck-lane, for Messrs. Hy. Cockhill & Sons, Ltd.; two houses at Nunroyd, for Mr. W. Rhodes.

HORSFORTH.—Plans passed: Two houses in Victoria-crescent, for Messrs. Road Bros., and four houses in Victoria-walk, for Mr. J. B. Lees.

HOVE.—Plans passed by T.C.: Messrs. Gates & Sons, conversion into flats, "Hassendean, 'New Church-road; Messrs. Albery & Lawrence, for Mr. J. S. Candeline, conversion into flats, 15, King's-gardens; Mr. P. B. Hunter, for Mr. E. H. Jellett, conversion into flats, 30, Carlisle-road; Mr. W. H. Overton, for Mr. W. J. Keene, conversion into flats, 10, Brunswick-square; Mr. W. Whiteman, for Mrs. Hotton, house, Glebe villas; Mr. H. Phibbs, for Mr. B. Bull, conversion into flats, 8, King's-gardens; Mr. W. J. Burstow, for Mr. W. A. Streader, pair houses, Leicester-villas; Mr. W. Stringer, for Dr. H. S. Hollis, house, Nizells-avenue; Mr. F. Goodchild, for Mr. Quero, house, Hallyburton-road; Mr. J. M. Comber, for Mr. H. W. Tingley, three houses, Raphael-road; Messrs. Albery & Lawrence, for Mr. J. S. Candeline, conversion into flats, 10 and 11, King's-gardens; Mr. E. E. Brown, for Mr. C. Harry, house and garage, Langdale-road; Mr. G. Hutton, for Mr. H. C. Hillier, house, Holland-road.

KEIGHLEY.—Plans passed: Ten houses at High Spring Gardens-lane, for Messrs. E. Turner, Ltd.; new street, as a continuation of Raglan-street, for Mr. Thomas Hey; additions at Victoria-road, for Mr. Percy Clough; two houses at Oakworth-road, for Miss Doris Midgeley; and 14 houses at Oakworth-road, for Miss Doris Midgeley.

KIDDERMINSTER.—Plans passed: Pair of houses at Aggborough, for Mr. G. R. Woodworth; two houses in Grosvenor-avenue, for Messrs. A. Stuart and H. Hughes; three lots of houses at Aggborough, for the Kidderminster House Builders, Ltd.; house in Stourbridge-road, for Mr. H. Mason; house in Chester-road, for Mr. H. Maulin; and bungalow at Aggborough, for Mr. W. L. Gittins.

KING'S LYNN.—Plans passed by T.C.: New granary, South Quay, for Messrs. Packhards & J. Fyson, Ltd.; extensions and offices, Boal Mills, for Messrs. R. & W. Paul, Ltd.

LAMPETER.—The Ministry of Transport has agreed to pay 15s. to every five paid by the Council in respect to the improvement of Lampeter-Tregaron and Lampeter-Llanybyther roads, estimated to cost £10,113. The Lampeter Council has decided to proceed with schemes.

LEEDS.—The T.C. have agreed to subsidies in respect of the following houses: Mr. Henry Divine, house, Walmsley-road, Cardigan-road; Mr. Charles Wilkinson, bungalow, off Nutting Grove-terrace, Farnley; Mr. Melville McClure, detached house, Chapel A Hall Estate; Mr. John Fletcher, eight semi-de houses, Devonshire-avenue, Roundhay; Mr. Booth, two semi-detached houses, Grove Hal Estate, Beeston; William Airey & Son, Ltd., Ring-road, near Shadwell-lane.

LETHAM.—The Stirling C.C. has passed pla the Carron Co. for 32 two-apartment hous 32 three-apartment houses, for the Carron Co.

LINCOLN.—The T.C. has decided to erect 16 of concrete by direct labour at an estimated £490 per house. The plans have been prepa Mr. Court, Borough Surveyor, and approved Council.

LLANDILO.—Extensive alterations to the buildings have been decided upon by the C The buildings will be reconstructed so that the be used as evening concert halls, and additions made.

LONDON (KENSINGTON).—The B.C. of Kens has decided to erect five cottages and 38 flats Quintin's Estate, work on these to commence earliest possible date.

LONDON (LEWISHAM).—Plans passed by Eaglen Bros., six houses, Heather-road; Th Sawyer & Sons, lock-up shop, Tranquil-vale; Scudamore, Ltd., house, Marvels-lane.

MANCHESTER.—Plans passed by the C tion: A. Stanley, addition to "Frankwyn," ham-road, Chorlton-cum-Hardy; W. Cox & Sons Bishop-street, Moss Side; Mrs. W. H. G garages and washhouses to three houses, Wilb road, Chorlton-cum-Hardy; H. J. Simpson, garages, "Wellfield," Upper Chorlton-road, Mos F. Hartley, garage and washhouse to house, W ton-road, Withington; L. Haws, picture York-street, Earl-street, and Gore-street, Wingfield Park Estates, house, Manor-drive, Didsbury; A. B. Tattersall, two houses, St. Wer road, Chorlton-cum-Hardy; Rodgers Bros., ten Brantingham-road and Springbridge-road, Withi Manchester City Football Club, two houses, road, Withington; J. & N. Kayley, additions to Holland-street and Spence-street, Newton Rev. G. Fracuse, revised plan, St. Alban's Men' John-street, Ancoats; J. Cumberledge, shop 13-19, Cecil-road, Blackley; Mrs. E. Potts, two Park-road, Crumpsall; J. Rowen, laundry, Penn Moston; Harrods, Ltd., rebuilding of premises, gate, King-street, and Police-street; A. Redf houses, Middleton-road, North-avenue, Redfor Kendall-road, and Welford-road, Crumpsall; Committee, additions to Conservative Club, Rus grove, Rusholme; Duncan & Foster, Ltd., a to bakery, York-street, Chorlton-on-Medlock Mellor, 18 houses, Telfor-road, Birchfield Rusholme; S. & E. Clough, dedication plans street, Calverley-avenue, Burnage; J. A. seven houses and shops, Beresford-road and road, Rusholme; L. Egerton, dedication plans street continuation of Wellington-road, Finchle Brocklebank-road and Barnsfold-avenue, Fallo Electricity Committee, electricity sub-station of 252-258, City-road.——Sanction to the Council by the Ministry of Health for the priation of a portion of the Wilbraha Housing Estate as a site for a public elem school. Messrs. Potts & Sinclair, Ltd., of S House, Broome-lane, Higher Broughton, ar posing to erect houses in Park-lane, Broughto bungalows in Washway-road, Sale, Cheshire.

MARSDEN.—Plan passed by U.D.C.: Offic premises at Bank Bottom Mills, for Mr. J. E. Cr

MERTHYR TYDFIL.—The B.C. has under con tion three area schemes for clearance of slum pr

MONMOUTHSHIRE.—The County E.C. has for sanction to expend £149,500 on erection of bui as follows:—Conversion of Hafod-y-ddol exten Abertillery County School into a separate sec school, estimate £1,130; provision of new labo at New Tredegar for mining students, £1,250 elementary schools, Cwmbran, £12,250; Po fraith, £15,350; Markham village, £13,100; £5,000; Cwmcarn, £10,000; Pontawaun, £6,2 cost of site; Cefn Forest, £16,250; Ynysddu, £1 Trauch, Pontypool, £16,250; practical inst centre, Georgetown Boys' School, Tredegar, and a school of permanent type for mental def at Caerleon, £40,000.—Subsidence has neces estimated expenditure of £1,000 by Abertillery on gas and water mains renewals.—The Jocke is reported to have granted licence to the Pie Park, Chepstow, Syndicate, and £150,000 will, ing to estimates, be spent in preparing stan ground for racing.—Plans passed by Llant U.D.C.: House for Mr. J. De Rees, Llanta bungalow for Mr. J. W. Holmes; 10 houses for L. & H. Gibson, Newport (with subsidy).—The C Council is considering the conversion of the Ind School to flats and tenements. The Coun passed plans for alterations to outbuildings Percy Stafford, and has applied for grant and sa to carry out proposed sewerage scheme.—The Vale E.C. has received a report from the ar (Mr. P. T. Davies), recommending erection of school at Gantre site as an alternative to bu nine new class-rooms required at various schools.—The scheme of laying out the Blaina tion ground, at estimated cost £16,000, is to be diately proceeded with by U.D.C., the Miners' W and Unemployment Grants Committees contributed largely.

NEW ROMNEY.—Plans have been approved R.D.C. for a bungalow at Dymchurch, fo Wrighton, and a small holding at Dymchurc Mr. Fidler.

NEW QUAY (CARDIGAN).—The Memorial Hall mittee, having £2,500 in, with assurance of £500, has decided to take steps to immediately p with erection of building. Mr. T. J. Davies committee secretary.

NEWCASTLE.—Work has been commenced o first part of the Newcastle Central Station exte

* See also our List of Contracts, Competitions, etc.

Braby & Co., of Glasgow and London. This h was mentioned in our issue of November 2, rried out under the supervision and from the the Company's Architect, Mr. Stephen A.F.C., F.R.I.B.A.——The Corporation provement and Streets' Committee have plans for 65 new self-contained houses in rts of the city.

T (MON).—The Public Works Committee d for approval of Council plans for 114 new lessrs. Lysaght's have decided to grant ch employee erecting a house. No grant de for houses purchased.—The Council has Housing Act information bureau. There are 9 applicants in respect to 400 houses for rant.—The Borough Engineer has been to prepare plans and estimates for new houses on site adjoining the refuse destructor. work scheme, estimated to cost £4,000, for nt of Barrack-lane has received approval.— ry of Transport has now made a tentative per cent. of cost of reconstructing Newport l widening to 70 ft. The Council has now 75 per cent., the estimate is £150,000 to and hopes to be able to proceed with work so far as preliminary demolition is con- he Housing Committee has informed the lity Housing Society of Cardiff that Council's posals will be applicable to houses for n which the Society proposes to erect, and der to facilitate a start Council has applied n for assisting in erecting 300 houses.—The f Health has notified Council of agreement y of £110 for parlour-type houses, and £90 lour type providing 300 houses are com- fore March 31st next, and completed by 30th.—The Council is to widen Malpas- ft. at estimated cost of £13,000, and work, y advice, is to be commenced at once.—The Commissioners have agreed to Council £51,500 for specified electricity under- d extensions, and has withheld sanction y for loan of another £101,000 for similar plication is to be made by B.C. for sanction £6,000 for purchase of six single-decked nibuses.—The Parks and Education Com- e considering the purchase at £6,500 of St. se and 14 acres of land for conversion to playgrounds.

.—Plans have been prepared and approved improvement of Oakham Institute. The be put in hand immediately. Mr. F. W. the architect.

CORNWALL).—The U.D.C. has received a the Ministry of Health stating that represen- lessrs. Druitt, Cowell & Wheatley, architects, have called at the Ministry to discuss the le to them in connection with the Paul heme. The architects offered to accept l discharge of all claims against the Council, linistry recommended the Council to settle r on this basis.——The Ministry of Health d the U.D.C. that a public inquiry will be vember 16 into the Council's application for borrow £8,000 for the Mousehole-Newlyn vement scheme.

KESHIRE.—The County Council has been at the Ministry of Transport will make grant towards £22,000 required for road recon- between Velindre Bridge and Jericho, and try will prepare the plans, &c.

H.—The Council has resolved to invite r erection of 62 houses, 22 on behalf of the d 40 for the new housing society called into nstance of Council, the membership being for subsidy grants under new Act. The negotiating for land and grants for widening ade.

NG.—Plans by Mr. L. Smith for two semi- illas on the Beacon estate, Middleton-road. approved.

N (DEVON).—The R.D.C. has adopted the llings Acquisition Act, and agreed to grant private enterprise equivalent to £6 per year for twenty years.

TH.—Plans passed by T.C.: H. Hoyle, arage-road, St. Budeaux; E. C. Behenna, larcroft-road; E. Hill, two houses, Cedar- Pearce & Hill, two houses, Bladderley- T. Kennard, three houses, Seaton-place, mouth Education Authority, new latrines, t School, Stonehouse; W. H. Joce, two wer Compton-road; Babbage, Friendship actory, Regent-street.

AWE.—The L.M. & S. Railway have asked nce with Pontardulais R.D.C. for construc- Bethania railway bridge, Lower Cwmtwrch. rave Colliery Company has asked Pontar- .C. to construct 100 houses in the locality for n. The letter stated that the Pontardawe posed meeting colliery companies by further houses at Pontardawe, Godregraig and -Gurwen. The application is to be investi- Council.

.—The Ministry of Health has sanctioned the heme of the R.D.C., under which a subsidy ilable to the extent of a lump sum of £75 on tion of each house; or an alternative of £6 0 years. It is expected that this scheme will t 200 houses in the Council's area.

.—Plans passed by R.D.C.: Chaldon, d laundry, Old Quarry Hall, Quarry Hill- Paul Kohn Speyer: Chipstead, cottage, ane, Mr. J. H. Oldham, Chipstead; Horley, combe-road, Mr. G. Palmerine, Croydon; two houses, The Chase, Messrs. R. Cos- s,' Liverpool; two semi-detached cottages. ane, Messrs. T. & R. Blackman, Kings- ngalow, Josephine-avenue Kingswood. Walters: Merstham, two detached houses, ad, Hooley, Mr. George Cooke, Coulsdon: ed houses, new road off Shepherd's-hill, Moore, Eastcote, Middlesex; Walton, house High-street, Walton, Mr. John Yeatman, Walton; rebuilding and additions to house, "Lane End," Chucks-lane, Hon. Frank Russell.

ROCHDALE.—An inquiry has been held by the Ministry of Health into the proposal of the T.C. to clear away a slum area known as Victoria-place. Eighty-three houses will be demolished, and the Council proposes to erect 20 new ones on the site and 63 on other sites.

SCALBY.—Plans passed by U.D.C.: Bungalow, for Mr. Taylor, Burniston-road; bungalow, for Mr. Bentley, Cross-lane; house, shop and outbuildings, for Mr. Welford, South-street; nine houses, for Mr. F. Robson, Scalby-road; house, Scalby Garden Estate, for Mrs. Durant; two bungalows, for Mr. Kelvey, new road near Cross-lane; three pairs of semi-detached bungalows, for Mr. Dixon, off Burniston-road; pair of semi-detached bungalows, for Messrs. Bingham & Bailey, Cross-lane; one pair semi-detached houses, for Mr. Hudson.

SHIPLEY (YORKSHIRE).—Plans passed: Five pairs of semi-detached houses at Shipley Fields-roads, for Messrs. Patchett Bros.; one pair of semi-detached houses in Bargrange-avenue, for Messrs. H. Chippendale & Co.; three pairs of semi-detached houses at Otley-road and Bargrange-avenue, for Messrs. H. Chippendale & Co.: and canteen at Manor-lane, for Messrs. Dean & Thompson.

SOUTH SHIELDS.—The Borough Engineer of South Shields (Mr. F. P. Sissons) has prepared plans and estimates, and the scheme has been approved by the Council in committee, for a sea promenade from South Shields to Marsden. The estimated cost is £100,000, and the whole of the work will, if the plans are ultimately adopted, be carried out by surplus labour. The scheme is a joint effort by the Corporation and Guardians to provide work for able-bodied men who are in receipt of outdoor relief. With slight exceptions, the whole of the works involved would be in the area of the Rural District Council and within South Shields Union.

SOUTHEND-ON-SEA.—Plans passed by T.C.: House, shop, lock-up shop, and conversion of two houses into shops, 136 & 138, London-road, for L. Bertorelli; ten houses and shops, Southchurch-road, for C. Wingrave; two houses, Fillebrook-avenue, for E. F. Selby; house, Cranleigh-drive, for F. Tomlin; two bungalows, Esplanade-gardens, for G. W. Eves; bungalow, Leigh Hall-road, for Mr. Buckland; four houses, Ilfracombe-road, for H. J. Huckle; bungalow, Fleming-crescent, for A. Butt; two bungalows, Olivia-drive, for J. Wood; house, Chadwick-road, for F. G. Bethley; two houses, South-avenue, for H. T. Arnold; five houses, Inverness-avenue, for W. Melloy; house, Kenilworth-gardens, Prittlewell Chase, for P. & D. Barham; six houses, St. Benet's-road, for E. E. Everitt; lock-up shop, High-street, Southend, for Miss M. E. Morris; house, Capadocia-street, for J. Clark; house, Surbiton-avenue, for E. Quest; conversion of house into flats, Galton-road, for Mrs. Earle; conversion of two houses into two shops, 761 & 765, London-road, for B. Cossey; house and shop, Westborough-road, for D. S. Baker; house, London-road, for J. R. Marshall; three houses, Fairmead-avenue, for W. C. Ginn; house, shop and fish cleaning shed, Oban-road, for W. Pearce; two houses, Rochford-road, for G. F. Cattell; bungalow, Pavilion-drive, for A. & C. Lawford: bungalow, Eastwood-road, for Mrs. E. E. Martinali; ten garages, Ilfracombe-road, for C. Wingrave; two flats, London-road, for F. M. Wardill; two houses, Gordon-road, Leigh, for J. J. Joy; house and shop and four houses, Hamstel-road, for D. J. Standen; conversion of two houses into shops, Victoria-avenue, for F. F. Ramuz.

SPENBOROUGH.—Plans passed: House at Huddersfield-road, for Mr. J. Redfearn; additions to dining rooms at Clarence Mills, Cleckheaton, for Messrs. Lund Bros., Ltd.; boiler house at Spen-lane, for Messrs. John Harrison & Sons, Ltd.; house at Whitcliffe-road, Cleckheaton, for Mr. Harold Bennett; and bungalow at Whitechapel-lane, Scholes, for Mr. H. Jackson.

STRETFORD.—Plans passed by U.D.C.: Two lock-up shops, Chester-road, for Messrs. Booth Bros. (Manchester), Ltd.; goods office, Trafford Park-road, for the L. & N. Eastern Railway; two houses, Edge-lane, for Mr. J. G. Blakeway; four houses, Reynolds-road, for Mr. Vincent Slater; enclosing loading stage, Westinghouse-road, for the Automatic Bottle Makers, Ltd.; four houses, Brooks-road, for Messrs. Winders & Tindale; eight houses, Barton-road, for Messrs. Grimshaw & Thomas, Ltd.; sub-station, St. John's road, for S.U.D. Council (Electricity Department).

THURMASTON.—The U.D.C. has passed the plan of Mr. H. Herbert for the lay-out of the Highway Estate.

TOMINTOUL.—In order to assist Tomintoul development as a summer resort, the Duke of Richmond and Gordon has offered to defray the cost of a new sewerage scheme, amounting to £500.

TORQUAY.—Plans passed by T.C.: Mr. G. E. Body, house, Westhill-road; Mr. Cobbett, lay-out of road at Petitor; Mr. G. Packham, house, Torbay Hall Estate; Mr. R. E. Narracott, house, Torbay Hall Estate; Mr. F. Maule, houses, Meyrick-road; Mr. W. H. Kerslake, bungalow, Clennon-lane; Messrs. Murch & Tucker, houses, Windsor-road.

TWECHAR.—To meet developments in their mining operations, Messrs. Wm. Baird & Co. are about to erect at Twechar 150 workmen's houses.

UXBRIDGE.—Plans passed by R.D.C.: Houses on the Halden Estate, for Miss R. Blackford, Messrs. F. C. Buckeridge, E. Mackintosh, A. B. Crawford, R. E. A. Hayes, J. Forsdyke, L. Knights, R. Todd, K. B. Simson, P. V. Bruickin, T. Notley, and S. E. North. Bungalows on the Drummond Estate, for Messrs. Vicars, Harrop and E. Streen. House and bungalows on Swakeley's Estate, for Messrs. A. J. Houghton, Frost, and W. G. Tyler. Bungalows on the Hillingdon Village Estate, for Messrs. Wolfe and E. Woodcock.

WAKEFIELD.—Plans passed by T.C.: Mr. J. P. Firth, house, Horbury-road, for Mr. John Willison; Mr. A. Binks, two houses, North-avenue; Mr. A. V. Lynas, house, Horbury-road, for Mr. Edward Jackson; Mr. A. H. Lee, motor showrooms and additions to house and lock-up offices in Wood-street, George and Crown-yard, and Chancery lane, for Messrs. Hyland, Ltd.: Mr. H. England, reconstruction of office in Union-street, for the Yorkshire (West Riding) Electric Tramways Co., Ltd.: Mr. H. England, house and shelter and lavatory accommodation in Barnsley-road. Sandal, for the Yorkshire (West Riding) Electric Tramway Co., Ltd.; Mr. W. Wrigley, house Manygates-lane, Sandal, for himself; Mr. W. H. Ogden house, St. Mark's-street, for Mr. L. Small.

WALLSEND.—The T.C. have provisionally accepted a tender for the erection of 144 houses at High Farm at a cost of £705 per block of two, which will be recognised as ranking for Government assistance.

WHITBY.—The Council has asked Messrs. W. H. Radford & Son, of Nottingham, to report fully to them on the improvement of the harbour and the sewer outfalls.—The local builders, after conference with the U.D.C., have decided to proceed with the erection of 14 subsidised houses on the west side, and eight applications have been received for sites on Gallow's Close estate on the east side. The work, together with the erection of the War Memorial Cottage Hospital, and a large ballroom at the Royal Hotel, is expected to commence at an early date.

WINCHESTER.—Plans passed by T.C.: Roman Catholic Church, St. Peter-street; house, Sleepers'-hill, St. Mary's-road; house, Bereweeke-avenue.

WINDLESHAM.—Plans passed by U.D.C.: Bungalow at Hatton-hill, Windlesham, for Mr. C. Burge.

WINDSOR.—Plans for six houses by Mr. Sawyer, architect, on behalf of Mr. Neville, have been passed by the R.D.C.

WOMBWELL.—It is announced that the members of the local Builders' Federation will commence at once the building of 100 houses on the King's-road Housing site.

YORK.—Plans passed by T.C.: Sir R. N. Kay, three houses and shop, Bishopthorpe-road; J. J. Mitchell, house, Derwent-road; H. Hills, garage, Red House, Bootham-terrace; C. Martin, three houses, Curzon-terrace; Tadcaster Tower Brewery Co., aerated water factory, Piccadilly; G. H. Pegg, house, Aldreth-grove.

FIRES.

ABERDARE.—Fire has destroyed the grand stand on the Aberdare A.F.C.'s football field, the damage being estimated at £11,000, wholly covered by insurance.

LONDON.—A fire has occurred at Lever House, Thames Embankment, involving considerable damage.

NEWPORT (MON).—A fire has done damage running into thousands of pounds to the premises of (*a*) Messrs. Crosta's brush factory; (*b*) Messrs. Reynolds & Co.'s upholstery establishment: and (*c*) Messrs. Evans & Sons' heating and sanitary engineers' works, all of which were gutted.

ROCHDALE.—Dixon's Soap Works have been completely destroyed by a fire.

External Treatment of Concrete.

Arrangements have been made for Mr. Frederic Coleman to repeat the lecture he gave in September at the West End Cinema, on "External Textural Finishes in Concrete" and "The Application of Cast Concrete Stone to Present-day Building" (illustrated by a film showing the practical application of white cement stucco, and lantern slides showing American architecture). The dates are: Edinburgh, November 20; Glasgow, November 21; Birmingham, November 27. In Edinburgh the lecture will be given at the Gartshore Hall, 116, George-street, at 5 p.m.; in Glasgow, at 11 a.m., at Cranston's Picture House, Renfield-street. Tickets for the Edinburgh and Glasgow lectures may be obtained from Messrs. Sutherland, Matheson & Reid, 50, Wellington-street, Glasgow. The lecture in Birmingham will be held at the Regent Picture House, New-street, at 11.30 a.m. Tickets may be had on application to Messrs. Goodman & Co., Salford Bridge Wharf, Gravelly-hill, Birmingham. All interested are invited to attend.

Carillon of Bells, New York.

The carillon which Mr. John D. Rockefeller, Jun., is installing in the beautiful Gothic tower of Park-avenue Church, New York, in memory of his mother, is to be increased in size and number of bells. Some of the best brains in the architectural and engineering world of America have been engaged for some months in devising better accommodation for the bells than that which had been possible so far.

The bells will be 53 in number. The bass bell is to weigh 9 tons, whilst the total weight of the bells—apart from the gigantic framework (which will be in five sections) and the fittings—is to be over 50 tons. The premier carillon hitherto has been the famous one at Malines, where there are 45 bells, and the bass bell weighs 7½ tons.

Many of the bells for the new carillon are already cast and in readiness at the Croydon Bell Foundry of Messrs. Gillett & Johnston, who secured the contract in the face of keen international competition.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—E

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.
Flettons, at King's Cross	2 13 3
Do. grooved for plaster	2 15 3
Do. Bullnose	3 8 3

Best Stourbridge Fire brick:—

2½ in.	11 3 0
3 in.	13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22 0 0
Headers	21 10 0
Quoins. Bull-nose and 4½ in. Flats	28 10 0
D'ble Str'tch'rs	30 10 0
D'ble Headers	27 10 0
One Side and two Ends	31 10 0
Two Sides and one End	32 10 0
Splays and Squints	30 0 0

Best Blue Pressed Staffs. 9 11 6; Do. Bullnose .. 10 1 6; Blue Wire Cuts 7 11 6

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. „	2 5	4 in. „	3 7

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand	15 6	„ „
¾ in. Shingle for Ferro-Concrete	14 0	„ „
½ in. „ „	15 0	„ „
¾ in. Broken Brick	10 6	„ „
Pan Breeze	5 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to 51/- alongside at Vauxhall in 80-ton lots.	£3 3 6
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 6
„ Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides „	27/-
Sawn three or four sides „	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

	s. d.
Delivered at any Goods Station London.	
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 5½
1½ in. to 2 in. ditto, ditto „	1 3

HARD YORK—

	s. d.
Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto ditto „	2 5
2 in. self-faced random flags Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s. d.
Plain per ft. cube	6 6
Moulded „ „	7 9
Cills „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	21/-	1¼	33/6
⅞	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	22/-
1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle	0 2 10
Dry Wainscot Oak, per ft. super, as inch	0 2 0 to 0 2 6
¾ in. do. do.	0 1 6 to 0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9 to 0 2 6
Cuba Mahogany	0 3 0 to 0 3 6
Teak (Rangoon, Moulmein or Java), per load	45 0 0 to 50 0 0
American Whitewood planks, per ft. cube	0 14 0 to 0 16 0
Best Scotch Glue, per cwt.	4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Hip and valley tiles (per dozen) Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions „	17 10 0
In Roof Work „	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅝ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2⅞ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2¼	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „ „	3 6½	2 5½	3 3½
3 in. „ „	4 2½	2 8	4 0½
3½ in. „ „	4 7	3 3½	4 8½
4 in. „ „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

	Per ton in London. £ s. d.	
IRON—		
Common Bars	13 10 0 to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0 ..	15 0 0
Staffordshire "Marked Bars"	17 0 0 ..	18 0 0
Mild Steel Bars	12 10 0 ..	13 10 0

METALS (*Continued*).

	£ s. d.	£
Steel Bars, Ferro-Concrete quality, basis price	13 0 0 ..	14
Hoop iron, basis price	16 10 0 ..	17
„ Galvanised	31 0 0 ..	32
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	15 0 0 ..	16
„ „ „ 24 g.	16 0 0 ..	17
„ „ „ 26 g.	18 0 0 ..	19
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0 ..	22
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0 ..	23
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0 ..	26
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0 ..	22
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0 ..	23
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0 ..	25
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0 ..	24
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0 ..	26
Best Soft Steel Sheets, 26 g.	26 0 0 ..	27
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0 ..	22

METAL WINDOWS—Standard sizes suitable for plete houses, including all fittings, painting coats, and delivery to job, average price abo to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£
LEAD—Sheet, English, 4 lb. and up	41
Pipe in coils	42
Soil Pipe	45
Compo pipe	47
Old lead, ex London area, at Mills per ton	27 0 0 ..
Do., ex country, carriage forward per ton	28 0 0 ..

NOTE—Country delivery, 30s. per ton extra: lots 3 cwt., 2s. per cwt. extra and over 3cwt. and u cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt.

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCK IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per

NEW RIVER PATTERN SCREW DOWN STOP COCK UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per

NEW RIVER PATTERN SCREW DOWN MAIN FERR

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1½ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per d

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per d

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz

NEW RIVER PATTERN CROYDON BALL VALVES.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per

DRAWN LEAD P. & S. TRAPS WITH BRASS CLE SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- pe
8 lbs. S. traps	35/-	45/-	66/-	126/-

COPPER—	£ s. d.
Strong Sheet per lb.	0 2 3 ..
Thin „ „	0 2 4 ..
Copper nails „	0 2 3 ..
Copper wire „	0 2 4 ..
TIN—English Ingots „	0 2 1 ..
SOLDER—Plumbers' „	0 1 0 ..
Tinmen's „	0 1 2 ..
Blowpipe „	0 1 4 ..

PAINTS, &c.

	£
Raw Linseed Oil, in pipes per gallon	0
„ „ „ in barrels „	0
„ „ „ in drums „	0
Boiled „ „ in barrels „	0
„ „ „ in drums „	0
Turpentine in barrels „	0
„ in drums (10 gall.) „	0
Genuine Ground English White Lead. per ton (In not less than 5 cwt. casks.)	56

GENUINE WHITE LEAD PAINT—

"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered 79

Red Lead, Dry (packages extra) per ton	43
Best Linseed Oil Putty per cwt.	0
Filocol per cwt.	0
Size. XD Quality fkn.	0

[Concluded on next page.]

* The information given on this page has specially compiled for THE BUILDER and is copy Our aim in this list is to give, as far as possibl *average* prices of materials, not necessarily the hi or lowest. Quality and quantity obviously prices—a fact which should be remembered by who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths	3½d.	32 oz. fourths	8¾d.
15 ,, thirds	4½d.	32 ,, thirds	10½d.
21 ,, fourths	5d.	Obscured Sheet, 15 oz.	4d.
21 ,, thirds	6½d.	21 ,,	5¾d.
26 ,, fourths	6d.	Fluted 15oz. 6¾d., 21oz.	9¾d.
26 ,, thirds	7¾d.	En'lled 15 ,, 5¼d., 21 ,,	7¼d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
¼ Rolled plate	4½d.
⅛ Rough rolled	5½d.
¼ Rough rolled	5¾d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7¾d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.		Per gallon. £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal flatting	ditto	1 0 6
Hard drying Oak	ditto	0 18 0
Fine Hard drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 0
Knotting (patent)		1 5 0
French and Brush Polish		0 17 6
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

TRADE NEWS.

An attractive page catalogue illustrating some of the many types of their folding and sliding doors, &c., is issued by the Richards-Wilcox Canadian Co., Ltd., of London, Ontario, Canada. The representatives of the firm in the United Kingdom are E. Hill Aldam & Co., Ltd., of 93, Stamford-street, S.E.1. The complete catalogue of 160 pages will be forwarded on request.

Manufacturers and others will find a perusal of the "What We Make" booklet issued by Tangyes, Ltd., of Cornwall Works, Birmingham, interesting and profitable. The various types of this firm's oil, gas and steam engines, pumping plant, lathes, and other products are illustrated and described in a neat and attractive manner.

Messrs. James Clark & Sons, Ltd., of the Blackfriars Glass Works, S.E.1, are to be congratulated on the noteworthy achievement in regard to the glazing work at Peter Robinson's shop front at Oxford-street, W., where they fitted the largest squares of polished plate glass ever supplied in this country. Each of the four largest squares measures approximately 291 in. by 120 in., a total superficial area of 242 ft. 6 in. in each square. These are records for size and areas in this country, and the work was done by Messrs. Clark's own staff to the order of Messrs. Samuel Haskins & Bros., Ltd., who supplied the entire bronze metal work for the shop fronts, entrance doors, grilles and marginses.

The main traffic between Ormesby, South Bank, Guisborough, and Middlesbrough concentrates in North Ormesby at Langbaurgh-place, and the road is being relaid under the direction of the Ministry of Transport. A concrete foundation, 7 to 8 in. thickness, is being laid on an excavated formation, and the concrete layer is reinforced by "Maxweld" fabric—a special steel interlocked double layer reinforcement supplied by Messrs. Richard Hill & Co., Ltd., reinforced concrete engineers, of Middlesbrough and London.

PATENTS.*

APPLICATIONS PUBLISHED.

181,713.—G. M. Gouyaud: Method of constructing reinforced concrete arches without using moulding, arched falseworks, or scaffoldings.

187,611.—H. H. Warmund: Composition of matter suitable for producing coatings, seals, or the like.

187,945.—R. S. K. Banerjee: Waste-preventing taps or valves.

189,134.—O. Lenart: Apparatus for grinding paint.

194,283.—Foraky Soc. Anon. Belge d'Entreprise de Forage et de Foncage and L. L. B. Denis: Apparatus for measuring the deviation of borings.

194,655.—R. M. Maunder: Lock.

199,725.—L. Courtot: Radiators for heating buildings.

200,543.—H. M. Cooper and H. B. Willmott: Lifting and dumping or ring discharge grab.

200,549.—W. Barraclough and W. T. Barraclough: Domestic fireplaces.

200,561.—A. Lynn: Method of forming ceilings in halls and other buildings.

200,564.—F. Hartgrove: Concrete block waterproof dressing.

200,569.—W. Wilkinson: Packing-cases and the like.

200,571.—H. R. Sankey: Fire-resisting doors and screens.

200,576.—H. J. Lee: Locks for doors.

200,632.—W. H. Brecknell: Door locks.

200,636.—J. E. C. De Wijs: Apparatus for directing circular saws for grinding on rotary stones.

200,674.—R. Simms: Ventilating cowls for poultry houses and other structures requiring ventilation.

200,693.—A. W. Topp: Production of lead compounds and the manufacture of paints and anti-corrosive compounds therefrom.

200,695.—Parker, Winder & Achurch, Ltd., and J. A. Wood: Operating-devices for fanlights or other pivoted windows or flaps.

200,697.—C. Dickie: Steam-heating installation.

200,703.—British Fibrocement Works, Ltd., and G. H. Buxton: Roofing sheets, tiles, and the like.

200,721.—F. L. Keppler: Manufacture of building and paving tiles and slabs.

200,726.—R. Newton: Cement or adhesive composition.

200,728.—F. Morton: Floors.

202,423.—G. W. Lancaster: Window structure and plurality of closures therefor.

202,465.—L. D. Vaney: Method of securing locks.

202,676.—G. H. Pledge: Showcase fittings.

202,698.—O. Frosell: Hard-setting magnesia compositions.

202,706.—Star Metal Stamping Co., Ltd., and C. W. Harris: Baths.

202,737.—T. Gare, sen.: Manufacture of bricks, blocks, slabs, and tiles.

202,742.—P. C. Cannon and Centrifugal Concrete Blocks and Poles, Ltd.: Manufacture of concrete products.

202,788.—A. E. White (American Arch Co.): Construction of brick arches for furnaces.

202,791.—J. Ridgway and W. Ridgway & Sons, Ltd.: Wood-boring tools.

202,799.—S. T. Harrison and A. C. Harrison: Machines for sifting potters' slip.

202,831.—W. Marshall and C. Downs: Machinery or apparatus for compressing and moulding meal and other soft or plastic materials.

202,850.—W. Story: Glazing of roofs.

202,856.—S. W. Mobbs: Groynes or walls for coast protection.

* **All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.**

NEW COMPANIES.

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

KIDDERMINSTER HOUSE BUILDERS, LTD. (193,081). Registered October 15. 11, High-street, Kidderminster. Contractors, builders, civil constructional, mechanical, electrical and general engineers, &c. Nominal capital, £1,000.

C. PEPPIATT (WORTHING), LTD. (193,097). Registered October 16. The Estate Office, Lynton-road, Springfield Park, Acton, W. Builders and contractors, &c. Nominal capital, £3,000.

HEW BRICK WORKS, LTD. (193,181). Registered October 18. 125, Mason's-hill, Bromley, Kent. Bricks, tiles, pipes, &c. Nominal capital, £1,000.

PENNANT STONE QUARRIES, LTD. (193,165). Registered October 18. Quarry owner, lime burner, stone and lime merchant, contractor, farmer and blacksmith, now carried on by Thomas Rhys Williams at Nine Mile Point and Cross Keys, Monmouth, under the style of Evans Bros. Nominal capital, £10,000.

S. R. HENSHAW & SON, LTD. (193,178). Registered October 18. 14, Colquitt-street, Liverpool. Plumbers, painters, decorators, builders and contractors, formerly carried on at 14, Colquitt-street and 57–59, Seel-street, both in Liverpool, under the style of S. R. Henshaw & Son. Nominal capital, £4,000.

EUGENE C. TOMKINS, LTD. (193,194). Registered October 19. Zetland Buildings, Middlesbrough, Yorks. Quarry proprietor and iron and steel merchant, now carried on by Eugene Carter Tomkins, at Middlesbrough, Yorks, under the style of Eugene C. Tomkins. Nominal capital, £6,000.

A. SPENCER, LTD. (193,179). Registered October 18. 208, High-street, Merton, S.W.19. Builders' merchants, timber merchants, &c. Nominal capital, £100.

COMMERCIAL STRUCTURES, LTD. (193,221). Registered October 20. Builders and contractors, &c. Nominal capital, £1,000.

POWELL & RAYBOULD, LTD. (193,207) Registered October 19. Builders and contractors, carriers, &c. Nominal capital, £1,000.

HOOD & CO. (BUILDERS), LTD. (192,807). Registered October 1. Rosemary, Grosvenor-road, Southampton. Builders and contractors, &c. Nominal capital, £500.

RICHMOND LAND DEVELOPMENT CO., LTD. (192,953). Registered October 8. 7, Hill-street, Richmond, Surrey. Property dealers, builders, contractors, &c. Nominal capital, £25,000.

ELLIS, PARTRIDGE & CO. (LONDON), LTD. (192,898). Registered October 5. Gordon House-road, Kentish Town, London. Slate and timber merchants, slating and tiling contractors and brick manufacturers, heretofore carried on by Ellis, Partridge & Co., Ltd., at Gospel Oak, and Leyton, London. Nominal capital, £10,000.

ISAAC DIXON & CO., LTD. (193,024). Registered October 11. Constructional engineers, iron, steel, and timber roof and building manufacturers, &c. Nominal capital, £4,000.

J. U. JONES, LTD. (192,808). Registered October 1. Builder and contractor, now carried on by James Urban Jones at Edgwick-road, Foleshill, Coventry. Nominal capital, £2,000.

EARLSFIELD CONSTRUCTION CO., LTD. (192,897). Registered October 5. 70, Victoria-street, Westminster, S.W.1. Contractors, sanitary builders, constructional engineers, &c. Nominal capital, £1,000.

HOLLINWORTH & SON, LTD. (192,979). Registered October 9. Builder and contractor, now carried on by John Hollinworth at Miller-street, Worsley-road, Patricroft, Lancaster, under the style of J. T. Hollinworth & Son. Nominal capital, £15,000.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—

		s.	d.
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings. hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.

		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2
Deal shelves and bearers	"	1/5	1/7	1
Add if cross tongued	"	2d.	2d	2

STAIRCASES.

	1"	1¼"	1¼"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	--	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	1
Deal balusters, 1 in. × 1¼ in.	per ft run	0	
Mahogany handrail; average 3 in. × 3 in.	" "	6	
Add if ramped	" "	11	
Add if wreathed	" "	23	

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2
Sash fasteners	11½d.	Mortice locks	5
Casement fasteners	1/5	Patent spring hinges and letting in to floor and	
Casement stays	1/2	making good	1
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	
Plain compound girders	"	20	
Do. stanchions	"	23	
In roof work	"	28	

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/
Ogee Do. Do.	"	2/4½	3/1	3/1	4/
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4
Do. nozzles for inlets	"	2/2	2/7	3/10	4

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	54	
Do. Do. in flats	"	52	
Extra labour and solder in coated cesspools	each	6	
Welt joint	per ft run	0	
Soldered seam	" "	1	
Copper nailing	" "	0	

		½"	¾"	1"	1½"	2"	4
Drawn lead waste	per ft. run	11d.	1/8	1/11	3/5	4/2	
Do. service	"	1/7	2/1	2/6	3/10		
Do. soil	"						6
Bends in lead pipe	each					3/3	8
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	
Do. Do. Sirapite	" "	2	
Do. Do. Keen's	" "	3	
Add sawn lathing	" "	1	
Add metal lathing	" "	2	
Portland cement screed	" "	1	
Do. plain face	" "	3	
Mouldings in plaster	per 1 girth	0	
One-and-a-half granolithic pavings	per yard sup.	5	

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	
26 oz. Do.	" "	1	
Obscured sheet	" "	1	
⅛ in. rolled plate	" "	0	
¼ in. rough rolled or cast plate	" "	0	
¼ in. wired cast plate	" "	1	

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	
Knotting and priming	" "	0	
Plain painting 1 coat	" "	0	
Do. 2 coats	" "	1	
Do. 3 coats	" "	1	
Do. 4 coats	" "	2	
Graining	" "	2	
Varnishing twice	" "	1	
Sizing	" "	0	
Flatting	" "	0	
Enamel	" "	1	
Wax polishing	per foot sup.	0	
French polishing	" "	1	
Preparing for and hanging paper	per piece	2/- to	4

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS.

tions for insertion under this heading should to "The Editor," and must reach him not Tuesday evening.
accepted. † *Denotes provisionally accepted.*
recommended for acceptance.
accepted subject to modifications.

'.—Erection of 48 houses, near Old Bar House, for the U.D.C. :—
T. Cooper, Shipley.

..—Erection of 50 houses, for the Housing of the Corporation :—
site—
yke—14 parlour houses, at £387 each
yke—4 non-parlour, at .. 325 „
Cunningham—12 parlour ses, at ..... 395 „
te—
. Poole & Sons—12 par- (including wiring and tric light) ..... £391 6 5 each
Norris—8 parlour (in- ding wiring and electric t) ..... 386 6 5 „

VONSHIRE AND ANGLESEY.—Erec- w wing to the Institution as a war memo-

ing & Sons, Liverpool.

K.—For laying bituminous jointed pipes for High-road surface water drainage, for the U.D.C. :—

	Consolidated Construction Co.	Howard Farrow.	Davidson & Sykes, Shearman Bros., Westminster, S.W.1.	Cambridge.	F. Kellett.
e					
A	£785 15 9 ..	£680 0 0 ..	£531 8 8 ..	*£436 16 6 ..	£560 0 0
B	2,083 6 8 ..	1,913 0 0 ..	*1,421 13 6 ..	1,424 13 2 ..	1,545 0 0
C	1,208 12 9 ..	1,036 0 0 ..	832 7 0 ..	*737 2 7 ..	891 0 0
D	1,046 14 1 ..	1,072 0 0 ..	*742 10 0 ..	782 9 10 ..	860 0 0
E	848 4 3 ..	888 0 0 ..	*698 9 0 ..	703 9 5 ..	672 0 0
F	2,227 15 9 ..	2,084 0 0 ..	1,560 16 0 ..	*1,523 3 2 ..	1,765 0 0
G	3,354 17 0 ..	2,926 0 0 ..	*2,185 7 0 ..	2,299 19 1 ..	2,760 0 0
	11,555 6 3 ..	10,599 0 0 ..	7,972 11 2 ..	7,907 13 9 ..	9,053 0 0
ions	2,166 1 4 ..	2,033 0 0 ..	2,033 8 10 ..	2,034 0 0 ..	2,161 12 0
ate	£13,721 7 7 ..	£12,632 0 0 ..	£10,006 0 0 ..	£9,941 13 9 ..	£11,214 12 0

ER.—For Rossington sewer extension, C. :—

.....	£585 0 0
kes & Sons	580 4 0
& Hunter (Scunthorpe), ...	522 9 9
e & Sons.....	496 2 6
r & Sons.....	412 13 0
Whittington, Ltd.....	388 10 0
y	367 4 0
nson & Sons	366 3 0
s. Button & Clements..	361 18 11

ER.—For construction of roads, &c., horpe to Chequer-road, for the T.C. :—

& Co., Doncaster....	£16,779 5 2

TONSHIRE.—Erection of 150 houses at lsyth, to house the firm's own work-

Baird & Co.

WN AND NEWTON.—For the erection for the U.D.C. :—
ardsley, Manchester..... £15,500

—Supply of materials to the R.D.C. :—
n Engineering Co., clinker, 450 yds., at 6d. per yd.; second grade rock, 900 yds., s.
& Son, flints, 600 yds., at 12s.
unt, steam rolling, 4s. 8½d. an hour.
on, drainage, £29 16s.
's Tarvia, Ltd., tar macadam, 6s. 4½d. d. (three years' maintenance).

—For repairs to roof of workhouse, for

& Sons, Epping £337 9 6

HAM.—For painting at hospital, for the

Blackman..... £325 15

or making-up Avondale-road, for the H. Scott, Borough Surveyor, Town Hall,

rinford, Ltd., Woking .. £554 17 2

Y.—For supplying and fixing a trans- including 36 ft. poles, from a point near kworth to Townend Mill, Haworth, for Electricity Committee :—
nd District Private Telephone ctric Co., Ltd..... £415

Y.—Redecoration of bath hall and ms, for the Keighley B.G. :—
rs, Keighley £559

Y.—Supply, delivery and fixing of an iven extractor, for the B.G. :—
n, Keighley £203 15

For repairs to houses on the Cross Gates te, for the T.C. :—
& Son—
o coating to 58 houses £933 15 0
g roofs of 54 houses .. 2,777 19 3

LEEDS.—For cast-iron and other pipes, for the Water Department of the T.C. :—

*Stanton Ironworks Co., Ltd.—			
24 in. cast-iron pipes	£1,240	12	9
Cochrane & Co., Ltd.—400 18 in. concrete-lined pipes.. each	8	7	0
Clayton, Son, & Co., Ltd.—			
Steel pipes	4,376	1	9
Extra for covering the pipes with Hessian cloth.....	100	0	0

LEEDS.—Erection of house in Bentley-lane, for the T.C. :—
*T. Morley & Son..... £500

LETCHWORTH.—Erection of elementary school at West View, Letchworth, for the Hertfordshire C.C. :—
*Markwell, Holmes & Co., Grimsby.. £12,051

LONDON.—For re-erection of statue of Sir Rowland Hill in King Edward-street, for the City Corporation :—

J. Whitehead & Sons, Ltd.....	£250
John Mowlem & Co., Ltd.....	188
Trollope & Colls, Ltd. (approx.).....	182
*John Daymond & Son, Ltd..... (Plus £25 for thoroughly cleaning and re-bronzing the statue.)	145

LONDON.—For supply of stone crusher to the Bermondsey B.C. :—

R. Broadbent & Sons.....	£570
*W. H. Baxter, Leeds.....	460
F. Parker	389
H. Alexander & Co.....	375

LONDON.—For laying 7,000 yds. of wood paving at Perry Hill, for the Lewisham B.C. :—

	Per yd. super. s. d.
Henry Woodham & Sons, Ltd.....	13 11½
Wm. Griffiths & Co., Ltd.....	13 0
John Mowlem & Co., Ltd.....	13 0
Improved Wood Pavement Co., Ltd.	12 11
*Acme Flooring & Paving Co. (1904), Ltd.	12 8

LONDON.—For propagating pits and greenhouses at Fairby Grange, for the Bermondsey B.C. :—

	(A).	(B).
Messenger & Co., Ltd., Loughborough (exclusive of builders' work)	£279 2 6..	£741 17 6
Carter & Howard, Raynes Park.....	600 0 0..	1,800 0 0
A. Overend & Sons, Streatham	542 0 0..	1,534 0 0
Wm. Harbrow, Ltd., South Bermondsey	595 0 0..	1,360 0 0
Wm. Duncan Tucker & Sons, Ltd., S. Tottenham	535 0 0..	1,233 0 0
W. Nairn, Hartley	400 0 0..	1,185 0 0
A. J. Bartlett, Bromley ..	420 0 0..	1,125 0 0
Wm. Wood & Son, Ltd., Taplow	375 0 0..	1,050 0 0
*A. Harris, Ealing	359 14 11..	*953 17 5

(A) was for two span-roof propagating pits, each 50 ft. by 12 ft., to be served by existing boiler; and (B) as for (A), with addition of two adjoining span-roof greenhouses, each 50 ft. by 14 ft. Tender (B) was accepted.

LONDON.—For wood paving (approx. 10,500 yds. super) in Lewisham High-road, for the Deptford B.C. :—

	Per yd. super s. d.	
Henry Woodham & Sons, Ltd.	14 2½..	£7,459 7 6
Wm. Griffiths & Co., Ltd.	13 7 ..	7,131 5 0
Acme Flooring & Paving Co., Ltd.	13 3 ..	6,956 5 0
J. Mowlem & Co., Ltd.	13 0 ..	6,825 0 0
W. Manders & Co.	12 11 ..	6,781 5 0
*Improved Wood Pavement Co., Ltd.	12 10 ..	6,737 10 0

LONDON.—Installation of mechanical stokers, a coal elevator and conveyor, &c., required in connection with new boilers at Abbey Mills pumping station, for the L.C.C. :—

W. J. Jenkins & Co., Ltd., Retford	£3,805 10
Underfeed Stoker Co., Ltd, Derby	3,158 0
Edward Bennis & Co., Ltd., Bolton	2,245 0
Do. (Alternative tender)	2,470 0
T. & T. Vicars, Ltd., Earlestown, Lancs	2,420 0
James Hodgkinson (Salford) Ltd., Salford	2,275 0
*Meldrums, Ltd., Manchester	2,220 0
James Proctor, Ltd., Burnley	2,028 0
Triumph Stoker, Ltd., Leeds (tender incomplete)	1,375 0

LONDON.—For plastering walls and redecoration work, &c., to ward and annexes at Chelsea Infirmary, for the B.G. Mr. Edmund J. Harrison, architect, 23, Berkeley-road, Crouch End, N.8 :—

Clements, Ltd., Grays	£1,100	0	0
T. W. Heath, Ltd., Kensington	1,045	0	0
R. J. Rowley, Tottenham	919	0	0
J. L. Catterall, London.....	905	0	0
L. Lown & Co., Holloway.....	895	0	0
H. A. Thomas, Dulwich.....	850	10	0
Forward & Sons, Ltd., London..	843	3	0
H. G. Morgan, Holloway.....	797	4	6
White & Johnson, Chelsea....	750	0	0
Barnes & Co., London.....	675	0	0
W. Palmer & Son, London....	675	0	0
Mayfair Services, London.....	666	0	0
J. C. Mather, Islington.....	641	0	0
W. Chappell, London.....	565	0	0
*H. Parkinson & Co., Camberwell	519	0	0

LONDON.—For carrying out of various works, for the Parks Committee of the L.C.C. :—

Finsbury Park—Repairs to carriage road—	
John Mowlem & Co., Ltd., Westminster	£2,602
Henry Woodham & Son, Ltd., Catford	2,178
G. J. Anderson, Poplar.....	2,092
George Bell & Sons, Ltd., Tottenham..	1,683
Mears Brothers, Lewisham.....	1,655
*Howard Farrow, Golder's-green.....	1,474
Wandsworth Common—Renovation of surfaces of bare areas and extensions of cricket field—	
George Bell & Sons, Ltd., Tottenham..	£2,094
Mears Brothers, Lewisham.....	1,708
Howard Farrow, Golder's-green.....	1,620
*R. Neal & Sons, Wandsworth.....	1,550
Bethnal Green-gardens—Re-formation of footpath and extension of playing area—	
Mears Brothers, Lewisham.....	£938
R. Neal & Sons, Wandsworth.....	902
Howard Farrow, Golder's-green.....	864
G. J. Anderson, Poplar.....	858
*George Bell & Sons, Ltd., Tottenham..	774
Hackney Marsh—Formation of ash surface to fair ground—	
G. J. Anderson, Poplar.....	£2,614
R. Neal & Sons, Wandsworth.....	2,500
George Bell & Sons, Ltd., Tottenham..	2,482
Howard Farrow, Golder's-green.....	2,400
*Mears Brothers, Lewisham.....	2,293
Finsbury Park—Laying out of dry playing area—	
R. Neal & Sons, Wandsworth.....	£1,900
*Howard Farrow Golder's-green.....	1,670
Victoria Park—Regulating and resurfacing roads—	
*Tarmac, Ltd., at schedule of prices.	

MAIDSTONE.—For work at showrooms and offices, for the Electricity Department of the T.C. :—

Messrs. Cruttenden	£539
Barden & Head	526
Elmore & Son	525
Wallis & Sons	520
Cox Brothers	510
*R. Corben & Son.....	490

MALVERN.—Supply, delivery and fixing of switch gear at the Electricity Works, for the Electricity Committee :—
*Ferguson, Pailin & Co., Ltd. £1,027 14

MARSHLAND.—For erection of six houses in pairs, Clenchwarton, for the R.D.C. Mr. L. F. Eagleton, architect, 38, King-street, King's Lynn. Quantities by architect :—

	Per pair.
J. J. Bone & Son, King's Lynn ..	£1,100 0
F. W. Ashby, Ltd., Downham Mkt.	916 0
J. Medwell & Sons, King's Lynn....	912 0
H. W. Barnes, King's Lynn.....	910 0
T. Ives & Sons, King's Lynn.....	900 0
H. Rilett, Terrington St. Clement..	898 10
H. Reeder & Son, Tilney All Saints	890 0
A. F. Foreman & Sons, King's Lynn	857 10
W. Wright, Terrington St. Clement	845 0
J. H. Johnson & Sons, Wisbech....	830 0
Hornigold & Morton, Terrington St. Clement	750 0
*T. J. Jupp, Wisbech.....	722 10

MORLEY.—For the following repairs and road works, for the Highways Committee of the Corporation :—

Painting and repairs to road roller—	
*T. Green & Sons, Ltd., Leeds..	£87 10 0
Construction of Middleton-road extensions, with Elland Edge stone kerb and footpaths—	
*Harrison Spenseley & Sons, Morley.....	7,807 19 0
Paving of Churwell Hill (a percentage of local unemployed labour to be used)—	
*R. Beumont & Co., Honley	2,409 10 9

NEWPORT (MON).—For carrying out an extension of the St. Julian-road, for the Newport Corporation :—
*G. F. Leadbeter, Newport £3,985

PLYMOUTH.—For repairs to the Devonport Guildhall, for the T.C. :—
*Carkeek & Son..... £3,773

SHEFFIELD.—Erection of conveniences at Woodseats, for the Corporation :—
*S. Higton & Son, Sheffield £805

SHEFFIELD.—Supply, delivery and construction of 11 mild steel fuel storage tanks at Singapore Naval Base, for the Admiralty :—
*Newton, Chambers & Co., Sheffield.

SOUTHEND-ON-SEA.—For the iron and steel work required in connection with the provision of additional lavatory, cloak room and kitchen accommodation at the Pavilion, for the T.C. :—

*Sandford & Co.—*Cast-iron work*.... £58 10
*Somerfield, Bernard & Co.—*Steel work* 157 10

STRETFORD.—For making-up passages in (*a*) Carlton-street; and (*b*) path St. John's-road, for the U.D.C. :—

*Bethell & Sons.. (*a*) £234; and (*b*) £118 18 6

WAKEFIELD.—For the reconstruction of public conveniences at the cemetery, for the T.C. :—

*W. Judge, Wakefield..... £422 4 10

WALSALL.—For constructing (*a*) sewer between Charlemont-road and Birmingham-road; and (*b*) in Stafford-road, for the T.C. :—

*J. & F. Wootton, Ltd...(*a*) £344 15; and (*b*) £296 18 4

WHITBY.—Erection of a War Memorial Cottage Hospital :—

*R. A. Wilson & Son, Whitby.

YORK.—For the adaptation of the old Subscription Library premises, for the T.C. :—

*W. Usher £1,702 17 6

YORK.—For provision of conveniences at Harker's Hotel, for the T.C. :—

*W. Birch & Sons..... £110 17 6

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National Association of Builders' Labourers.

A private conference of the National Association of Builders' Labourers, attended by over 100 delegates, was held at Middlesbrough recently, at which it was announced that after considerable delay,, the Association would from January next be merged, with other bodies connected with the trade, into the Builders' Labourers' and Constructional Workers' Society.

At a dinner which followed, Mr. J. W. Welsh, of Middlesbrough, general secretary of the existing organisation, said they had endeavoured with much success to lift the builders' labourers to a higher plane, and he trusted the amalgamation would be an inspiration for unity. The chair was occupied by Mr. J. Cavanagh (President of the Association), who said it would not be long before there would be one union for all engaged in the building industry.

"Punch's" Almanack for 1924.

The receipt of *Mr. Punch's Almanack* (price 1s.) reminds us somewhat suddenly that the festive season is upon us, and we welcome it. The issue is full of good things, including many pages of coloured illustrations.

Astley-Ainslie Institution.

Canaan Park House, the first unit of the Astley-Ainslie Institution for the reception of convalescent patients from Edinburgh Royal Infirmary, an important scheme for which there is now available about £600,000, was formally opened on Saturday afternoon. The scheme is the outcome of the beneficence of Mr. David Ainslie, of Costerton, Midlothian, who died in 1900, and who directed that the residue of his large estate should accumulate for fifteen years for the purpose. The conditions of the will specified that the buildings should be of stone, and that they should follow the design of Watson's Hospital at Belford Bridge, and Mr. John Jerdan, F.R.I.B.A., to whom the architectural work has been entrusted, has practically reconstructed the original property. The building, which consists of two stories, has accommodation for 34 patients, 14 indoors in each ward and three on each of the open-air verandahs, which are a feature of the wards.

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THE BUILDER

JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

CXXV.—No. 4216. NOVEMBER 23, 1923.

"HOW TO PROVIDE HOUSES."

HE Independent Labour Party has issued a manifesto defining the steps that a Socialist Government would take to solve the problem of the erection of the working-class house. While we are in entire agreement with the statements illustrating the disastrous ue to bad housing, we cannot accept the basic assertion he present housing shortage is the most glaring example ilure of profit-making capitalist society to supply the the nation," made as if such a statement embodied ident truth. If we are to examine what "capitalist was able to do in housing the people, we must go the years prior to 1910, when we find conditions very from what they are now. Then a sufficient number of ere built to accommodate the population without any g made upon the public purse. We admit that the ere not as a rule what they should have been, but we ttribute the poor standard generally adopted to the ence of a "capitalist" system. A more conscientious, , and idealistic society, still working on "capitalist" d within economic limits, might in pre-war days have really excellent results, and in certain cases such ually obtained. Capitalism misapplied is as harmful as r misapplied system.

ther paragraph informs us as an interesting fact that houses are required, and 85,000 unemployed builders nted from building them." Some of our friends would h this and say that the trade unions are doing the g, but as the Independent Labour Party can hardly t, we should like to know who is doing the preventing. or information.

ialist Government, we are told, would prohibit all " building until the housing needs of the people . It is precisely this kind of wild legislation which is dreaded in such a Government. In the manifesto it is as "intolerable that wealth should be spent and ployed in erecting places of pleasure and emporiums e of the wealthy, while the children are being destroyed ealth of the people undermined by bad housing con-

Suppose a Socialist Government, in pursuance of ved policy, stopped all work on large emporiums, happen to those engaged on steel construction, stone nd marble work; to the sculptor; to the man who lifts, and the hundred other elaborate fittings associ- these large stores? Are all these highly-skilled and workers to be set to build houses out of clinker blocks? , we must confess that a proposal to cause a monstrous nemployment in such skilled trades for the sake of cal objection to luxury is absurd. We readily admit flaunting of luxury, especially at the present time, ble, and we also consider that the ever-increasing sness of the large store is inimical to good architecture; ot a case for legislation.

mpting enough to say that "if national effort can be for the purpose of war, it can be organised for the constructive peace"; but to argue thus is to overlook at the national war effort was a frightfully wasteful , quite apart from the waste inherent in war itself. fforts cost millions of pounds more than they need, in sending up the cost of living, a process that cannot ndefinitely if national bankruptcy is to be avoided. The Addison scheme was an effort at national housing, and as an initial impetus and in setting a high standard it was of great value, but its ever-expanding cost must surely have indicated, even to the most sanguine idealist, that such a scheme could offer no permanent solution to the housing problem.

It is highly unfortunate that so many who are keenly concerned with this question should nail their flag to one particular mast-head and refuse to co-operate in any proposal but their own, and if their own happens to be unpopular with the bulk of their neighbours they sit down and refuse their help. The end is surely more important than the means, and one would have thought that quite enough good and satisfactory work had been done in pre-war schemes (too well known to need mention here) to demonstrate that private enterprise—or call it capitalism—is capable, when properly directed, of justifying the faith of the most exacting. At least the present Government is pledged to give it every chance of making good, and, whatever political destiny may be in store, we suggest that it is the duty of everyone who wishes to see the housing question solved to give the present system every chance. If by circumstances it should be changed for another system, we should advocate the same co-operation from those who might be politically opposed. It is easy to show how few houses for the working classes have been built during the past year and it is equally easy to talk about the Government building 200,000 per annum With the whole resources of the State behind it, working at full pressure, at a cost of nearly two hundred million pounds, it took the Government over four years to build 176,000 houses. In face of these figures, who would be bold enough to calculate the cost to the State of a Government scheme that involved building steadily at the rate of 200,000 a year? The expense of such a scheme would be so prodigious that we should soon be involved in an endless upward scramble between the cost of living and the rate of wages. Neither must we forget the inevitable inefficiency of Government control in the output of materials. The National Projectile Factories were marvellous institutions and the Ministry of Munitions an unparalleled creation; but its methods were about the only fountain that kept humour alive during the war. To create such a monster to build workmen's houses would be like erecting a steam hammer to flatten domestic flies. When the steam hammer gets the fly into position it is certainly deadly, but private enterprise—in the form of small fly-papers scattered here and there—is much cheaper, and much more efficient. Finally, our hope lies in promoting an increasing sense of responsibility rather than in any artificial prohibition of luxury, or in the regulation of prices by fantastic legislation.

Let the Independent Labour Party keep alive the insistent cry for action and reform, but let it show some faith in the public conscience and at least give it a chance to show that these problems can be solved in anatural and healthy way. Such a course of propaganda need not be at variance with any political programme, but it would allow the party to co-operate with all citizens of good will, and to work to the same end. A man or an organisation that will not help a social scheme projected by a political opponent for fear that his help may make the scheme a success may score a political point, but he is failing in citizenship, and this is remembered against him to the detriment of his own schemes when he gets the chance of testing them.

NOTES.

The Sale of City Churches.

It is satisfactory to know that this matter is to receive further consideration, for it is evidently difficult for the Bishop of London to realise the strong objections felt by great numbers of people to the disposal of the City churches. Representative societies, no less than individuals, are almost unanimous in their objections to such vandalism, and if persisted in the effect on the public mind will be very harmful to the Church's influence. For there is a growing sense that there is not sufficient appreciation by those who countenance such a step of the importance of good architecture, nor for what it stands, and in destroying this witness of the past they are undoing with one hand what they hope to do with the other. For these historical, sacred buildings are witness also of the aspirations and beliefs out of which they grew, and those who find no importance in this view and would destroy them are effecting a loss to religion itself. What advantage can there exist in such a case, when we only destroy in one place in order to provide in another? The money gained by the sale of these churches is loss if it injures the very cause for which it is to be used elsewhere. Moreover, the reasons for their destruction seem to us open to a different interpretation. In a letter from the Rev. R. J. Campbell to the *Times*, he says, "Unfortunately, the policy of ecclesiastical authority has too frequently been that of rewarding men for good service elsewhere by putting them into City livings, to whose peculiar conditions they are not suited." If this policy were discontinued and men with preaching gifts and a true vocation of service, and conscious of the extent of the need of their work, were now to be appointed, we doubt not that these churches would be filled, and that there would be no problem of the City churches to solve.

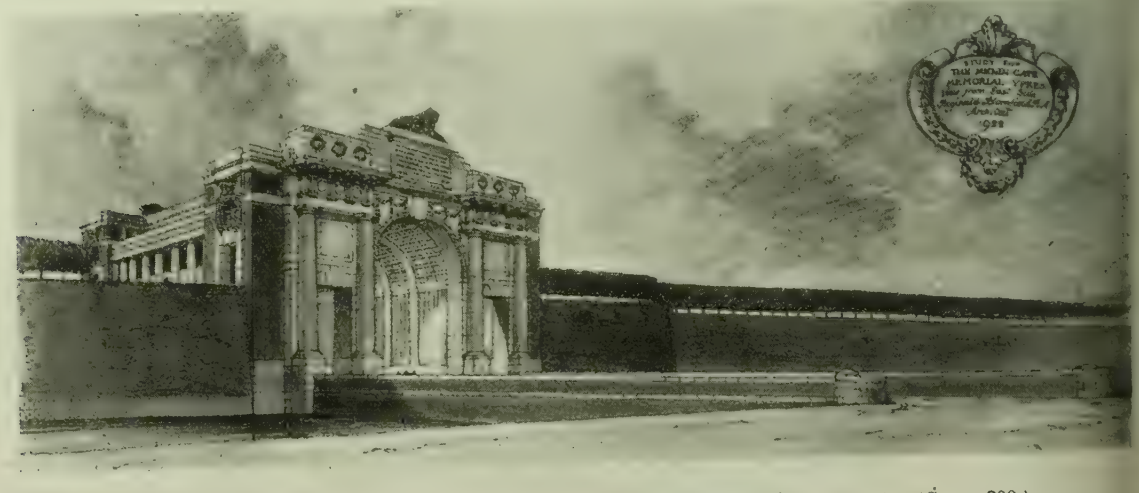
King's College Chambers, Cambridge.

As supplementary to our review of the Cambridge Competition designs for King's College new Library and sets of Chambers on the 9th inst. (when we illustrated the winning design), it will be interesting to mention a few facts about the intermittent endeavours which have from time to time been made during the past 200 years to carry out these desirable and much-needed additions. The present project is the third attempted occasion for the erection of a new Library for King's. James Gibbs originally planned it to form the rear façade of a secondary quadrangle towards Trumpington-street. He placed his Library at right angles with the Senate House. This latter cost £13,000, and was opened in 1780, but it still remains an isolated fragment of Gibbs' big collegiate scheme. On the south end of his Library he proposed to repeat the skyline of the Senate House by building a Consistory and Registry set in a line with the north side of the splendid Chapel of which Henry VI laid the foundation stone in 1446. Gibbs also included in his plan an imposing central frontispiece next Trumpington-street on the site of the present lodge and screen designed by W. Wilkins, and built in 1824. That palatial pile was to correspond with "the Gibbs' building" now gracing King's "great lawn." This capacious quadrangle southward of the chapel was to terminate with a range of offices and lodge for the Provost, which would have stood next the site chosen for the present competition design for the new Library and sets of chambers which will extend in front of "Mulberry Tree-court," "The Provost's Garden," and "the Bodley Quadrangle," overlooking the "Backs" and River Cam where King's bridge stands. The late G. F. Bodley, R.A., erected the Provost Lodge and last-named buildings in 1894. Those in front, which are to be forthwith demolished to clear a site for the present extensions, were carried out just a century ago by William Wilkins, R.A., whose design was s against those of eighteen comp The College authorities compelle however, to accept various sugg from three other architects—, Wyatt and Nash—and Crosby H given as a model to emulate. The quality of this coalition scheme is evident; its demolition need c regrets.

Robert Adam's King's College Library.

Robert Adam's ha enterprise for the of a new Library for College* was plan tween 1784 and 178 scheme differed essentially in det general form from Gibbs' proposal was broader in style and plainer i but Adam adopted the same posi the Library by placing it contiguo the Senate House—indeed, he that structure as an eastern flanki to his square-shaped Library, on t wing of which he repeated Gibbs' House, extending the compositi laid out towards Clare College, in to build on the intervening site sti pied by the "Public Schools." scheme likewise included an inde block similarly located as in Gib out, south of the new great qua but besides providing a lodge Provost at its western extremity included a clever and unique College Hall in the middle southern range, which also several sets of scholars' rooms, tern at the frontage line in Trump street. Nothing came of these posals, so characteristic of Robert who also showed many chang doubtful elaborations of the P work built by robustious Gibbs. nately his "Fellows' Building" quently escaped mutilation at t of Wilkins, who contemplated

* Illustrations and many interesting pa Robert Adam's designs for these improve nished by Mr. Arthur T. Bolton, F.S.A., appe R.I.B.A. *Journal* for December 23, 1916.



Menin Gate Memorial, Ypres. SIR REGINALD BLOMFIELD, R.A., Architect. (*See p.* 800.)



du Musee, Ypres. (*See p.* 800.)

to make it assimilate with the splendour of the King's cathedral-pel of fifteenth-century design—a erous proposal.

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nsur- and hes. It is satisfactory to know that the articles on "The Incidence of Insurance," contributed by our special ondent in *The Builder* for October 12, are being appreciated. Their l application is confirmed by a nication to hand this week from g metropolitan insurance company the matter up; the company also he comparative lists of current eriodically issued in our pages very o the point. A vast number of s insured prior to 1914 possess based upon the average costs of g during the early part of this . Old yearly-published price upply statistics of such variations. glad to learn that an endeavour is hade towards improving the con- of insurance for churches and we ed to advise as to solving this problem. Ecclesiastical property are blamed for under-insuring uildings, but it is only fair to e that the contention embodied Report of the Houses of Laymen vocation," issued in 1913, deserves ention than appears to have been from the insurance companies. ission of the "Average Clause" ich policies was therein asserted tial, and up to now this claim has eated by the companies as an nted demand. Churches vary ructurally and in location, some the open, others on crowded ach church, too, differs greatly n parts so that the same risk and nnot be justly averaged save by pre-arranged appropriation. We suggest that screens, pulpits, stalls and other fittings as well as the contents, such as vessels, vestments, pictures, and the like, ought to be scheduled and provisionally priced at agreed values with proportionate premiums, reckoning the fabric at a far less valuation subject to specific exceptions, such as each case may demand. Insurance risks can only be covered by actuarial calculations, but on the other hand church councils are not financially positioned for heavy insurances. Some such scheme thus outlined would, in the majority of cases, enable them adequately to meet fire risks and at the same time justify insurance enterprise by fixing it on a more mutual basis.

British Museum Lectures. In the most recent of her lectures at the British Museum, Miss Claire Gaudet in describing the methods of building, told us that the Egyptians built from the outside inwards as the best way of keeping out the sun; and of the effects of climate on the form of building, as in the flat roof in the East, which is also used as a sleeping place. For the building of the Pyramids, the labourers floated the granite down from the quarries on rafts and then dragged it on rollers up the great causeway leading to the Great Pyramid, of which traces still exist. The view that the Pyramids were built entirely by slave labour is regarded as incorrect. Each year for three months most of the cultivated area was flooded, at which period the agricultural labourers were out of work, and during this enforced inactivity they were employed in other directions. The chief buildings in all ancient civilisations were the temples, tombs and palaces, and at that time the royal palace sheltered all the machinery of government and of commerce which centred there.



Ruins of Cloth Hall, Ypres; Consolidation Work in Progress.

Strand-on-the-Green, Chiswick. The recently-erected rubble wall along the river side at Strand-on-the-Green, towards the western end near Kew Bridge, has now been made to conform to the wishes of the Art Standing Committee of the R.I.B.A. by the addition of a wide stone splayed top coping, well weathered and projecting each side, by which means the random rough stone wall is made less conspicuous. By raising the walk along this extremity of Strand-on-the-Green the wall in question is almost entirely hidden. The remainder of the Strand walk remains as it was, and the R.I.B.A. has thanked the Chiswick Council for the consideration shown to the Institute's wishes. Those who value the amenities of the Thames will be glad to know that this part of the river is for the present safe from spoilation.



Hotel de Gand, Ypres, as restored. (*See p.* 800.)

GENERAL NEWS.

Professional Announcement.

Mr. George A. Allan, M.S.A., and Mr. L. W. E. Foster have removed to 5, Staple Inn, W.C.1. (Telephone: Holborn 4586.)

Appointment.

The Burry Port U.D.C. has appointed Mr. J. E. Vaughan Evans, Llanelly, as its Surveyor.

Rome Scholarship in Architecture.

In the list of names of those granted permission to take part in the Preliminary Competition for the Rome Scholarship in Architecture and the Henry Jarvis Studentship, 1924, given in our last issue, it was not clearly stated that Mr. Towndrow, Mr. Sisson and Miss Hargroves are students of the London University School of Architecture.

City Churches.

At a full session of the Church Assembly, held on November 17, the question of the City churches was discussed. Lord Robert Cecil said that the members in charge did not propose that the Assembly should come to a definite decision at the present session. Therefore, the matter was at present in abeyance.

Old Dutch Work in South Africa.

The Cape Institute of Architects have sent a portfolio of measured drawings of old Dutch work in South Africa for inspection by the R.I.B.A. Board of Architectural Education. The drawings were submitted in competition for the Cape Institute of Architects' Measured Drawings Prize. The Board of Architectural Education were impressed with the high standard of the work and Professor C. H. Reilly, a member of the Board of Architectural Education, has written an appreciation of the drawings.

Church Building Society.

At the monthly meeting of the Incorporated Church Building Society, held at 7, Dean's-yard, Westminster, on November 15, grants were made towards building new churches at Leicester, The Holy Apostles, £300; Newport, SS. Julian and Aaron, Mon., £300; Abercarn, St. Luke, Mon., £250; East Boldon, St. George, Durham, £125; rebuilding the churches at Brecon, St. David, £200; and Kidderminster, St. George, £75; and towards enlarging or repairing the churches at Barnwell Abbey, Cambridge, £40; Cheselbourne, St. Martin, Dorset, £40; Cold Waltham, St. Giles, Sussex, £50; Haggerston, St. Paul, £75; Ilton, St. Peter, Som., £50; Leintwardine, St. Mary, Hereford, £50; Nurstead, St. Mildred, Kent, £25; Orby, All Saints, Lincs., £30; Over, St. Chad, Cheshire, £70; Pensnett, St. Mary, Staffs., £100; Ruishton, St. George, Som., £50; Southwark, St. Peter, £50; Thorpe, St. Mary, Surrey, £15; Great Walsingham, St. Peter, Norfolk, £50; and Worthen, All Saints, Salop, £100. A grant of £100 was also made from the Mission Buildings Fund towards the erection of a Mission Church at Cefn Cribbwr, Penyfai, Glam. The following grants were also paid for works completed at Petham, All Saints, Canterbury, £25; Acton, All Saints, Suffolk, £50; Islington, St. Matthias, £100; West Thurrock, St. Clement, Essex, £15; Ford End, St. John, Essex, £40; Blackburn, The Saviour, £175; Ruishton, St. George, Som., £50; Bream, St. James, Glos., £20; Lannarth, Christ Church, Cornwall, £40; Abington Pigotts, St. Michael, Herts., £25; Thorpe, St. John the Divine, Yorks., £150; and Cwm Mission Church, Bettws-y-Coed, £35. In addition to these the sum of £630 was paid towards small repairs to 30 churches from Trust Funds held by the Society.



Cathedral of St. Martin, Ypres, under re-construction, November, 1923. (See

"Old London."

In aid of the Widows' Friend Society, a lecture, illustrated by lantern views, on "Old London," will be delivered by Mr. Herbert A. Cox, F.C.A., on November 29, at 5.30 p.m., in the Bishopsgate Institute, 230, Bishopsgate, E.C.2. Mr. A. C. Stanley-Stone, C.C., will occupy the chair. The lecture will be illustrated by lantern slides of old London and a model of Old St. Paul's (illuminated by electricity). Tickets (free of tax) 2s. 6d. (numbered and reserved) and 1s. 3d. may be obtained at 4, Catherine-street, Aldwych, W.C.2.

COMPETITION NEWS

Hereford.

The Hereford City Council has decided to offer prizes for drawings and plans for the rebuilding of the Hereford Butter Market, and for the full development of the city on con lines.

New Art Gallery, Hull.

In this competition, Mr. John W. S P.P.R.I.B.A., the assessor, of London, h the following award:—

First premium (£1,000), Messrs. S. N. F.R.I.B.A., & E. C. Davies, A.R.I.I Montague-street, London, W.C. 1.

Second premium (£500), Messrs. J. S. & Gordon, 5, Old Bond-street, Londo

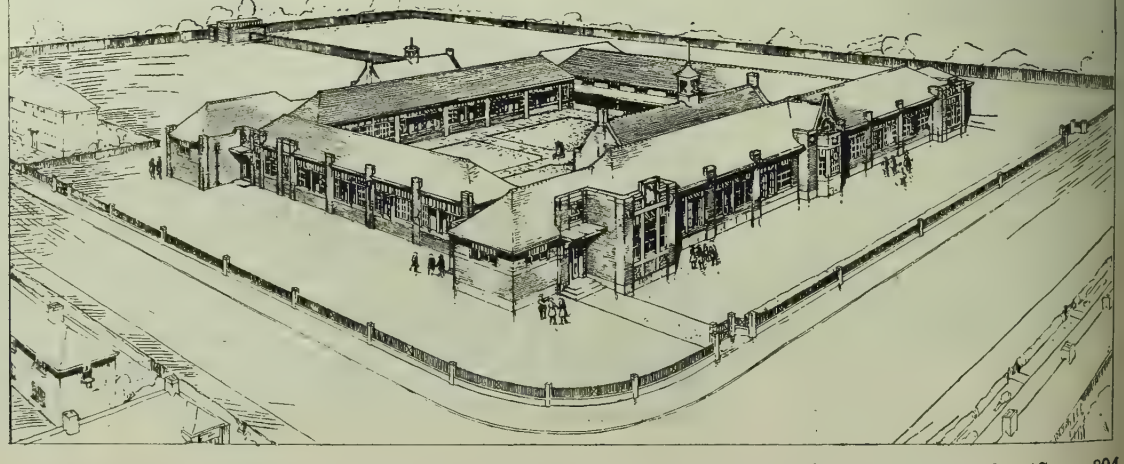
The first premiated design is given issue.

Barton-upon-Irwell.

The Guardians invite architects with ence in hospital planning to submit thei and qualifications. From these, twelve invited to submit designs. Mr. William F.R.I.B.A., is the assessor.

Other Competitions.

Other competitions still open incl following (the dates given are, first the in date, and second the issue of *The B* which full particulars were given):—Si College (Jan. 1, 1924; March 30) Memorial (Jan. 5, 1924; Sept. 14). E and Bishopstoke Assembly Hall—*Ba R.I.B.A.* (Dec. 3; August 24). Taunt Memorial (Nov. 30; Oct. 5). Memoria Missing (Jan. 1, 1924; Aug. 3). N Concert Hall (Feb. 1, 1924; Oct. 26). Empire Exhibition Decoration (De Oct. 26). Essays on Concrete (De Nov. 16). Edmonton War Memorial (N Nov. 16). Belfast Union Heating and (Dec. 18; Nov. 9). Essays on Heat Ventilating (Mar. 31, 1924; Nov. 9). Police and Fire Station (Dec. 18; No



New School at Becontree. Mr. J. Stuart, F.R.I.B.A., Architect to the Essex County Council. (See p. 804.)

ORRESPONDENCE.

We are glad to publish letters on professional and matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

"Charlatans and Pests."

—The first part of Mr. Overy's letter argument in favour of placing the architectural profession on a similar footing to that medical profession, an objective which society has for many years endeavoured to and which it will undoubtedly attain course with the support of Mr. Overy her members of the Society and of the on.

Overy seems to base his assumption that ters designating membership in the tural bodies convey little to the the street on a kind of general knowst which he has imposed on some of his but the fact that they have failed to does not necessarily imply that other are equally ignorant. Mr. Overy's better acquaintance with the letters ting membership in bodies representing allings is due, it is suggested, to the fact ose who practise these callings are able e them known through the medium of per advertisements, and he appears to grievance because architects belonging representative architectural bodies are d from advertising in a similar way. A flection will show Mr. Overy that there y legitimate and better ways in which ts may secure publicity if they wish to without infringing any written or uncode of professional ethics. He has adopted a method which I also advocate, t of press publicity under his own name. Overy does no more than glance at the apers and the professional journals he fail to be impressed with the fact that the leading architects are adepts in the rofessional publicity in the Press. There o other means by which an architect ep himself before the public, and far eing handicapped by restrictions in to professional publicity, the architect position, by the nature of his profession, nand much of the publicity which those on some other callings endeavour to y advertising.

Overy concludes his letter with a somenfused reference to a body which does st. He says it is interesting to note his body is doing for its members in ways, and then goes on to complain is not doing anything. Incidentally, ests an excellent title for whichever of hitectural bodies first becomes the one y representative body of architects in gdom. I hold no brief for an imaginary ut as Mr. Overy is in municipal employ be pleased to hear that long ago the which has the advantage of his support nber circularised all the local authorities ingdom, urging that architects should be in charge of their architectural work, ore recently in connection with the l Housing Scheme it has at least twice ised the same authorities, urging them ploy architects on housing schemes ring to supply the names of the Society ould carry out the work if the bodies ed had any difficulty in finding an archiSo successful was the Society's propahat it was accused, by a leading member indred institution in his address, of ssional conduct in what was alleged endeavour to get the housing work out ands of other officials of local authorities. tion to this general propaganda the is frequently in correspondence with al municipalities and public departments view to safe-guarding the interests of nbers.

se it may be supposed that Mr. Overy, mber of the Society, should necessarily ainted with the Society's past move- the directions indicated, it seems only him to say that he is comparatively a new member and one to whom the Society is much indebted for his support and for this opportunity of offering some observations on the subject matters of his letter.

C. McARTHUR BUTLER,
Secretary.

Society of Architects.

King's College New Buildings, Cambridge.

SIR,—As one interested in architecture, I beg leave to write to you on the subject of the proposed new buildings at King's College, Cambridge. Last week I was in Cambridge, and took the opportunity to inspect the designs. As examples of architectural taste they were particularly bad, and my sympathies went out to the assessor, who had no alternative but to select the least offensive of the works. No doubt before the buildings are started the College authorities will ask for some revision of the elevations.

"STAT HOMINUS UMBRA."

SIR,—In your issue of November 16, I observe that a letter appears with reference to the recent competition for the new buildings for King's College, Cambridge. The letter, which is signed by three of the unsuccessful competitors, Mr. T. S. Tait, Mr. G. H. C. Holt and Mr. V. O. Rees, impugns the competence of the assessor, Mr. C. Lovett Gill, censures the Building Committee of King's College for endorsing his award and accuses the winners of violating the conditions of the competition. It is incidentally a document that bears a curious and interesting likeness to the anonymous criticism of the competition that appeared in a contemporary journal for November 14, and that included special praise of the work of one of the signatories of the letter.

The attack on the assessor and on the Building Committee of King's must under the circumstances appear extraordinarily unsportsmanlike—to use an English phrase. If defeated competitors cannot take their beating in a more generous spirit, they should at least refrain from a public display of their chagrin, and not rush into print with suggestions that a lay committee ought to have refused to endorse the award of a Fellow of the Institute, and that the longer the successful design is studied the more dubious about it the Building Committee of the College must feel.

Questions of professional conduct are here involved that would seem to demand the attention of the Practice Standing Committee of the Institute. If nothing is done to impose some reasonable standard of loyalty and etiquette in competitions the prestige of the profession must be seriously damaged.

C. H. REILLY.

Liverpool.

"The Problem of London Traffic."

SIR,—Listening with great interest to Sir Lynden Macassey's review of the above subject at the School of Economics, I could not help being confirmed in an opinion held for a long time that it would be to the interest of the community were the late Royal Commission on London Traffic Improvement reconstructed with extended reference and powers, in order to bring the report up to date.

Appointed in 1903, it presented in two and a half years a most elaborate work, extending to eight volumes and costing the nation about £80,000. The subsequent expenses of its successors, the London Traffic Board and Ministry of Transport, must have about doubled that expense, so that it is safe to say that in two decades £150,000 has been spent *officially* in inquiry and suggestion.

Great changes have occurred since the Royal Commission reported motor traffic was in its infancy, aircraft in swaddling bands; the war wasn't dreamt of, nor the vast changes that have come as the aftermath.

Moreover, one government after another, both before the war and since, have been baffled as to the best course to pursue in the interpretation of the Commission's report, or inaction in regard to the subject generally, which, it ought to be recognised more fully, is bound up with "London Government," on which a somewhat abortive report has appeared recently.

The Commission did not look upon its report as the last word on the subject. On the contrary, it spoke of the hope of "a well-considered plan" being produced. Up till now it hasn't appeared, but any number of piecemeal suggestions await investigation from which it is believed the desired plan can be made up.

If that is not done, there is the danger of the Metropolis becoming the subject of further botch—in fact, it is imminent.

O.B.I.T.

Town Planning in Kent.

A meeting of the East Kent Regional Joint Town-Planning Committee was held at the Guildhall, Canterbury, on Monday with representatives of the local authorities concerned, under the chairmanship of Mr. A. P. Rice. A motion by the Mayor of Dover was proposed, to approach an eminent town-planning expert with a view to preparing a regional outlying scheme and report, and the name of the President of the Town Planning Institute was mentioned. A feature of the Town-Planning Exhibition opened at Olympia, as part of the Commercial Motor Exhibition, is a large number of models demonstrating town-planning schemes, lent by Birmingham, Glasgow, Manchester, Liverpool, Leeds, and other large corporations,



Semi-Permanent (brick and wood) Workmen's Dwellings at Ligy Garden Suburb, near Ypres. (*See p.*800.)

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

THE REBUILDING OF YPRES.

MR. G. TOPHAM FORREST, the chief architect to the London County Council, delivered a lecture on Monday, at the Hall of the Royal Society of Medicine, on the subject of the "Rebuilding of Ypres." The chair was taken by Mr. J. A. Gotch, the President of the Royal Institute of British Architects.

The lecturer said that at the end of the war the devastation of Ypres was so complete that it looked as if the town was destined to be a great silent mound—a pathetic token of the struggles of the British Army on Belgian soil. Fortunately neither the Belgian people nor their rulers shared that view, and at the present time the ruins were being rapidly transformed into the Ypres of pre-war days. In addition to the town of Ypres nearly two hundred and fifty communities in Belgium suffered greater or less devastation, and all over the country incalculable injury had been done to the roads, railways, telegraphic and telephonic installations, waterworks and canals, and as soon as the capital was re-entered, the Belgian Government announced that one of the first duties of the country was to consecrate the national energy and resources to the task of helping the devastated regions to make good their enormous losses. Ypres, which among all the ruined districts was the one which had suffered most from the devastations of war, was, with Louvain and Dinant—those other great Belgian sacrifices—among the first communities to benefit from this special law. About the middle of 1919 it was, as it were, adopted by the nation, and from this fact was assured of the technical and financial assistance of the State and of those organisations specially created to assist in the prompt re-establishment of the country. Important provisional arrangements were at once made for housing the necessary public services and the first repatriated inhabitants. Great huts were erected to shelter the various public services. The task was at this time most difficult, for means of communication, railways, waterways and roads, had totally disappeared, transport failed and labour especially was lacking. The work was, nevertheless, carried on rapidly, and in a few months quite a small town of nearly 1,000 huts was built in the neighbourhood of the site of the vanished town.

The major part of this temporary village still exists and will only disappear on the completion of the reconstruction works, for it shelters a great part of the working population gathered from all parts of the country for the purpose of rebuilding the town. But the building of this village of huts, however urgent it was, and however difficult it might have been to achieve, was, after all, no more than a preliminary and only a small thing compared with the work—with even the preparatory work—still to be done. Those who did not see the ruins on the morrow of the armistice, or during the months immediately following can form no idea of the labour and energy required to render the reconstruction possible. The masses of ruins, fallen in disorder, had obliterated almost the very trace of the streets; in most parts the destruction was so complete that the foundations even had disappeared. And the formidable task to be undertaken was further complicated by the fact that it had to be carried out with due regard to the past history. There was no question here of founding a new town on virgin soil, but of rebuilding an ancient city out of its own ruins, and on its ancient site, exactly as it had been handed down from long past generations. The devoted zeal of the authorities and services, therefore, was bent on the patient and methodical clearing of the ruins, on the classification of the recovered materials, on the slow and laborious search for traces of the town's communications, on the patient uncovering of the water services and sewers, both destroyed and dispersed underground. The task called for weary months of self-denial and goodwill, and more than 4,000 workmen were engaged on it unceasingly up to the beginning of 1921, and it was only then that it was sufficiently advanced for a first beginning to be made on actual building work. From this time, the heaviest part of the work having been completed, and the prospect of final victory in sight, restoration work of every kind marched with giant strides, and wondering admiration was felt at the marvellous sight of the city being re-born and already almost reconstructed. The question of deciding whether to reconstruct all the buildings or to preserve the more important ruins as a witness to the horrors of the Great War, gave rise to much controversy. It had been thought by many that the ruin of the Cloth Hall and of St. Martin, especially, should be retained in their impressive grandeur. The question as regarded the Cloth Hall had not been definitely decided. Up to the present in Belgium the financial question had dominated the whole problem, and the authorities wisely decided to devote the funds available to reconstructions of immediate utility. It was, however, to the reconstruction of private dwelling-houses—as the following table shows—that the authorities have specially devoted themselves, and what was only some three years ago an immense field of desolation and death, was to-day a vast workshop in full activity where homes were already rising by hundreds with a rapidity which shows a daily progress.

No. of houses: before the war, 3,780; destroyed, 3,780; left on December 31, 1918, 0. Situation at the end of September, 1923:—Dwellings: inhabited, 1,500; fit for habitation, 200; in course of reconstruction, 789 tempo-



Post Office (known as Templar House), Rue de Lille, Ypres, a restored: March, 1923.

rary buildings, &c., 750; Total numb dwellings, 3,239.

As regards State intervention of the dwellings rebuilt, orbeing rebuilt, there w Buildings reconstructed by the Gover (department of devastated regions), new buildings constructed by the State (wo class estates of Kalvaart and Ligy), buildings reconstructed by means of ad trative advances agreed by the departm devastated regions, 491; buildings structed by war victims as a result of ments by the war damage tribunals, total 2,489.

The rate of progress in the carrying out work may also be realised from an exami of the figures relating to the population town at various dates:—No. of inhabi before the war, 18,056; on December 31, 0; on December 31, 1919, 2,126; on D ber 31, 1920, 5,871; on December 31, 9,450; on June 30, 1922, 10,465; on Se ber 30, 1923, 13,053.

It should be realised, however, tha all the buildings, without exception, been reconstructed exactly as they were the war. There were at Ypres, as in m the destroyed localities, certain workin districts in which there was a numb old buildings, the reconstruction of would have been neither possible no



1912.



November, 1923.

Views taken from the Belfry of the Cloth Hall, Ypres

but which had to be replaced in order the industrial needs of the town. The ient realised this, and devised a most ng scheme embodying the construction, of the numerous little houses destroyed, al hundred working-class dwellings.

cturer also said that he had found it gly difficult to discover the names of tually responsible for the carrying out ork, but he specially referred to State Renkin, Mr. R. Verwilghen (formerly of the department of devasted regions), oomans (architect-engineer of the town), and Mr. Carl Verwilghen.

cturer had no doubt whatever but that n Hall would be restored. The cathedral Martin's was. actually, being restored. g described the actual work of restor- e told of the almost religious care being taken of every piece of old work storation of the buildings. He also to the energy displayed by all classes rs. and expressed the hope that when n Hall has been rebuilt, a tablet would d on its wall recording the fact that eople had a mind to work."

cture was illustrated by eighty lantern owing Ypres as it was before the war, immediately after the war, and as it

Earl of Cavan (Chief of the Imperial Staff) said he sincerely and heartily vote of thanks to the lecturer. He know which emotion stirred him the rrow or anger at the damage which the had accomplished, or admiration for of the Belgians in rebuilding Ypres. d to his own memories of Ypres, he the lecturer had made no mention of nt ramparts. They had proved abso- fe against shell-fire, and even against ey had been the headquarters of many and divisions during the war. The he recalled, had often sheltered his or-car. In conclusion, he congratulated ians on their work, and said that he if many other countries would have it to successful fruition.

Belgian Ambassador, in seconding the hanks. mentioned the very ruins of the claimed the valour of Great Britain, ad stayed the rush to the West. He ident that Ypres would once again be town, but it would ever be a place lwelt the memories of heroes. It ed sanctuary which bound a grateful to Great Britain.

rench Ambassador spoke of the tenacity elgian people, and their confidence in re. He mentioned that they served ample for the rest of the world in the reconstruction.

Chadwick Trust.

sequence of the General Election, the Public Lectures, by Major Harry .P.R.I.B.A., and Dr. A. K. Chalmers, are being postponed until the New



Grande Place, Ypres: March, 1923.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

THE following are notes from the Minutes of the November 5 Council Meeting:—

The City Churches.—It was decided to issue a public protest against the threatened demolition of City Churches.

Preservation of Places of Natural Beauty or Historic Interest.—It was decided to join the Royal Academy, the Society for the Protection of Ancient Buildings and the Society of Antiquaries in sending to the Chancellor of the Exchequer a proposal for exempting the owner of any places of natural beauty or of historic interest from Schedule A of the Income Tax chargeable upon that property, provided that he keeps the property in such repairs wil prevent decay and allows reasonable access to members of the public who wish to enjoy the beauties of the place or to appreciate its historic interest.

Royal Commission on Fire Brigades and Fire Prevention.—It was decided to appoint a joint Committee of Members of the Practice and Science Standing Committees to collect and collate reports from the Allied Societies on the Report of the Royal Commission on Fire Brigades and Fire Prevention and to advise the Council as to any steps which it may be desirable to take in connection with the Report.

Lay out and Town-Planning Competitions.—It was decided to take steps to arrange an early conference of representatives of the Town-Planning Institute, the Town-Planning Committee R.I.B.A., and the Competitions Committee R.I.B.A., to consider and report to the Council R.I.B.A. upon the whole question of Town-Planning and Lay-out Competitions.

Illegal use of R.I.B.A. affix.—It was decided to publish a note annually in the R.I.B.A. Journal and the professional press calling attention to the fact that the use of the R.I.B.A. affix, or of any affix suggesting membership of the R.I.B.A., by those who are not members of this body, is illegal, and that if any cases are reported to the Council legal proceedings will be taken.

The Charter and Bye-laws Committee.—Mr. Maurice E. Webb was appointed as an additional member of the Committee.

Road Access to the London Docks.—It was decided to communicate with the Port of London Authority and the Minister of Transport to the effect that the Royal Institute is glad to note the probability of the above improvement, and will be glad to be assured that the work is likely to be proceeded with during the winter.

Undercutting of Fees.—Under the provisions of Bye-law 24 a member was severely censured for quoting fees lower than those prescribed by the R.I.B.A. Scale in competition with other architects for an appointment under a public body.

Competitions.—A Licentiate was expelled for taking part in a banned Competition.

R.I.B.A. Examinations:—

(A) *Probationership.*—It was decided to accept Chemistry as an alternative to Physics, Mechanics, or Higher Mathematics in the qualifications for the Probationership.

(B) *Town Planning.*—It was decided to institute a special Examination for members of the Royal Institute leading to a Diploma in Town Planning.

(C) *Final Examination.*—The Board of Architectural Education reported to the Council that the following Students of Recognised Schools exempted from the Final Examination had passed the Examination in Professional Practice: Donald Brooke, Isabel M. Chambers, J. A. Coia, George H. Crickmay, James D. Ferguson, E. Maxwell Fry, Edith Gillian Harrison, E. H. H. Higham, Harold Hirst, C. H. Hutton, C. G. C. Hyslop, C. R. Knight, Doris Musker, Mohammed Raafat, T. Scott Sutherland, R. W. H. Vallis,

(D) *R.I.B.A. (Archibald Dawnay) Scholarships.*—The Board of Architectural Education reported to the Council that the following awards had been made: One Scholarship of £50 per annum to Mr. R. W. Donaldson, Liverpool University; one Scholarship of £25 per annum to Mr. R. H. Turner, Liverpool University; one Scholarship of £25 per annum to Mr. A. E. Cameron, Architectural Association; a renewal for the year 1923–1924 of the Scholarship of £25 awarded in 1922 to Mr. C. H. Hutton.

(E) *R.I.B.A. (Henry Jarvis) Studentship at the Architectural Association.*—The Board of Architectural Education reported that they had approved the award of the Studentship of £50 to Mr. Arthur Edwin Cameron.

Membership.—(A) The nominations of 21 candidates for the Fellowship and 30 for the Associateship were approved.

(B) Mr. F. E. F. Bailey (elected Associate 1879, Fellow 1905) was transferred to the Retired Fellowship.



Houses at Ypres: January, 1922.

FACTORY DWELLINGS, VÄSTERAS, SWEDEN.

By GEORG BROCHNER.

The General Swedish Electric Company's factory is from the designs of M. Eric Hahr, while M. Fritz Söderbergh, civil engineer, and some of the company's own engineers are responsible for the interior construction and arrangements. The building of this huge factory necessitated the acquirement of additional extensive areas from the city, including a couple of streets, and the part of a stream, 600 ft. long, which had to be filled up and sewers constructed in its place.

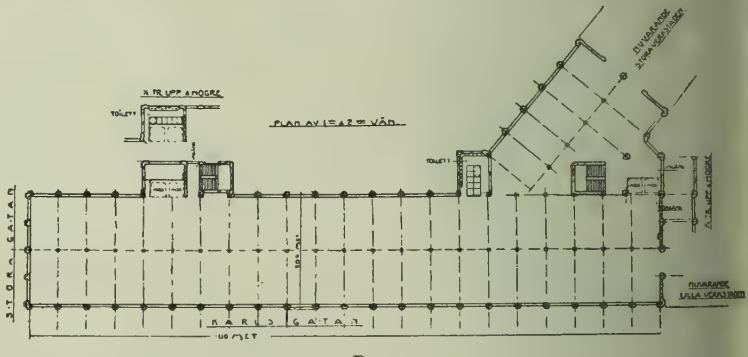
The foundation presented some difficulties, and concrete piles had to be carried to a depth of 24 ft. The front of the main building has a length of 113 metres. The height of the building is 25 metres, and its depth 20.5 metres. The building covers an area of 3,000 square metres, and contains a floor area of 12,000 square metres. The main front building has four stories, and the wing five. The height of the ground floor is 7 metres, of the first and second floors 4.5 metres, and for the upper floor, where the windows are in the roof, 8 metres.

The main structure is entirely of steel. There is a heavy concrete pillar under each brick pillar, connected by reinforced concrete beams. The pillars of the walls are covered with brick, and these constitute the frontage. The floor of the ground floor is of concrete covered with asphalte. Other floors are of concrete, covered with asphalte or wood, according to requirements. The load for the ground floor is calculated at 3,000 kilograms, for the first floor 2,000 kilograms, for the second 1,500 kilograms, and for the top floor 1,000 kilograms per square metre. The pillars on the ground floor support two parallel traverses; the load on the central pillars of the ground floor is about 300,000 kilograms, and a little less for the outer pillars. The fact of there being only one interior row of pillars gives better light, more room, and allows the traverses to be used in either side.

The window space occupies more than three-fourths of the walls, and they have been made as high as possible. The traverse arrangements have necessitated the stairs, which are broad and light and of reinforced concrete, being placed in special side buildings, where are also the elevator shafts, lavatories, &c. There are four elevators, each of 3,000 kilograms capacity; each elevator accommodates 20–30 persons, but during working hours they are intended for handling of goods.

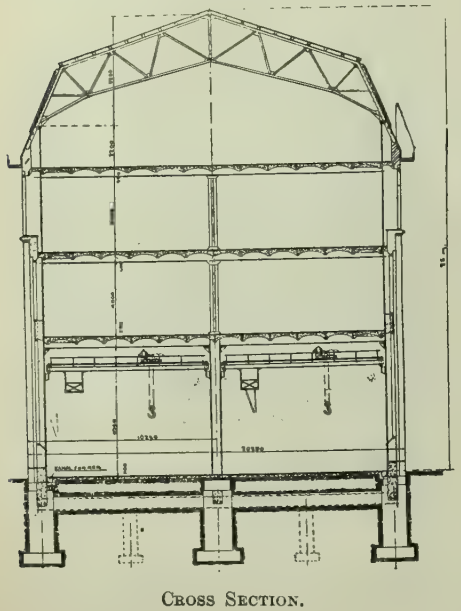
The company has been its own builder, where necessary employing some special firms; but the entire steel construction was made at its own works and all the woodwork by a branch establishment. The building is heated by steam.





PLAN.

Works of the Swedish General Electric Co., Vasteras, Sweden.



CROSS SECTION.

We illustrate a square of workmen's dwellings built by the company, and at very favourable rents let to the men. It is to the credit of Swedish workmen that they much appreciate a good house, which is almost invariably kept in good order, and the managing director of the S.G.E. Co., Mr. Edström, is much interested in providing good residential conditions for his men.

Cost of House Repairs.

In the House of Commons last week, Sir Wm. Joynson Hicks, replying to Mr. Rhys Davies, said that the cost of repairing houses erected by a local authority under the Housing, Town-Planning, &c., Act, 1919, was defrayed from their Repairs Fund, to which was normally allocated 15 per cent. of the rents of the houses. The returns of several of the larger authorities showed that the average annual expenditure on repairs per house had been 5s. 2d.

MEETINGS.

SATURDAY, *November* 24.

London Association of Builders' Foremen Clerks of Works.—Annual Dinner. At H Restaurant, W.C.1. 6.30 p.m.

MONDAY, *November* 26.

Architectural Association.—Mr. J. A. on "Value of Study of Old Buildings 34, Bedford-square, W.C.1. 7 p.m.

WEDNESDAY, *November* 28.

L.C.C. Central School of Arts and Craft Banister Fletcher on "The Parthenon Southampton-row, W.C.1. 6 p.m.

THURSDAY, *November* 29.

Edinburgh Architectural Association. fessor Abercrombie on "Architectural Edu in Town-Planning." 8 p.m.

Society of Antiquaries.—Mr. A. C. Fr "Monumental Effigies Made in Bris Mediæval Times (1240–1550)." At Bur House, W.1. 8.30 p.m.



Workmen's Houses for the Swedish General Electric Co., Västeras, Sweden.



Offices of the Swedish General Electric Co., Västeras, Sweden. (*See p.* 802.)

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ILLUSTRATIONS.

Hull Art Gallery.

We give this week the design placed first, by Messrs. S. N. Cooke, F.R.I.B.A., and E. C. Davies, A.R.I.B.A., in the competition for the new art gallery at Hull. The full result of the competition is given on p. 798.

Manchester Masonic Temple.

The exigency of the Press and dependence on photography sometimes interfere with our plans, and we were unable to reproduce the fine interior of Messrs. Thomas Worthington & Sons' accepted design for the East Lancashire Masonic Temple at Manchester with the illustrations which we gave in our issue of October 26, but we now give it, and also the plans to a larger scale than was before possible. The interior graphically illustrates an important and admirable feature of the building.

Design for the Holt Line Premises, Liverpool.

We give this week the design submitted by Mr. Curtis Green, A.R.A., F.R.I.B.A., in the recent competition for new premises for the Holt Line. The selected design, by Mr. Arnold Thorneley, F.R.I.B.A., and Mr. Herbert J. Rowse, A.R.I.B.A., was given in our issue for October 12; and the designs submitted by Sir Edwin Cooper, F.R.I.B.A., and Messrs. Willink & Dod were given in our issues for October 19 and November 16 respectively.

Greenwich Baths Competition.

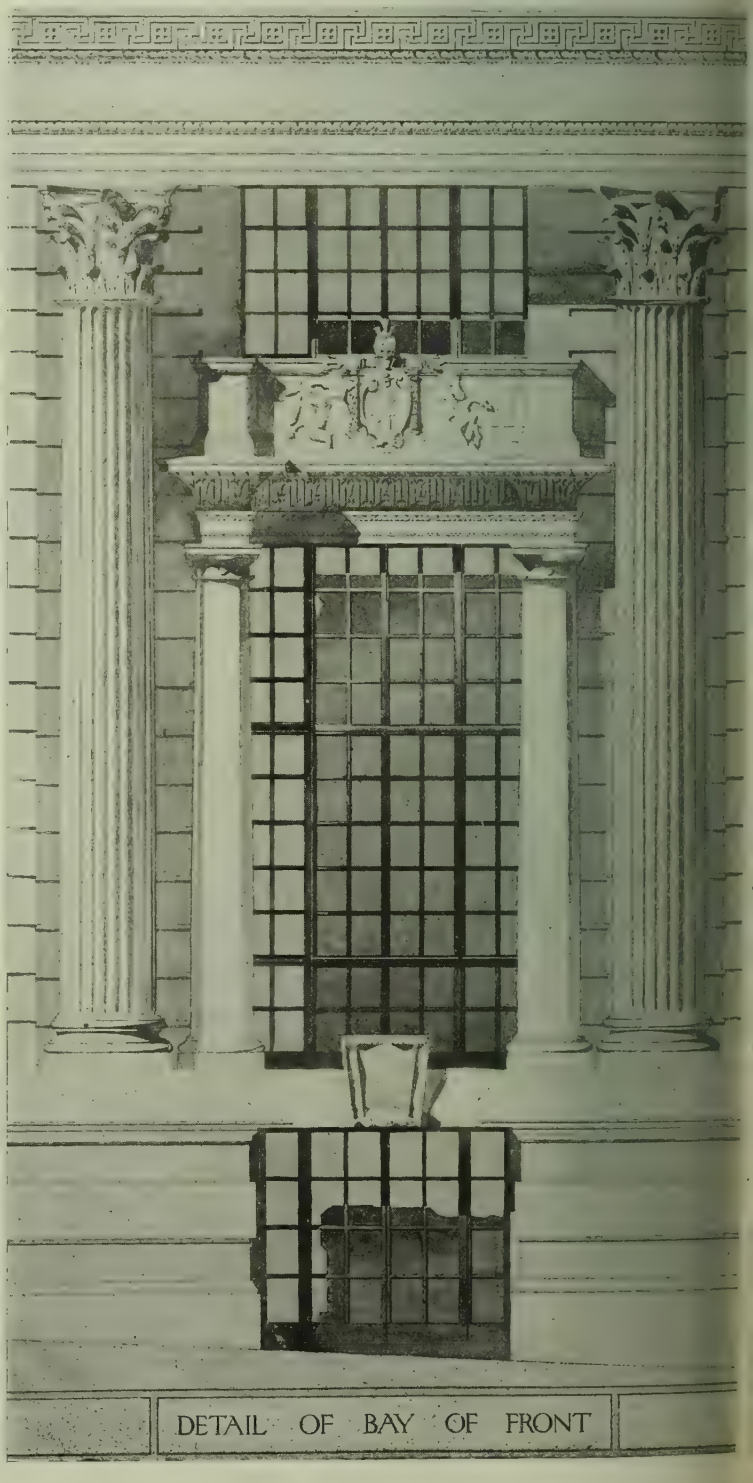
The design for Public Baths and Washhouses at Greenwich was submitted in the recent competition by Mr. R. Stephen Ayling, F.R.I.B.A. The designs placed first and second, by Messrs. F. J. Horth and H. Andrew and Messrs. Horace Field and Dighton Pearson, respectively, were given in our issue for October 12.

Proposed School at Becontree.

Until the advent of the London County Council housing scheme in the Becontree district, Dagenham (with the hamlet of Becontree) was a typical country village, noted chiefly from an architectural point of view for its ancient church of St. Peter and St. Paul, the chancel and aisle of which date from the eleventh century. In September, 1921, it was announced that the London County Council had arranged to erect 1,306 houses in the Romford section of the Becontree district, and to meet the demand for school places for the anticipated new child population (in addition to enlarging existing buildings) negotiations were opened with the London County Council by the Essex County Council Education Committee for the purchase of a site, about 2½ acres, upon which to erect an elementary school for 1,050 children.

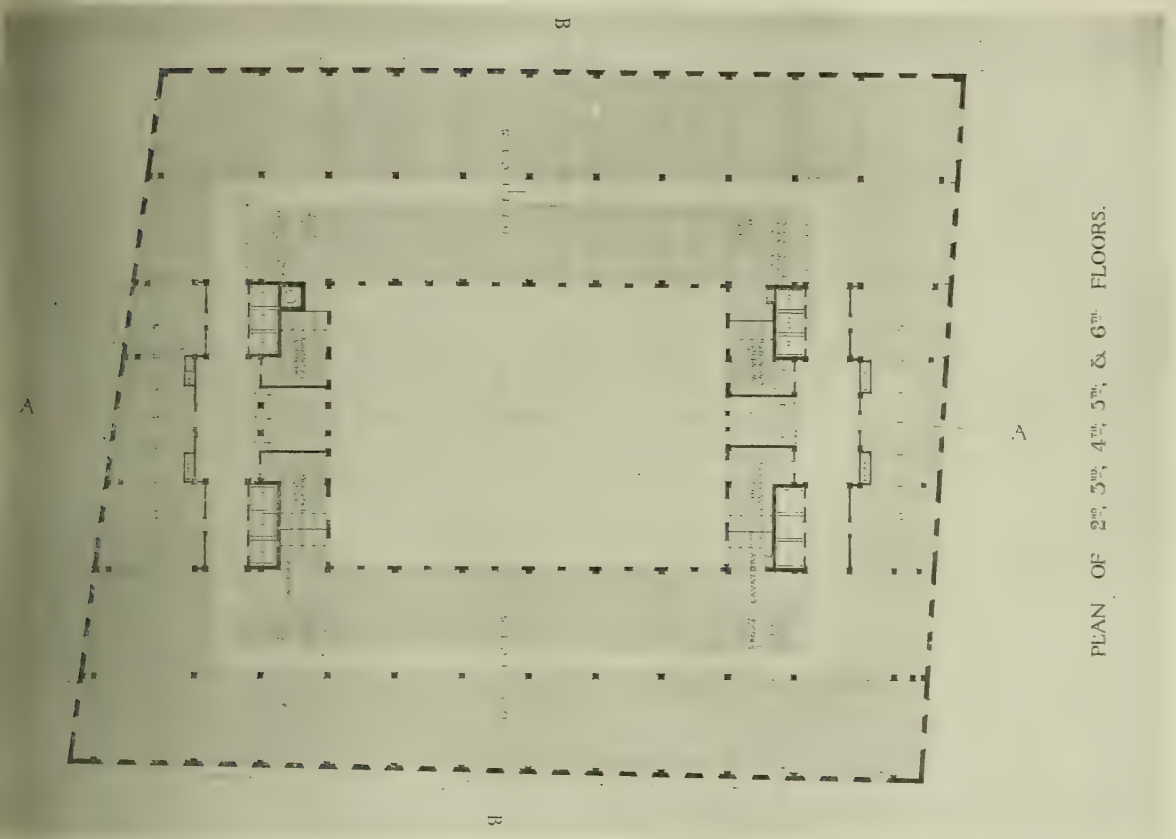
The new school consists of a quadrangular plan containing twenty classrooms for 50 scholars each, together with a babies' room for 50. All classrooms are cross-ventilated and are of the semi-open-air type. There are two assembly halls, together with the necessary cloakrooms and lavatory accommodation. For the juniors of each sex the offices are attached to the main block, whilst a separate sanitary block for older children is provided in the playground. Provision is also made plan for instruction rooms in woodwo housewifery; staff rooms and offices for t of both sexes are included in the scheme.

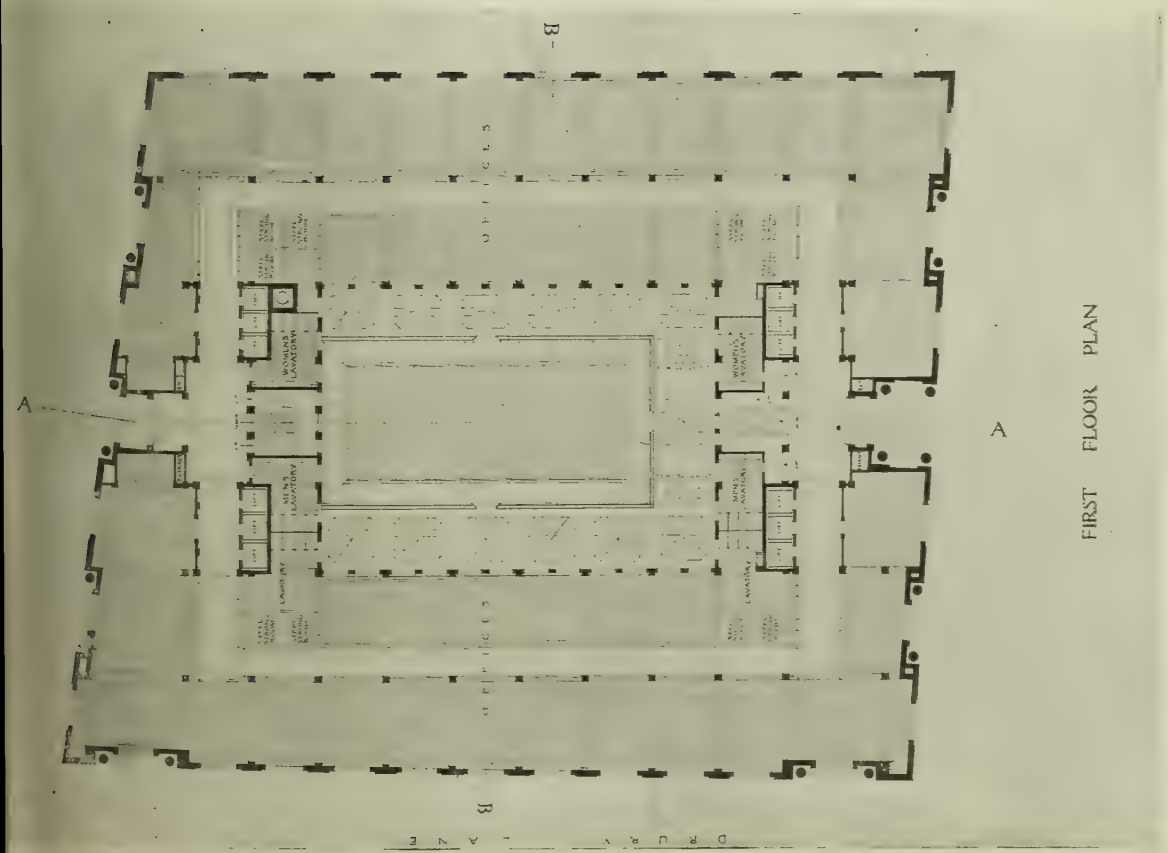
The building is being erected of re with artificial stone dressings and tile The heating arrangements are to be b pressure hot-water pipes and wall ra Artificial lighting will be by gas, there no electric current available at present estimated cost of the buildings, based quantities and competitive tenders, is The building is being erected by direct under the personal supervision of M Stuart, F.R.I.B.A., the Architect to the County Council.



Design Submitted in the recent Competition for New Premises for the Holt Line, Liverpool.

By Mr. Curtis Green, A.R.A., F.R.I.B.A.





Design Submitted in the recent Competition for New Premises for the Holt Line, Liverpool.

By Mr. CURTIS GREEN, A.R.A., F.R.I.B.A.

CITY OF KINGSTON UPON HULL
PROPOSED ART GALLERY.



Hull Art Gallery Competition.

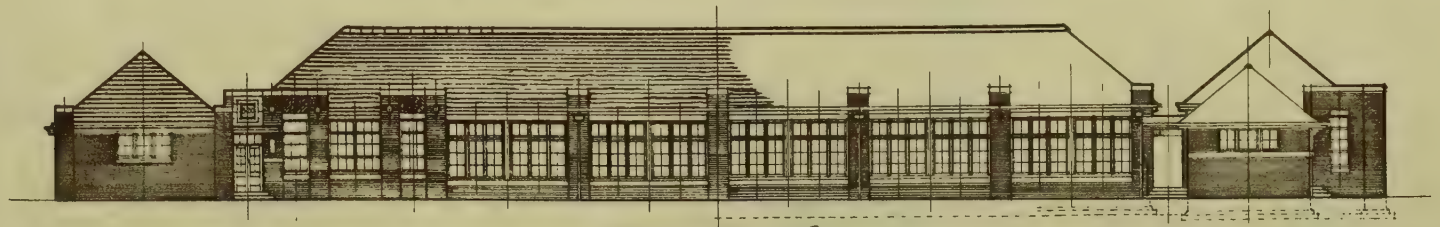
Essex County Council

Elementary School at DAGENHAM BECONTREE

Education Committee



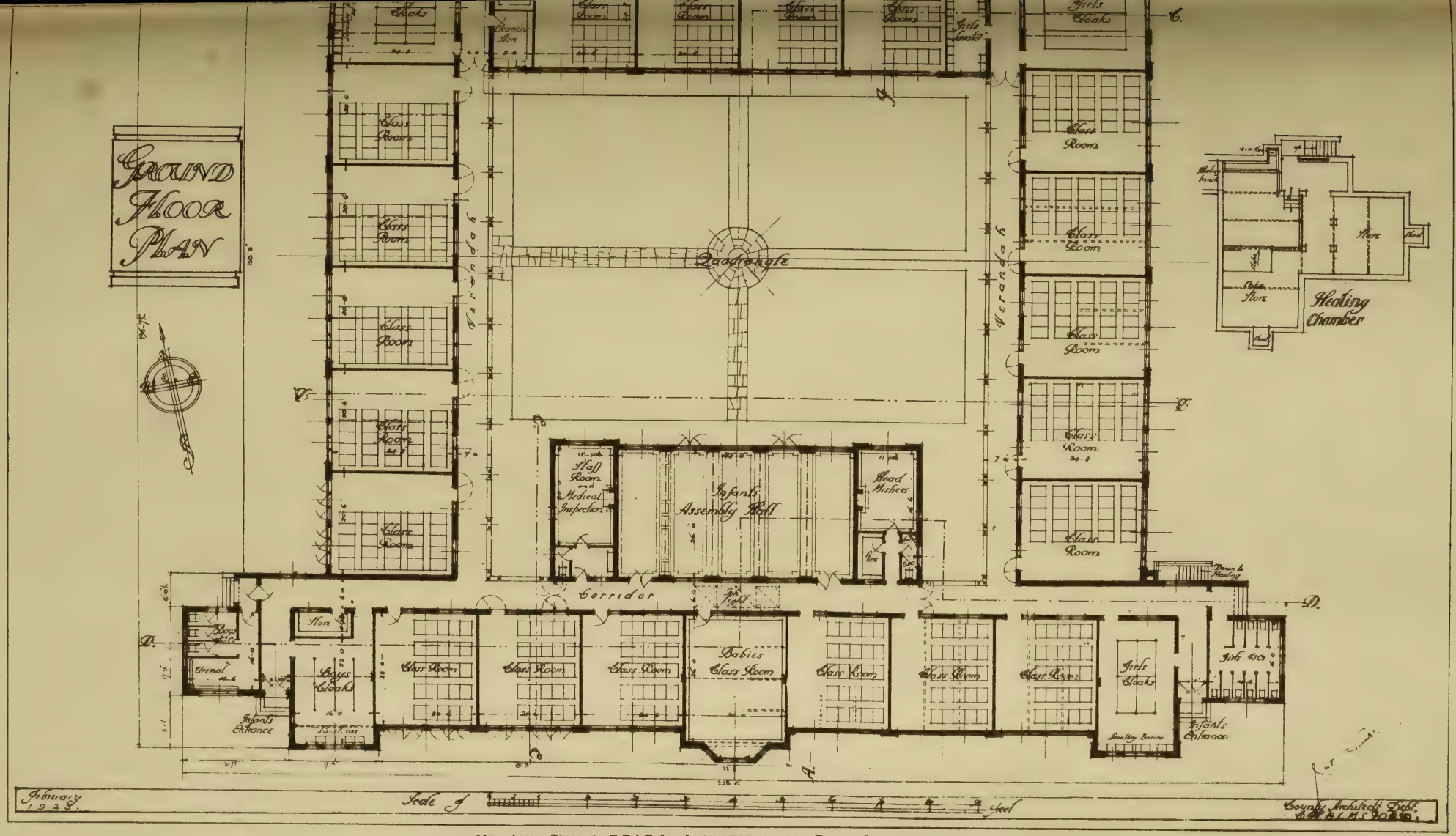
South Elevation.



West Elevation.

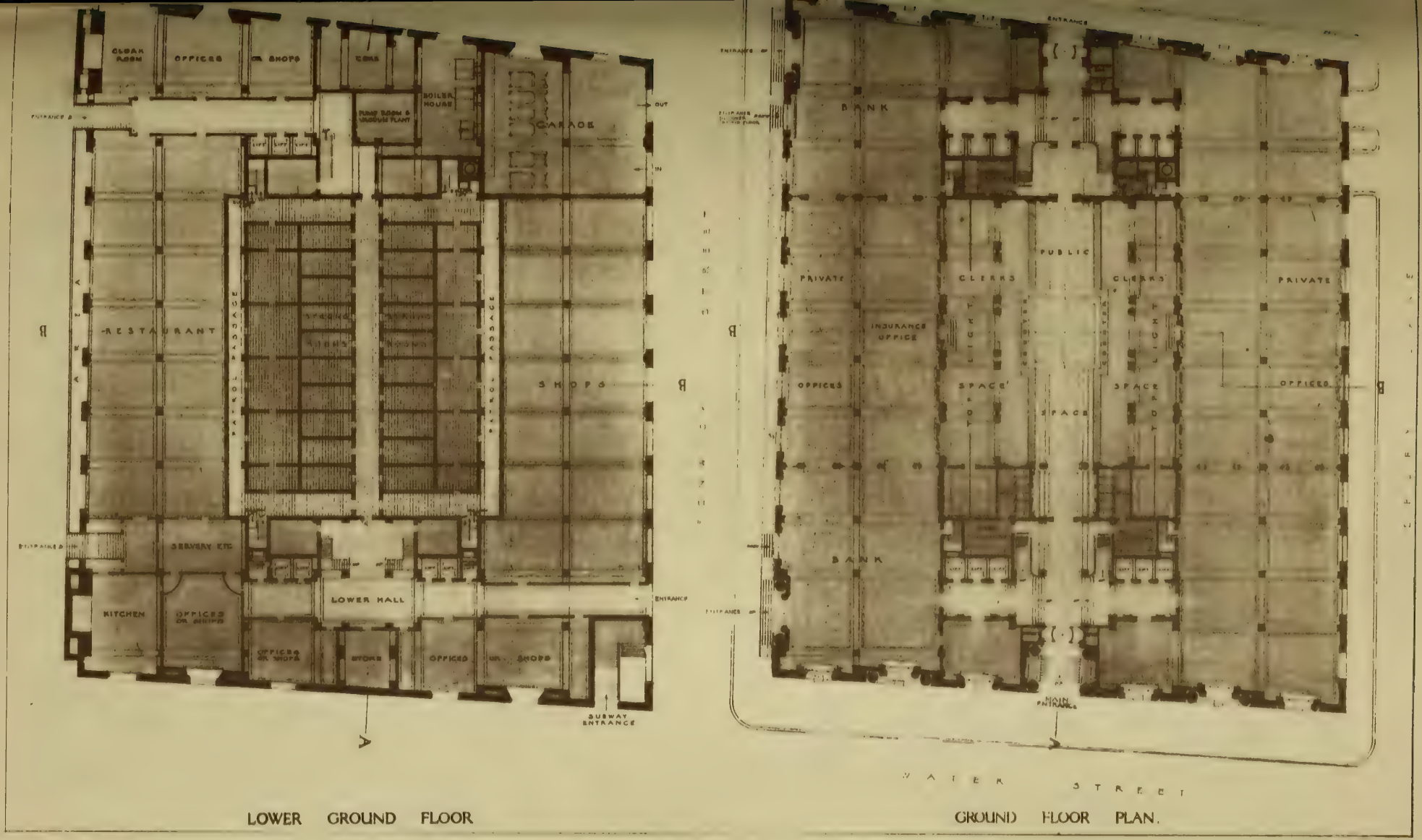


Section A.A.



MR. JOHN STUART, F.R.I.B.A., ARCHITECT TO THE ESSEX COUNTY COUNCIL.

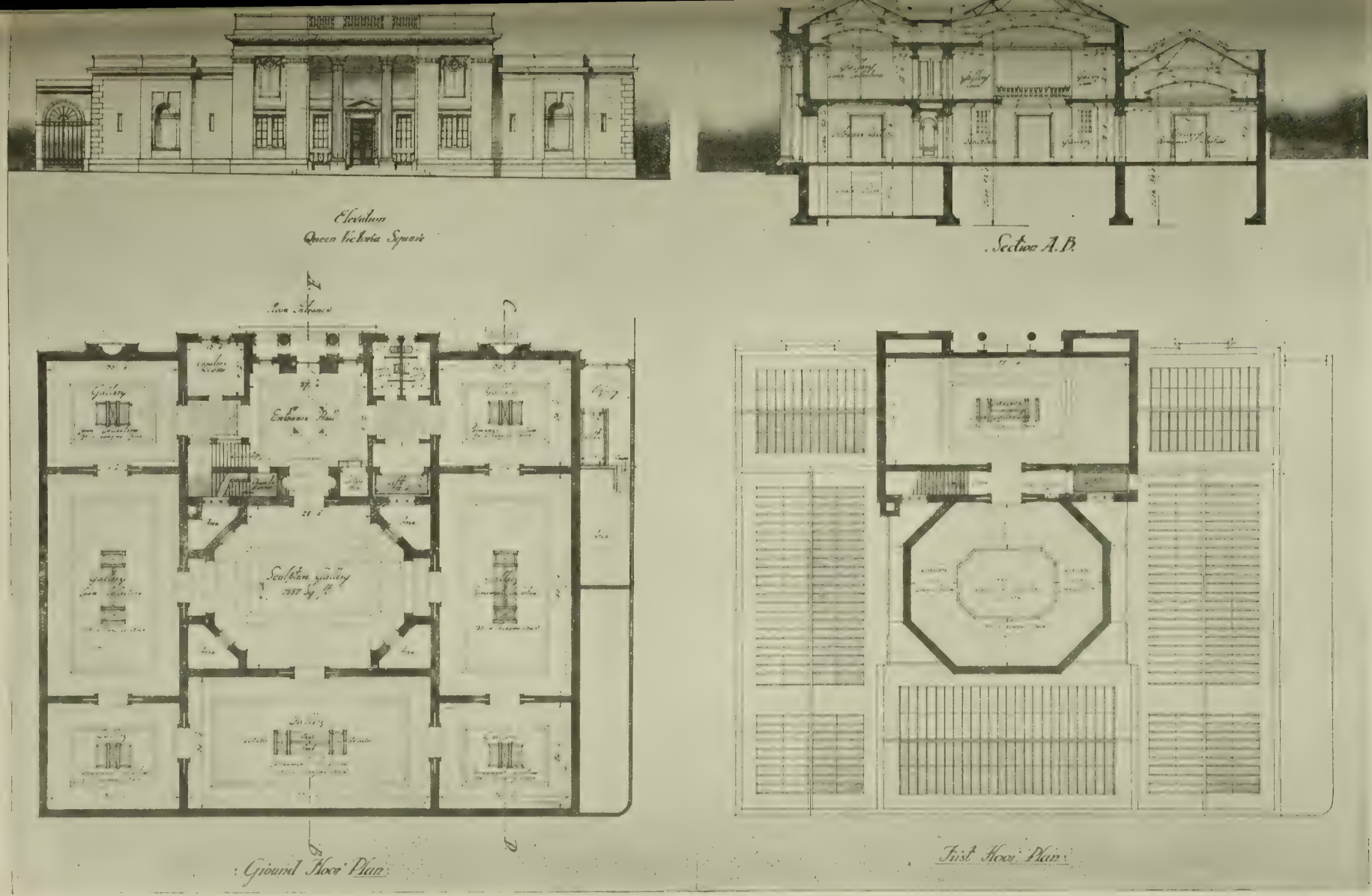




LOWER GROUND FLOOR

GROUND FLOOR PLAN.

DESIGN SUBMITTED IN THE RECENT COMPETITION FOR NEW PREMISES FOR THE HOLT LINE, LIVERPOOL.
BY MR. W. CURTIS GREEN, A.R.A., F.R.I.B.A.



Hull Art Gallery Competition.

First Premiated Design: By Messrs. S. N. Cooke, F.R.I.B.A., and E. C. Davies, A.R.I.B.A.

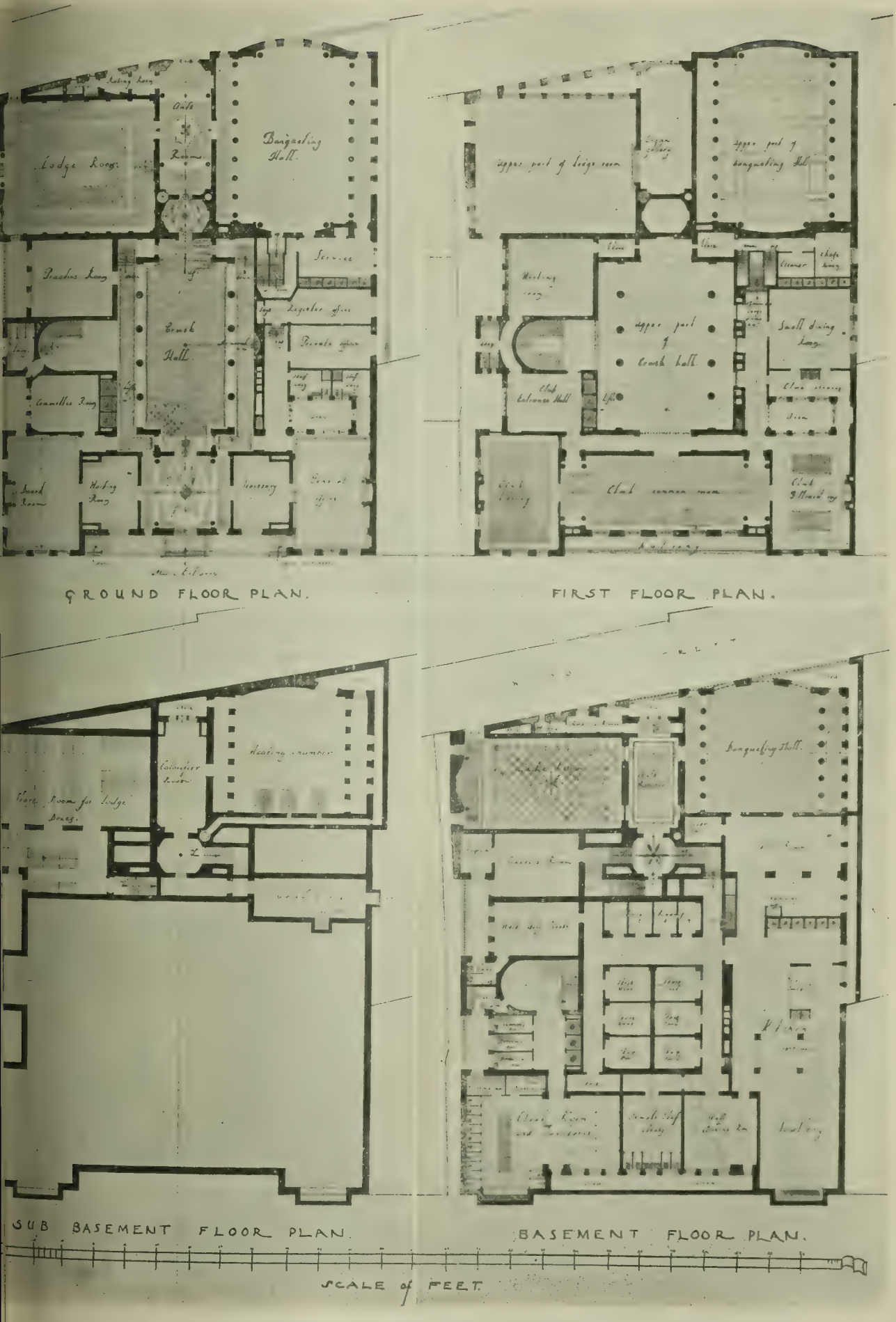


Birmingham Masonic Temple Competition. Perspective View of Design placed First: By Mr. Rupert Savage, F.R.I.B.A. (Messrs. Crouch, Butler & Savage).
[Other illustrations submitted in this competition were given in our issue for September 28.]

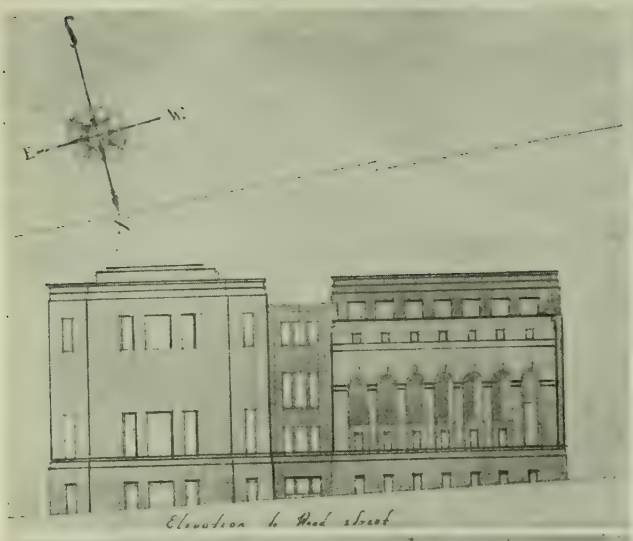


Manchester Masonic Temple Competition.

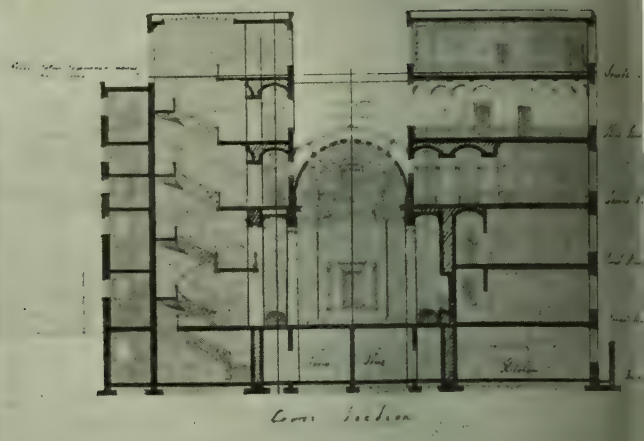
Design placed first: By MESSRS. THOMAS WORTHINGTON & SONS.



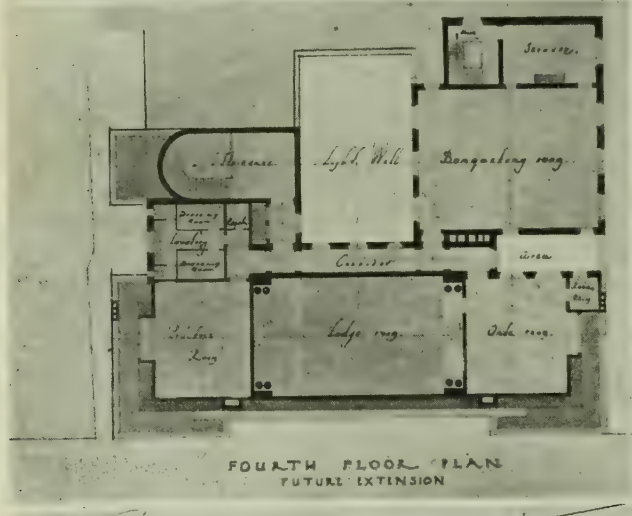
Manchester Masonic Temple Competition. Design placed first: By MESSRS. THOMAS WORTHINGTON & SONS.



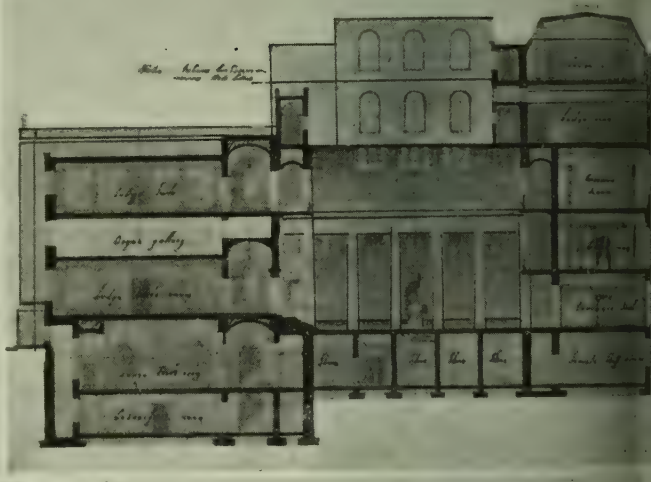
Elevation to Bond Street

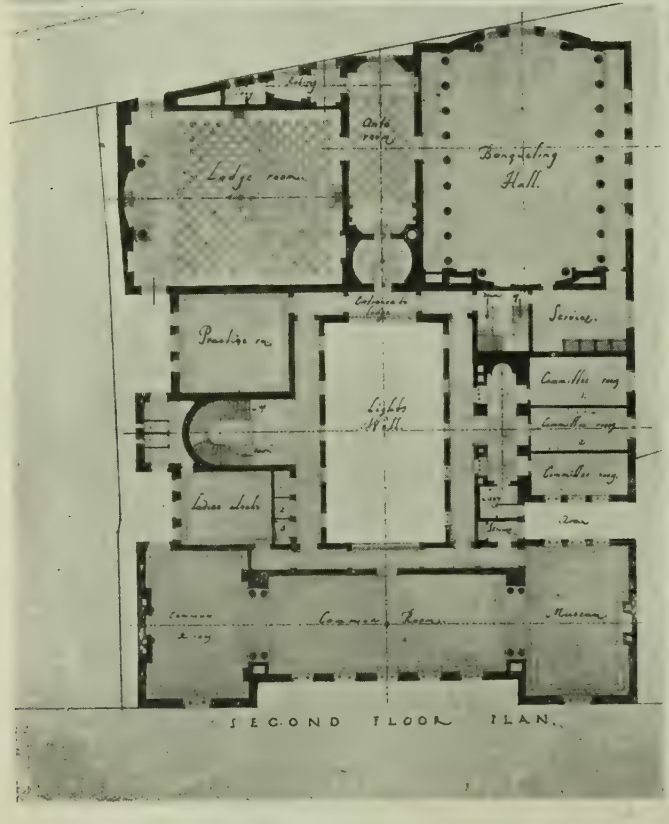


Cross Section

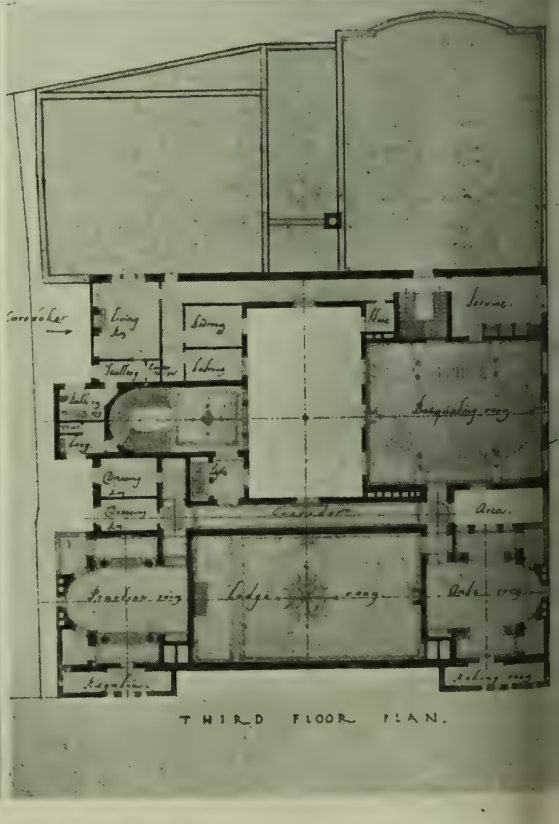


FOURTH FLOOR PLAN
FUTURE EXTINSION





SECOND FLOOR PLAN.



THIRD FLOOR PLAN.

Manchester Masonic Temple Competition. Design placed first: By MESSRS. THOMAS WORTHINGTON & SONS.

THE COMPLEAT ARCHITECT.

By DUDLEY HARBRON.

X.—Intention.

not know why the preliminary con- n of the requirements in a building e regarded as a French method of ng architecture. Certainly the French ploited it very thoroughly, but none t appears to be just ordinary common Buildings do not spring from the brain chitect as Minerva from the forehead r: they result from a minute study of ose for which they are intended. The information has to be acquired from re or someone—from a building or a om a person familiar with the facts, professor or patron, employing the l as indicating the client or building If the person or persons for whom ing is intended do not know what it hey require, who does? The client e too copious with his information, rchitect too careful with its collation. er for a moment the simple case of a ho wants to build a house. The has ideas in his brain for many though none of them may coincide e requirement of his friend. It is r, therefore, if time is not to be o learn from the friend at once what requirements. If he is to be pleased accomplished building it must bear a emblance to his anticipated needs. If es he will be delighted.

house is after all the most easy with which an architect has to We all live in them. Because we amiliar with houses in general we meticulously careful to learn the be fulfilled by a house in particular. ed for information is amply realised e theme is one upon which the de as not previously been engaged or ch he is entirely unfamiliar. In such nces some architects decline the The more courageous accept it. I at this is a debatable decision, and was solved by a distinguished man ined a very large undertaking and at time recommended another architect fitted to take upon himself the work he other had had previous experience tention of the promoter. But such an is rare, and does not affect the argu- Specialists make themselves. It is, possible for any of us to follow mple by doing our best with each ity that we have.

are so many highly developed pro- hat it is impossible for the best- to have more than a vague concep- what is needed. But we can bring upon their criticism general ideas ng labour and waste of material and y machinery or men.

Bakers' ovens, brick-kilns, and boiler settings are simple matters to bakers, brickmakers, and boiler builders; they may be mysteries to ourselves. Turkish baths, synagogues, crematoria, what do we know about them? Very little. Banks, hotels, shops, we are on more familiar ground, for, as in the case of a house, we use them all as members of the community; yet do we recognise the point of view of the cashier, the director, the porter, in each of them? Unless we study the outlook of these individuals and many others nearly or remotely connected with it, and attempt to adjust the building to their united needs, we have not done our duty. Indeed, the lack of a fully realised idea of what is desired in the completed structure is the chief cause of an unsatisfactory result.

Banks, hotels, shops have one thing in common—the public use them all. If this implies anything it is that the entrance should be easy to find and clearly marked. The whole of them want our custom. The bank hopes we will conduct our business with celerity; the shop, that we leave before closing time; the hotel will be better pleased if we stay the night. The bank seeks to impress upon you its security, the hotel its comfort; the shop, of your need for the commodities in which it deals. It is unnecessary to continue the further elaboration of these three types of building; but a more extended consideration of any one of them will indicate the ramifications into which the study of intention leads, for every separate activity, retail or manufacture, religious or educational, artistic or legal, entails the realisation of intention before it can be housed. Let the shop stand for them all.

The chief concern of the shopkeeper is to persuade the public to buy his wares. He must sell by post or by agents, or over the counter. If the last method is employed he must attract the public to his premises by advertisement or publicity of sorts. In times past this used to be done by—

> . . . hoarsely shouting men, who greet
> Buyers as wind greets trees.

The like office is now performed by electric signs, or, in Paris, by little maps hung up at the street corner, with an arrow and a spot; the arrow represents the passer-by, the spot being the shop to which he is directed by the shortest route on the distressingly simple map. Having persuaded us to seek him out, the proprietor has to inveigle us inside. This he does by stages; his windows are so disposed and dressed as to cause us to pause and inspect their contents, they are graduated so as to lure us to the entrance and through inside: everything that can help him to succeed in this should be considered. As it is largely a question of holding the attention of the customer by the display of articles of common necessity at an attractive price, the windows near the entrance must be suited properly to show them. Once inside we must be kept in, and though not asked to buy we must be tempted to do so. The open access system is psychologically the most effective; for unless the customer sees the article, only such goods as he wants will be sold. It is by suggesting to us the need for things we do not want that the shopkeeper is enriched.

The departments in a large composite store must be grouped upon a systematic basis, one article leading naturally up to another, avoiding the disturbance of the corset department in search of a collar stud. It is injurious to disturb the business of any department by passing through. The circulation of the customers all over the building is of great importance, not only on each floor but to all floors. Give confidence against fear of fire. Whilst generally every artifice which can be devised to display the goods is of great moment, care must be taken not to offend the temperament of the type of customer on the score of too much stridency or too great reserve. Light, space, comfort, ventilation, a rest room, a writing-room, a post office, a theatre, even a crêche—all directed insidiously to render shopping a pleasure to the customer.

The second general consideration is the stock: where it is selected, unpacked, stored, and how dispatched. It should be easily handled, displayed not stored; stored, it is idle capital out of sight. As much ingenuity can be employed in the dispatch of goods after they are sold as in the selling of them. The whole problem should be reviewed afresh from different angles.

The third point of view is that of the staff, upon whom everything hinges ultimately. They look upon basements with less favour the closer they are confined to them. They know their way to the premises. They must have somewhere to put their bicycles, their coats and hats, change their shoes, wash and dress, rest when they are tired, feed when they are hungry, all detached from the working part of the structure and as different as possible in character.

There are many other points of view from which to regard the building, and the consideration of the items which have been touched upon could be enlarged indefinitely. The architect, then, has his hands full: all his ability will be needed to reconcile these varied requirements; to weigh and balance their respective importance; and to express them in building. As a first step to the successful solution of any problem we must realise the intention of a project, be that project what it may.

Development Scheme for Leicester.

The estimate for the cost of an internal development scheme for Leicester, which is being considered by the Leicester T.C., is put at a gross total expenditure of £3.829,649.

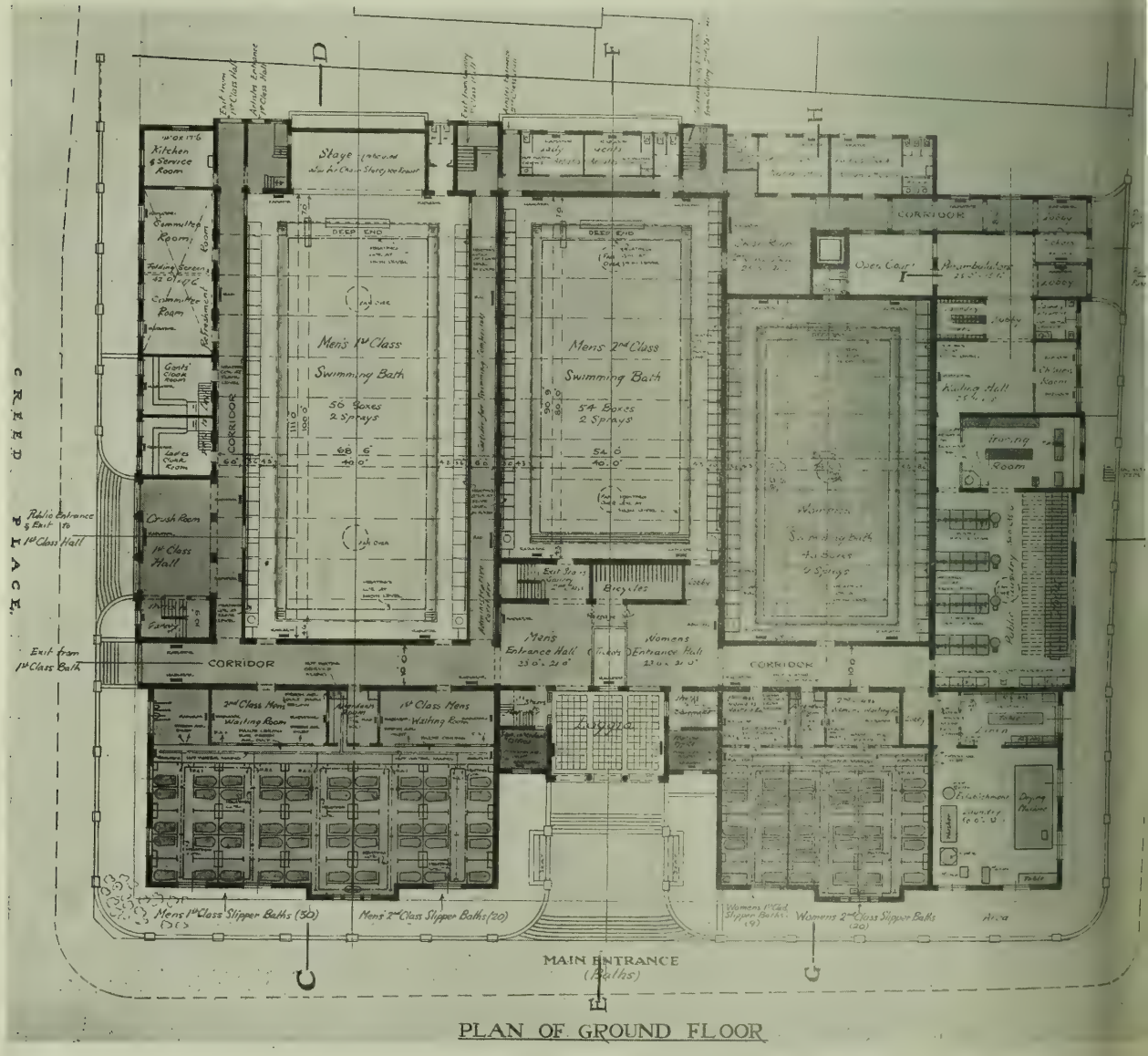




Ligy Garden City, near Ypres. (*See p.* 800.)



ELEVATION TO TRAFALGAR ROAD



PLAN OF GROUND FLOOR

Greenwich Baths Competition.

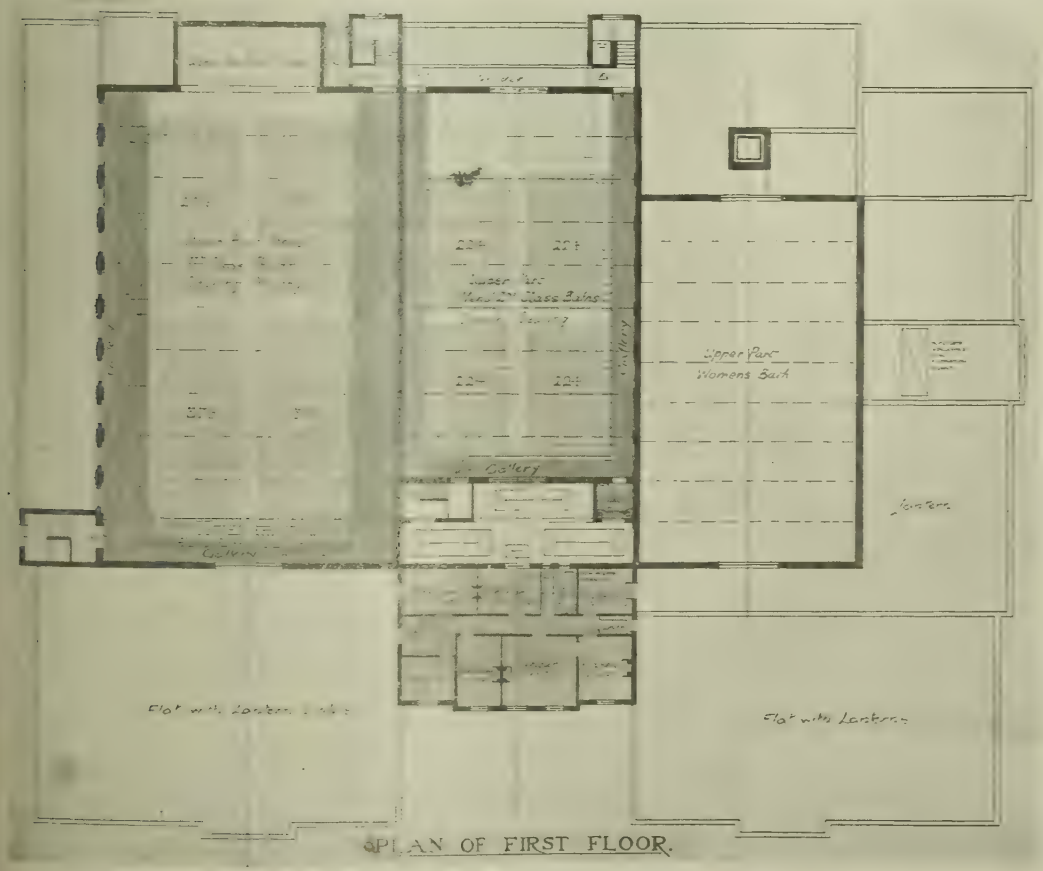
Design Submitted by Mr. R. Stephen Ayling, F.R.I.B.A.



ELEVATION TO PARK STREET



ELEVATION TO CREED PLACE.



PLAN OF FIRST FLOOR.

Greenwich Baths Competition. Design Submitted by Mr. R. Stephen Ayling, F.R.I.B.A.

TOWN PLANNING & TOWN DEVELOPMENT.*

A BOOK on town planning by Professor Adshead is a most welcome addition to the rapidly growing bibliography on the subject, and we are promised further good things, for this volume, dealing with the social and administrative conditions that influence town planning at the present time, is the first of a series dealing with the various branches of the science. The author tells us that he intends the series to form four primers. A student will be fortunate to commence his studies with a text-book so interestingly written and so well got up as this. We like the opening chapter. In its sixteen brief pages the sociological basis of town planning is presented in such a manner as to leave no doubt in the mind of the student as to the right foundation he should choose for his studies. Having studied man's relationship with man, we come next to that existing between towns—a refreshingly new presentation of these old facts. The organic structure of the town itself is then considered, and as a living, throbbing entity, its manifold functional organisation is studied to give true understanding of the whole.

Much has been said of late on transport and traffic requirements generally. Professor Adshead urges reconsideration of the present system and specially of the needs of our new industrial areas, such as Kent and South Yorkshire, where the recently established centres of the coal industry are already drawing to those districts other industries. It is hoped that the interests of all concerned, and the many complex problems involved, will be met by the application of the scientific laws of regional planning. As regards passenger traffic, the various needs of the individual on long and short journeys are considered. Regretfully the author tells us of the £11,000,000 spent by the L.C.C. on tramways for London, when the public had already discovered that motor-'buses better met their needs. In Professor Adshead's opinion the £11,000,000 had better have been spent on street widening and improving street surfaces.

The power the London Tube Railways wield in moving populations and fixing new residential quarters is an interesting study, and whilst welcoming the new areas opened out, Professor Adshead voices a warning that it is not always desirable that residential property should be too accessible. The running of a railway to a small suburb of middle-class houses, which formerly was situated, say, one mile from a railway station, will probably make the land in the vicinity more saleable, but in so doing it may depreciate very seriously the houses already there.

Speaking of roads and traffic requirements, the author takes what we will venture to call a somewhat contradictious attitude to the very generally accepted view that we must widen our overburdened streets. Perhaps it is this fact being so widely accepted by road and county engineers throughout the country which has made the author question their premises and has driven him to find other and what appear to him to be better solutions of this pressing problem. Whilst welcoming every suggestion made—and one from Professor Adshead is sure to receive the consideration due to it—there are many who will be unable to agree with the view he takes. It would seem that some of his suggestions fail to meet adequately the need, and therefore are not practical propositions. "To convert certain narrow streets into ways for pedestrians only during certain times, and certain wide streets narrower and traffic diverted," may or may not be theoretically correct, but it is certain that the idea, besides being thwart with great practical difficulties, would never commend itself to liberty-loving Britons proud of their King's highway.

Professor Adshead says: "It is far better to have a narrow traffic way constructed with first-class surface than a wide road badly made, because space can be found for twice as much traffic proceeding at thirty miles an hour as at fifteen, and with a wide angle of vision and a good surface, such roads need only, as a rule, be about 20 ft. All things considered, 20 ft. is the right width for a trunk road in the country."

In dealing with road problems to-day, we must, however, bear in mind three things: (1) That transport of goods by road is still rapidly increasing, and it is fair to say, as motors and petrol become cheaper, road transport will assume, within the next few years, proportions not yet dreamed of; (2) that size and speed of all petrol-impelled vehicles will increase; and (3) that we are on the eve of very much cheaper motors, both for business and pleasure, and it is fair to assume that the remarkable increase of motor cars will continue at an increasing ratio.

To Professor Adshead's widths, viz.:—

Main roads outside, but between towns, 20 ft.,
Main roads immediately outside built-up area, 30 ft.,
Main roads in built-up streets, 40 ft.,

there are many, no doubt, who would like to add to each a further 20 ft. It is not perhaps made sufficiently clear that, although he advocates a comparatively narrow road surface, the actual width of road between hedges should be, with as few exceptions as possible, 60 ft., which was the width laid down by the General Turnpike Act so far back as 1773.

There is an interesting chapter on Road Administration, taking us back to 1285, when, by the Statute of Winchester, the responsibility of keeping roads open was placed on landowners and certain prescribed persons. An Act of 1691 directed surveyors to make roads at least 8 ft. wide. In those days and until, in 1654, the Commonwealth Parliament passed an Act "for amending and keeping in repair the common highways within the nation," and provided a rate not exceeding 1s. in the £ for road-making, the finance for roads was dependent upon fines. Many and varied were the bodies and trusts who had charge of the roadways in the seventeenth and eighteenth centuries, and whose business it was to find the necessary money for their repair. Under the turnpike regime, we are told, the London to Manchester stage-coach paid as much as £7 per annum for the upkeep of each mile of road. The final step in road jurisdiction was, of course, the transference of the work of the Road Board to the Ministry of Transport in 1919, under whose administration much new work has been accomplished and many improvements effected. It is interesting to note that in 1921–1922 the receipts from the Motor Tax Account alone brought to the Ministry £10,795,000. In the same period, £7,239,637 was contributed to the cost of constructing main roads and bridges; £590,256 in road widening and surfacing; and £4,405,916 as a contribution to the cost of using unemployed labour on road construction.

About one-third of the book deals with Municipal Housing and the early and recent Housing Acts. To have this legislative matter sorted and summarised as it is by the author will be a boon to many a student, and his epitome of the procedure under Town-Planning Acts will be welcomed by many older students.

*"Town Planning and Town Development." By S. D. ADSHEAD. (London: Methuen & Co., Ltd.) 10s. net.

Reconstruction in Japan.

The Times understands that the Reconstruction Budget Committee's report provides for a total expenditure for Tokyo and Yokohama of 705 million yen (£70,500,000) over a first period of six years ending in April, 1929. The work will be spread over several periods in order to avoid, as far as possible, the necessity of a foreign loan. The estimates cover the cost of roads, canals, and parks, and also subsidies for assisting industries, rebuilding public buildings, and interest on long-term municipal loans.

THE GOLDEN AGE GREECE.

IN his second lecture on ancien architecture, at the Central School of Crafts, on November 14, Sir Banister passed from the primitive period to t of perfection, and reviewed the con religious, geological, and geographic led up to the architecture of the dev "Hellenic" type, which, as always, re national life. The sea had a unifying the Greek nation, which, owing to the board, the harbours, and the inn island stepping-stones of that countr maritime people, and colonised by not by conquest, among the island Aegean and round the Mediterranea international intercourse is reflected resemblance of several features of Gre tecture to certain characteristics in Assyrian, and Cretan art. This was rapid development. The rough Mycen work was transformed by the subtle Gr into the perfect form of the golden age architecture, achieved with almost suddenness. This was the great temple period, and the transformation was marvellous when we remembered proud temple of the god had its ori humble tent for man. The priests we exclusive class, and there was non Egyptian sacerdotalism, and thus t "naos" for the statue of the god took of the mysterious halls of the Egyptian were other contributory forces at work duce that wonderful beauty of si A clear climate demanded fineness of the wealth of native marble from Mou licus rendered possible the pure line surface and close joint which cloth buildings with mysterious beauty, wh dance of golden light played over the and enhanced the rich hue of the marbl colouring which appears sometimes been employed. The creation of citi over, led to a municipal zeal which gave to art. The building sites were usual near a hill for safety, the walled are summit being known as the "Ac somewhat resembling the commanding of a mediæval castle. Sir Banister Flet interesting views, and brief vivid des of Olympia, Delphi, Athens, Selinus, gamon, indicative of the spread of over Asia Minor to the eastward an Italy and Sicily to the west. At th city, the victories over the Persians impetus for the blaze of artistic ach seen in the Parthenon on the Acrop other buildings, early in the fifth cen —the summit of achievement in thi centre of the building art.

ARCHITECTS' AND VEYORS' ASSISTAN PROFESSIONAL UN

IF architectural assistants are as ent in their work as they are in their pl and there is no reason to doubt it— profession is indeed fortunate. On T last week a large number of member Metropolitan Branch of the Archite Surveyors' Assistants' Professional Un present at a smoking concert held a in the Strand—the scene of similar g in previous years—and under the chai of Mr. E. Fiander Etchells, Past-Pres the Institution of Structural Engineer thoroughly enjoyable evening. One from the brief speeches that the Union in a strong position, and that the mer throughout the country was rapidly in Among the artists who contributed excellent entertainment were Carlton. manipulator, and Rameses, an illusio

ICHESTER SOCIETY OF ARCHITECTS.

irst meeting of the Session 1923-24 of ociety was held recently at the s rooms in the Parsonage, Manchester, he President, Mr. Francis Jones, .A., gave the annual address to the s, from which we take the following:

now firmly established Conference of its of Allied Societies, which meets nes a year (or on other occasions if business requires it), also reports to ncil of the Society. In this way the is kept informed very thoroughly of ngs of the profession, not only as the Royal Institute, but also regard- whole of the allied societies, which, se, embrace the whole of the United n and include many architects other yal Institute members.

dition to the usual meetings and ses- apers, he have again joined the Uni- and Institute of Builders in holding blic lectures at the University. These have become an institution; they are ly well attended, and I am sure give ius to the lay interest in architecture, s of such vital importance not only to fession but to the whole country.

g the year the Rome Scholarship has on by a student of the Manchester ity—a member of our Society. I am r congratulations go out both to the ster School of Architecture and to the Mr. Cordingley. The Society has hard for the school for many years. r during the last year has the school become a definite self-contained unit University, with its own studios and its mplete staff. It is perhaps difficult present generation of students to how well off they really are, and there no doubt that the benefit will not be to the students, but that the whole d neighbourhood will reap a gradual in living amongst better buildings of ass. There can be no doubt that the tural schools throughout the country e more and more effect every year: ll turn out young men efficient and ined, who will, I am convinced, justify t architectural schools, and ultimately e country the better for their exist- As far as the Manchester School is d, I hope Mr. Cordingley is only the a long list of winners of the Rome hip, and that the city will benefit by ir work which the school undertakes.

g the last year there was the great tural controversy on the Registration posed by the late R.I.B.A. Council. as turned out *in toto* at the last elec- The Bill as proposed by the Council never have been approved by any nent, and the members of the R.I.B.A. ed very rightly that to put up a Bill sake of putting up a Bill—any old fact—was mere waste of time and of The new Council as elected last June osed of the leading members in the n, men of whom there can be no hat they are out solely for the good tecture and the good of the profession; re the management of the Institute's s safe in their hands. The great of registration is, however, still un- and it is up to the Council before next put a policy before the members. his policy will be I am not yet able you, but I can assure you that the uestion is being most thoroughly in- d, and that nothing will be done consultation of the members. It is a ficult question. Like Free Trade and n, there are many points for and As far as I am able to know the the members of this Society it is in registration, provided the interests Associate class are duly protected; whether this is the correct view to take or not, I am convinced it is the view of the majority of our members. I would, however, like to say on my own account that I do believe that registration is in the best interests of the profession, and not only of the profession, but of architecture and of the inhabitants of this country. It must mean in the long run the raising of the standard of work, and even if this is achieved at a possible temporary sacrifice, it will surely be worth while. In order to achieve it the profession, whether R.I.B.A. or otherwise, must be substantially solid in favour of it; what a difference it would have made had registration been put into action, say, twenty or thirty years ago. What a difference it will make to the country and to the profession ten, twenty, or thirty years hence! Some measure of sacrifice was required of the lawyers and of the doctors when these professions were made closed, but surely it has been worth while. Surely we are capable of doing what these men did before us. I repeat that the Associates, who have toiled for their examination results, must have their interests preserved, and I hope some way will be found to achieve this and yet to unite the profession.



Mr. C. McArthur Butler

(Secretary of the Society of Architects).

The Manchester Society has had under its consideration the question of local branches to the Society in neighbouring towns. Negotiations have already been opened with the Burnley Society, who are desirous of joining themselves to the Manchester Society. I think these branch societies are in every way desirable, as the more architects can keep in touch with each other the better for architecture, and that is our *raison d'être*. Branch societies might also be formed in various Lancashire towns; they would all be governed by the Manchester Society as regards professional practice, rules of competition, and so on. They would all have the benefit of the Societies' papers when they could come to Manchester, and also of the students' competitions, the library, and so on. If the Society does good work, the others would be infected by it. It is hoped, again, that the general standard of work would be raised by such unions.

From conversation with many members I think I am justified in saying that the profession is much busier than it was at this time last year: there are, of course, individual exceptions, and the prolonged slump in general trade must and does affect the profession very seriously. Still, I think the profession as a whole is fairly fortunate at the present time. Building is still very dear, but prices have come down very substantially, and it is doubtful whether they are likely to come down any more—at any rate, at present. It is up to architects, therefore, to study economy in building; no magical new methods of cheap building have come into being, so the task of cheapening rests with the architects, from whom the greatest skill is required in so designing that the most economical building possible can be achieved. Of the future I will not venture to prophesy: it is in the hands of the gods, and possibly of politicians.

The Manchester war memorial has had its foundation-stone laid; as you know, there have been many and troublesome battles before the performing of this ceremony. A competition was proposed, and indeed decided upon, but the committee could not bring itself to conform to the competition regulations of the R.I.B.A., which required the assessors' award to be final and binding; the net result was that the competition was washed out, and Sir Edwin Lutyens was appointed architect for the memorial. Everybody hopes that the memorial will be worthy of its great purpose: no better architect could have been appointed for the work.

I will just take this opportunity of impressing on members the importance of adherence to competition regulations. As long as all architects are loyal to their fellows—and as far as our members are concerned they certainly are—competitions will have to be conducted on the proper lines. This is one of the great points that would be attained by unification of the profession: all architects would then be brought into line and the best man would get his chance, as he does not always under present conditions.

THE SOCIETY OF ARCHITECTS.

The close of the Society of Architects' Session in October, 1923, coincided with the completion by Mr. C. McArthur Butler of his twenty-fifth consecutive year of office as Secretary. After being articled to the late Clapton C. Rolfe, A.R.I.B.A., of Oxford, and working as an assistant for other architects in various provincial centres, he was elected a member of the Society in 1894, and was engaged in practice as an architect when he took up his present appointment in 1898. Since 1898 membership of the Society has trebled; it has founded overseas branches; acquired permanent headquarters; extended its sphere of utility in many directions; and is continually finding new outlets for its energies without neglecting the main object for which it was founded, viz., the attainment of statutory registration of architects. Of late years a feature of the Society's work has been its support of the programme of the Beaux Arts Committee and other educational bodies, and its foundation of architectural scholarships at home and abroad.

Mr. Butler, who numbers amongst his qualifications that of a Chartered Secretary, frequently represents the Society on conferences and committees dealing with matters connected with the profession and the building industry, and is an original member of the Beaux Arts Committee, of which he was for many years the Honorary Secretary, and also a member of the Executive Committee of the Architects' and Surveyors' Approved Society under the National Health Insurance Scheme. He took a prominent part in the deliberations of the Unification and Registration Committee, and at the request of the Chairman prepared the "federation" proposals as an alternative to the "absorption" scheme.

Mr. Butler is the author of a number of articles and papers on matters of professional interest, a frequent contributor to the Press, and for many years combined the editorship of the Society's *Journal* with his other duties.

During the war period (1914-18), Mr. Butler,

in addition to carrying on and extending the work of the Society of Architects under the difficulties and restrictions imposed by war conditions, gave his services in an honorary capacity to the profession and the community in other directions. He served on the Executive Committee of the Architects' War Committee, the Architects' Committee of the Professional Classes War Relief Council, the Joint Conference of Civic Surveys, and was joint Honorary Secretary of the Architects' Reorganisation Committee and a member of the Architects' Demobilisation Committee. Mr. Butler takes an active share in the work of County Societies in London, and was for some years Secretary of the Association of Men of Kent and Kentish Men, and was afterwards a member of the Council and served on the Committee of the Cumberland and Westmorland Association. He was admitted a Freeman of the City of London in 1907, and in the same year became a Founder and the first Senior Warden of the Society of Architects' Lodge of Freemasons, and after serving the office of Master was appointed Secretary, a position which he retains.

DOMESTIC & HISTORICAL ARCHITECTURE OF ENGLAND.

MR. ARTHUR STRATTON, F.R.I.B.A., Reader in Architecture at the University of London, has just returned from Holland where he has been lecturing to large audiences in Amsterdam and other centres on the historical and domestic architecture of England. The lectures dealt with the vernacular styles of house design in England during the Tudor and Stuart times, and more especially with the influences from other countries which tended in the sixteenth century to divert English builders from their traditional methods, and in the seventeenth century to bring about an entire change in building construction. The various influences emanating from Flanders and the Low Countries which resulted in the early Renaissance architecture of England were contrasted with the later influences from Italy and Holland which were more beneficial and led to the world Renaissance of the seventeenth and eighteenth centuries. Mr. Stratton emphasised the good influence of the brick architecture of Holland upon the so-called Georgian vernacular style in England, and aroused considerable interest among the Dutch architects who were closely following modern developments of house designing in England. He also availed himself of the opportunity to remind them of the excellence of house building in England all through the centuries, and our genius for seeking inspiration from various countries while retaining a national character of our own. The lecture was fully illustrated by means of lantern slides, and was very well received.

ALFRED BOSSOM TRAVELLING STUDENTSHIP

THE subject set by the jury for the R.I.B.A. Alfred Bossom Travelling Studentship is as follows :—

A company is formed for the purpose of developing an island site 150 ft. by 100 ft. in the business quarter of a first-class provincial town of not less than 400,000 inhabitants. The student is required to name the town and the position of the site and to submit a scheme as architect to the Company which complies with the following conditions :—

(*a*) He is to state the annual value of the site.

(*b*) The property is to be developed to the best advantage, say, as a store, shop, offices, bank, &c., and the capital expended must be such as with its revenue will appeal to the public under current conditions. The capitalisation of the company being stated in outline.

(*c*) Local rates to be stated.

(*d*) The height is to be left to the student, but is not to exceed 100 ft. to the springing of the roof ; but there may be two floors in the roof.

(*e*) The Model By-laws of the Ministry of Health or similar enactment must be assumed.

(*f*) Promotion and legal expenses to be estimated at £2,000.

(*g*) Central heating must be provided.

The scale of plans, elevations and sections is to be 1-16 in. to 1 ft. No perspective drawing will be allowed, and no repetition of plans or elevations is required. Drawings may be lightly tinted in monochrome. The report accompanying the plans must deal with the approximate cost of building and the financial return of the whole scheme.

Associates of the Royal Institute who have not passed through one of the schools included in the competition are required to deliver their designs and reports (in competition for a Silver Medal) at the Royal Institute not later than December 1. Schools of Architecture included in the competition are required to announce that December 1 is the closing date for the local Silver Medal Competitions. The Silver Medal designs and reports must be submitted to the Royal Institute not later than December 31.

In the case of schools not recognised for exemption from the R.I.B.A. Final Examination, the local award of a Silver Medal is subject to the approval of the jury for the Gold Medal and Studentship.

HEALTH AND THE BUILDING.

IN his Second Chadwick Public Lecture on "Hygiene and Architecture," given at the Society of Arts on November 16, Major Harry Barnes, F.R.I.B.A., said he used the term "building" in the widest and most comprehensive sense to include all those matters of construction which turned the countryside into the town under the heads, "Where to build," "What to build," "How to build," although perhaps the most important consideration was outside the scope of the lecture, and that was "When to build."

There were not many chances of selecting the sites of new towns in this country ; in that respect America had the advantage of us. Sites of towns were determined in old days by strategic, defensive and military considerations. In these days a railway junction or coal deposit was a more determining factor. In most cases, however, the main considerations were geographical and geological. Sites being selected, the consideration of how to lay out a town led directly to zoning.

After discussing American and British views on zoning, the lecturer passed to the question of roads. He concurred in the views expressed by Sir Henry Maybury that more good could be done by laying down entirely new roads than by conducting surgical operations on the old ones. The aim should be not to see how much traffic could be forced through an ancient centre, but how much could be deflected to roomier channels. He never looked at an old map of London without thinking what a pity it was that the old villages, which had grown into the London boroughs, had not been preserved, and the extension of London taken place on the land between them. He expressed the hope that the new road developments might spare the old villages and towns, which should lay off the new high roads so that those who had no interest in them need not pass through them to the discomfort of those who had. He pleaded for a land in which not only the business man was provided for, but where the loiterer might find a place.

Concluding with a reference to the relationship between hygiene and the building itself, the lecturer said the main problem in connection with buildings was that of smoke abatement. Hygiene had won notable triumphs from the land and in the water, by the removal of refuse and the prevention of the pollution of streams ; it remained now to achieve its final victory in the air. The pollution of the air was responsible for respiratory diseases, an increase in the death-rate, especially amongst children, loss of sunshine, damage to vegetation and build for waste amounting to millions of Hygiene cleansed our rivers, and we n cleanse the air. That was the great which hygienists and architects might solve.

EXHIBITION NOT

CAMERA CLUB.

FEW people realise what an immense d it would make to us all if we saw thin camera presents them. Our eyes f some point and within a small distanc our vision is clear and defined ; beyond vision gets gradually blurred into notl People who criticise the looseness and v of an artist's handling in the nearer po his sketch forget this ; they fail to rea this treatment is the nearest approac actual sensation of sight. Those wh stand this cardinal fact about vision i increasing interest in the work of thos graphers who have compelled their wo recognition, and we now constantly important photographic exhibitions m examples of artistic triumph over m process. We cannot complain if thr medium of photography the artistic produces beautiful results, but it is w reminded where the skill of the artist In the exhibition of pictorial photog the Camera Club by Mr. Jas. MacKissac not merely the evidence of a skilled t but the eye of an artist who gives som the distinction of an artist's drawing and varied subjects. A patch of bare v tree branches, a cathedral, or a figu street corner come with equal force tinction in Mr. MacKissack's handlin camera, and it is a real pleasure to s he has done with the subjects now s the Camera Club, for his effects are excellent, but varied from grave to g broad, soft and rich tones to brilliant of bright sunshine and glittering detail whole the former effects predominate, is why the exhibition is so pleasant a

WALKER GALLERIES.

Amongst the quickly succeeding ex at the Walker Galleries we do not of one so full of freshness and charm as Capt. Morgan's water colours of Susse are some fifty drawings which really r water colour art, and which convey an sion of genuine individuality ; with colou of a bright and happy kind, erring ne richness nor insipidity—a picture of gre with a water foreground, an expanse of of pleasing gradations of purple and blu a dark-toned land—subjects of the kind bring pleasurable emotions fr artist's brush. Surely no one need be charming examples of water colour art these days in view of such an exhibition, the only criticism to be offered is th cheap and modern ! One almost wond a Sussex landowner or a Sussex muse not buy up the whole collection.

Two other exhibitions of interest at V Galleries are those by Lady Jephson a Hilda M. Sides, which both contain som handling if a little lacking in freed spontaneity.

FINE ART SOCIETY.

The wonderfully clever work of Mr. Flint at the Fine Art Society is assu perfect in its way. Though we may like the nude or half nude figure to be t point in a landscape or seascape, we deny the grace and light with which this figures seem to clothe the landscape i they appear. The picture of "June" i personification of light and air owing wonderful figure in the foregroun assured grace and ease of Mr. Russell work must make a strong appeal to the but it is, we suppose, a fact that som thankless public find even perfection cloying.

THE RENAISSANCE OF ROMAN ARCHITECTURE.*

Renaissance, that strange return of civilisation upon the art and learning rlier time and vanished race, affected ral peoples of Europe more or less ly according to their national char- s and to their physical nearness to es of the movement in Florence and . The enthusiasm for the revival of may have been as intense in France land as it was in the native city of gelo, but the opportunities for direct Roman buildings were limited in and practically non-existent in Eng- t is matter for little surprise, there- t the architecture of the Renaissance e differs very considerably from that or that its manifestation in England nclude features unknown in France. an be no doubt, however, that the s and students sincerely believed that e working along the lines laid down nighty Romans, and that they were g for the world an inestimable trea- ublishing so much antique regularity ty.

omas Graham Jackson's third volume Renaissance of Roman Architecture e course of the movement in France, om first to last a distinctly French thought unconsciously modified the f imitation of the antique. Of the riod Sir Thomas writes: "And yet ons of art at the beginning of the century, while they were only trim- eir Gothic buildings with scraps of rnament, seem to have thought they ght the true spirit of the Renaissance. ffroy Tory, indeed, boldly claims that ch had surpassed their teachers and dels. In the preface in his edition of book *de re* Œdificatoria, published he says: 'Our ancestors, as every- ows, were content with good work, t with little art and elegance. . . . length we have woken up, and our s are now renowned everywhere. since that magnanimous king, the all Italy, Charles VIII, returned as us conqueror from Naples, the art of in the beautiful Doric and Ionic hich is also that of Italy, has begun ractised among us with great success. u may see, I say, buildings so beauti- so perfect that the French architects ged to surpass not only the Italians, r teachers, the Dorians and Ionians.'"

rtists of the Renaissance seem to have an atmosphere highly charged with of the solemnity and importance of unctions as purveyors of the true manner, and popular approval, blind humorous side of this pompous stand- onfirmed the artists' estimate. It was the alert mind of a Shakespeare that squerade appeared in its true light. an actor, Shakespeare knew the of make-believe, and amused himself s audience with more than one com- upon this Classic play-acting taking eriously. But if the early Renaissance ce differs obviously from that of Italy ll more from the Roman works, the ork still betrays the admixture of feeling with the Classic tradition. tstanding perfection of French mason- ffected the growth of the new style just ad permitted of the development of a s style of Gothic, in which the scien- onomy of material had been carried to es.

re the Italian buildings were often con- d of brick and stucco without any structural emphasis, the French seldom allowed the imitation of antique form to obliterate this legitimate interest in construction. The famous external spiral staircase of Blois, illustrated in Plate VIII, indicates the mastery at an early period of all the intricacies of stone cutting applied to a design purposely composed to exploit them, together with the newly introduced Classic detail. The spirit of the work is Gothic and distinctly French, and this character was to persist even in later buildings, and despite the presence of Italian artists invited to the court of Francis I. The courage of these great masters in claiming to rival or surpass the works of antiquity is brought out in the account of Cellini's silver Jupiter retold in the book: "Another great Italian master, Benvenuto Cellini, arrived in 1540 and stayed in France till 1545. He produced many vases and figures for the King and a famous salt-cellar of gold, but made an enemy of Madame d'Etampes, the King's mistress. He fell out also with Primaticcio, whom he threatened to murder, and after a stormy career escaped to Italy, throwing up his commissions. . . . He tells an amusing story of triumph over his enemy, Madame d'Etampes, who made him produce his silver statue of Jupiter in the Great Gallery, where she had assembled all the casts from the antique in order to put his work to shame; but by a trick of lighting he showed up his statue to such advantage that the King said whoever made this arrangement has done Benvenuto a great favour, for his works not only bear comparison with the antiques, but surpass them."

The French people did not take kindly to foreign artists, and though at a later date Bernini was expressly invited to Paris to design the new buildings of the Louvre, the work was ultimately given to Claude Perrault, through the astute wire-pulling of his brother Charles and Colbert, whose management of the King (Louis XIV) was as brilliantly successful as it was unscrupulous. Bernini returned to Italy enriched with presents, but disgusted with his treatment as an architect, since his magnificent scheme had hardly been considered for a moment. To this day the term Italian is used among French architects to denote an irregular mode of design not worthy to be called French. Perrault's design for the Louvre was far nearer the Classic model in its splendid simplicity than most French work that had preceded it, and he abandoned one of the most persistent of French architectural features—the high-pitched roof. The masonic tradition, which had showed itself in *tours de force* of interesting detail at Blois and in the works of Philibert de l'Orme, reappeared in the Louvre in the use of enormous blocks of stone, recalling the veritably megalithic buildings of antiquity. The tympanum and sloping cornices of the central pediment were so huge as to demand special contrivances for raising them to their positions in the building. The construction has not the directness and simplicity of the old post and beam arrangement of Classic times, however, for the entablatures are composed as flat arches, and not as lintels.

Masonic skill and the pride of the purist in Classic style reappear in the famous church of S. Genevieve, now better known as the French Pantheon, and inscribed to the memory of the great men of France. If in the early days of the Renaissance the difference between the local work and the ancient model had been obvious at a glance, the difference still exists in this beautiful building, designed in the light of personal study of the antique by one of the ablest of French architects, Jacques Germain Soufflot. It is known that the design was inspired by the intention to build in accordance with reason and with the purest Classic models, but the legacy of Gothic times, manifesting itself in over-daring economy of support beneath the central dome, introduces a feeling of lightness totally foreign to the aspect presented by antique buildings, where scientific economy of abutments was so well disguised under the surface treatment of colour and coffering as to reveal itself only to serious study.

Encouraged, perhaps, by the precedent established in England a century before by Sir Christopher Wren, who had recommended scientific economy in construction both in his writings and in his executed work, Soufflot set himself to produce in stone a masterpiece of delicacy and good proportion.

The load of the central dome is borne by four triangular piers originally planned to line with the columns of the nave, but strengthened since the erection of the building with added pilaster strips when cracks in the masonry demonstrated the insufficiency of material to resist the stresses imparted by the load and wind pressure of the high dome.

The vaulting is freely pierced with interpenetrating barrels, and appears almost unreasonably fragile in respect of its own internal thrusts, without taking into account the disturbance due to the unequal loading on certain parts occasioned by the pressures from the central pile of drum and dome. As Sir Thomas writes, "the four great arches that carry the drum seem perilously weakened by being pierced with openings at their springing." In criticising the external appearance of the church he compares the dome with those of the great cathedral churches of London and Rome, and finds the French building less pleasing in its arrangement. "The drum is surrounded by an evenly spaced colonnade, with no breaks and no connection with the solid structure within it. At St. Peter's, St. Paul's, and the other great domes in Paris this is not so, but the colonnade breaks back at intervals to form buttresses to the walls of the drum, with a satisfactory effect both æsthetic and constructional. At the Pantheon the colonnade is useless, a mere screen, a sort of fender slipped over the drum, an unreality and meaningless, a mere piece of pictorial architecture. As one looks at it one can even see the light through the colonnade at the sides." The author does not go on to state, as he might have done, that this external drum and colonnade are supported by four colossal relieving arches spanning respectively the whole breadth of the church and transepts, and which are buttressed by the great external walls of the building, whose height and severe plainness he has just commented upon.

Notwithstanding the many excellent books that have been written upon the subject, Sir Thomas Graham Jackson's work makes its own appeal as a concise and eminently readable work. The illustrations are clear, and those reproduced from the sketches of the author and his son are of interest also as examples of faithful delineation in pencil and in colour.

The printing of the colour plates, always a difficult and anxious matter, has been markedly successful.

* Sir Thomas Graham Jackson, Bart., R.A. II: France. (Cambridge: University Press. 2s. net.)

An Ancient Castle.

The historic border stronghold, Croft Castle, Herefordshire, with 500 acres of surrounding lands, has been purchased by the trustees of Sir James Croft. The property thus goes back after a lapse of nearly two centuries to the family that had owned it from the time of Edward the Confessor until 1730. In 1730 the Castle, with the estate, was sold to Richard Knight; the next owner was Thomas Johns, the translator of Froissart's Chronicles, and then it went to Mr. Somerset Davies, M.P. for Ludlow, by whom it was largely rebuilt.

THE WEEK IN PARLIAMENT.

WESTMINSTER.

Sanction for Schemes.

Mr. Trevelyan Thomson asked the Minister of Health whether any schemes submitted to his department for the erection of houses by local authorities under the subsidy provided by the Housing, &c., Act, 1923, had not been sanctioned; and, if so, what were the reasons for such refusals?

Lord E. Percy, Parliamentary Secretary to the Ministry, said that approval to proposals for building by local authorities had generally been given for such number of houses as would be rapidly completed by the building labour available in the district. In a number of cases it had been necessary, in view of the amount of work in hand or the lack of essential skilled labour, to limit immediate approval to an instalment of the local authority's proposal, the principle being to get houses actually built and occupied as quickly as possible.

Grants for Slum Clearances.

Replying to Mr. Gilbert, Lord E. Percy said that 86 local authorities were undertaking, or had under consideration, schemes for the improvement of slum areas, and the annual Exchequer contribution towards the losses on these schemes would be approximately £127,000. The largest contribution would be made in the case of the London County Council, who contemplated schemes involving a total annual loss of £100,000, of which half would fall on the Exchequer. A number of those schemes had already been confirmed. Schemes of considerable magnitude were also proposed by a number of the more important county boroughs, notably Liverpool and Manchester.

Schemes Approved.

Replying to a number of questions, Sir Wm. Joynson Hicks said that 57,830 houses were provided for in schemes approved under the Housing, &c., Act, 1923, and of these 26,705 were to be erected by local authorities and 31,125 by private enterprise. Under the Housing, Town-Planning, &c., Act, 1919, 9,082 houses were either in course of construction or had not yet been commenced. According to estimates based on returns from local authorities there were, in addition to this, not less than 36,000 houses in course of construction under the new Act, for which no subsidy would be payable, from which it appeared that private enterprise was fulfilling its proper duty. The total number of houses in course of construction on September 30 last was over 50,000. He had had to defer approval of many houses on account of the scarcity of building labour, but he confidently anticipated that the number of houses of all kinds built within 12 months of the passing of the new Act would, nevertheless, approach 100,000, which was greater than any number since 1909. 9,756 houses were included in schemes of Rural District Councils which had been approved under the new Act.

The Subsidy.

Replying to Mr. McEntee and others, Sir Wm. Joynson-Hicks said that, where a local authority obtained approval of a scheme for granting assistance to private enterprise in anticipation of the passing of the Housing Bill, and in pursuance of that scheme had undertaken to give assistance, any houses to which such undertakings applied would by virtue of Section 2 of the Housing Act be eligible for grant. He had also undertaken where assurances had been given by or on behalf of local authorities, on the faith of which builders had proceeded with building, in anticipation of the approval of a scheme for assisting private enterprise, to pay the equivalent of the Government grant under the Act in respect of houses which would otherwise be eligible for assistance. Houses, the construction of which was begun in the absence of any such assurance, would not be eligible for assistance.

Inhabited House Duty.

Lt.-Col. Guinness (Financial Secretary to the Treasury), informed Mr. D. G. Somerville that the collection of Inhabited House Duty on the new scale would not commence until next month.

The Dissolution.

Parliament was dissolved on November 16.

BRISTOL HOUSING.

THE letter on the subject of the housing shortage by Councillor F. E. White, of the Building Operatives' Union, published in the Bristol papers, has elicited a reply from Mr. A. Pitt, Secretary of the Bristol Association of Building Trades' Employers, who says that in connection with the statement that by the adoption of the scheme of direct labour more houses would have been built, and a saving effected, there are one or two points that should be ventilated. Houses were erected by direct labour, and, according to a statement made by the responsible city official, a saving of £23 per house effected. But in arriving at this figure no addition was made for establishment or overhead charges. Such charges on a house costing in the neighbourhood of £800 would be considerably in excess of the amount of the alleged saving, so that far from any relief of rents or rates being effected the houses built by direct labour actually cost the ratepayers more than those erected by the building contractors. Direct labour had its opportunity in the building guilds, but was found wanting. The guilds paid a few shillings in the £, and left their contracts, running into an immense amount of money, to be finished by the contractors they were designed to do without.

Mr. Pitt says that the members of his Association, realising the urgency of the demand for houses, undertook to build any number in the city, and were willing to erect on a basis of 7½ per cent. above actual cost, this to include both profit and overhead and establishment charges. Many prominent and responsible members of the Association are still willing to undertake the work upon this basis, provided they have the whole-hearted co-operation of labour.

Mr. Pitt goes on to say that it is suggested that if concerted action could be taken with a view to securing the necessary supplies of materials for housing purposes upon equally advantageous terms, the cost of houses to the city could be brought to an irreducible minimum. To solve the problem needs the co-operation of all parties concerned—the builders, the merchants, and the operatives—but there must be a distinct understanding that no attempt will be made to inflate the rate of wages paid upon such work beyond the standard laid down by national agreement. This more than any other cause has been the reason of any diffidence shown by builders to undertake the erection of small houses upon the scale which the demand necessitates, and the action of the operatives in this direction has been largely responsible for the position that Councillor White suggests when he states that only the better class properties, for people who can afford to purchase, are being erected.

In dealing with the supply of skilled labour, Mr. Pitt says that there is room in the city for a greatly increased number of bricklayers and plasterers. Speaking from the employers' point of view, it is a fact that many contracts are being withheld simply for this reason, and the anomaly exists of every skilled man being fully employed while the building industry of the city is by no means fully extended. Mr. Pitt mentions that the Unions strenuously opposed the Government scheme for absorption of 50,000 able-bodied ex-Service men, up to the age of 30, into the trade, neither would they agree to the promotion of semi-skilled builders' labourers to the ranks of the skilled artisans, thus making room for ex-Service men in the industry as labourers. Several members of the Association were willing to promote some of their labourers in this manner, and pay them full craftsmen's wages, but were prevented from so doing by the of the Trade Union members, who refu work with them. This notwithstandin prior to the war the principal recruiting r bricklayers and plasterers was from the la employed by speculating builders.

Mr. Pitt concludes his letter with the co that enough has been said to lay befo public both points of view. No progress made by a policy of recrimination, employers and employees are prepared operate in an honest endeavour to secu erection of the houses so urgently neede the authorities are prepared to enterta proposals, a solution of the housing p should not be outside the range of possibi

RENAISSANCE TOW PLANNING.

THE fifth of the series of lectures on Planning, given by Mr. William Ha F.R.I.B..A., at Birmingham University entitled "Renaissance Town Planning," course of which the lecturer said the earlie tributions of the Renaissance to town pl appeared in the geometrical association o palaces and mansions with their imm environment. In towns, great building placed as the culminating features of squares, with which they were design balanced composition. On the outski cities, or beyond their boundaries, these settings were frequently extended over g of gigantic scale, with a free display o feeling for comprehensive planning whic so characteristic a feature of the period.

Churches also were designed with a environment, notably St. Peters, whic associated with the magnificent atriu colonnaded piazza built by Bernini in A contemporary design by Carlo Fontan prolonging the axial composition of the to the Tiber by an adjustment of the p road approaches, also illustrated the tre Renaissance ideals.

It was natural to compare the several fe of the Vatican group with those of t fora of the Empire. In both there wa great colonnaded piazza or Forum, wit church—or its equivalent temple—on the axis; and the same absence of concern medley of neighbouring streets; whil palace of the Popes stood in relation t stately planning below, much as the pala the Cæsars stood on the Palatine above t fora. St. Paul's, London, might be quo having about it the slight remains Christopher Wren's great scheme of 1666, to a large extent, was pivotted on the cath

It was chiefly to Pope Sixtus V (15 that Rome owes its present aspect. He re the water supply and so made habitable areas of the higher town which had lain since the aqueducts were destroyed directed his architect, Fontana, to plan roads for the development of these aban areas; and for the first time in history appeared certain elements of planning for which were conceived in a manner suit modern needs.

The Piazza del Popolo was the chief fe of Fontana's scheme of roads. It was asso with the northern gate of the city walls. outside the walls—with the Via Flamini old military road to Rimini. Three arteries diverged from the piazza to widely separated sections of the town, j roads entering a great city should do indeed, as roads should diverge from any of traffic concentration, whether it w bridge head or that modern equivalent f old city gate, a railway terminus.

The Piazza del Popolo was essentially a centre, and as such it initiated a new u public squares, which from this time on tended more and more to abandon the and more exclusive character which was in the Place Royale, Paris, 1600, and the Vendôme (as originally planned about 170

THE BUILDING TRADE.

THE COST OF BUILDING.

By T. P. BENNETT, F.R.I.B.A., Hon. F.I.O.B.

s certain that there has never been a
the history of building when cost was
l as it is at the present moment. Not
re building prices abnormally high (as
other prices), but owing to the ever-
possibility of further variations and
fact that building means the outlay
substantial amount of capital, every
g owner feels anxious about laying out
ney. These factors make it incumbent
everyone connected with building to
prices to a minimum, a necessity
on account of limited possibilities, is
cute in housing than in any other class
ding. Designs, therefore, must include
bsolute necessities. Planning must be
e and economical as possible, specifica-
nust be worded with extreme care, lest
ne means a clause may be interpreted
er an unexpected and unwanted outlay.
may well be differences of opinion
the irreducible minimum of accommo-
and while all public-minded men wish
se the population as well as possible,
realise that there are monetary limits
cannot be passed without disastrous
al consequences. On the other hand,
al housing enthusiasts have endea-
to use a large variety of semi-per-
t materials solely because of their com-
ely low initial cost. They have sung the
of timber construction, and even corru-
iron and matchboards. This welter of
suggests that such materials have never
been tested, that there is no real reason
und building, and that any gimcrack
ire which can show a low erection price
e welcomed with open arms. Such an
le is as insidious as it is fallacious.
ood enthusiasts must be reminded that
ire of London in 1666 was largely the
of timber buildings, that all collections
nber houses are potentially open to
ction by fire, and that there are very
cal reasons for erecting fireproof houses.
r is also liable to decay, is expensive
intain, and by reason of the spaces
en the supports in a cheap structure it
le to harbour vermin. Corrugated iron
ther purely temporary materials, besides
high cost of maintenance, are generally
ntly, and in initial outlay do not save
ent to compensate for these defects.
cost of housing, therefore, first resolves
into the necessity for striking a balance
en the qualities of permanence, low
enance, and attractive appearance with
ital expenditure which is within the
s of the majority of the working mem-
of the population. This is the problem
The Builder Cost of Building Competi-
ndeavoured to solve, or if solution could
be hoped for, in the limits of one
taking of this character, then to provide
id advance upon previous knowledge
would bring solution appreciably nearer.
designs chosen in the first competition
sound and economical. They had rea-
ly compact plans and simple elevations.
were a reflection of current ideas in
ng, and must therefore be regarded as
l of current thought upon these matters.
s of these designs were circulated to 344
etitors who were builders, and who in a
competition priced detailed bills of quan-
and endeavoured to show the lowest
le price at which such houses could be
By the enterprise of *The Builder* and
rs. Rownson, Drew & Clydesdale, Ltd.,
pper Thames-street, E.C., who found
prize money in both competitions, an analysis of a large number of prices for typical small houses is therefore possible, and by this analysis more accurate information should be obtainable about cost than has yet previously been available. If this information can be presented in a concise form and in such detail that it indicates clearly the direction in which expenditure occurs, it will be invaluable to architects and housing authorities, and will be a permanent guide to the erection of economical buildings, and should indicate the limits of cost imposed by permanent brick structures.

The analysis which is now being made will, therefore, commence with a comparison of the area of stairs and passages with the effective areas of rooms, and of the latter with the length of walls needed for their enclosure. By this rough guide it will be possible to see how far the designs themselves are economical. The specification as embodied in the quantities will next come under general review, and later will be subject to comment by builders in various parts of the country, so that local practice and experience can be collected for the common information of all engaged in housing. By this inquiry amongst builders many details will be discussed which may perhaps yield valuable results. All architects and builders, whether they took part in the competition or not, are invited to give their comments and opinions, and all opinions which are of sufficient interest will be incorporated in these articles. It is impossible to over-estimate the value of such collective knowledge and experience. The priced bills of quantities which have been received in the competition provide much that is of value, one of the most important features being the proportion of the total cost which is absorbed by each individual trade—*i.e.*, bricklayer, drainage, carpenter and joiner, plasterer, plumber, etc. By plotting graphs showing these amounts, their relation to the whole will be seen at a glance, and the main sources of expenditure having thus become evident, it should be possible to watch these items in future schemes. Individual items in many cases are most illuminating, likewise the prices given by different competitors for the same work. Such items as excavation, wheel and deposit, concrete in foundations, tile roofing, treads and risers, casement sashes and frames, lath and plaster on ceilings, knot, prime, stop and paint three coats, etc., will appear under this heading.

The detailed examination of the cost of materials will next claim attention. Materials may be expected to vary, owing to efficiency in buying, to expert knowledge of markets, to the locality, transport, and other matters, and a study of these variations, with perhaps some published prices, should be of immense value, especially if they indicate that some channels of supply are unmistakably cheaper than others. A chart of these variations will be given. Prices per ft. cube and per ft. superficial of floor area are valuable to the architect, and when these are sub-divided into trades or portions of trades they may help to provide a more accurate means of estimating than is the case with ft. cube estimates without the help of such sub-divisions. The dissection of the structural item is a further point which will add to present knowledge, so that it should be possible to say that houses such as those under discussion could be built as barn-like structures, without facings, skirtings or any amenities whatsoever will cost a certain lump sum and a certain price per ft. cube. The architect and building owner by this means will know the minimum cost of the shell of the structure, and by the exercise of intelligent knowledge and judgment will be able to decide upon the amount of enrichment that is permissible or which has been added, and so may know what they should pay for completed houses. Labour rates may next be examined, or at least referred to, as there is considerable variation in different parts of the country, and also because, as is well known, the best and most enterprising craftsmen tend to migrate to the larger towns and London.

Finally, there is the question of the extent to which extraneous and apparently irrelevant matters affect the cost. Under such headings are (1) the existence of an architect, and (2) the existence of a bill of quantities. There seems little doubt that in country districts builders fear that the architect will demand an unreasonable amount of finish, and will delay the work while making decision and supplying details, or will in other ways increase the cost, and that tenders will in consequence be higher. The bill of quantities, with its multitudinous detail, has similarly an effect upon small builders, and causes them to increase their tenders, partly because they fear its rigidity of detail, and partly because they are not in the habit of dissecting their prices so finely, and consequently price the items inaccurately. Wide variations are found in the cost of individual items and in the total amounts of the tenders submitted. In some cases these variations are understandable, but in general their amount is inexplicable. It is not too much to say that such large differences in price should be impossible when dealing with a perfectly straightforward pair of houses supported by an accurate bill of quantities. These big variations can presumably arise only from inaccurate knowledge, inability to dissect prices, or to quite abnormal local conditions. If every estimator had the amount of knowledge of his job that he should have, and if materials were of average prices, the amount of difference in the tenders should be less than half as much as it is. It may be that examination of these tenders will show where some of these great fluctuations exist, and if this should prove to be the case, and the disparity were only partly removed in future work, the result would be of extreme benefit to the industry and to individual builders and architects. It is, of course, evident that a certain amount of variation will always exist owing to the difference in the standard of workmanship which is put into the work. The acceptance of a standard lower than the best must remain a matter of judgment, but there is no doubt that a lower standard is possible in small houses than in large West-end buildings. It is, and will remain, a matter of difficulty to define an acceptable standard, and almost inevitably this becomes a matter of practice between the architect or building owner, and the individual builders who are asked to tender. It is beyond question that more accurate methods are necessary in every department of building, and that technical education and the stern necessities of high building costs and fluctuating prices are bringing these methods into existence. A competition of the kind now under discussion and analysis does much to draw the attention of the industry to these matters and to elucidate them. It is impossible to set too high a value upon such a competition, or to stress too much the need for careful and accurate work and the extension of the knowledge of the industry of the cost of modern building. This extension of knowledge has a twofold object. (1) It enables the architect to estimate closely and the builder to tender accurately, and thereby avoids difficulties for the former and bankruptcy for the latter. (2) It increases the confidence of the public in build-

ing and in architects and builders. Confidence creates work, because even if prices are high the client will often build if he feels that they are accurate and reasonable, and that he has not been misled by false information or lack of ability. The one important item that cannot be accurately shown by figures, or even accurately gauged by the builder, is the output of the operatives. All who have had charge of building must at times have been exasperated by the conversational habits and general slackness of many of the so-called skilled men who are employed. They must similarly have deplored the inability of the builder suitably to reward the really industrious workman. At times it almost seems as if the indolent flourish, and gain the rewards intended for their more conscientious colleagues. These articles are, however, an attempt to analyse cost, and the only excuse for a passing reference to output is its influence on cost and the indefinite value which must be assigned to it. Cost is also affected by work which, by its unusual or restrictive nature, absorbs an abnormal amount of labour. Such conditions cannot, however, be said to exist in the houses under discussion, and the matter is therefore left with only a passing reference. It is evident that in a subject so large, and attending which there are so many contingencies, finality can hardly be reached, but it is equally certain that much can be done to throw light upon a difficult matter, and that the competition may have very valuable results in this direction.

BUILDING MATERIALS MADE OF WASTE MATERIALS.

THE last of a series of lectures by Professor A. P. Laurie, Professor of Chemistry to the Royal Academy, was given at the Royal Academy of Arts on November 21.

In the course of his lecture Professor Laurie stated that he originally intended to confine his lecture to the subject of the title, but he found himself drawn into dealing with the whole matter in a wider aspect. We had in this country large accumulations of blast-furnace slag, cinders, clinker, and, in the neighbourhood of Edinburgh, of burnt shale, the residue from the stills of the oil industry. There were three ways in which these materials might be utilised: for the production of bricks, for the production of cement, and as aggregate mixed with Portland cement or plaster of Paris. The general method adopted for the production of bricks was known as the sand lime process, because in the first instance it had been applied to the manufacture of bricks from sand. Briefly, this process consisted of mixing the aggregate with a certain proportion of lime and water, squeezing it into a brick under very heavy pressure of some two hundred tons to the area of the brick, and then steaming under high pressure or in open steaming chambers. Bricks were now being manufactured by this process from sand, blast-furnace slag—granulated by being run while hot into water—clinker, town refuse, slate dust, and burnt shale. Cement was being manufactured by two of the Scottish steel companies from blast-furnace slag, granulated, mixed with lime, and then raised to a high temperature, so as to form a clinker in the same way as ordinary Portland cement was manufactured. This cement, known in Germany as iron cement, could be sold in this condition, or could be finally ground with a mixture of a certain proportion of raw blast-furnace slag. In addition, Professor Laurie made the suggestion to the Board of Scientific and Industrial Research, which has been followed up, with the result that they were of opinion that a very useful cement could be made of the burnt shale of the Scottish oil-shale dumps by merely grounding with a certain proportion of slaked lime. The uses of these materials as an aggregate opened up the question of how far it was possible to reduce the content of Portland cement and, at the same time, get sufficient strength for building purposes. The objection to the usual building slab made of cement was that in order to remove it from the machine as soon as made the content of water had to be kept low, and, consequently, the crushing strength of the finished slab was also low. Two interesting methods of getting over this difficulty had recently been brought to his notice: one, the Crozite method, by which the cement bricks were sliced off from the bottom of a column of cement and aggregate; and the other, the method of the Triangular Construction Company, in which a heavy compression was put upon the bottom and top of the slab at the moment of completion. It had been possible in the case of the slabs made by the Triangular Construction Company to reduce the amount of cement to one to twelve of aggregate by their method of manufacture, and the manufacture of cement bricks by the Crozite process was being carried on on a large scale in America.

The lecturer, having illustrated the Crozite method of manufacture by means of slides, proceeded to say that it might seem out of place to introduce the subject of plaster of Paris into a lecture on waste materials, but the building industry was confined in practice to two cementing materials—Portland cement and similar preparations, and plaster of Paris—and many waste products, such as sawdust, disintegrated wood, and ordinary cheap aggregates, such as clinker, could be utilised in slabs made from plaster of Paris. We had large and easily available deposits of gypsum in this country, but the industry had never been developed on the enormous scale which was found in America, and in which all kinds of materials required by the builder had been turned out made from plaster of Paris as the cement. This was due to the adoption in America of up-to-date methods of mining, of handling, and of heating the raw gypsum.

In conclusion, the lecturer expressed his thanks to Mr. Weller, of the Department of Scientific and Industrial Research, for his assistance in getting information for this lecture.

RENT INCREASE.

A VERY important decision has recently been given in the case Bourne *v.* Litton (*Weekly Notes*, November 10). The plaintiff was seeking to obtain possession of his house on the ground that certain sums due for rent had not been paid. He had purchased the property by contract on July 27, 1920, and under that contract it had been assigned to him on August 8, 1922. The defendant had been the tenant of his predecessor in title, and the agreement under which she held would terminate on September 29, 1922. On August 24, 1922, after the property had been assigned to him, the plaintiff had given the defendant notices of increased rent claiming 15 per cent. under section 2, subsection (1) (*c*), and an increase of 15 per cent. under paragraph (*d*). That paragraph provides as to increases of rent: "In further addition to any such amounts as aforesaid (*i*) where the landlord is responsible for the whole of the repairs an amount not exceeding 25 per cent. of the net rent, or (*ii*) where the landlord is responsible for part and not the whole of the repairs such lesser amount as may be agreed, or, as may, on the application of the landlord or the tenant, be determined by the County Court to be fair and reasonable having regard to such liability." By the agreement of tenancy the defendant, the tenant, had to keep all gutters, stack pipes, water-closets, gullies and cisterns clean and in good sanitary condition, and to keep in repair all window glass, sash lines, and internal taps and pipes, and also to maintain and keep in repair all venetian and other blinds.

The defence to the claim for possession was that as the landlord was not responsible for the whole of the repairs, the amount claimed for rent was in excess of that permitted by the Act, and it was contended that the notice was invalid because under paragraph (*d*) there was no agreement as to the amou which the landlord was entitled to inc the rent and in default of agreement n termination by the County Court of amount.

The plaintiff relied upon certain corres ence which had passed between the soli of the parties which it was alleged amo to an agreement of the amount at 1 cent. under paragraph (*d*).

The Court held that a landlord who responsible for only part of the repairs not entitled to serve a notice of increase paragraph (*d*) until the amount he wa titled to claim had either been determine agreement, or by the County Court in d of agreement, and that as in this case a date the notice of increase was served had been neither an agreement nor a termination of the amount by the C Court the notice was invalid, and tha agreement between the parties after the was served did not make the notice therefore, even if the correspondence ref to did constitute an agreement the notice invalid, and judgment was given for d dant.

Every decision under the Rent Acts s to open up a new vista for litigation. the present decision shows that nice tions may arise as to what is intended b expression, "the whole of the repairs." this case the repairs to be undertaken b defendant were internal repairs of a small description, such as might well be posed on the tenant even under a leas which the landlord practically was res sible for repairs in the general acceptan the word, and thus the question arise what extent trifling repairs placed upon tenant will operate under the above graph? Apart from the window glass, repairs in this case seem limited to would be fittings and fixtures, but no tion seems to have been raised as to nature of the repairs. If one small which can be deemed repair is to fall o tenant it appears it may be argued tha landlord is not responsible for "the wh and before he can give a notice of increas must in default of agreement bring the m before a County Court or he may run the of his notice being held invalid and his ceedings for possession based upon it dismissed with costs. It really is small der that houses are no longer offered on while the two-edged sword of the law is suspended in this manner over the hea landlords, but the Legislature seems blin the effects of such legislation. Burdens gri to be borne have been laid upon the shou of landlords to such an extent that the le or letting of houses has become extinct. well-tried and convenient relationship of lord and tenant has been extinguis houses free from rent restriction only offered for sale, and no house once got o the meshes of rent restriction is ever of on an agreement or lease again. So inte the Legislature on rent restriction that it not see that the letting of houses has restricted out of existence and that the profiteering is taking place in connection the sale of houses in a market restricte the Legislature in the sole interest of si tenants. The landlords of houses alread are brought before the Courts over the plest matters by statutory tenants, and an increase in rent under the Acts is he round with legal technicalities. This offers one more example of this—for a lord must consult a Court before he can an increase of rent under paragraph (*d*) less he can come to an agreement the tenant, and if the tenant is a "s tory" tenant he will not be willin agree any matter; besides this, it ap that in every case where the lan claims an increase in rent over and the increases permitted by the preceding graphs of this subsection, he may be m the allegation that some trifling repair u taken by the tenant brings him under second head of the paragraph as not re sible for the whole of the repairs.

THE HEATING OF BUILDINGS.

November 15 Mr. F. Broadhurst Craig ed before the Northern Polytechnic on ting Systems Used in Buildings."

the course of his remarks he said a good of uncertainty undoubtedly existed as to spective merits and demerits of the different ds of heating buildings, and to his mind the n's difficulty was in discriminating between laims of the exponents of the various ns. Broadly speaking, heating systems be divided into two distinct classes. there were those intended for inter- t or occasional use; and second, those of inuous nature.

the first category might be placed open slow combustion stoves, gas heating atus (including gas fires or gas grates, gas ors, and gas-heated boilers or geysers), c radiators, and oil stoves. All these nces had their own specific uses, but their yment should be limited to small-roomed nces and offices in which occasional heating vas required. The attempt to warm the rooms of even a moderate-size building by these means was almost certain to result ure, either on the score of inadequacy or sed working costs.

ordinary brightly burning open fire would pproximately 3,500 to 4,000 B.T.U.'s per ft. of fire surface, and to maintain this 3 to 3½ lbs. of fuel required to be burnt our. Assuming that the coal had a c value of 13,000 B.T.U.'s per lb., this n efficiency of $\frac{13,000}{4,000} \frac{3.5}{100} = 11$ % only.

t altogether from the exceedingly low cy of the open fire, it possessed other antages. One of them was the amount it created and the consequent deleterious upon decorations and furnishings; and r was the disagreeably cold air currents it set up from the windows and doors s the fire. In fact, the area of t in most large rooms was appreciably l in the winter for this reason. Slow stion stoves had an efficiency of 5 to 40 per cent. The surface tem- e of the stove was usually from 300 degrees, and this would transmit imately 800 B.T.U.'s per sq. ft. of outer The manufacturers of these appliances specified the various sizes of stoves were capable of heating rooms of certain contents, notwithstanding that the ions for arriving at the quantity of heat dance with the nature of the wall, floor, and glass exposures indicated that such could only be approximated. A more e method of ascertaining the necessary stove was first to determine the total of B.T.U.'s required per hour, as l necessary by the requirements of the ar room under consideration. If 8,000 s were required per hour the stove have an external surface of about ft., *i.e.*, $\frac{8,000}{800}$ and assuming that the d a calorific value of 14,000 B.T.U.'s ur, it would consume about 1.43 lbs. per hour.

for the purpose of heating might be d in three ways: (1) By means of gas the more recent "gas grates") with "radiants," which required flues; gas-steam" radiators, which did not flues; and (3) by gas boilers (on the inciple as the ordinary low-pressure hot eating boilers) heated by means of a burner instead of coke or coal. Even hest claimed efficiency of gas-heated some 60 to 80 per cent.), when added gh cost of gas, put them entirely beyond l consideration for heating where there re than, say, two radiators, in which was preferable to install individual n radiators or gas fires. The employ- gas fires should be confined to odd s, offices, and similar rooms in which continuous heating was not required; that was to say, where it was desired to have heat for perhaps only half an hour or so per day, such as immediately before retiring at night, or for occasional use in an office for a short time. For purposes of this kind they were very useful, though at their highest rated efficiency (about 75 per cent.) they could not compare with central heating, even after allowing for their lower initial cost.

Gas-steam radiators were probably the best means of heating by gas. Owing to the absence of a flue the efficiency was, of course, 100 per cent., and the whole of the gas burned was utilised in warming the room. The construction of gas-steam radiators was similar to that of an ordinary hot-water radiator. About one-third of its capacity was first filled with water, which, on being heated by means of the gas-burners beneath, proceeded to boil and produced a similar effect to that of an ordinary low-pressure steam radiator. As a consequence the intensity of heat was not so great, and the disagreeable "baking" effect was not produced in the same degree, though to a certain amount there were obnoxious odours caused by the decomposition and burning of dust particles. Were it not for the gas fumes and the high temperature of the gas flame these radiators might compare favourably with the hot-water type, despite their higher running cost.

The next method of heating was that of electricity. Generally speaking, its advantages were similar to those of gas; that was to say, for intermittent heating or occasional use it was decidedly useful, but for continuous heating it bore no comparison with a centralised system. The objectionable liability to overheat the air of the room was equally inherent in this type of radiator, and it was not to be recommended where expense was a consideration.

The following table showed the relative hourly costs of heating by the various methods before described as compared with a system of central heating. For the purposes of this comparison a room had been assumed requiring, say, 18,000 B.T.U.'s per hour. This number of heat units represented the quantity required to take care of an average school class-room of, say, 20 ft. by 20 ft. by 15 ft. high, with normal exposure, heated to 60 degs. F. when 30 degs. outside.

	Hourly Cost.
Open Fire	2.52d.
Slow Combustion Stove	1.38d.
Gas Fire or "Grate"	3.30d.
Gas Boiler	3.09d.
Gas Steam Radiator	2.47d.
Electric Radiator	10.6d.
Oil Stove	2.52d.
Central Heating by Coke	0.71d.

It should, however, be remembered that the initial cost of any of the before-described intermittent systems was appreciably less than that of central heating. To extend the comparison, therefore, to-day's outside cost of a complete central heating installation might be taken at £20 per radiator. As that of a modern type of ventilating gas-fire grate—with fixing and pipe connections—would average about £6 each, the resultant saving in first cost was approximately 70 per cent. Calculating on this basis for a building requiring, say, twenty radiators, each having a heating capacity of 9,000 B.T.U.'s per hour, the relative initial costs were:

(1) Central heating, 20 at £20	£400
(2) Gas fires, 20 at £6	120
Additional initial cost of (1)	£280

The comparative fuel costs for equal heating periods were:

(1) Central heating: 7.1d. per hour. 12 hours, 7 days per week, 30 weeks per heating season	£374 11
(2) Gas fires: 33.0d. per hour. 12 hours, 7 days per week, 30 weeks per heating season	346 10

It was obvious, therefore, that for continuous employment neither gas nor electricity—and particularly the latter—could be said to compare favourably with central heating. There were other points which should be taken into account where buildings required intermittent heating only. For example: central heating did not lend itself so readily to occasional use, as the boiler could not be turned on or off as easily as a gas fire, though each individual radiator possessed this facility in an almost equal degree. And, again, for an installation of the size assumed in the example, the cost of attendance for stoking, &c., should be added to the running costs. This factor, however, varied so much with the size of installation that accurate calculation was hardly possible. Apart, however, from the two foregoing important considerations of initial and fuel costs, the advantages of central heating were still more pronounced when regarded from the standpoint of comfort, which was, after all, the principal consideration.

It was thus evident that the advantages undoubtedly rested with central heating as compared with intermittent heating, and it was to this system the closest study should be given. Central heating might be defined as a system by which two or more rooms could be heated from a centrally-situated agency, such as a furnace or boiler. The media employed were hot air, steam, and hot water, any of which might be distributed—either by natural or mechanical means—under varying pressure.

A large section of the general public believed that central heating was effected by means of steam, and few were able to distinguish it from a hot-water apparatus. Consequently, those who possessed a wide experience of Continental and American systems were perhaps a little inclined to express somewhat emphatic opinions. Steam was not the generally-adopted medium of central heating in this country. In fact, the extent of its employment here was relatively insignificant. The objections to the adoption of steam-heating media in this country were their inelasticity, whereby the radiators might be either on or off and the boiler worked at the same steam pressure, irrespective of variation in the outside weather conditions, and the consequent lowered degree of fuel efficiency caused by the overheating of the rooms in comparatively mild weather. To these might be added the difficulty of installation (a basement or sunken boiler chamber with pipe trenches was essential to its proper lay-out) and the possibility of disagreeable, noisy effects of "water hammer" arising from faulty design and erection. The numerous mechanical devices which had been applied to steam heating systems—such as automatic air valves, regulators, thermostatic valves, vacuum pumps, steam-traps, separate air-lines, syphons, mercury seals, exhausters, condensation pumps, and what not—all indicated that steam was generally favoured as a heating medium. This, to his mind, was to a certain extent due to the fact that the fundamental principles of low-pressure hot-water circulation by gravity were still but imperfectly understood, particularly in America.

The high-pressure hot-water system had become almost as extinct as that of hot air. It was unhealthy, inelastic, and extremely dangerous in the event of leakages in the pipe joints, and its application to-day was almost entirely confined to drying stoves and the like.

Generally, it could be asserted that on the score of health, facility of installation, and economy—both in initial and working costs—the low-pressure hot-water system was without question the most suitable for the English climate, and it was adopted in fully 90 per cent. of the buildings in which central heating was installed. Notwithstanding the long period during which this system had been employed, it was still so imperfectly understood that its application appeared to be very generally based upon empirical formulæ and rule-of-thumb methods of a strictly orthodox character. The proper design of a low-pressure hot-water heating system called for a greater degree of technical skill and application than that of any of the other systems named.

INSTITUTE OF BRITISH DECORATORS.

"HOW, WHEN, AND WHERE TO USE COLOUR AND ORNAMENT."

MR. WALTER J. PEARSE gave a lecture on the above subject at Painters' Hall, Little Trinity-lane, E.C., on November 15.

The lecturer said that his paper had been written for the painting and decorating trades, and was, therefore, of a somewhat technical nature. For the purpose of his lecture he divided his remarks on colour into four headings: æsthetic, corrective, informative, symbolical. If decoration were not wanted under these headings it was doubtful if it were wanted at all. Colour was demanded when there was a want of visual and intellectual satisfaction. The lecturer said that the æsthetic and corrective use of colour was to separate one object from another. Its informative use was obvious; and its symbolical value was expressed in heraldry. Its correct use, however, did not depend on taste. After all, what was taste? Its correct use depended on reason and law. It did not depend on chance: solid reasons were essential for its right employment. The lecturer wished that our eyes were as susceptible to colour as our ears to music. Although it was sometimes legitimate to have discords in colour, as in music the basic principles were, he reiterated, reason and law. In making the decision where to place colour, however, common sense was necessary. In the case of a door, for instance, it was not desirable to use a hard metallic green; neither was it desirable to use a bluish green. Woodwork should not be painted in a colour unsuited to its material. It was not customary to enamel Chippendale chairs, therefore it was not desirable to enamel doors. In a general scheme yellow was the most satisfactory colour. Even a painting was improved by varnish owing to the yellow tint in the ingredient. A bedroom should have a healthy colour; a nursery be without glare; a billiard-room restful. The lecturer mentioned the case of a painter who used black for a bathroom, and gave as his reason the excellent background it made for the human figure.

Hardness and flatness were the worst faults in the use of colour. Englishmen, the lecturer said, appeared to have a rooted objection to the use of bright colours. As an example he mentioned the Early Victorian and the "greenery yallery" days. Bright colour, however, did not mean crude effects.

The lecturer dealt with decoration and ornament under three headings: æsthetic, wealth, religious expression. Decoration was, he insisted, a combination of colour, line, and form. The right use of ornament depended on a sense of fitness, especially in regard to its use without colour. It was merely common sense that flat ornamentation demanded a flat surface. It was not desirable to place ornamental birds on floor spaces, neither was it desirable to place ornamental fishes on the ceiling; although the lecturer mentioned one case in which he painted fishes on a glass roof in order to represent the bottom of the sea in a ballroom. The bare lines of ornamentation should be filled in first (a sort of "noughts and crosses" arrangement), then the detail work finished. It was necessary to start from the bottom, and build up on a firm foundation. In dealing with wallpaper, it was essential that the flowers or leaves should be of natural size. Daisies should not be the size of dahlias. He mentioned a case where a rich wallpaper consisting of beech-leaves was entirely ruined through the leaves being too large.

The lecturer concluded with an interesting exposition of broken-colour effects; and pointed out that wallpaper possibly owed its charm to this effect. Actual examples shown by the lecturer were certainly extremely beautiful.

A hearty vote of thanks was accorded him at the close.

THE RENT ACT: SIGNING NOTICES OF INCREASE.

ACCORDING to a statement of the Property Owners' Protection Association made to *The Times* recently a point has been raised by the decision of a sheriff in Scotland, a court equivalent to a County Court here, that notices of increase of rent under the Act of this year must be signed by the landlord himself and bear his address, and not by an agent. Of course, under the "Notices of Increase Act, 1923," notices of increase have an added importance, as they also now amount to a notice to terminate the tenancy, but as far as we can see no change has been effected as regards the form of notice. Under the Act of 1920 section 3 subsection (2) it was provided that no increase should be due or recoverable until a certain period after the service of a valid notice "which notice shall be in the form contained in the First Schedule to this Act or in a form substantially to the same effect." Under the Notices of Increase Act "validated increases of rent" must be claimed according to the form in the Schedule to that Act or in a form substantially to the same effect, and the forms under both these Acts so far as the point we are considering is involved are in the same terms, they are headed "Form of Notice by Landlord" and conclude "Signed—Address—."

The third Act, the Rent and Mortgage Interest Restrictions Act, 1923, only touches this point in section 6, for it provides that "the county Court, if satisfied that any error or omission in a notice of intention to increase rent is due to a *bona fide* mistake on the part of the landlord, shall have power to amend such notice by correcting any errors and supplying any omissions therein which if not corrected or supplied would render the notice invalid . . ." and this applies to forms whether served before or after the passing of this Act. So far, therefore, it appears that there has been no change in the form since 1920, and if the signature of agents has been recognised there is nothing in the Acts themselves to alter that practice. On the contrary the latest Act has given a power to the Courts which they did not possess before to amend the forms. But this does not conclude the question, for these forms have been held to be statutory forms which must be strictly adhered to—see Peizer *v.* Federman and Penfold and Thompson *v.* Newman *Builder*, December 16, 1921)—and assu that the form must be signed by the lan it is doubtful whether the substitution o agent would be treated as "an error or omiss capable of amendment under section 6 o Act of this year.

No mention is made in the Acts of ag and all that can be said in the absence decision in the High Court (and we are not a that the point has ever been raised) is th the practice has been countenanced ever s rent restriction commenced the legisla has not rendered the forms more string but on the other hand in the provision we noticed in the last Act has shown an inte rather to relax the cast iron nature of the by allowing amendment by the Court in ce cases.

TRADE NEWS.

We have received from Messrs. Winser & Ltd., of 62, Buckingham Palace-road, S.W copy of their new No. 12 Catalogue of stonew sanitary appliances.

Messrs. Petters, Ltd., will have, at their u Stand (No. 10) at the forthcoming Smithf Show, a representative selection of their la oil engines and electric lighting sets.

Messrs. W. R. Crow & Son, timber mercha and importers, have now opened new head off at Norfolk House, Laurence Pountney H Cannon-street, E.C.4 (Telephone, Central 4 telegraphic address, "Bolection, Pho London"). The firm have also opened a wharf at Blackhouse-road, Deptford, S.E.8.

We learn that at the Barcelona Trade Exh tion the Gran Medalla de Oro (a gold medal) awarded to Mr. R. M. Nosworthy, of C Valencia, Barcelona, owing to the good qua of the P-V Brand Leather Cloth, for wh Mr. Nosworthy has the sole sale for Spain, behalf of the British Pluviusin Compa Limited, of Manchester, a Nobel Industries c cern.

Messrs. George Wright, Ltd., Rotherha have just issued a little booklet in which illustrated many fine examples of old Sus French, and Flemish fire backs. It is becom increasingly difficult to find genuine old fire ba in these days, therefore the reproductions Messrs. Wright will be very welcome. For practical purposes they are excellent and ha all the characteristics of the old ones. examples are from the Burton Weir collecti which is considered one of the finest in country.



FIG. 1.—HOUSES AT THE HAGUE, BUILT OF "KORRELBETON." (*See p.* 823.)

NEW INVENTION.

New Concrete and a New Method of Shuttering.

IN Holland, as elsewhere, various new methods f construction have been tried, and among hose which have been adopted to any consider- ble extent is a system of monolithic concrete onstruction invented by Mr. Greve, a Dutch rchitect, which possesses two special features. he first is the system of shuttering, whereby the alls may be poured complete or for one story at time at one operation, and the second is the mposition of the concrete of which the build- gs are formed.

The shuttering (shown erected in Fig. 2) con- sts of a wooden framework filled in with metal lates, and is placed in position in sections of height corresponding to that of each story of e building to be erected. This method has the dvantage that the shuttering of each story can e removed irrespective of the shuttering of the her stories, so that where several houses are be built it is not necessary to wait for the hole of the walling of the first house to become t before any of the shuttering is removed. hus, while the first house is being completed e foundations of the second house can be pre- ared, and the shuttering from the ground floor the first house to be erected, which has rdened in the meantime, is then taken down d used to form the ground floor of the second ouse. Whilst this is being placed in position, e first-floor shuttering of the first house is ing dismantled, and is ready to be erected for e second house by the time the ground-floor uttering is in place. The same process applies the second or any number of stories, and a nsiderable saving in time and form-work is fected. Another feature of the shuttering is at the plates can be removed from the frame- ork whilst it is in position.

The concrete, known as "Korrelbeton," is ade from furnace slag, broken brick, coke eeze, or other angular and porous aggregate pass a ½-in. mesh, bound together with Port-

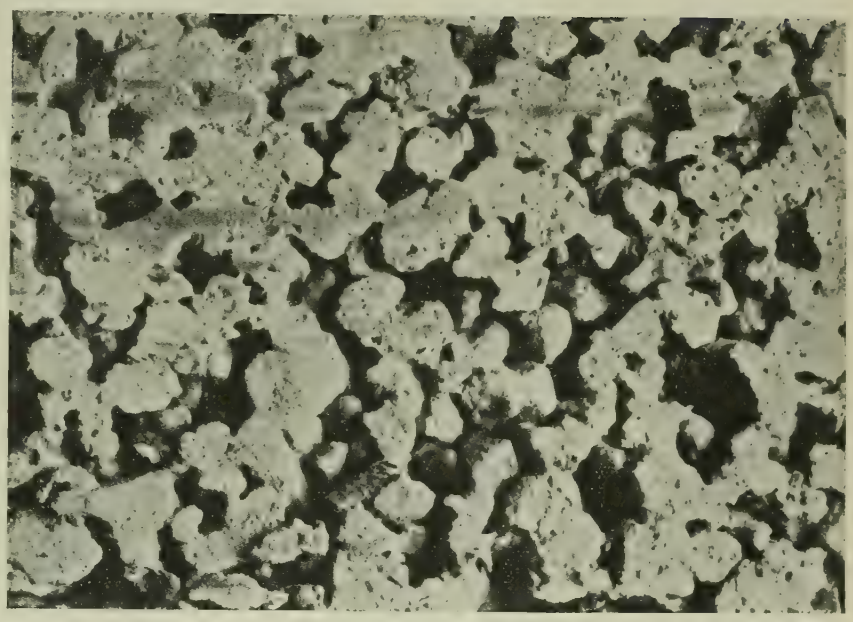


FIG. 3.—"KORRELBETON": ACTUAL SIZE.

land cement without the addition of fine material to fill the voids. For walls the proportion of cement and aggregate is 1 : 10, while for floors and roofs, in which case a finer aggregate is used, the proportion is 1 : 5 or 1 : 3. The resultant concrete is exceedingly light and porous (see Fig. 3), and it is therefore possible to use lighter shuttering than in the case of a concrete made with a heavier and more dense aggregate. The voids in "Korrelbeton" equal from 30 per cent. to 50 per cent. of the total volume of the concrete, and this, it is claimed, renders walls built of this material non-conducting of heat and cold, sound-proof, and fire-proof, while at the same time the light and porous concrete prevents condensation and permits of nails being driven into the walls.

The walls are rendered weather-proof with a 2 in. coating of cement, and plastered internally. No damp-courses are used, and in this connection we are informed that a piece of walling after standing in water for two weeks showed no signs of dampness above water-level. The outer walls are usually 12 in. thick for foundations and 8½ in. above ground level; divisional walls are usually 4 in. thick.

The method of erecting these houses is as follows. A raft foundation is first laid, consisting of a bottom course of 4 in. of "Korrelbeton" with the same size aggregate as is used for the walls, reinforced with a layer of mesh reinforcement laid 1 in. from the bottom, and a top course of 2 in. of "Korrelbeton" made with a finer aggregate containing only from 10 per cent. to 20 per cent. voids, thus forming a more dense and stronger concrete. The walls are then poured up to first-floor level, and the first floor laid on the same lines as the ground floor. The walls are then carried up to second-floor level and the second floor laid, and so on to any desired height.

It is claimed that the economies which are possible by this system, both in the cost of the concrete and the cost of erection, amount to about 20 per cent. as compared with brickwork. The shuttering is standardised in units which allow any architectural design to be followed, and we are informed that between 300 and 500 houses per year can be built with a plant costing £3,000.

Fig. 1 (page 822) shows a pair of houses built at The Hague on this system.

The Director of the Municipal Building and Housing Council at The Hague, and other Dutch and French building authorities, have reported favourably on this system, which we understand is shortly to be adopted on some further large schemes.

We are informed that a test carried out on 1 sq. yd. of "Korrelbeton" 6 in. thick, such as is used for floors, supported at each of the four corners, showed no deflection when loaded with 2,690 lb. in the centre of the slab.

An independent test carried out in London to ascertain the crushing strength of "Korrelbeton" gave the following result:—The sample was between ten and eleven months old, and measured 6.66 in. long, with a sectional area of 5.56 in. by 6.5 in., or 37.03 sq. in. The specimen failed at a load of 10.94 tons, that is, 42 tons per square foot, or 661 lb. per square inch.

Mr. C. R. Bartels, of 36, Duke-street, E.C.3, is the London agent for the system, which has been patented in Great Britain and Holland and other European countries.



FIG. 2.—SHOWING SYSTEM OF SHUTTERING.

CONTRACTORS FOR EXHIBITION BUILDINGS.

SOME correspondents have recently called attention to a difficulty which they say has arisen in connection with contractors who undertake the erection of temporary structures in buildings which are used for exhibitions or other like purposes. In such cases they say that usually an organiser takes a building and either he or his tenants place orders with contractors for the erection of the stands or other like structures, and this work usually occupies from three to six days, a period too short to enable the contractors to protect their employees from cold in winter or to provide lavatory accommodation, and that these conditions cause trouble with the men.

Our correspondents seem to assume that they are liable to provide warmth and other conveniences for their employees, and that the absence of these may give the men a cause of action against them, or that the authorities may even take action. We do not know on what basis this assumption is founded, as it certainly does not apply to men engaged on ordinary building operations where the provision of warmth would be physically impossible, and therefore we imagine that if any such obligation arises it can only do so out of the particular contract between the contractor and his men.

Our correspondents then suggest that, as it is impossible for them to supply warmth and conveniences on these short-term contracts, the person who places the work with the contractor must be liable for their provision and, further, that if the lack of them leads to a strike amongst the workmen compensation or damages should be recoverable from the person putting out the contract.

We cannot here advise on the law, but it appears that the answer to both these questions would be in the negative unless the matter is provided for in the contract between the principal and the contractor. We, however, give prominence to this question because, as it is to the interest of all parties engaged in this class of undertaking that the work should be carried out expeditiously and without friction, those organising such exhibitions may see their way to doing away with a possible grievance or hardship without prejudice to the undertaking; for instance, by installing the heating apparatus, if such is required for winter exhibitions, at the earliest stage in the operations and by seeing that other conveniences are available as soon as possible. So far as we can see any obligation can only arise out of contract both as between the contractor and his employees, and the principal and the contractor, and apart from contract we cannot think the obligations and liabilities suggested can arise.

It would even appear very doubtful whether an "organiser" would be a "principal" liable under the Workmen's Compensation Act to a workman of a contractor who from an unusual and exceptional exposure had contracted pneumonia, and thus had sustained injury by accident under that Act.

Bricklayers and House Building.

The suggestion made at a recent conference of Birmingham building trade representatives, held under the chairmanship of the Lord Mayor, that the workmen should agree to a longer working week, was submitted to a meeting of the operative bricklayers. The proposal was rejected by the trade union members, who definitely decided against any extension of the working week beyond 44 hours.

London Master Builders' Association.

The Council of the London Master Builders' Association has decided, as the polling for the General Election has been fixed for December 6, to postpone the Annual Dinner from that date to December 13.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick-layers.	C'p'ters, Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brentwood	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Colchester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
E. Glam. (Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Great Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Norwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/-
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Helens	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	0/11½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2

(For rates of wages in the Building Trade in Scotland, see page 825.)

THE SCOTTISH BUILDER

EW BUILDINGS IN SCOTLAND.

r.—RECONSTRUCTION.—The Cupar Dis- ommittee have instructed the Clerk to o the Scottish Board of Health for a grant Fifeshire County Council to reconstruct uses.

ey.—HOUSES.—The Corporation proposes t an additional 150 houses at White- —Mr. Matthew Urie, jun., has been l permission to erect two double villas sburgh-drive, and Mr. James Maxwell eived permission to build a double villa more-road.

on.—SCHOOL.—The Stirlingshire Educa- uthority has approved of plans for an n to Balfron School, at a cost of £700.

ow.—RAILWAY.—In connection with the cement already made that the railway ies have under consideration the question nstructing certain railway stations in and neighbourhood it is now officially hat plans for this reconstruction and for ments along other lines have been lly completed. It is expected that work commenced shortly on some of these s

rewshire.—HOUSES.—The Building Com- of the Upper District of Renfrewshire proved of plans as follows :—Bungalow partments at The Grove, Giffnock (South) rge W. Dixon & Son, builders, Giffnock ; ni-detached houses, each of five apart- at Florence-drive, Giffnock, for Philip son ; bungalow of seven apartments at oad, Hillpark, Eastwood, for J. D. Mares ; cottages, each of five apartments, at oad, Giffnock, for the Southern Building y ; and a bungalow of six apartments herlee-road, Netherlee, Catheart, for B. Wyllie & Son.

esay.—HOUSES.—Rothesay Town Council dopted a housing scheme, subject to l from the Scottish Board of Health, the of the grant to be £100 per house. One n is that any houses built under the are not let to people having other houses esay.

-HOUSES.—At a meeting of Ayr Town it was reported that applications for ly of £100 had been made in respect of es. The plans had passed the Dean of ourt, and were reported by the Dean of be in conformity with the building ns under the Housing Act of 1923. The so submitted a list of 13 persons who loans in terms of an offer made by the and approved by the Board of Health. greed to grant the applications. With o the loans and the rate of interest under ll Dwellings Acquisition Act the Scottish timated that, subject to the approval of asury, the Secretary for Scotland pro- issue at an early date a general order per cent. for this purpose. There were as, it was stated, to the suggestion that be current for a long term should be n present ability to borrow for short at a low rate of interest.

e.—HOUSES.—Plans and sections of l new buildings, &c., have been lodged ffice of the City Engineer as follows :— -street, additions for Dundee Education ty ; Dalgleish-road and Murray-street, for Andrew Rattray ; Elgin-street, r Alexander McLean, house for D. M. on, house for Mrs. Ruth Leighton ; road, Broughty Ferry, green-house L. Miller ; Frederick-street, cottages Ramsay ; Harrow-street, cottage for es Duff ; Lamb's-lane, fire escape stair- way for Wm. Gavine ; Liff-road, Lochee, hut for Lochee Labour Party ; Old Glamis-road, house for Rev. J. H. Sharp, porch, &c., for Alexander Lickley, semi-detached villas for H. T. Bowman; New-street, Barnhill, Kerrington-crescent, extension of street for the Earl of Dalhousie.

CONTRACTS, COMPETITIONS, &c.

NO DATE.—**Girvan.**—HOUSES.—Erection of 28 houses (seven blocks) for Town Council. Plans may be seen at office of Burgh Surveyor, Mr. C. Herley, Girvan, or at the architect's, Mr. W. Baillie, 2, West Regent-street, Glasgow. Copies of schedules can be had from the architect. Deposit £1.

NO DATE.—**Stirling.**—TENEMENTS.—For erection of tenements in Broad-street for the Town Council. All particulars from the Burgh Surveyor.

HOUSING PROGRESS IN SCOTLAND.

The following figures show the progress that has been made in State-aided housing schemes in Scotland to October 31, 1923 :—

Permanent houses completed.. ..	19,741
Temporary houses completed.. ..	665
Reconstructed houses completed ..	101
Houses completed under the Private Subsidy Scheme	2,287
	22,794

There are 3,063 houses at present under construction in connection with housing schemes carried out by local authorities and public utility societies.

The total amount paid by the Scottish Board of Health in respect of the 2,287 houses completed under the private subsidy schemes is £546,276 13s. 4d.

HOUSING IN SCOTLAND.

In the House of Commons last week, Capt. Elliot informed Mr. D. Millar that according to the latest returns received from local authorities, 20,507 houses had been completed under the provisions of the scheme under the Housing, Town Planning, &c. (Scotland) Act, 1919 ; 3,063 were under construction ; and 1,980 had not yet been commenced. In addition, 2,287 houses had been erected under the Private Builders Subsidy Scheme of the Housing (Additional Powers) Act, 1919. According to returns received for the period to October 31, 1923, under the Housing, &c., Act, 1923, 42 houses were in course of erection by private enterprise with the assistance of subsidies from local authorities ; 56 houses were being erected by local authorities themselves under the provisions of Section 1 (1) ; while 1,098 houses were under construction under the slum clearance schemes of local authorities. Except in the case of the slum clearance schemes (where 166 houses had been completed), no houses had been completed at October 31, 1923, under the subsidy provisions of the 1923 Act.

New Paint Depôt.

Messrs. Thos. Parsons & Sons, manufacturers of varnishes, enamels and colours, have recently opened a quick-service depôt at 476–480, Cathedral-street, Glasgow. The exterior of the premises has been painted in a colour scheme similar to that of the façade at 315–317, Oxford-street, London. The chief feature of this depôt is that several modern paint mills have been installed to deal particularly with urgent orders for special shades of colours in turps, oils or enamel.

Obituary.

The death took place last week of Mr. William Jones, of Geandale, Buckley, in his 80th year. Deceased was the founder of the firm of builders and contractors, William Jones & Son, Buckley.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur :—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick- Masons' layers'	Plas- terers' Labourers.
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/-	
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Inverness	1/8½	—	1/8	1/4	1/4½	1/4	1/8½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 824.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

NOVEMBER 24.—**Dorchester.**—REPAIRS, &C.—(1) Repairs to roofs at 21, North-square; (2) painting and repairs to dressing-rooms at Corn Exchange, for the T.C. Mr. H. D. Strange, Borough Surveyor, 21, North-square, Dorchester.

NOVEMBER 24.—**Huddersfield.**—HOUSES.—Erection of 24 houses (in six blocks of four houses each), in Hanging-Stone-road, Berry Brow, for the T.C. Borough Architect, 26, Ramsden-street, Huddersfield.

NOVEMBER 24.—**Lyminge.**—REPAIRS.—For repair and painting to pair of cottages and farm buildings at Valley Farm, Lyminge, for the Kent C.C. Mr. P. W. Cox, Chief Agricultural Officer, Sessions House, Maidstone.

NOVEMBER 24.—**Middlesex.**—HOUSES.—Erection of 32 houses near the Ride, Boston-road, Brentford, for the Middlesex County Council. County Engineer, Middlesex Guildhall, Westminster, S.W.1. Deposit £2 2s.

NOVEMBER 26.—**Brampton.**—ALTERATIONS.—For alterations and construction at Brampton School. County Surveyor, Walden House, Huntingdon.

NOVEMBER 26.—**Cowbridge.**—ALTERATIONS, &c.—For alterations and additions at the Police Station, Cowbridge, for the C.C. Mr. T. Mansel Franklen, Clerk, Glamorgan County Hall, Cardiff.

NOVEMBER 26.—**Farnham.**—COTTAGES.—Erection of two pairs of cottages, near the Elm Tree, Weybourne, for the U.D.C. Mr. J. W. Wright, Clerk, Council Offices, Farnham. Deposit 10s.

NOVEMBER 26.—**Fermoy.**—HOUSES.—Erection of eight five-room dwellings, the construction of water mains, main sewer extension, &c., for the U.D.C. Mr. Wm. Sheehan, Clerk, Fermoy.

NOVEMBER 26.—**Halifax.**—CONVERSION.—For conversion of stables to garage, &c., for the T.C. Borough Engineer, Crossley-street, Halifax. Deposit £1 1s.

NOVEMBER 26.—**Hove.**—PAINTING.—For colouring and painting portions of the interior of the Town Hall. Borough Surveyor, Town Hall, Hove.

NOVEMBER 26.—**Waterford.**—SHED.—Erection of Customs transit shed on quay, for the Harbour Commissioners. Engineer, Harbour, Waterford. Deposit £2 2s.

NOVEMBER 26.—**Woking.**—ALTERATIONS.—For alterations and additions to the Pavilion at the Recreation Ground, for the U.D.C. Mr G. J. Wooldridge, Surveyor, Council Offices, Woking.

NOVEMBER 27.—**Bristol.**—FIRE STATION, &C.—Erection of a fire station and sergeant's house in Green-lane, Avonmouth, for the T.C. City Valuer's Department, The Exchange, Bristol. Deposit £1 1s.

✱NOVEMBER 27.—**Clacton-on-Sea, Essex.**—NEW RESIDENCE.—Erection of new residence at Clacton-on-Sea. Mr. G. H. B. Gould, A.R.I.B.A., Station-road, Clacton-on-Sea. Deposit £1 1s.

NOVEMBER 27.—**Derby.**—HOUSES.—Erection of 19 pairs houses, Type B 6, for the T.C. Mr. C. A. Clews, Borough Surveyor, Babington-lane, Derby. Deposit £1 1s.

NOVEMBER 27.—**Edmonton.**—REPAIRS.—Repairs and alterations to new Branch Library, at 12, Queen Anne's-place, Bush Hill Park, for the U.D.C. Mr. Cuthbert Brown, Engineer, Town Hall, Edmonton, N.9.

NOVEMBER 27.—**Enfield.**—HOUSES.—Erection of 16 houses, for the U.D.C. Surveyor, Public Offices, Enfield. Deposit £2 2s.

NOVEMBER 27.—**Glasgow.**—HOUSES.—Erection of 200 houses at Merryflats, Govan, for the T.C. Mr. J. Lindsay, Town Clerk, City Chambers, Glasgow.

NOVEMBER 27.—**Ilford.**—MATERNITY HOME AND MEDICAL OFFICER'S RESIDENCE.—Erection and completion of the following buildings at Hatch-lane, Ilford, for the Ilford U.D.C.: (1) Maternity home, (2) medical officer's residence. Mr. H. Shaw, M.Inst. C.E., Engineer and Surveyor to the Council, Town Hall, Ilford. Deposit £5 5s.

NOVEMBER 27.—**Lurgan.**—HOUSES.—Erection of 22 cottages in the rural district of Lurgan, for the Government of Northern Ireland. Mr. W. D. Scott, Assistant Secretary, Ministry of Finance, 15, Donegall-square West, Belfast. Deposit £1.

NOVEMBER 27.—**Ripon.**—OFFICES, &C.—For block of offices and showrooms at Ripon, for Messrs. T. & R. Williamson, Ltd. Mr. H. E. Illingworth, A.R.I.B.A., 8, East Parade, Leeds.

NOVEMBER 27.—**Truro.**—ADDITIONS.—For additions and alterations to 14, High Cross, Truro. Mr. Alfred J. Cornelius, architect, Truro.

NOVEMBER 28.—**Glamorganshire.**—VARIOUS WORKS.—(1) Secondary School Site, Taibach: fencing: (2) Port Talbot Secondary School: new science block: (3) Tonna Council School: conversion of offices and drainage; (4) Llangyfelach Council School: repairs; (5) Pencoed Council School: new gates and other works; (6) Rhiwfawr (Swansea Valley) Council School: new playsheds and improvements to playgrounds; (7) Heolycyw Council School: conversion of offices; (8) painting (to be executed during the Christmas Holidays) of the exterior and painting and colouring of the interior of Rhos (Pontardawe) and Bryndu (Kenfig Hill) Mixed and Infants' Council Schools; painting the exterior and colouring the interior of Reynoldston (Gower) Council School and house (house externally only); and painting the exterior of Penclyn (Morriston) Council School; (9) Hendreforgan Council School: additional classroom and remodelling offices. Mr. T. Mansel Franklen, Secretary, Glamorgan County Hall, Cardiff.

NOVEMBER 28.—**Glasgow.**—SUB-STATION.—Erection of sub-station at Abercorn-street, Paisley, for the T.C. Mr. James Dalrymple, General Manager, 46, Bath-street, Glasgow.

NOVEMBER 28.—**Harrogate.**—PAINTING.—For painting, &c., at Royal Bath Hospital and Rawson Convalescent Home. Mr. E. P. L. Dixon, secretary, Harrogate.

NOVEMBER 28.—**Leeds.**—ADDITIONS.—Erection of house to accommodate oven to kitchen block at the Township Infirmary, for the B.G. Messrs. G. Fredk. Bowman & Son, architects, 5, Greek-street, Leeds.

NOVEMBER 28.—**Manchester.**—ALTERATIONS.—For alterations at the Moss Side Library. City Architect, Town Hall, Manchester. Deposit £1 1s.

NOVEMBER 28.—**Smethwick.**—DEMOLITION.—For the demolishing of buildings and clearance of site for proposed gasholder tank at the Gas Works, for the T.C. Mr. E. Hardiker, Manager, Gas Works, Rabone-lane, Smethwick.

NOVEMBER 28.—**Stafford.**—PAINTING.—For the painting and colouring, &c., of the interior of the Union Offices, for the B.G. Mr. C. B. Wilton, Clerk, Union Offices, Market-street, Stafford.

NOVEMBER 29.—**Huddersfield.**—HOUSES.—Erection of 36 houses (in 9 blocks of 4 houses each), in Penistone-road, Waterloo, for the T.C. Borough Architect, 26, Ramsden-street, Huddersfield.

NOVEMBER 29.—**Salford.**—HOUSE.—Erection of a small house at Salford Sewage Works, Weaste, for the T.C. Mr. George Westcott, architect, 13, Bridge-street, Manchester.

NOVEMBER 30.—**Batley.**—HOUSES.—Erection of 32 houses, for the T.C. Mr. H. L. Hall, Borough Engineer.

NOVEMBER 30.—**Brynmawr.**—HOUSES.—Erection of 12 parlour type houses and alternately for 12 non-parlour type houses at Twyncynghordy, for the U.D.C. Mr. Hy. Waters, M.S.A., Waungoch House, Beaufort. Deposit £2 2s.

NOVEMBER 30.—**London, S.W.**—TELEPHONE EXCHANGE.—Erection of Sloane new telephone exchange, Scolding-street, S.W., for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit one guinea (payable to the Secretary).

NOVEMBER 30.—Singapore.—POST OFFICE.—Erection of new general post office, Singapore. Crown Agents for the Colonies, 4, Millbank, S.W.1. Deposit £10.

DECEMBER 1.—**Adisham.**—RE-SHINGLING.—For the re-shingling of Adisham Church tower. Mr. T. F. W. Grant, 11, Buckingham-street, Adelphi, W.C.2.

DECEMBER 1.—**Bingley.**—CLASSROOMS.—Erection of two classrooms at Eldwick Sanatorium, near Bingley, for the West Riding Public Health Committee. West Riding Architect, County Hall, Wakefield.

DECEMBER 1.—**East Ham.**—PAINTING.—For the internal re-decoration of Napier-road School, for the B.C. Borough Engineer, Town Hall, East Ham, E.6. Deposit 10s.

DECEMBER 1.—**Huddersfield.**—BUNGALOW.—Erection of a bungalow at Birchencliffe, Huddersfield, for Miss M. Mossop. Messrs. Stocks, Sykes & Hickson, architects, 4, St. Peter's-street, Huddersfield.

DECEMBER 3.—**Barnet, N.**—HOUSES.—Erection of 23 houses and contingent work on land adjoining May's-lane and May's-lane-road, for the Barnet U.D.C. Mr. W. B. Chancellor, Engineer and Surveyor, Council Offices, Barnet.

DECEMBER 3.—**Blackburn.**—EXTENSION.—For general builders' work in connection with the War Memorial extension at the Blackburn and East Lancashire Royal Infirmary. Messrs. Sames & Green, architects, 14, Richmond-terrace, Blackburn. Deposit £2 2s.

DECEMBER 3.—**Leominster.**—HOUSES.—Construction of 10 parlour-type and 10 non-parlour-type houses, for the T.C. Mr. James Budd, Borough Surveyor, Town Hall, Leominster.

DECEMBER 3.—**Swindon.**—LAVATORY.—Construction of lavatory at Mechanics' Institute, for the G.W.R. Co. Mr. R. R. Ford, Secretary, Swindon.

✱DECEMBER 3.—**Wandsworth, S.W.18.**—DEMOLITION.—Demolition of premises, No. 380, Streatham High-road, S.W.16, for the Metropolitan Borough of Wandsworth. Borough Engineer, Mr. E. J. Elford, M.Inst.C.E., 215, Balham High-road, S.W.17.

✱DECEMBER 3.—**Wandsworth, S.W.18.**—FOUNDATIONS.—Excavations and construction of concrete foundations with steel reinforcement for proposed public swimming bath and buildings on the site of No. 380, Streatham High-road, S.W.16, for the Metropolitan Borough of Wandsworth. Borough Engineer, Mr. E. J. Elford, M.Inst.C.E., 215, Balham High-road, S.W.17.

DECEMBER 4.—**Bodmin.**—NEW POST OFFICE.—Erection of a new post office at Bodmin, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s (payable to the Secretary).

✱DECEMBER 4.—**Hampton, Middlesex.**—ADDITIONS (BUILDING).—Additions to the Isolation Hospital at Uxbridge-road, Hampton-hill (new observation block and alterations and additions to Administration Block, &c.), for the Hampton Urban District Council. Sidney H. Chambers, Surveyor to the Council, Offices, Hampton, Middlesex. Deposit £2 2s.

DECEMBER 4.—**Monmouthshire.**—VARIOUS WO For carrying out the following, for the Monmou Agricultural Committee:—(*a*) "Rock Cottage, how, repairs and painting: (*b*) Penyworlod Penhow, repairs and painting; (*c*) road-mai Hill Farm, Llanvaches, and at Penyworlod C Penhow. Mr. A. Every Clayton, County Land 2, Gold Tops, Newport, Mon.

DECEMBER 5.—**Belfast.**—MUSEUM.—For supe ture works for first section of the Museum a Gallery in Botanic Gardens Park, for the T.C. B. Roe, Quantity Surveyor, 17, Wellingto Belfast. Deposit £2 2s.

DECEMBER 5.—**Brighton.**—HOUSES.—Erecti 87 houses on a portion of the Queen's Park F Site, for the County Borough of Brighton. member of the Panel of Architects: Messrs. Cl Black, 10, Prince Albert-street; Messrs. T. Ga Son, 34, Ship-street; Mr. E. Wallis Long, 56 street: Mr. W. H. Overton, 22, Ship-stree posit £1.

✱DECEMBER 5.—**Herts.**—SLATING.—Reslati roof of water tower at Leavesden Mental H King's Langley, Herts, for the Metropolitan A Board. Office of the Board, Victoria Embar E.C. 4. Deposit £1.

✱DECEMBER 5.—**Kent.**—TILING.—Repairi tile roofs at White Oak, Swanley, Kent, for the politan Asylums Board. Office of the Board, Embankment, E.C. 4. Deposit £1.

DECEMBER 5.—**Swanley.**—ROOF REPAIRS.—pairing the tile roofs at White Oak, Swanley, K the Metropolitan Asylums Board. Office of the Victoria-embankment, E.C.4. Deposit £1.

✱DECEMBER 5.—**Various Places.**—WEIGH FOUNDATIONS.—Work to be done in forming bridge foundations at (1) Darenth Training Dartford, Kent; (2) Northern Fever Hospital, more-hill, N.21; (3) Queen Mary's Hospi Children, Carshalton, Surrey, for the Metro Asylums Board. Office of the Board, Victo bankment, E.C. 4. Deposit £1 in respect work.

✱DECEMBER 5.—**Woolwich, S.E.18.**—CO TION.—Erection of a new kitchen annexe and oven, at the Brook Hospital, Shooter's H Woolwich, S.E.18, for the Metropolitan A Board. Office of the Board, Victoria Emba E.C. 4, after 10 a.m. Deposit £1.

DECEMBER 6.—**Colwyn Bay.**—HOUSES.—E of 34 houses at Church-road, Rhos, for the Mr. W. J. Dunning, Surveyor, Council Offices, Bay.

✱DECEMBER 7.—**Shoeburyness.**—CONSTRUC (1) The construction of two timber-built refre rooms upon the Common at Shoeburyness; enlargement of the existing public convenienc the Common; (3) the construction of a public c ence and refreshment room on Whitaker's-pa Shoeburyness, for the U.D.C. Mr. E. Read, Su Council Offices, Shoeburyness.

✱DECEMBER 10.—**Bolton-upon-Dearne.**—DW HOUSES.—Erection of 20 dwelling houses (4 type, 16 non-parlour type) in Barmborou Goldthorpe, for the Bolton-upon-Dearne Mr. William Hy. Adams, M.S.A., Council Bolton-upon-Dearne. Deposit 10s. 6d.

DECEMBER 10.—**Howdon.**—TIMBER JETTY. struction of timber jetty in Howdon Yard Bay, Tyne Improvement Commissioners. Mr. Blacklock, Secretary, Tyne Improvement Com Offices, Bewick-street, Newcastle-on-Tyne. £2 2s.

DECEMBER 10.—**Newcastle-on-Tyne**—FLATS. tion of 208 dwellings in flats in two stories at I road, Benwell, for the T.C. Housing Archite Cloth Market, Newcastle. Deposit £2 2s.

DECEMBER 10.—**Scotland.**—MAINTENANCE WO For the execution of Maintenance Works duri period of three years as follows:—Edinburgh, G Stirling, Aberdeen, Dundee, Paisley, Greenock, Inverness, for H.M. Commissioners of Works. tracts Branch, H.M. Office of Works, Storey's S.W. 1. Deposits: 10s. for carpenters' and joine ironmongers' work, and plumbers' work; 2s. glaziers' work, and 5s. for other trades.

DECEMBER 11.—**Edmonton.**—ADDITIONS.—E of additional buildings at the laundry, Edm House, Bridport-road, Edmonton, for the Bo Guardians. Mr. J. C. S. Mummery, A.R.I.B. Bloomsbury-square, W.C.1.

✱DECEMBER 11.—**Gloucester**—TELEPHON PEATER STATION.—Erection of a telephone re station at Gloucester, for the Commissioners Majesty's Office of Works. Contracts H H.M.O.W., King Charles Street, London, Deposit £1 1s. (payable to the Secretary).

✱DECEMBER 12.—**Southend-on-Sea.**—HOUSES the erection and completion of 66 houses f Corporation. Mr. Robt. H. Dyer, Borough En Municipal Buildings, Southend-on-Sea. Depo

✱DECEMBER 12.—**Southend-on-Sea.**—CONCERT &C.—For the execution and completion of a c hall and shelters on the Second Promenade, Pie for the Corporation. Mr. Robert H. Dyer, Bo Engineer, Municipal Buildings, Southend-o Deposit £2.

✱DECEMBER 13.—**Woolwich, S.E.**—HOU Erection of sixty houses, for the Metropolitan Bo Council of Woolwich, on their housing estate at E Council's Architect: Mr. John Sutcliffe, Bo Engineer, Town Hall, Woolwich. Deposit £3

DECEMBER 14.—**Rowley Regis.**—HOUSES.—For ing 12 semi-detached houses and incidental wo house drainage, &c., for the U.D.C. Mr. Daniel W Clerk, Rowley Regis.

EMBER 17.—**Poplar, E.14.**—TENEMENTS WITH Erection of 31 tenements with shops and show- a site at Bow-road, for the Poplar B.C. The Surveyor, Council Offices, High-street, Poplar, eposit £3 3s.

BER 18.—**Hackney, E.8.**—BUILDING WORKS. g works, being extension and completion of icity sub-station at Dalston-lane, Hackney, Metropolitan Borough of Hackney. Borough Engineer, 306, Mare-street, Hackney, E.8, ter November 26. Deposit £1 1s.

BER 19.—**Featherstone.**—HOUSES.—Erec- houses at Little-lane, Purston, near Ponte- r the Featherstone U.D.C. Mr. Samuel A.R.I.B.A., Council Offices, Featherstone, efract. Deposit £2 2s.

BER 19.—**Hawksworth.**—FARMHOUSE, &C.— house and buildings at Lane Side Farm, rth; (*b*) alterations and repairs to existing ldings at Lane Side Farm, Hawksworth, for the ng Small Holdings' Committee. Land Agent, all, Wakefield. Deposit £1.

MBER 21.—**Kent.**—SCHOOL EXTENSION.— of the School of Art, Beckenham, for the ounty Education Architect (Mr. W. H. F.S.Arc.), Room 69, Sessions House, Maid- eposit £2.

TE.—**Altofts.**—HOUSES.—Whole works re- five pairs of non-parlour houses. Apply Pearson, Ltd., Colliery Offices, Normanton,

.—**Castleford.**—HOUSE EXTENSIONS.—Whole uired in alterations and additions to house at d for Mr. G. Johnson. Mr. R. A. Easedale, County Chambers, Castleford.

TE.—**Girvan.**—HOUSES.—Erection of 28 blocks), for the T.C. Mr. William Baillie, 2, West Regent-street, Glasgow. Deposit £1.

TE.—**Harrogate.**—HOUSE.—Erection of a residence, St. James' Park, Harrogate, for A. Johnson. Mr. Butler Wilson, F.R.I.B.A., Greek-street Chambers, Leeds.

E.—**Heckmondwike.**—BUSINESS PREMISES.— branch premises in Norristhorpe-lane, Heck- , for the Co-operative Wholesale Society, S., Ltd., Architect's Department, 1, Balloon- nchester. Deposit £1 1s.

TE.—**Hitchin.**—HOUSES.—Erection of a x cottages at Codicote, near Welwyn, for the Mr. A. E. Passingham, Clerk, 5, Bancroft,

TE.—**Leeds.**—HOUSES.—Separate trades re- four terrace houses at Headingley. Apply Boston & Sons, Reservoir-street, Leeds.

E.—**Ripon.**—OFFICES AND SHOWROOMS.—All uired in the erection of offices and show- Messrs. T. & R. Williamson, Ltd. Mr. H. E. n, architect, 8, East Parade, Leeds.

TE.—**Stewarton.**—HOUSES.—Erection of 12 and 14 flatted houses and double cottages, C. Mr. W. Macrae, Town Clerk, Council Stewarton.

NITURE, MATERIALS, etc.

ER 26.—**Barnet.**—MATERIALS.—Supply of gin, ballast, sand, granite chippings, &c., to . Mr. F. P. Kindell, Surveyor, Council iern Barnet-road, N.

ER 26.—**Molesey.**—MATERIALS.—Supply of ite and macadam to the U.D.C. Surveyor, sey.

ER 27.—**Belfast.**—FURNITURE, &C.—Supply ory furniture and fittings at Greenmount l School, for the Government of Northern Ministry of Finance, Belfast.

ER 28.—**Dublin.**—STORES.—Supply of stores nonths to the Great Southern and Western reland) Co. Stores Superintendent, Inchi- in.

ER 28.—**Glamorgan.**—FURNITURE.—For sup- ling and furniture for the use of the Glamor- abulary, to the Glamorgan Standing Joint . Office of the Chief Constable, Canton,

ER 29.—**Epsom.**—TAR.—Supply of 30,000 efined tar for road dressing, for the R.D.C. R. Cotton, Clerk, Epsom.

ER 30.—**Brighton.**—MATERIALS.—Supply of B.S. No. 7 rails in 60 ft. lengths, and 800 anite paving setts. Tramways Engineer, , Brighton.

ER 1.—**Dolgelly.**—ROAD PLANT.—Supply to th C.C. of steam roller with scarifier, haulage trailer, stone crusher and screen, two tarring and water-cart. Mr. Wm. Owen Jones, veyor, Dolgelly.

ER 1.—**Hythe.**—PIPES.—Supply of 200 ., 1,640 yds. of 4 in., and 140 yds. of 3 in. pes and special castings. Mr. W. F. Bickford, urveyor, Hythe.

ER 8.—**Crickhowell.**—SUPPLIES.—For supply f Guardians of boots, petroleum, cordwood, homas Vaughan, Town Hall, Crickhowell.

23, 1924.—**Madras.**—PIPES.—Supply of pipes and specials, ranging from 4 in. to eter, and aggregating a total length of al ft., for the T.C. Messrs. James Mansergh nts, 5, Victoria-street, S.W. Charge 5s.

EERING, IRON AND STEEL.

ER 24.—**Plymouth.**—GAS PLANT.—Supply of of carburetted water gas plant, &c., to the W. P. Tervet, Manager, Gas Works, Keyham, Deposit £2 2s.

ER 26.—**Dublin.**—ELECTRICAL INSTALLA- wiring 332 houses on the Fairbrothers Fields he T.C. City Treasurer, Dublin. Deposit

NOVEMBER 26.—**Girvan.**—WATER WORKS.—Construction of a reservoir on the Penwhapple Burn, including embankment, outlet culvert, valve tower, waste weir, waste water channel, and meter house, for the T.C. Messrs. Warren & Stuart, 94, Hope-street, Glasgow. Deposit £2.

NOVEMBER 26.—**London.**—PUMPS.—For two centrifugal pumps, together with pipes, fittings, &c., for the Isle of Dogs Pumping Station, for the L.C.C. Chief Engineer, Old County Hall, Spring Gardens, S.W.1. Deposit £5.

NOVEMBER 27.—**Carlton.**—BRIDGE.—Construction of a steel girder road bridge of 150 ft. clear span, with abutments and two flood openings, over the River Aire at Carlton, near Snaith, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

NOVEMBER 27.—**Lambeth.**—ELECTRIC LIGHT AND FITTINGS.—Provision and installation of electric light wiring and fittings at the Lambeth Hospital, Brook-street, Kennington, S.E., for the Guardians of the Poor of the Parish of Lambeth. Clerk to the Guardians, Guardians' Board Room and Offices, Brook-street, Kennington-road, S.E.11, between the hours of 10 and 5 (Saturdays excepted). Deposit £2.

NOVEMBER 27.—**Sheffield.**—ELECTRICAL EQUIPMENT.—For the electrical equipment required in connection with garage, for the T.C. Mr. J. A. Priestley, Cleansing Superintendent, Town Hall, Sheffield.

NOVEMBER 27.—**Washington.**—ELECTRIC LIGHTS.—Provision of material and erection of six electric lights on Lean-lane, Springwell, and one light at The Fold, Great Usworth, for the U.D.C. Mr. R. J. Swaddle, Surveyor, Council Chambers, New Washington.

NOVEMBER 27.—**Willesden.**—ROLLER.—For one tandem type steam roller, for the U.D.C. Mr. F. Wilkinson, Engineer, Town Hall, Dyne-road, Kilburn.

NOVEMBER 28.—**London.**—PIPING.—Supply to the East Indian Railway Co. of wrought-iron piping. Mr. G. E. Lillie, Secretary, 73-76, King William-street, E.C.4. Charge £1 1s.

NOVEMBER 28.—**London.**—VALVES.—Supply to the Commissioners of His Majesty's Works, &c., of valves. Controller of Supplies, H. M. Office of Works, &c., King Charles-street, S.W.1.

NOVEMBER 28.—**Macclesfield.**—PIPES.—Supply of 1,180 tons of cast-iron pipes and specials of 18 in., 15 in., 12 in., 6 in., and 3 in. diameters, for the T.C. Mr. F. R. Oldfield, Town Clerk, 41, Churchside, Macclesfield. Deposit £2.

NOVEMBER 28.—**Manchester.**—HEATING.—Providing and fixing a low-pressure heating apparatus at the Orford-street Municipal School, for the Education Offices, Deansgate, Manchester. Deposit £1 1s.

NOVEMBER 28.—**Rhondda.**—STEELWORK.—Construction of bridge steelwork weighing approximately 30 tons, for the U.D.C. Mr. E. Taylor, Surveyor, Council Offices, Pentre, Rhondda.

NOVEMBER 29.—**London.**—BRIDGES.—Supply of 14 girder bridges, 60 ft. clear deck spans, for the India Store Dept. Branch 10, Belvedere-road, S.E.

NOVEMBER 29.—**Manchester.**—GAS PIPES.—Supply of about 227 tons of half-turned and bored cast-iron pipes (3 in., 4 in., and 8 in. in dia.), to the Gas Dept. The Secretary, Gas Dept., Town Hall, Manchester.

NOVEMBER 29.—**Manchester.**—PIPES.—Supply of 36 in. welded steel pipes and specials to the Gas Department, Stretford. Mr. J. H. Sillitoe, Secretary, Gas Department, Town Hall, Manchester.

NOVEMBER 29.—**Shields.**—BRIDGE.—Construction of the steel superstructure of a bridge to carry the Pontop and South Shields Branch over a new road through the Deans, for the London and North-Eastern Railway Co. Chief Engineer, North-Eastern Area, York.

NOVEMBER 29.—**Southend-on-Sea.**—BRIDGE.—Construction of a 14 ft. span bridge for a 36 ft. road, for the diversion of Prittlewell Brook, for the T.C. Mr. Robert H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £1.

NOVEMBER 30.—**Emsworth.**—GAS HOLDER.—For erection of gas holder and steel tank, for the Emsworth Gas and Coke Co. Mr. J. W. L. Cooper, Secretary, Gas Offices, Emsworth.

NOVEMBER 30.—**Grangemouth.**—WATER PIPES.—Supplying 820 tons of 12 in. diameter cast-iron pipes and specials, or alternatively, for supplying 1,411½ tons of 12 in. diameter cast-iron pipes and specials, to the T.C. Mr. David A. Donald, Water Engineer, Town Hall, Grangemouth.

NOVEMBER 30.—**Hay.**—RESERVOIR WORKS.—Construction of watertight lining to filter bed at waterworks and erection of unclimbable fencing. Mr. H. Gilby, Surveyor, Hay. Deposit £1 1s.

NOVEMBER 30.—**Hemsworth.**—BRIDGE.—Reconstruction of Oldlake Bridge (8 ft. span), on the Doncaster and Selby main road, within the rural districts of Hemsworth and Pontefract, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

NOVEMBER 30.—**Ince-in-Makerfield.**—WATERWORKS PLANT.—Supply of Diesel oil engine, driving bore-hole, and horizontal pumping sets in duplicate, to the U.D.C. Mr. A. F. Howgate, Clerk, Council Offices, Ince, near Wigan.

NOVEMBER 30.—**Newcastle-on-Tyne.**—CRANE.—For 20-ton hydraulic crane with accumulator and electrically-driven force pump, for the Tyne Improvement Commissioners. Mr. R. Aughton, General Manager, Bewick-street, Newcastle-upon-Tyne. Deposit £1.

NOVEMBER 30.—**Sydney.**—BRIDGE.—Construction of the superstructure and substructure of a cantilever bridge across Sydney Harbour; also an alternative tender for the construction of the superstructure and substructure of an arch bridge across Sydney Harbour. Agent-General for New South Wales, Australia House, Strand, W.C.

DECEMBER 1.—**Guernsey.**—CONCRETE DECK.—For the removal of the timber deck at No. 2 Landing, White Rock Pier, and the construction of a new deck in reinforced concrete on the Considere system at the Harbour of St. Peter Port, Guernsey. Mr. J. H. Duquemin, States Engineer, Guernsey.

DECEMBER 1.—**London, W.10.**—ELECTRICAL WORK.—Electrical work required to be done at the St. Marylebone Hospital, Rackham-street, Notting Hill, W.10, in connection with the X-ray Department and Lecture Room for Nurses, for the St. Marylebone Board of Guardians. Messrs. Jarvis & Richard, architects, 60, Tufton-street, S.W.1, between the hours of 10 a.m. and 5 p.m. on November 13, 14 & 15. Deposit £1 Treasury Note.

DECEMBER 3.—**Birmingham.**—REFUSE DISPOSAL PLANT.—For the supply and erection of plant for refuse disposal and salvage works, at Redfern-road, Hay Mills, for the T.C. Mr. James Jackson, Superintendent, Salvage Department, 161, Corporation-street, Birmingham. Deposit £1 1s.

DECEMBER 3.—**Bradford.**—ADVERTISING STATION.—Supply and erection of a steel framework advertising station in Bank-street, for the T.C. City Engineer, Town Hall, Bradford.

DECEMBER 3.—**London.**—CONVEYOR.—Supply of 10-ton hand-operated overhead traveller, of 34 ft. 6 in. span, for the Isle of Dogs Pumping Station, for the L.C.C. Chief Engineer, Old Country Hall, Spring-gardens, S.W.1. Deposit £2.

DECEMBER 3.—**Sydney.**—SWITCHGEAR.—**High tension switchgear, for Municipal Council. Department of Overseas Trade** (Room 52), 35, Old Queen-street, S.W.1.

DECEMBER 4.—**Stoke-on-Trent.**—HEATING.—For extension of heating and hot-water service at Institution, for the B.G. Mr. T. Wood, Clerk, Union Offices, Stoke-on-Trent.

DECEMBER 5.—**London.**—ELECTRIC INSTALLATION.—Extensions to the installation of electric lighting and power in the new kitchen at Tooting Bec Mental Hospital, Tooting, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

DECEMBER 6.—**St. Pancras.**—PUMP.—Supply of vertical electric motor-driven condensing water pump to deal with 750,000 gallons per hour, for the B.C. Electricity Dept., St. Pancras. Deposit £1.

DECEMBER 7.—**East Lothian.**—PIPES.—Supply to the East Lothian Western District Water Board of 3,600 tons of cast-iron pipes. Messrs. G. H. Hill & Sons (Manchester), 40, Kennedy-street, Manchester. Deposit £1 1s.

DECEMBER 7.—**London.**—STEELWORK, &C.—(1) **Steelwork for bridges, (2) cast-iron pipes and valves, for** South Indian Railway Co. Offices, 91, Petty France, Westminster, S.W.1. Charge 5s. each.

DECEMBER 8.—**Grangemouth.**—WATER MAIN.—For laying about 3¼ miles of 12 in. diameter cast-iron pipes, or alternatively about 6 miles of 12 in. diameter cast-iron pipes, for the T.C. Mr. David A. Donald, C.E., Town Hall, Grangemouth. Deposit £2 2s.

DECEMBER 8.—**Radcliffe.**—CONDUIT.—Supply and erection of a steel and cast-iron sewage conduit over the L.M. & S. Railway, for the U.D.C. Mr. W. L. Rothwell, Engineer, Council Offices, Radcliffe. Deposit £1 1s.

DECEMBER 8.—**Ripley.**—PIPES.—Supply of 6 in. C.I. pipes and specials and laying water main, for the U.D.C. Mr. G. W. Bird, Surveyor, Town Hall, Ripley.

DECEMBER 11.—**Temple Cloud, near Bristol.**—HEATING (HOT-WATER).—Installing, for the Clutton B.G. in their Institution, a system of hot-water heating and hot-water service, together with sundry other improvements. The Engineer, Clutton Union, Temple Cloud, near Bristol.

DECEMBER 20.—**South Africa.**—MATERIALS, &C.—Supply to the municipality of Graaf-Reinet of (*a*) cast-iron water-pipes, valves and fittings; (*b*) crude oil engines, generators and street equipment. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

DECEMBER 31.—**Kempton Park.**—ENGINES, &C.—Supply and erection of two reciprocating engines and pumps at Kempton Park Pumping Station, for the Metropolitan Water Board. Chief Engineer's Department, 173, Rosebery-avenue, Clerkenwell, E.C. Deposit £3 3s.

JANUARY 16, 1924.—**Glasgow.**—REFUSE DISPOSAL WORKS.—Tenders and designs for proposed refuse disposal works, at Govan, Glasgow. Mr. W. Greig Superintendent of Cleansing, 20, Trongate, Glasgow.

JANUARY 17.—**New Zealand.**—PIPES, &C.—Supply of 10 in., 12 in., and 21 in. steel pipes and fittings, for the Orongorongo-Karori Water Main. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

FEBRUARY 14.—**Argentine.**—POWER STATION.—For the construction of a central electric power station of 15,000 h.p., for the Argentine State Oilfields Administration. Department of Overseas Trade, 35, Old Queen-street, S.W.

MAY 1.—**China.**—BRIDGE.—**The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W.1. Reference 11647/F.E./E.C./2.**

ROAD, SANITARY, AND WATER WORKS.

NOVEMBER 24.—**Morley.**—SANITARY.—For carrying out sanitary improvements at Bridge-street property, for the T.C. Mr. F. Turner, Borough Engineer, Morley.

NOVEMBER 26.—**Camberwell.**—ROADS.—Making-up Dovercourt-road, East Dulwich, for the B.C. Mr. William Bell, Borough Engineer, Town Hall, Peckham-road, Camberwell, S.E.5.

NOVEMBER 26.—**Cardiff.**—SEWER.—Construction of a sewer along Lake-road East, at Roath Park, Cardiff, for Messrs. Mountjoy, Ltd. Mr. E. M. W. Corbett, 3, Castle-street, Cardiff.

NOVEMBER 26.—**Driffield.**—WELL.—For the sinking of three boreholes, 150 ft. deep, and providing and fixing three borehole hand pumps, at Garton-on-the-Wolds, for the R.D.C. Mr. George Harker, 17, Exchange-street, Driffield.

NOVEMBER 26.—**Enfield.**—SEWAGE DISPOSAL WORKS.—Construction of sewage disposal works at Cuckoo Hall-lane, for the U.D.C. Mr. H. R. Crabb, Surveyor, Public Offices, Enfield. Deposit £5 5s.

NOVEMBER 26.—**Golcar.**—SEWERS.—For laying portion of internal sewers in Savile-street, Milnsbridge for the U.D.C. Messrs. Lunn & Kaye, Surveyors, Milnsbridge, Huddersfield.

NOVEMBER 26.—**Hayes.**—ROADS.—For making-up Station-road (approximate length 1,400 yards), for the U.D.C. Mr. D. C. Fidler, Surveyor, Council Offices, Hayes, Middlesex. Deposit £2.

NOVEMBER 26.—**Lanark.**—ROADS.—For the widening of Burnhead, Woodside, and Netherburn highway at Ashgillhead, for the Lanark C.C. Mr. William A. Chapman, Road Surveyor, District Offices, Hamilton.

NOVEMBER 26.—**Mitcham.**—ROADS.—For forming about 750 super yds. footways at Tamworth Recreation Ground, for the U.D.C. Messrs. Chart, Son & Reading, Surveyors, Croydon. Deposit 10s.

NOVEMBER 27.—**Bold.**—ROADS.—Widening and diversion of a portion of the Widnes and St. Helens main road, Bold, for the Lancashire C.C. Mr. W. H. Schofield, County Offices, Preston.

NOVEMBER 27.—**Dover.**—ROADS.—Widening of the Folkestone-road to a width of 60 ft. for a distance of approximately 600 yds., for the T.C. Mr. Wm. B. Smith, Borough Engineer, Maison Dieu House, Dover. Deposit £2 2s.

NOVEMBER 27.—**Hoole.**—ROADS.—Construction of a new road and the widening of the existing Preston and Liverpool main road between Longton Bridge and the Rose and Crown Inn, Hoole, for the Lancashire C.C. Mr. W. H. Schofield. County Surveyor, County Offices, Preston.

NOVEMBER 27.—**Leyton.**—ROADS.—Reconstruction of portions of Lea Bridge-road with reinforced concrete and granite sett paving, for the U.D.C. Mr. E. H. Essex, Surveyor, Town Hall, Leyton. Deposit £10.

NOVEMBER 27.—**Liverpool.**—ASPHALTING.—For asphalting playgrounds at the undermentioned recreation grounds: Kirkdale, Devonshire-place, Commercial-road, Cambridge Playground, Athol-street, Llanrwst-street, Rachel-street, for the T.C. Land Steward and Surveyor, Municipal Buildings, Liverpool.

NOVEMBER 27.—**Liverpool.**—CONVENIENCES.—Erection of conveniences at Woolton Wood Estate, for the T.C. Land Steward and Surveyor, Municipal Buildings, Liverpool.

NOVEMBER 27.—**Newton Abbot**—WATER MAIN.—Providing and laying 1,100 yds. of 3 in. cast-iron water main, in the parish of Kingskerswell, for the R.D.C. Mr. R. A. Rogers, surveyor, Union-street, Newton Abbot.

NOVEMBER 27.—**West Hartlepool.**—FOOTPATH.—Construction of footpath in Hart-lane, for the T.C. Mr. Francis Durkin, Borough Engineer, Municipal Buildings, West Hartlepool.

NOVEMBER 28.—**Belfast.**—SANITARY EXTENSION.—For extension of the sanitary accommodation at the Government Instructional Factory, Ormeau-avenue, Belfast. Mr. W. D. Scott, Assistant Secretary, Ministry of Finance, 15, Donegall-square West, Belfast.

NOVEMBER 28.—**Birmingham.**—SEWERS.—Construction of about 2,135 yds. of brick and concrete sewers, and 150 yds. of stoneware and cast-iron pipe sewers, for the T.C. Mr. H. H. Humphries, City Engineer, The Council House, Birmingham. Deposit £2.

NOVEMBER 28.—**Edinburgh.**—PLAYGROUND.—Formation of a tar macadam playground at the Vennel, for the T.C. Mr. James A. Williamson, A.R.I.B.A., Public Works Office, City Chambers, Edinburgh.

NOVEMBER 28.—**Manchester.**—ROADS.—For sewering, draining, kerbing, ballasting, &c., roads on the Burnage Housing Estate, for the T.C. City Engineers (District Surveyor's Department), Town Hall, Manchester. Deposit £1 1s.

NOVEMBER 28.—**Tanfield.**—CONVENIENCE.—Erection of a public convenience at Burnopfield, for the U.D.C. Mr. J. R. Heslop, Surv yo', Council Offices, Tanfield.

NOVEMBER 28.—**Wallsend.**—SANITARY.—For conversion of cell privies into water closets, for the T.C. Borough Surveyor, Town Hall, Wallsend.

NOVEMBER 29.—**Lambeth.**—ROADS—(a) Supply of 830 tons of tarred macadam and (b) supply and laying compressed rock asphalt in Tyers-street and Windmill-row, for the B.C. Mr. Osmond Cattlin, Borough Engineer, Town Hall, Brixton Hill, S.W.2.

NOVEMBER 29.—**Skegness.**—ROADS.—For laying 9,000 square yards of tar macadam roadway on prepared foundations. Mr. R. H. Jenkins, Surveyor, Council Offices, Skegness. Deposit £1 1s.

NOVEMBER 30.—**Adwick-le-Street.**—SEWAGE DISPOSAL WORKS.—For construction or sewage disposal works at Skellow, for the R.D.C. Mr. George Gledhill, Surveyor, Council Offices, Adwick-le-Street, near Doncaster. Deposit £2.

NOVEMBER 30.—**Hay (Breconshire).**—RESERVOIR RECONSTRUCTION.—For (*a*) Carrying out, for the U.D.C., the reconstruction of the watertight lining of the filter bed at the waterworks at Hay Common; (*b*) also for erecting unclimbable iron fencing round reservoir and filter bed. Tenders for whole of work or for (*a*) or (*b*). Mr. H. Gilby, surveyor, Hay. Deposit £1 1s.

NOVEMBER 30.—**Lauder.**—CEMETERY EXTENSION.—For building stone and brick walls, draining and levelling, in connection with an extension of the cemetery. Mr. Geo. L. Broomfield, Lauder.

NOVEMBER 30.—**Park Royal.**—GOLF COURSE.—For the reinstatement of the Park Royal Golf Course, Willesden, N.W. Messrs. Hetherington & Secrett, surveyors, Broadway Station, Ealing, W.5. Deposit £2 2s.

NOVEMBER 30.—**Witham.**—SEWAGE DISPOSAL WORKS.—Construction of sewage disposal works, for the U.D.C. Messrs. Sands & Walker, Milton Chambers, Nottingham. Deposit £3 3s.

DECEMBER 1.—**Belfast.**—TRAMWAY TRACK.—Construction of about 3,200 lin. yds. of single track, for the T.C. Mr. S. Carlisle, General Manager, Corporation Tramways, Sandy-row, Belfast. Deposit £5 5s.

DECEMBER 3.—**Aberavon.**—CONCRETE CULVERT.—For carrying out for the Joint Committee of the Glamorgan County Agricultural Committee and the landowners on Aberavon Moors the construction, excavation, laying and jointing of a 2 ft. 6 in. concrete culvert with manholes and valve chambers. Borough Engineer, Municipal Buildings, Aberavon.

DECEMBER 3.—**Barnsley.**—ROADS.—For making up of Salisbury-street, Kensington-road, Canning-street (Worsbro' Common), Dillington-square, and Dumfries-row, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley.

DECEMBER 3.—**London.**—TAR PAVING WORKS, &c.—For carrying out tar paving works, &c., to the Council's elementary and other schools and other premises or sites provided or maintained by the Council for a period of twelve calendar months commencing on January 1, 1924, and thereafter until determined by three calendar months' notice given by either party, for the L.C.C. Architect to the Council, The County Hall (Room 3), Westminster Bridge, S.E. 1.

DECEMBER 3.—**Steyning.**—SEWERS.—Construction of about 1,750 yards of stoneware pipes for stormwater sewers, for the R.D.C. Mr. Geo. W. Warr, Engineer, Town Hall, Southwick. Deposit £2 2s.

★DECEMBER 5.—**London, S.W.17.**—ASPHALTE PAVING.—Asphalte paving to certain covered ways at Tooting Bec Mental Hospital extension, Church-lane, Tooting, S.W. 17, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4, on and after 10 a.m., Wednesday, November 21, 1923. Deposit £1.

DECEMBER 8.—**Kidderminster.**—PAVING.—Laying reinforced concrete foundation and paving with granite setts in Station Hill, for the T.C. Mr. J. Hawcroft, Borough Engineer, Town Hall, Kidderminster. Deposit £2 2s.

DECEMBER 8.—**Ripley.**—SEWAGE WORKS.—Reconstruction of Waingroves sewage outfall works, for the U.D.C. Mr. G. W. Bird, Surveyor, Town Hall, Ripley.

DECEMBER 11.—**Edmonton.**—ROADS.—Alteration and re-forming of entrance road at Silver-street entrance of North Middlesex Hospital, for the Board of Guardians. Mr. J. C. S. Mummery, A.R.I.B.A., 34, Bloomsbury-square, W.C.1.

DECEMBER 11.—**Gosforth.**—SEWERS.—Laying new sewers and formation of roadway on housing site, for the U.D.C. Mr. Geo. Nelson, Surveyor, Council Chambers, High-street, Gosforth.

DECEMBER 11.—**London.**—SEWER.—Construction of a 4 ft. internal diameter sewer in brick of a total length of about 7,290 feet, in Wandsworth and Lambeth, for the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £5.

DECEMBER 11.—**London.**—SEWER.—Construction of a brick sewer of varying sizes from 5 ft. to 9 ft. internal diameter, of a total length of about three miles, in Lewisham, for the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £10.

NO DATE.—**Bristol.**—ROADS.—For forming builders' roads and constructing sewers, &c., to Building Estate off Westbury-road (near Downs), Bristol. Mr. Fredk. L. Sargent, M.S.A., 44, Corn-street, Bristol.

NO DATE.—**Prudhoe.**—PIT.—For the sinking of a pit, depth about 300 ft. Mr. Sidney Bates, Mining Offices, Prudhoe.

NO DATE.—**Wakefield.**—SANITARY CONVERSIONS.—Sanitary conversions at Carlton, near Wakefield-Plumbing and draining work. Apply to MR. E. L. Schofield, 72, Dewsbury road, Wakefield.

Competitions.

(*See Competition News, page* 798).

Auction Sales, Tenders, etc.

NOVEMBER 27.—**Richmond.**—Messrs. J. T. Skelding & Co. will sell, *re* W. D. Morris & Co., Ltd., in voluntary liquidation (by order of the Liquidator, Mr. E. K. Hawkins, F.S.A.A., Bowden Works, Grove-road, Richmond) the whole of the stock and plant of the above firm of builders and decorators. Auctioneers, 48, Gresham-street, Guildhall, E.C.2.

NOVEMBER 28.—**Berkshire.**—Messrs. Knight, Frank & Rutley will sell, at Windsor (about 2 miles from the Royal Borough and 20 miles from London), the freehold residential property known as the St. Leonard's Hill Estate. The noble mansion, with garages and stabling, a dower house known as St. Leonard's Dale, four agricultural dairy holdings, the whole extending to about 630 acres. Auctioneers, 20, Hanover-square, W.1.

NOVEMBER 28.—**Rotherhithe, S.E.16.**—Messrs. J. T. Skelding & Co. will sell (by kind permission of Messrs. Scantlin, Taylor & Co.), at Appleby's Yard, Silwood street, Rotherhithe, S.E.16, well-seasoned, dry stock of timber of a large variety of various woods. Auctioneers, 48, Gresham-street, Guildhall, E.C.2.

★NOVEMBER 29.—**London, E.**—Mr. Arthur H. Davis will hold by direction of the Geo. Cohen & Armstrong Disposal Corporation at the Hackney Marshes Depot, the final Clearance Sale of Plant and Machinery, Machine Tools, Railway Material, Furniture and Miscellaneous Stores. Auctioneers, 19, Hanover-square, W. 1.

DECEMBER 4 AND 5.—**London, E.9.**—Mr. F. H. Clark will sell, at the National Projectile Factory, Hackney Marshes, E.9, all the materials contained therein, including a quantity of building materials, portable buildings, glass, &c. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W.18.

★DECEMBER 11.—**Guildford and Merrow.**—Messrs. Joseph Hibbard & Sons will sell, without reserve (by order of Messrs. Sutton & Co. (Guildford), Ltd., who are relinquishing business), at the two depots at Woodbridge-road, Guildford, and at sawmill, Merrow, nearly new and modern sawmill plant and machinery, rolling stock, timber and buildings. Auctioneers; 15, Newington-green, Islington, London, N.16.

★DECEMBER 11.—**Guildford.**—Messrs. Hibbard & Sons will sell (by order of Mess & Co. (Guildford), Ltd., who are relinquishing in three lots (unless previously sold by priv at the offices in Woodbridge-road, Guild valuable main road modern freehold tin store, and suite of offices, situated at 86A, W road, Guildford; also valuable freehold n Merrow. Auctioneers, as above.

DECEMBER 13.—**London, E.C.**—Mr. Jose will sell, with vacant possession, freehol containing the important area of about 75 nearly 1¾ acres, prominently and convenie on the north side of and fronting the main Auctioneers, 43, Chancery-lane, London, W

Public Appointment

NOVEMBER 26.—**Eastbourne.**—General f the Borough Engineer and Surveyor's D required by the County Borough Council of E Mr. Leslie Roseveare, M.Inst.C.E., Borough Town Hall, Eastbourne.

NOVEMBER 26.—**Islington, N.**—Compe tity Surveyors for taking off, preparation a bills of quantities for an extension of the offices, and for two housing schemes by politan Borough of Islington. Council's Mr. E. C. P. Monson, F.R.I.B.A., F.S.E., & bury-pavement House, 120, Moorgate, Lon

NOVEMBER 28.—**Manchester.**—LECTUR turer in Architecture and Master in Design the University of Manchester. The Internal University of Manchester.

DECEMBER 6.—**Greenwich, S.E.10.**—The the Metropolitan Borough of Greenwich is n receive applications for the following appoin (1) Grade B Clerk in the Works Depart Grade A Clerk (between the ages of 17 and Town Clerk's Department. Mr. Frederick J Town Clerk, Town Hall, Greenwich-roa endorsed "Grade B Clerk," or "Grade A the case may be.

★NO DATE.—**Mitcham.**—Engineering As quired by the Mitcham Urban District Co Engineer's and Surveyor's Department. A Bullock, Engineer and Surveyor, Broadw Mitcham.

POROUS HARD COU

THE L.C.C. have constructed a h for lawn tennis in Battersea Park, and of tennis were recently played upon following well-known players: M Austin, Miss Evelyn Colyer, Mr. A. D Mr. J. D. P. Wheatley. It happe heavy rain had fallen throughout the night and the public courts on the of the road were under water, but the constructed by Granuloid, Ltd., However, in order to prove the porous of the surface, water was freely pou it and when this quickly disappe commenced. At the conclusion of the players expressed themselves pleased with the court; its surface an qualities were excellent and the rebou ball was very true. The porous cha the surface is effected by the use of si which is granular, and below this spe position a gravel bed is prepared so water is drawn off quickly and the the court is not affected by frost, as proved in the case of another court co prior to last winter. Courts can be colour that is desired and this mixes in special material, so that it cannot wea the surface does not need recolour lines are inlaid in white and do no blurred. The courts cost nothing for ance. We understand that the cos costs are approximately eight to ten per square yard. The office of the co Red Lion House, Red Lion Court, Fl E.C.4, and the inventor of the proce H. G. Lloyd, M.Inst.C.E.

Rating and Valuation.

In view of the dissolution of Parlia the fact that many members of the re tives bodies who have been asked to the Government's draft Rating and Bill at present be otherwise engaged time may be required for the subm observations, and we are informed Ministry of Health that a further mont regarded as available for this purpose found possible to complete the exami the proposals by December 15, the da ally suggested.

OPOSED NEW BUILDINGS & OTHER WORKS.*

hese lists care is taken to ensure the accuracy of the information given, but it may ally happen that, owing to building owners taking the responsibility of commencing work lans are finally approved by the local authorities, "proposed" works at the time of publication en actually commenced. Abbreviations :—T.C. for Town Council; U.D.C. for Urban District R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of ns; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

EENSHIRE.—A report and plans prepared by awse & Allan for the reconstruction of the of Slains Bridge across the River Ytham. to cost £13,500, is to be forwarded to the of Transport by the C.C. with the request for

LLERY.—The G.W.R. are to meet a deputa- Council in regard to the site of a new railway Six Bells.

.—The Notts District Miners' Welfare Com- ontributing £3,500 towards the cost of baths ted by the U.D.C.

DE-LA-ZOUCH.—Plans passed by U.D.C.: an, two houses at "Priorfields," Ashby.

D.—The Ministry of Health representative an inquiry into application of Gellygaer .D.C. to borrow £8,000 for erecting and t of a fire station at Bargoed.

.—Plans passed by U.D.C.: Two houses, d, by Mr. Blundel Shadbolt; detached house, oad, by Messrs. Hennell & James; house, ad, by Messrs. Bell & Kay; thirty-two houses, -gardens, by Mr. R. B. Rowell; new road, wn as "Wallorton-gardens," by Mr. R. B. house, Sheen Common-drive, by Mr. G. A. houses, Sheen-lane, on East Sheen Lodge Mr. George Smith; new roads and sewers, e, on East Sheen Lodge Estate, by Mr. nith: new roads and sewers, Palewell Park y Messrs. Edwin Evans & Sons.

T.—Plans passed: Club-house in Springfield- or the Springfield Amateur Athletic Club; es and shop and houses in Beechmount- or the Belfast Building Guild, Ltd., Messrs. McArdle, architects; six semi-detached Sandown-road, for Mr. Wm. Evans; altera- additions to the Ulster Club premises in ce, Mr. Godfrey W. Ferguson, architect.

AND CUCKNEY.—The Ministry of Health has quiry into the application of the R.D.C. to 1,195 for a sewerage scheme for Harworth. -ON-DEARNE.—The U.D.C. have prepared a or the erection of 114 houses, all of which nk for the Government subsidy, augmented ouncil's subsidy of £25 per house. Local re being urged to co-operate with the Council. ND.—Plans passed by U.D.C.: House at road, for Mr. R. D. Heard.——The Penybont Bridgend) is negotiating to purchase land for on of a new power station, and is considering ver system for Llangynwyd.

Y.—The Housing Committee of the B.C. has sideration the steps to be taken with regard ection of additional houses on the surplus e housing site, and has resolved to recommend eme embracing about 60 flats in Mosul-way ed, and that Mr. Percy Coad be engaged for the lay-out of the remainder of the site and lans as settled by the Committee.

ROUGH.—The U.D.C. has passed plans for institute at Denaby.——The Ministry of as approved of the borrowing of £2,571 and works of water supply.

.—An inquiry has been held by the M. of H. District Council's application for sanction £104,723, for the purposes of sewerage and posal works. The work is becoming a matter eat urgency to meet the sewage requirements using scheme.

SGTON.—It has been decided to erect a new hospital to serve the needs of the districts and Cramlington for infectious diseases, sent structure is totally inadequate to meet ements of the district.

.—The Darton U.D.C. has decided to their water supply, and are to construct rete reservoirs, each having a capacity of gallons. The Council's engineers are Messrs. liford & Son, of Nottingham. An application de to the Unemployment Grants Committee it towards the cost.

—The T.C. proposes to build 10 pairs of a cost of £15,200, for sale to intending occu- ites aggregating 32,000 sq. yds. are to be for further building.

STER.—The T.C. is asking the Ministry of nction to the erection of 50 houses.

LD.—Application is being made to the f Transport for a grant in respect to the a section of road at West Lutton, 2.1 miles and for the widening of the road to 18 ft., at £6,511; also a grant towards the cost of at the widening of the Ruston Parva corner.

—Plans passed: Cafe, La Scala Cinema, reet, for Mr. G. P. Fleming; drainage at e-street North, for Messrs. Cullen & Sons; to 3–7, Shaw-street, for Messrs. Thompson w shops in Johnson's-court, for Mr. B. Wine.

RNE.—The T.C. is considering the purchase Hire Park, which it is understood has been £100,000. It is further proposed to purchase rts of Beachy Head, the area amounting 500 acres, with a view to preserving it for

.—Plans passed by R.D.C.: House, Wood- Little Heath, for Mr. Stroud; additions to Fairmile, for Major-General Sir H. R. ; house, Steer-lane, for Mr. Townend.

.—In order to expedite housing, the T.C. d to consider the utilisation of the un- building sites in the city, of which there are be 800.

o our List of Contracts, Competitions, etc.

FEATHERSTONE.—Plans passed: Slaughterhouse, &c., Whinney-lane, Streethouse, for Mr. J. Hoyle; conversion of conveniences, Wakefield-road, for Mr. W. Green.——The M. of H. have sanctioned the borrowing of £5,400 for relaying the Ivydale outfall sewer.

FOWEY (CORNWALL).—The B.C. has approved a contract for the laying of a new water main from Lescrow reservoir to No. 8 jetty, at a cost of £3,557.

GAINSBOROUGH.—In view of the probability that no action will be taken to free Gainsborough Bridge from tolls, an alternative proposal for the construction of a new bridge at Walkerith has been put forward, and a committee appointed to formulate a suitable scheme.——The U.D.C. has approved of several schemes for relieving unemployment, including the widening of several roads, at an estimated cost of approximately £9,500. Two additional schemes, estimated to cost £15,000, were turned down.

GUISELEY.—The West Riding C.C. Education Committee have informed the Guiseley D.E. authority that, providing the B. of E. would sanction the erection of a new elementary school at Guiseley, they, the C.C., would be prepared to defray the expenditure involved.

HAMPTON COURT.—Surrey C.C. has decided, subject to the approval of Middlesex C.C., to instruct the surveyors of the two counties to make a joint report as to the possibility and the cost of adapting Hampton Court Bridge to meet the requirements of modern traffic, and also as to the desirability and cost of erecting a new bridge and constructing the necessary approaches.

HARROGATE INFIRMARY.—A fund is being raised for the purpose of providing larger hospital accommodation at Harrogate. It is hoped to raise £20,000.

HUCKNALL (NOTTS).—It is proposed to erect a screen at Hucknall Church as a memorial to Byron, who was buried there. The cost is estimated at about £2,000.

JARROW.—The T.C. has resolved to negotiate for loans amounting to £26,783 for street and drainage work. The Ministry of Health has already sanctioned a further £3,478.

KEIGHLEY.—Plans passed: Erection of four houses, Park-lane, for Mr. Lewis Whittaker; 10 houses, High Spring Gardens-lane, for Messrs. E. Turner, Ltd.; house, Oakworth-road, for Mr. T. E. Sugden; 17 houses, Oakworth-road, for Miss Doris Midgeley. All these houses are to rank for subsidy.

KEITH.—Banffshire Education Authority has decided to carry out improvements at Keith Grammar School, estimated to cost £4,900.

KIRKCALDY.—Fife Education Authority has decided that it was expedient to provide a technical school for Kirkcaldy district, and approved of the piece of ground at present feued by the authority adjoining the High School as the site.

LANCASHIRE.—The C.C. has approved the proposed "motor way" from London to Manchester and Liverpool, on the condition that no financial responsibility attaches to the Council.

LEXDEN AND WINSTREE.—The R.D.C. is applying to the M. of H. for permission to borrow £15,000 to build houses.

LINCOLN.—At a meeting of the Court of Sewers, the Town Clerk attended and outlined the Corporation's scheme for improving traffic facilities in various thoroughfares, the cost of which would be anything between £50,000 and £100,000.

LLANDUDNO.—The T.C. intends to open up the Maesdu Estate for building purposes; the Estate will contain both an 18-hole and 9-hole golf courses.

LLANELLY.—The B.C. is to lay out Town Hall-square, and has called for plans and estimates.

LONDON.—The L.C.C. purpose expending £57,500 on the construction of a new sewer in Streatham-hill and Brixton-hill.

LONDON (HACKNEY).—Plans passed by B.C.: Alterations, Eton Mission Men's Club, Gainsborough-road for R. Brown, Bros.; factory, 43, Well-street, for E. B. Holmes & Co.

LONDON (HAMMERSMITH).—Drainage plans passed by B.C.: "Trafalgar" public-house, Bramley-road, for Watney, Combe, Reid & Co., Ltd.; 25, Caxton-road, for W. Wilson; 43, Rylett-road, for J. E. Connell; Bottling Stores, Scrubbs-lane, for United Dairies, Ltd.; "Rivercourt," The Mall, for F. C. Hoskins & Co.; 90 and 88, Uxbridge-road, for D. Greig; 135, Latimer-road, for T. Watts.

LONDON (WANDSWORTH).—Plans passed by B.C.. Phœnix Construction Co., house, Keswick-road, Putney; Messrs. Lavington (1916), Ltd., house and garage, Clarence-road, Clapham South; Messrs. Grace & Marsh, Ltd., addition to the Froebel Educational Institute, Grove House, Roehampton-lane, Putney; Mr. S. J. Mulliner, house, Allfarthing-lane, Springfield; Messrs. Chapple & Utting, 24 houses, Pendennis Estate, Streatham; Messrs. Holloway Bros. (London), Ltd., three houses, Herondale-avenue, Springfield.

LONGFIELD.—The M. of H. has sanctioned the B.C.'s proposal for a convalescent home at Longfield, Kent.

LOUTH.—It is proposed to erect a new school in connection with Louth Grammar School, which numbers amongst its old scholars Sir John Franklin and Lord Tennyson.

MALLING.—Plans passed by R.D.C.: Cottage at Old Mill, Ditton, for Messrs. A. E. Reed & Co.; bungalow at London-road, Ditton, for Mr. B. H. Wood; cottage at Millhall, Aylesford, for Messrs. Reed & Co.; bungalow at Ditton, for Mr. R. A. Tappenden; four cottages at Station-road, Aylesford, for Messrs. Reed & Co.

MERTHYR TYDFIL.—The B.C. has decided to proceed with the Pant-road reconstruction scheme.

MATLOCK.—The Ministry of Health has granted permission for the borrowing of nearly £30,000 in connection with the North Darley water scheme.

MILFORD.—The U.D.C. is negotiating with the War Office for use of Hubeston Fort for tenements. The estimated cost of necessary repairs is £3,000.

MITCHAM.—The Southern Railway has decided to construct a new station at Sandy-lane, between Mitcham Junction and Streatham.

MONMOUTHSHIRE.—The G.W.R. Co. has offered to acquire land at New Inn from Panteg U.D.C. for houses for their employees.——Crickhowell Council has applied to borrow £1,150 for immediate road work.——A public meeting at Brynmawr resolved to urge the war memorial committee to erect a monument in Market-square. £600 is available for the purpose.——The Abertillery U.D.C. has applied to borrow £17,000 for road works.

NEWQUAY (CORNWALL).—The U.D.C. has approved of a further nine houses for the Government subsidy.

NORMANTON.—Plans passed by U.D.C.: Mr. C. J. Foster, for bungalows off Dalefield-road, and two houses off Dalefield-road, for Mr. G. H. Wood.

NORTHUMBERLAND.—The C.C. has agreed to a scheme for resurfacing county roads, at an estimated cost of £163,000.

OTLEY.—The Council are to erect 58 non-parlour type houses with three bedrooms each, at a cost of £455 each, inclusive of streets, sewers and site.

PENZANCE.—The T.C. has decided to sell the island site on the Promenade for building purposes, with a proviso that purchasers shall erect a suitable building.

PONTEFRACT.—Plans passed by R.D.C.: House, west of Wheldale Lodge, for the Airedale Colliery Co., Ltd.; school alterations, Cutsyke, for the West Riding C.C.; house, Redhill, for Miss Armitage; house, Hazel Farm, Glasshoughton, for Mr. J. Wright.

PORTKNOCKNIE.—The T.C. has given instructions to Messrs. Palmer & Lewis, engineers, London, to proceed with the first half of a £50,000 extension of the harbour.

RHONDDA.—The Education Committee is negotiating for land adjoining Bodringallt School.——The Committee has instructed preparation of plans for adaptation of Pentre Crafts School to Junior Technical School, and of Ton Domestic Centre alterations.——The Porth Hospital is to be extended.

RIVER SEVERN.—The G.W.R. Engineers are surveying the approaches to the proposed combined road and railway bridge across the Severn at Beachley, near Chepstow. A proposal to provide a road bridge over the Severn, to avoid the detour round Gloucester, is receiving a great deal of support in S. Wales.

ROTHERHAM.—Application is being made by the B.C. to the Ministry of Health for sanction to erect 150 additional houses, all of which are to rank for the joint subsidy. An inquiry in respect to a site for 40 houses for the L.M. & S.R. Co.'s own workmen has been held. Plans have been approved for the erection of 93 houses at Brampton Bierlow, for the Cortonwood Colliery Co., Ltd.

SEAHAM HARBOUR.—Plans passed by U.D.C.: Two houses in Princess-road, for Mr. T. Curry; tea-room on the seabanks at the North Beach, and extensions to the Seaham Golf Club's pavilion.

SEDGEFIELD.—The R.D.C. has instructed their clerk to negotiate with the Ministry of Health for a loan of £15,000 for housing purposes. It is expected that a maximum of 150 houses will be commenced within the next three months in order to qualify for the extra subsidy of £25 the Council is offering.

SHEPSHED (NOTTS).—The U.D.C. has decided on a scheme of extension of the sewage works, and 20 acres are to be purchased and the work, commenced immediately.

SILSDEN.—The Council's Surveyor has been instructed to invite tenders for the relaying of the Lecture Room floor at the Town Hall with maple wood or other suitable covering.

STAFFORD.—Mr. H. R. Hooper, an inspector of the M. of H., has held an inquiry into an application by the T.C. for an amendment of the Corporation Acts to enable the Corporation (1) to borrow for the purposes of their water undertaking further sums not exceeding £30,000; (2) to extend the Corporation's water limits so as to include the parishes of Creswell and Brocton, in the Rural District of Stafford; and Coppenhall, Dunston, and Acton Trussell, with Bednall, in the Rural District of Cannock.

STANLEY.—The South Moor Colliery Co., Ltd., has informed the U.D.C. that they propose to erect a further batch of houses for their workmen, and not take advantage of either the Council's subsidy or the Government's.

STREET.—The U.D.C. has decided to have plans prepared for 25 houses.

SUNBURY-ON-THAMES.—It is proposed to build 100 bungalows on a nineteen-acre site in Vicarage-road.

SUNDERLAND.—Plans for the erection of 31 houses of various dimensions under the Housing Act, 1923, have been approved by the T.C.

SWANSEA.—The Housing Committee has considered the advisability of erecting concrete houses. The Chairman submitted the report of the deputation from Swansea which visited Leeds and inspected the concrete houses there, and said the Committee might decide to erect about 250 concrete houses on the Maesteg site instead of the eighteen ordinary houses contemplated. — The G.W.R. Co. have made a start with the station improvements, which are estimated to cost £500,000 and take three years to complete.

SWINDON.—The Ministry of Health has approved the grant of a subsidy of £75 per house in respect of the following:—Eighty-eight houses (including eight bungalows) to be erected by Mr. A. J. Colborne; 16 houses to be erected by Mr. E. W. Beard; 16 houses to be erected by Mr. H. C. Cook, all of which are to be completed by December 31, 1924.

TENBY.—Plans passed by B.C.: Alterations and additions to Coburg Hotel, for Mrs. Homer; alterations to Church House, for Rector (architect in both cases Mr. E. C. Thomas); plans for sewering near Marsh-road, for Mr. T. Thomas (assent deferred).——

(Continued on page 831.)

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—E

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	2 15 3	Do. Bullnose	10 1 6
Do. Bullnose	3 8 3	Blue Wire Cuts	7 11 6

Best Stourbridge Fire brick:—

2½ in.	11 3 0	3 in.	13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
Quoins. Bullnose and 4½in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. "	2 5	4 in. "	3 7

	s. d.		
Thames Ballast	10 6	per yard.	
Pit Sand	14 9	" "	
Thames Sand	15 6	" "	delivered 2 miles radius Paddington.
Best Washed Sand	15 6	" "	
¾ in. Shingle for Ferro-Concrete	14 0	" "	
½ in. "	15 0	" "	
¾ in. Broken Brick	10 6	" "	
Pan Breeze	5 6	" "	

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to 51/- alongside at Vauxhall in 80-ton lots.	£3 3 6
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 6
" Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ¼d. beyond 30 ft.	
HOPTON-WOOD STONE.	
Delivered at any Goods Station, London.	
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over "	17/-
Sawn two sides "	27/-
Sawn three or four sides "	32/-
YORK STONE, BLUE—*Robin Hood Quality.*	
Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5¾
1½ in. to 2 in. ditto, ditto "	1 3
HARD YORK—	
Delivered at any Goods Station London.	
Scappled random blocks. Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto "	6 0½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto. ditto "	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s. d.
Plain per ft. cube	6 6
Moulded " "	7 9
Cills " "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	21/-	1¼	33/6
¾	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	22/-
1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¾ in. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt.	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Hip and valley tiles (per dozen) Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
" " Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discount, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14
Hoop iron, basis price	16 10 0	..	17
Galvanised	31 0 0	..	32
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	15 0 0	..	16
" " 24 g.	16 0 0	..	17
" " 26 g.	18 0 0	..	19
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26
Best Soft Steel Sheets, 26 g.	26 0 0	..	27
Cut Nails, 3in. and 4in.	20 10 0	..	22
(under 3in. usual trade extras.)			

METAL WINDOWS—Standard sizes suitable for plete houses, including all fittings, paintin coats, and delivery to job, average price abo to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£
LEAD—Sheet, English, 4 lb. and up	41
Pipe in coils	42
Soil Pipe	45
Compo pipe	47

NOTE—Country delivery, 30s. per ton extra: lots 3 cwt., 2s. per cwt. extra and over 3cwt. and u cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt.

Old lead, ex London area, at Mills per ton	27	0 0 ..
Do., ex country, carriage forward per ton	28	0 0 ..

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCK IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- pe

NEW RIVER PATTERN SCREW DOWN STOP COCK UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- pe

NEW RIVER PATTERN SCREW DOWN MAIN FER

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per d

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per d

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per do

NEW RIVER PATTERN CROYDON BALL VALVES.

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
35/-	56/-	98/-	162/-	228/- pe

DRAWN LEAD P. & S. TRAPS WITH BRASS CLI SCREW.

	1¼ in.	1½ in.	2 in.	3 in
8 lbs. P. traps	33/-	41/-	56/-	101/- p
8 lbs. S. traps	35/-	45/-	66/-	126/-

COPPER—	£ s. d.
Strong Sheet per lb.	0 2 3 ..
Thin " "	0 2 4 ..
Copper nails "	0 2 3 ..
Copper wire "	0 2 4 ..
TIN—English Ingots "	0 2 1 ..
SOLDER—Plumbers' "	0 1 0 ..
Tinmen's "	0 1 2 ..
Blowpipe "	0 1 4 ..

PAINTS, &c.

	£
Raw Linseed Oil, in pipes per gallon	0
" " " in barrels "	0
" " " in drums "	0
Boiled " " in barrels "	0
" " " in drums "	0
Turpentine in barrels "	0
" in drums (10 gall.) "	0
Genuine Ground English White Lead. per ton	56
(In not less than 5 cwt. casks.)	
GENUINE WHITE LEAD PAINT—	
"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	79
Red Lead, Dry (packages extra) per ton	43
Best Linseed Oil Putty per cwt.	0
Filocoi per cwt.	0
Size. XD Quality fkn.	0

[Concluded on next page.]

* The information given on this page has specially compiled for THE BUILDER and is cop Our aim in this list is to give, as far as possit *average* prices of materials, not necessarily the h or lowest. Quality and quantity obviously prices—a fact which should be remembere by who make use of this information.

CURRENT OF MATERIALS (*contd.*)

GLASS.

H SHEET GLASS IN CRATES OF STOCK ND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
urths....	3¾d.	32 oz. fourths	8¾d.
irds	4½d.	32 ,, thirds	10½d.
urths....	5d.	Obscured Sheet, 15 oz.	4d.
irds	6¼d.	21 ,,	5¾d.
urths....	6d.	Fluted 15oz. 6¾d., 21oz.	9¾d.
irds	7¾d.	En'lled 15 ,, 5¾d., 21 ,,	7¾d.

ice according to size and substance for squares stock.

H ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
l plate	4¼d.
n rolled	5¼d.
n rolled	5¾d.
ed Rolled, Oxford Rolled, Baltic, Oceanic,	
rctic, Stippolyte, and small and large	
lemish white	6¼d.
to, tinted	9d.
d Sheet	6d.
Rolled Cathedral	5¼d.
l do.	7¾d.

t Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
ish	Outside	0 14 0
o	ditto	0 16 0
l	ditto	0 18 0
l	ditto	1 0 0
l Carriage	ditto	1 4 0
o	ditto	1 12 0
nish	Inside	0 18 0
Paper	ditto	0 18 0
l Cabinet	ditto	1 2 6
l flatting	ditto	1 0 6
ng Oak	ditto	0 18 0
l drying Oak	ditto	0 19 0
l Varnish	ditto	1 0 0
itto	ditto	1 2 0
itto	ditto	1 12 0
an Gold Size		0 12 0
k Japan		0 12 0
Mahogany Stain (water)		0 12 0
k Black		0 9 0
ack		0 14 0
(patent)		1 5 0
d Brush Polish		0 17 6
ryers in Terebine		0 9 0
lack Enamel		0 7 0

POSED NEW BUILDINGS.

(*Continued from p.* 829)

R. Co. has requested the Council to make up and path near th station, according to t estimate £2,500), and has called for plans consulting with the Company's Divisional

ON (DEVON).—The R.D.C. has decided to the Ministry of Health's subsidy per house and £150, according to the class of house —The T.C. unanimously resolved, in order rage building, to increase the Government o £120, and to purchase sites and offer the private individuals on the most favourable

AY.—The widening of the sea front promenade taken in hand almost immediately.—The of Transport has held an inquiry into a to construct a cliff railway at Babbacombe

AR.—The U.D.C. is to consider a scheme for uction of high level reservoirs.

RY.—The M. of T. have informed the local at a grant of £578 will be made by them the cost of building a new bridge between and Rangemore to replace the one swept a storm last July. The work is to begin at

HARTLEPOOL.—Plans passed by T.C.: Mr. bon, nine houses, Rossall-street; Committee homlinson Institute, Temperance Institute, treet and Houghton-street; Mr. E. M. 10 houses, Allendale-street, Seaton Carew; tephenson, 5 semi-detached houses, Ashley- The South Durham Steel and Iron Co., Ltd., g stores into a laboratory, Seaton Carew Iron H. Mason, Ltd., carriage house Park-road. RBY. — Amongst plans passed by the s one for the extension of dining-rooms and mprovement, for the Executive of the Race- o., Ltd.

FIRES.

EPOOL.—The fitting and brass-finishing shops . Irvine's shipyard have been destroyed by

K.—Sunnyside, the residence of General h, at Kirkfield Bank, Lanark, containing X rooms, has been gutted by fire.

OOL.—Considerable damage has been done which occurred on the premises of Messrs. l & Co., Ltd., flock manufacturers and general s, 139–141, Vauxhall-road.

ALLERTON.—The large linoleum factory of ykes, Mills & Co., at Northallerton, Yorks, the scene of a fire which took seven hours , one wing of the works being gutted.

LL.—A fire at the leather works of Sir E. T. Sons, Walsall, caused £20,000 damage, a uildings being completely destroyed.

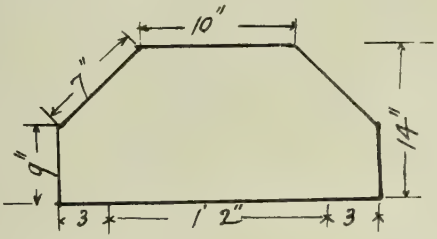
STANDARD METHOD OF MEASUREMENT.

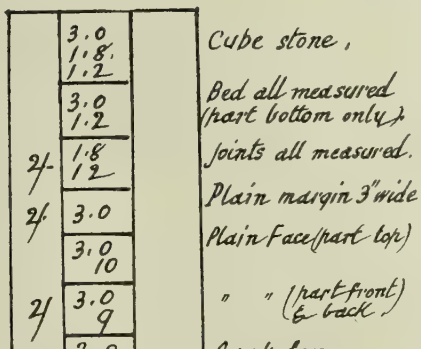
"QUANTITIES" writes:—

SIR,—The "Standard Method of Measurement of Building Works," published by the Surveyors' Institution in 1922, states:—

Page 25, item 26: "Face labours shall be described and shall include all preparatory works and preparatory labours, except as follows," &c.

There appears to be confusion in Manchester as to exactly what this covers. I give a simple example, and would be much obliged if you could say where the above paragraph is correctly interpreted. If this should take too much of your space, could you tell me where I can get reliable information, as most text-books were





not based on the Standard Method published 1922

[**Our correspondent is quite correct in his reading of the "Standard Method of Measurement of Building Works" instructions as to the measurement of stone. In former times it was customary to measure "beds and joints" to all faces as a preliminary labour, but this system has been abandoned for a good many years.—ED.]

NEW BUILDINGS IN LONDON.

Carlton House-terrace.—ALTERATIONS.—We understand that No. 8, Carlton House-terrace is to be converted into several reception flats with rents ranging from £600 per annum to £2,000 per annum. These flats will be fitted with internal telephones, service lifts, modern sanitary fittings, passenger lift, &c., and accommodation will consist of dining rooms, drawing rooms, boudoirs, bedrooms, and separate kitchens and servants' offices, &c., to each flat. The architects are Messrs. F. W. Rees & Archer-Betham, of 44, Park-lane, Croydon.

City.—The Corporation of London has decided to widen Houndsditch to 50 feet from Bishopsgate to Phil's-buildings, and to 45 ft. from there to Cutler-street, subject to the L.C.C. agreeing to defray half the cost, estimated at £192,460.

Lambeth.—The B.C. has approved the proposal of the L.C.C. to extend the West Norwood tramway to the Crystal Palace.

St. Pancras.—The B.C. is considering building 72 flats at Somers Town, at a cost of £62,000.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted.* † Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modifications.*

ABBOT'S LANGLEY.—For erection of three detached houses. Messrs. Stimpson, Lock & Vince architects, Watford:—

F. Stevens, Pimlico	£4,414 10
Walter Brown's Building Co., Ltd., Shepherd's Bush	3,014 0
Daniels & Cometti, Leyton	2,970 0
*Payne Bros., Leavesden	2,660 0

ABERYSTWYTH.—For re-roofing, &c., of Nos. 21–23, Prospect-place, for the B.C.:—

*J. Evans, Trefechan	£210 10

BEESTON.—For making-up portion of Fairfield avenue, for the U.D.C. Mr. E. A. Bush, Surveyor Beeston:—

J. W. Brough, Beeston	£1,543 11 0
H. H. Barry, Nottingham	1,350 0 0
W. Shaw, Nottingham	1,334 9 0
Hodgsons, Ltd., Nottingham	1,324 9 0
C. Caumans, Nottingham	1,322 9 7
J. W. Damer, Nottingham	1,185 10 0
E. Somerfield, West Budgford	1,165 4 8
J. Thraves, Stapleford	1,150 0 0

BRADFORD.—Reconstruction of warehouse premises in Duke-street and Piccadilly, for Messrs. Edwin Greenhough:—

Mason—J. Schofield (Wyke), Ltd.
Plasterer—H. Sugden.
Plumber and Heating Engineer—R. Hartley.

BRADFORD.—Erection of a new church for the Roman Catholic authority in Ingleby-road, to be known as the Church of St. William:—

W. Farnish & Sons, Mill-street, Bradford.

BRIDGEND.—For laying sewer at Merthyr-Mawr-road, for U.D.C.:—

*E. Clarke, Bridgend	£168

CARDIFF.—For (*a*) Widening Rectory-road; (*b*) widening Caermain-road, for the R.D.C. Mr. W. Farrow, surveyor, 20, Park-place, Cardiff:—

A.

T. W. Heath (Public Works), Ltd., Kensington	£752 10 0
John Harry, Radyr	476 10 0
Wm. C. Lewis, Dinas Powis	381 1 8
Lewis & Pritchard, Ltd., Dinas Powis	375 0 0
*H. Lingham, Barry	373 0 10

B.

Seth Hill and Son, Llantrithyd	£478 4 6
John Harry, Radyr	461 16 0
D. Parfitt, Newport	453 9 6
A. G. Collins & Co., Barry	419 0 10
H. Lingham, Barry	403 5 2
*A. W. Spear, Dinas Powis	392 12 0

CHISLEHURST.—For additions to Farrington's Girls' School. Messrs. Crickmer & Foxley, architects, 1, Lincoln's Inn-fields, W.C.2:—

Holliday & Greenwood, Ltd., Battersea	£45,800
F. & H. F. Higgs, Ltd., Herne Hill	44 369
Ford & Walton, London	43,870
John W. Falkner & Sons, London	43,070
Dove Bros., Ltd., Islington	42,955
Holland, & Hannen & Cubitts, Ltd., London	42,265
Higgs & Hill, Ltd., South Lambeth	42,177
Trollope & Colls, Ltd., London	41,935
Holloway Bros., London	41,127
James Carmichael, Ltd., London	40,976
Hall, Beddall & Co., London	40,137
Ashby & Horner, London	39,985
*G. E. Wallis & Sons, Ltd., Maidstone	39,336

DESBOROUGH.—For erection of 10 houses, for the U.D.C. Mr. C. D. Rochester, architect, Castle Chambers, Rothwell:—

*George Lewis, Rothwell, 2 parlour houses	£820
*A. Tailley & Son, Desborough—4 parlour houses	1,636
*Childs & Co., Finedon—4 non-parlour houses	1,520

DEWSBURY.—Erection of a new six-story mill, for Messrs. Wormald & Walker, Ltd.:—

Mason—W. Scott, Dewsbury.
Asphalter—Tunstall's Rock Asphalte Co., Ltd., Leeds.

DURHAM.—Construction of a new railway bridge, for the L. & N.E.R. Co., near Hart Station:—

Cleveland Bridge & Engineering Co., Ltd.	£14,000

EASTBOURNE.—For erection of seven cottages in the Crescent. Borough Engineer, Town Hall, Eastbourne:—

Baldwin & Co., Eastbourne	£4,332

FEATHERSTONE.—Constructing a new roof for the U.D.C. to Dutch Barn at South Featherstone Farm:—

G. T. Darnton	£120

(*Continued on page* 833.)

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.

		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		1"	1¼"
Deal wrot moulded and rebated	per foot cube		
Plain deal jamb linings framed	per ft. sup	1/8	1/9
Deal shelves and bearers	"	1/5	1/7
Add if cross tongued	"	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8

Housings for steps and risers		each
Deal balusters, 1 in. × 1¼ in.		per ft. run.
Mahogany handrail; average 3 in. × 3 in.		" "
Add if ramped		" "
Add if wreathed		" "

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	
Sash fasteners	11½d.	Mortice locks	
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

Rolled steel joists	per cwt.
Plain compound girders	"
Do. stanchions	"
In roof work	"

RAIN-WATER GOODS.

		3"	4"	5"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7
Ogee Do. Do.	"	2/4½	3/1	3/10
Rain-water pipes with ears	"	2/9	3/7	
Extra for shoes and bends	each	4/4	5/11	
Do. stopped ends	"	1/11	2/4½	3/7
Do. nozzles for inlets	"	2/2	2/7	3/10

PLUMBER.

Milled lead and laying in flashings and gutters		per cwt.
Do. Do. in flats		"
Extra labour and solder in coated cesspools		each
Welt joint		per ft. run.
Soldered seam		" "
Copper nailing		" "

		½"	¾"	1"	1½"	2"
Drawn lead waste	per ft. run	11d.	1/8	1/11	3/5	4/2
Do. service	"	1/7	2/1	2/6	3/10	
Do. soil	"					3/3
Bends in lead pipe	each					
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6
Red lead joints	"	11d.	1/-	1/3	1/11	2/4
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6
Lead traps and cleaning screws	"				14/7	19/6
Bib cocks and joints	"	6/4	9/7	15/4	41/-	
Stop cocks and joints	"	15/4	17/2	25/8	64/-	

PLASTERER.

Render, float and set in lime and hair		per yard sup.
Do. Do. Sirapite		" "
Do. Do. Keen's		" "
Add sawn lathing		" "
Add metal lathing		" "
Portland cement screed		" "
Do. plain face		" "
Mouldings in plaster		per 1 girth
One-and-a-half granolithic pavings		per yard sup.

GLAZIER.

21 oz. sheet plain		per foot sup.
26 oz. Do.		" "
Obscured sheet		" "
⅛ in. rolled plate		" "
¼ in. rough rolled or cast plate		" "
¼ in. wired cast plate		" "

PAINTER.

Preparing and distempering, 2 coats		per yard sup.
Knotting and priming		" "
Plain painting 1 coat		" "
Do. 2 coats		" "
Do. 3 coats		" "
Do. 4 coats		" "
Graining		" "
Varnishing twice		" "
Sizing		" "
Flatting		" "
Enamel		" "
Wax polishing		per foot sup.
French polishing		"
Preparing for and hanging paper		per piece 2/-

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charge percentage of 1¼ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole c

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BOROUGH.—For erection of 22 non-parlour type houses in blocks of 2, and 8 non-parlour type blocks of 4, at Dayland's site, for the U.D.C. Mr. H. Thirlwall, Surveyor, Council Offices, Conis-

	22 Non-parlour Houses, Type 8A.	8 Non-parlour Houses, Type 9A.	Total.
egory & Son, Colwyn	£11,308 0 0	£4,640 0 0	£15,948 0 0
ller Wath	10,238 16 0	3,990 0 0	14,228 16 0
Son, Sheffield	9,605 0 0	4,299 0 0	13,904 0 0
Randall, Sheffield	9,823 0 0	3,919 4 0	13,742 4 0
& Blackwell, Doncaster	8,811 14 8	3,532 5 4	12,344 0 0
Kidger, Doncaster	8,690 0 0	3,560 0 0	12,250 0 0
& Worrall, Doncaster	8,541 15 6	3,355 4 0	11,896 19 6
inson & Sons, Sutton	8,105 18 0	3,619 4 0	11,725 2 0
& Co., Rotherham	8,327 0 0	3,393 10 0	11,720 10 0
& Sons, Rotherham	8,250 0 0	3,200 0 0	11,450 0 0
anley & Sons, Mexborough	7,832 0 0	3,088 0 0	10,920 0 0

EMOUTH.—For erection of 12 houses, for Mr. J. P. Mackenzie, Town Clerk, Town Hall, uth :—

y Bros., Laurieston	£1,660 6 9
herford & Son, Grange-outh	1,223 17 4
urray, Grangemouth	409 15 4
rray, Grangemouth	290 14 6
Twaddle & Son, Glasgow	619 16 6

BROMLEY.—Erection of a village hall, cy Crossman. Mr. F. W. Skipper, architect, n-street, Norwich :—

ers & Son, Colchester	£2,970 0
t & Son, Colchester	2,854 0
aumont, Colchester	2,838 0
s & Sons, Manningtree	2,452 14
drews, Ardleigh	2,385 0

WICH.—For erection of 50 houses, in two r the B.C. Mr. Alfred Roberts, architect, n-street, Greenwich :—

mpson, Crofton Park	£27,210
nt, Hither Green	25,900
le & Co., Ltd., Barnsbury Park	23,573
llingham, Ltd., Dartford	23,400
isey, Hounslow	23,040
Vinters, Ltd., South Norwood	22,673

MERE.—For alterations to Fire Brigade r the U.D.C. Mr. C. A. Best, Surveyor, :—

an, Lowry & Puttock, aslemere	£207	0	0
rivett, Haslemere	186	0	0
ick, Haslemere	165	8	2

.—For construction of about 375 yds. of er drain, in 9 in., 12 in., and 15 in. earthen- for the U.D.C. Mr. J. Montague Gameson, Ilkley :—

lor & Son, Bradford	£748 18 6

RING.—For the erection of 24 houses, D.C. :—

y & Son, Colwyn Bay	£13,845
King, Northampton	12,156
dle & Sons, Kettering	10,597
on, Stamford	10,188
liffe & Co., Kettering	9,484
kes, Thrapston	9,348
nford, Kettering	8,880
rever & Son, Kettering	8,568
Wooding, Kettering	8,475
ritt & Son, Kettering	8,445
& Gunnings, Kettering	8,380
s & Slow, Ltd., Kettering	8,280
rin & Son, Kettering	8,149
nson & Co., Kettering	7,646

OOL.—For the installation of electric l power at new premises, for Messrs. C. & A. , Church-street, Liverpool. Messrs. Huntley onsulting engineers, P. & O. House, Cock- London, S.W.1 :—

	To Specification.	Alternative.
, Manchester	£4,341 0 ..	——
& Isherwood, verpool	3,715 0 ..	——
& Co., Ltd., Man-	3,497 0 ..	3,464 0
Electric Co., ead	3,387 0 ..	——
, Manchester	3,305 0 ..	——
Liverpool	3,238 0 ..	——
Repairs, Ltd., ol	3,179 0 ..	——
ons, Ltd., London	3,044 0 ..	2,800 0
Co., Liverpool	3,030 0 ..	——
den, Leeds	2,890 0 ..	——
Thomson & Co.,	2,825 0 ..	——
& Co., Liverpool	2,710 0 ..	2,710 0
t Supply Co., ol	2,450 0 ..	——
rry & Co., Ltd., ol	2,249 0 ..	——
o., Ltd., London	2,142 0 ..	——
Ltd., Liverpool	2,062 10 ..	1,917 10
Electrical Engin- Co., London	1,987 0 ..	1,987 0
(1923), Ltd.,	1,845 0 ..	——
& Co., Ltd.,	1,798 18 ..	¶1,624 18
Lighting Supplies d., Manchester	1,733 0 ..	——
n, Ltd., Liverpool	1,718 0 ..	——

ntingency item of £100 was deducted and ras inserted, making the contract £1,565

LIVERPOOL.—For new porch and internal renovation of Outpatients' Department at Ormskirk Cottage Hospital. Mr. Edmund Ware, architect, 43, Imperial Buildings, Liverpool :—

R. Taylor & Sons, Ormskirk	£270 16 0
Henry Taylor, Ormskirk	226 3 0
T. Ball, Ormskirk	154 5 6
T. Riding & Son, Ltd., Ormskirk	151 0 0
*J. Whittle, Ormskirk	144 3 9

LONDON.—For erection of boiler house and chimney shaft at factory, for Messrs. Schweppes, Ltd. Messrs. H. S. de Bertodano & C. H. Simpson, architects, 83, Buckingham Palace-road, S.W.1. Quantities by Mr. Alfred J. H. Sprague, 104 High Holborn, W.C.1 :—

Arthur Vigor, Ltd.	£2,149
C. R. Price	1,927
Geo. Parker & Sons, Ltd.	1,835
Holland, Hannen & Cubitts, Ltd.	1,785
J. Greenwood, Ltd.	1,720
Griggs & Son	1,696
*Higgs & Hill, Ltd.	1,616

LONDON.—For laying out and turfing the playing field on South Lodge site (Clapham), for the L.C.C. :—

Mears Bros.	£1,500
H. Farrow	1,330
*R. Neal & Sons, Wandsworth	1,275

LONDON.—Supply of 300 yds. of oak fencing to the Wandsworth B.C. :—

*Economic Fencing Co.	22s. per yd.

LIVERPOOL.—For the installation of heating and ventilating systems at new premises for Messrs. C. & A. Modes, Ltd., Church-street, Liverpool. Messrs. Huntley & Wood, consulting engineers P. & O. House, Cockspur-street, London, S.W.1. :—

	For H.W. Heating. To Specification.	Alternative.	For Plenum Heating and Ventilating. To Specification.	Alternative.
Fretwell Heating Co., London	£2,785 0 ..	——	£1 687 0 ..	——
" " "	2,883 0 ..	——	—— ..	——
Strode & Co., Ltd., "	2,559 0 ..	——	1,472 0 ..	——
" " "	2,627 0 ..	——	—— ..	——
Dod Bros., " "	2,944 0 ..	——	1,454 0 ..	——
Ozonair, Ltd., London	—— ..	——	1,444 0 ..	£1,290 0
Matthews & Yates, Manchester	—— ..	——	1,423 0 ..	——
O. C. Summers, London	2,582 8 ..	——	1,351 0 ..	——
" " "	2,620 13 ..	——	—— ..	——
S. H. Burroughes & Co., London	2,630 0 ..	£1,991 0	1,302 0 ..	——
" " "	2,779 15 ..	——	—— ..	——
W. G. Cannon & Sons, London	2,620 0 ..	——	1,248 0 ..	——
" " "	2,655 10 ..	——	—— ..	——
Wembley Heating Co., London	2,474 0 ..	——	1,226 0 ..	——
" " "	2,525 0 ..	——	—— ..	——
Sturtevant Engineering Co., London	2,530 0 ..	——	1,150 0 ..	——
" " "	2,559 5 ..	——	—— ..	——
Tyler, Freeman & Minett, London	2,270 0 ..	2,170 0	1,137 0 ..	——
" " "	2,320 0 ..	2,150 0	—— ..	——
Griffiths & Cromwell, Liverpool	2,278 0 ..	2,050 0	1,118 0 ..	——
" " "	2,340 0 ..	——	—— ..	——
Air-Vent Heater Co. London	2,491 0 ..	2,383 0	1,096 0 ..	——
" " "	2,543 0 ..	——	—— ..	——
London Plenum Heating Co., London	2,233 0 ..	——	1,090 0 ..	——
" " "	2,290 0 ..	——	—— ..	——
Heywood & Brysett, London	1,787 0 ..	——	1,086 0 ..	——
" " "	1,847 0 ..	——	—— ..	——
Young, Austen & Young, London	2,198 10 ..	——	1,048 0 ..	——
" " "	2,257 10 ..	——	—— ..	——
H. Hargreaves & Sons	2,730 0 ..	——	1,038 0 ..	——
" " "	2,804 0 ..	——	—— ..	——
Keith & Blackman, London	—— ..	——	1,025 0 ..	——
National Heating Co., London	2,281 0 ..	——	—— ..	——
" " "	2,333 0 ..	——	996 0 ..	——
Dilworth & Carr, London	2,155 0 ..	1,930 0	965 0 ..	——
" " "	2,249 0 ..	2,015 0	—— ..	——
Rosser & Russell, London	—— ..	——	888 0 ..	——
Haden & Sons, London	2,268 0 ..	2,126 0	920 0 ..	796 10
" " "	2,288 0 ..	——	—— ..	——
C. Seward, Preston	2,036 5 ..	——	960 10 ..	——
" " "	2,082 5 ..	——	—— ..	——
John King, Ltd., Liverpool	2,129 10 ..	——	978 10 ..	——
" " "	2,209 0 ..	——	—— ..	——
James Combe & Sons, London	2,097 0 ..	——	789 0 ..	——
" " "	2,174 0 ..	——	—— ..	——
Brightside Foundry, Liverpool	1,998 10 ..	——	¶785 0 ..	——
" " "	‖2,018 0 ..	——	—— ..	——

‖ Heating.—The contingency item of £100 was deducted and economies effected to the extent of £50, making the contract £1,868.

¶ Ventilating.—The contingency item of £50 was deducted, making the contract £735.

LONDON.—For the erection of tenements on Caroline-street site, for the Stepney B.C. :—

E. Jackson	£4,527 12
Rowley Bros.	4,032 0
Harris & Wardrop	3,933 0
A. E. Symes	3,910 10
W. Gladding & Co.	3,897 10
Ashby & Horner, Ltd.	3,890 0
J. E. Billings & Co., Ltd.	3,879 0
*Turnbull & Son, St. Paul's-road, E.	3,855 0
R. Woollaston & Co.	3,748 0
Barnards & Co.	3,500 0

LONDON.—Erection of tenements on Brook-street site, for the Stepney B.C. :—

Patman & Fotheringham, Ltd.	£4,169
Rowley Bros.	3,945
Ashby & Horner, Ltd.	3,665
Harris & Wardrop	3,647
A. E. Symes	3,632
W. Gladding & Co.	3,606
Turnbull & Son	3,597
J. E. Billings & Co., Ltd.	3,559
*George Barker, 48-50, New-road, E.	3,537
R. Woollaston & Co.	3,449
Barnards & Co.	3,300

LONDON.—For erection of ambulance station at Highbury, for the L.C.C. :—

J. Groves & Sons, Tottenham	£1,866
N. Lidstone & Son, Finsbury Park	1,523
Whitby's, Ltd., High Holborn	1,520
L. H. & R. Roberts, Dalston	1,465
John C. Mather, Islington	1,434
Y. J. Lovell & Son, Paddington	1,340
J. & C. Bowyer, Ltd., Upper Norwood	1,295
*C. P. Roberts & Co., Ltd., Hackney	1,250

MOUNTAIN ASH.—For erection of boys' school at Penrhiwceiber, with playgrounds, for the E.C. Mr. W. H. Williams, Town Hall, Mountain Ash. Quantities by Architect :—

Dawkins, Harris & Weaver, Chepstow	£13,497 0 0
Thornton Hall, Cardiff	11,956 6 0
D. Davies & Sons, Cardiff	11,911 0 0
Richard Jones, Caerphilly	11,835 19 4
Williams & Davies, Caerphilly	11,540 13 8
W. F. Drew, Ltd., Stroud	11,493 0 3
*Knox & Wells, Ltd., Cardiff	11,188 0 0

NEWCASTLE.—Construction of two new dock gates, for the L. & N.E.R. Co.'s Tyne Dock entrance :—

Messrs. Armstrong, Whitworth & Co., Ltd.

NORTHAMPTON.—For 31 iron gates for pens at Cattle Market, for the T.C. :—

*Mobbs & Co., Northampton	£259 17

NORTHAMPTON.—Fencing for new lake, Abington Park, for the T.C. :—

*Mobbs & Co., Northampton	£197 10

PONTARDAWE.—For reconstruction of Upper Colbren-road, for the R.D.C. Mr. E. D. Jones, Architect, Council Offices, Pontardawe :—

R. O. Jones, Gwaun-cae-Gurwen	£397 11 2
Thomas Bros., Pontardawe	381 0 6
‡Thomas Walker, Clydach-on-Tame	314 19 0

PONTEFRACT.—Erecting a boundary wall at Glass House-hill, Glasshoughton, for the Pontefract R.D.C. :—

J. W. Smith, Glasshoughton	£100

PONTEFRACT.—Erection of an unclimbable fence around land at Airedale, for the R.D.C. :—

*Mr. F. Tree, Ferrybridge, 1s. 3d. per yard.	

SWINDON.—For the erection of 50 houses, for the T.C. :—

*Saunders & Sons, Cirencester—		
Class B type (living room, scullery, 3 bedrooms and bathroom, 4 blocks of 4)	per block	£1,779
Class B (2 blocks of 4)	„ „	1,779
Class B (3 blocks of 2)	„ „	789
Class C. (parlour, living room, scullery, 3 bedrooms and bathroom, 10 blocks of 2)	per block	975

WALTON-ON-THAMES.—For construction of about 460 yds. of 9 in. stoneware pipe surface water sewer, for the U.D.C. Mr. R. Wilds, Surveyor, Council Offices, Walton-on-Thames :—

E. Potterton, Oatlands Park	£1,080
A. C. Soan, Thornton Heath	978
W. H. Gaze & Sons, Ltd., Kingston-on-Thames	973
G. Faulkner & Son, Reigate	950
J. Mowlem & Co., Ltd., London	901
R. D. Swinford, Ltd., Woking	821
*H. Hawkins, Walton-on-Thames	602



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WEMBLEY.—For widening Forty-lane, for the U.D.C. :—

Kinnear, Moodie & Co., Westminster	£37,439 11 6
John Cronk & Sons, Streatham	35,217 7 7
R. H. Powis, Wembley	34,854 12 2
Sir William Prescott & Sons, Ltd., London Wall	33,576 0 0
‡George Wimpey & Co., Ltd., Hammersmith	32,905 19 0

WEMBLEY.—For asphalt surfacing Forty-lane, for the U.D.C. :—

Val de Travers Asphalte Paving Co., Ltd.	£8,481 5 0
A. C. W. Hobman & Co., Ltd.	7,958 17 0
Tunstalls, Seyssel & Limmer Rock Asphalte Co.	7,190 12 6
Johnston Bros.	7,006 5 0
Joseph H. Bradshaw	6,084 7 6
The Neuchatel Asphalte Co.	5,961 9 2
Do. do. (Alternative)	5,900 0 0
George Wimpey & Co., Ltd.	5,715 12 6
H. V. Smith & Co.	5,531 5 0
Constable, Hart & Co., Ltd.	5,469 15 10
Tarslag, Ltd.	5,162 10 0
William Shepherd & Sons, Ltd.	5,101 0 10
Philip Shepherd & Co.	5,162 10 0
Do. (Alternative)	4,670 16 8
Highways Construction, Ltd.	4,885 18 9
The Limmer & Trinidad Lake Asphalt Co., Ltd.	4,793 15 0

WEST HARTLEPOOL.—Construction of conveniences at Burn Valley Gardens, for the T.C. :—
*W. W. Brazell £134

WEST HARTLEPOOL.—For erection of a seed store, for the West Hartlepool and District Allotment Holders' and Gardeners' Association. Mr. F. C. Burton, architect, George-street, West Hartlepool :—

T. C. Forth, West Hartlepool	£1,169 18 0
—. Longmore, West Hartlepool	1,148 9 0
—. Lee, West Hartlepool	1,052 11 6
A. Stephenson, West Hartlepool	1,025 0 0
R. Mothersdale, West Hartlepool	1,012 16 6
W. Thompson, West Hartlepool	990 0 0
R. J. Marshall, West Hartlepool	953 11 8
J. Proud, West Hartlepool	945 0 0
W. Pearson & Son, West Hartlepool	927 10 0
E. M. Tweddle, West Hartlepool	875 0 0

WEYMOUTH.—For cleaning and painting exterior of Pier Pavilion and Royal Palm Court, for the T.C. :—

Pates Bros.	£442 10
Rendall & Sons	432 10
*Jenkins, Hitt & Grant, Ltd.	374 0

WITHAM.—For erection of 8 houses, in 2 blocks of 4 houses each, on the Cocks Farm site, for the U.D.C. Mr. W. P. Perkins, Collingwood-road, Witham :—
*F. H. Sherling, Maldon 2,840

WOMBWELL.—Erection of 30 houses, for the U.D.C. :—
*F. B. Ward & Sons £9,870

WOODLESFORD.—Structural alterations and extensions at the Eshaldwell Brewery, for Messrs. Bentley's Yorkshire Breweries, Ltd. :—
E. Wooler & Son, Leeds.

WORSBOROUGH.—For making-up footpaths on Silvester-crescent, for the U.D.C. :—
*Oakland Bros., Wombwell £378

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CXXV.—No. 4217. NOVEMBER 30, 1923.

HOUSES AND THE UNEMPLOYED.

THE acute problem of unemployment has again drawn attention to the possibility of absorbing unskilled labour on house-building. There is a serious shortage of houses. Consequently, it is argued, to make good the shortage would be an economic method of ng unemployed labour, even if it be not a remedy. The undoubtedly attractive, and we refer to it now as it is o be discussed in the near future in Parliament.

point is raised in Mr. Strachey's book, "Economics of ur," but unfortunately he assumes that the shortage es is due to two factors: because there is a positive e of labour, and because the workmen are not working as they should. The fact is 100,000 men in the building e unemployed, which means that there is not sufficient for building work at the present time. Admittedly ument cannot, in fairness, be applied to the building s. There can be no wide demand for houses while their c value is artificially restricted by the rent Acts, and ble is not that we are short of labour to build houses, t we are short of people who are willing to pay for them. le problem must be viewed in proper perspective, and we chary of attributing faults to an industry whose goods real economic value at the present time. If we are ing the question of bringing in unskilled labour to ore houses, we must inevitably face the question that must pay for the houses. If this means relying upon ernment we are back exactly where we have been for If there existed even a normal demand for houses (and ly means the ability and inclination to pay for them) le building industry would be fully employed and able b extra labour.

demand for houses from private owners is, generally , very slight; there is very little inducement to build speculative point of view, and but for the help from ernment the amount of house-building would be almost e, if we consider our annual requirements and the of the building industry. Examined in this light, the n for dealing with unemployment by organising es and battalions of men for work on housing does not o alluring. The idea certainly deserves serious atten- s is submitted, the two great and most pressing problems noment are met at one and the same time. If the trade is not fully employed there must be a reason. e sake of argument, we attribute this to the high cost ng we can only assume that the intention is to lower by absorbing unemployed labour from other trades. t is obvious there can be no increased demand for nless we compel ourselves to build them through the ent. On the other hand, no Government will sanction ding of public money in training unskilled labour and g a scale of wages above the standard of any other The problem is, clearly, a delicate one for the building f it is the question of cost which is restricting the it would, it has been suggested, be in the interests of ling trade to lower the rate of wages to bring the and absorb their own unemployed first. Otherwise nly suggest the Gilbertian cause that the unemployed ilding trade should be trained for some other industry busy. To reason on these lines is manifestly absurd, e dealing with an absurd anomaly when we pay unem- doles to one hundred thousand men in the building l at the same time can entertain the idea of absorbing ed from other trades.

demand for houses could be stimulated, the building ld, and would absorb the extra labour which would be In our opinion this course is infinitely more desir- the idea of swelling the ranks of building tradesmen first examining the causes which are preventing operations on a bigger scale. In some respects the is less complicated than many. Free Trade and form have nothing to do with it; we have no houses s from abroad, and apart from the rent restriction merely a question of demand and supply.

Undoubtedly we must make allowances for many prospective owners who feel that building costs are too high, but even so our sympathies lie with the building industry, which has to face the disagreeable fact that many people have ceased to regard house-building as an individual responsibility. To secure a roof over our heads is, and should be, one of the first considerations in any civilised country (the recent housing Acts are proof of this contention), but in these days it is hardly an exaggeration to say that many people are more interested in being able to scrape together sufficient means to purchase a small motor-car. Are we not, in our desire to move about, forgetting and neglecting the elementary fact that it is a physical necessity to live somewhere? We fully admit the difficulty in proving that one problem has anything to do with the other, and it is easy to dismiss the philosophy on these lines. We are definitely assured by economists that had there been no rent Acts there would have been fewer motor-cars, since more money would have been required either for increased rents or for building houses. We have no criticism to make of any social development; in a free country the individual must have liberty to decide what form his luxuries will take, bearing in mind the fact that we are told there is a shortage of one million houses. If the matter ended at this it would be immaterial whether we had houses or motor-cars, but unfortunately the same legislation which protects us in our houses makes it obligatory to take up the burden of building them.

To induce the man of moderate means to invest in a small car, the instalment system of payment has recently been introduced by many manufacturers. The significance lies in this: that if we cannot afford to build a house it is more essential from a national point of view to rent out of income than "motor out of income." There is certainly no blame attached to those who are protected by the rent Acts; on the contrary, it is stressing human nature to ask anyone to forgo his motor-car as part of the extra cost in building a house, which, so far as he is concerned, may also be regarded as a luxury. This philosophy of life is reacting right through our social structure, and the building trade must take these factors into account in its deliberations. Credit is due to motor-car manufacturers for their wisdom in bringing down prices to stimulate the demand. We see an economic truth justified, and the moral should not be lost sight of by the building trade.

It is for the building trade to face the various arguments which have been put forward; we have tried to help by discussing the situation as we see it. The country is obsessed with the idea—which is probably quite sound—that it is easier to train battalions of unskilled labour in a few weeks to do the work of house-building than it was to drill and train them into soldiers. Houses are pictured in this country similar to those in America, in the Dominions, and in the overseas world generally, where men build the houses in which they live. Some people have even toyed with the idea that we would again see quaint rural cottages racy of the soil; all the better if they lacked the exquisite precision and intricate details of the skilled tradesman. We would not minimise the fact that the necessity for houses is serious, but let us not confuse the necessity which compels a man to build himself a house with his own hands with the artificial necessity we have ourselves created which compels us to build our own and our neighbours' houses. It is evident that the sooner housing costs reach an economic rental level the better will it be for the building industry.

Meantime, we think it is more important for the building trade generally to study the reasons why there should be any unemployed at all than to shuffle the distribution of labour, oblivious of the economic truth that a man should do the work for which he has been trained. We would prefer to see the building trade dealing with the economic problem in its own way, and on its own initiative, rather than public opinion should force a situation which carries a sentimental appeal based upon fallacies and an imperfect knowledge of all the conditions.

NOTES.

The Architecture Club.

The association of architecture with dining leads to congenial and flattering estimations, and we feel soothed by the reiteration of the importance of what we are concerned to find important. Yet this may be overdone. So Mr. Gosse, in his speech at the fifth quarterly dinner of the Club, pointed out that architecture was the only art of universal application, that a man might live without poetry or music, painting or sculpture, and so on, statements rather embarrassing to some of those present who may have felt a desire to be saved from such friends. This anxiety to say ple sant and gracious things may none the less lead us far away from the facts. Without poetry and the other arts we should most probably still be living in trees, and the application of tree dwellings to architecture is surely a little remote. How such ideas strike others may be inferred from a letter which we print in our correspondence columns.

The Sherborne Abbey Glass.

The discovery of a quantity of ancient glass in this Abbey is an event of considerable interest. The glass appears to have been removed, from an account of it appearing in the *Times*, from the upper parts of the choir windows, when they were filled with stained glass at the time of the nineteenth century restorations. It is fortunate that some of the old glass then removed should have been put on one side instead of being destroyed. While it will not be possible to reconstruct the series in its entirety, there are, in spite of being very much mixed up and broken, good heads and other pieces remaining, and we hope that these will be very carefully laid out, and if some reasonable additions of new glass will complete any panel in which bits are lost, steps will be taken to secure that this is done by a good artist, and that the purism, which might lead through a mistaken zeal to refrain from any such restoration, will not triumph. We are unable to judge, not having seen the glass, as to what is possible, but in the hands of a good craftsman the gaps, if not too many in a particular panel, can be made good, and is a legitimate and desirable form of restoration. And the gain over filling in the gaps with plain glass, when done properly, is incontestable, as the spotting of the painted glass with plain glass is very disfiguring to it. But it is through the more sympathetic appreciation of the artist rather than in the commercial approach that such restoration is alone possible. This Sherborne glass is said to be unquestionably English and fifteenth-century work. Mr. Bernard Rackham, the head of the Department of Ceramics at the Victoria and Albert Museum, in whose care the glass has been during the last few months, says that he has never come across anything like it in all his experience of English glass. The present find includes some shields which are apparently contemporaneous with the rest, including those of the family of Beaufort, one of, presumably, the consort of Henry of Lancaster, and others. They have, however, unfortunately suffered under reconstruction, probably in the eighteenth century.

The Imperial Institute.

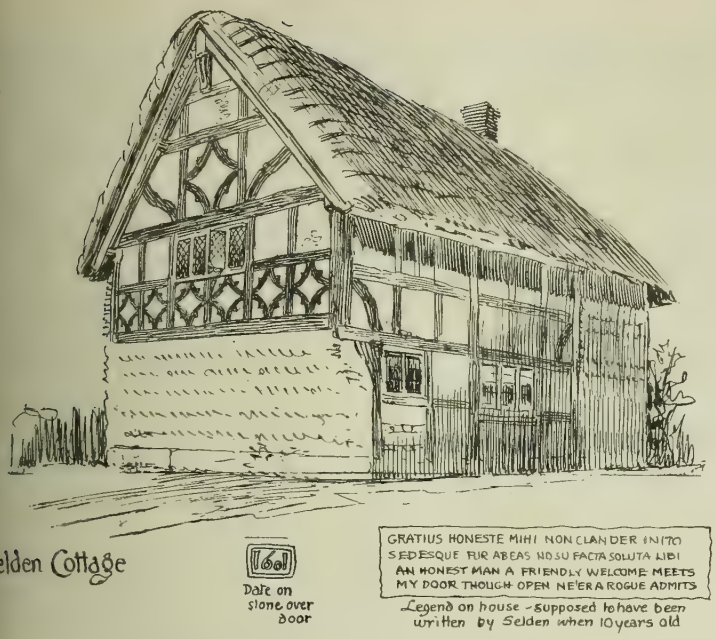
The original purpose for which this institution was founded is not one which is now within the bounds of practical possibility of fulfilment. The great developments during the last generation or so have all tended to make the aims of such a central organisation, as the Imperial Institute was originally intended to be, impossible. In thinking of possible new scope for such an Institute, and one which might be stimulating to national interests, it occurs to us that as a home for the exhibition and extension of their publicity, and as a department devoted to English handcraft industries and for societies identified in the production of such work, the fostering of whic so desirable, a profitable use coul made of such a centre. The further of the interests of such work is p cularly important just now on nati grounds, and should effect impor reactions on the standard of Bi industries. There are also other colla directions which such a centre sh include, embracing fine as well as ap art. We are beginning to take a reasonable view of the relation bet the latter and ordinary manufact and that in providing such a centr are only extending trade facilities in their larger attributions.

Artistic Industries.

The line which has drawn in the past bet manufactures and directly artistic industries is seen t artificial. We have assisted the fo by much organisation and subsidy. British Industries Fair, the Depart of Overseas Trade, being examples of We are beginning to see that a support is equally desirable for indu connected with a more personal c manship, and that the small work and the individual craft worker sh not in the interests of the national w be left neglected. We are no doubt at the beginning of these more enligh conceptions, but with the stimulus ing through a more extended traini craftsmanship, there is need for ste be taken to consolidate the new dev ments arising through it. To foster new directions is in the way of cre new wealth which we are much nee At the present time, for the lack more corporate representation as existence of such a centre as suggest could bestow, this new and craftsmanship is lacking in publicity therefore opportunity. The Im Institute, in becoming a centre fo advancement of these interests, effect a powerful influence on the dards of more ordinary manufactu well as assisting employment, and n



The National Museums, Vienna. (*See p.* 842.)



Selden Cottage, Woodbridge, Suffolk.
[This old building was recently burnt down.]

be well spent in such a way, while mperial Institute, in becoming their should achieve a new lease of life.

The aics at Tate llery.

THE mosaics recently completed by Mr. Boris Aurep in the Blake Room at the Tate Gallery are interesting nly for themselves, but in their aim romote an identity between the ndings of Blake's work and the itself. Along such lines there is for a good deal of development in g our public galleries more accordant he work shown in them, and it is f value as pointing to the necessity e employment of artists to carry out ork and to secure the distinction of ent that is necessary in order to such accompaniment suitable lesirable this is we may see when in ational Gallery, which lacks in the tion of the rooms the stamp of a more authentic artistic treatment. We are glad to see the further recognition of this in the employment of Mr. Aurep to carry out the mosaics on the floor of the Blake Room. A useful little instance and of more tentative character, providing a good illustration of the value of artists' work may be seen at the Suffolk-street Galleries, the walls of which have been painted recently by members of the R.S.B.A. themselves, the result being quite successful. A pleasant texture and colour has been given to the walls, possessing much more character than the smooth featureless tinting of the ordinary house decorator. The times call for this more direct appeal for the artist-craftsman in these ordinary services of life, and were he employed more often in such ways the many craftsmen now lacking employment could add much beauty and individual distinction to our homes and public buildings. The directors of the Tate Gallery are to be congratulated on an enterprise which is not only successful in itself, and of much credit to the artist, but also enlarges the scope of the application of art, and gives encouragement to the artist.

A Kensington Housing Issue.

THE issue of 1,247 ordinary shares and 300 three per cent. debentures, made by the Improved Tenements Association under the auspices of the Kensington Representative Housing Association, deserves a generous response, and, we may hope, will be followed in other boroughs. We have enough discussions of rival prejudices, disguised as principles, of past history and mutual recriminations. Slums and overcrowding persist, a peril to the poor and a menace to the health of society. The difficulty is not one for any political party to solve alone, nor for any political party to boast about. Nothing but intense and sustained public effort can end the social sickness, and the sooner this is applied and the more practical the application the better. Such associations owe their origin to that attractive power of practical idealism for ever identified with Octavia Hill. The work attempted does not claim to be a solution, but a palliative; but, with the solution so far away, we may be thankful for the palliative, and for every family that is lifted from disease and demoralisation. Cancer and tuberculosis are not allowed to go untreated because the cure is being sought, and the cure itself is often to be found through the experience gained in the palliative treatment. As a comment, the title of Improved Tenements is misleading. The Association, surely, is not pressing for more tenements, even if improved, but has derived its title from its efforts to improve and convert existing tenements? The objections to this form of accommodation are too many and obvious to need repetition.



Entrance to Cemetery, Vienna, by Hegele: 1905. (*See p.* 842.)

GENERAL NEWS.

Appointment.

Mr. W. H. Bateman, of Calne, Wiltshire, has been appointed Architect and Surveyor by the Hay (Brecon) Council for the new cattle mart to be erected at Talgarth, to accommodate 3,500 sheep, 200 cattle, besides pigs and other animals.

Obituary.

Mr. C. E. Clayton, who died at the age of 70 years, at Edburton, on November 27, was senior partner in the firm of Clayton & Black, architects, of Brighton, with which town he had been associated for over half a century He designed the buildings for the casino scheme formulated by the late Sir Joseph Lyons in connection with Sir William Forbes and the late Lord Bessborough. He was also consulted by the Town Council in the preparation of the plans for a grand opera house on the site of the Aquarium, and he was engaged in a similar capacity by the promoters of last year's scheme for the conversion of the property into a motor coach garage with roof garden. The concert hall on the West Pier is another of his works.

R.I.B.A. Statutory Examination.

The attention of architectural students is called to the statutory examination of the Royal Institute of British Architects. The Building Acts require every candidate for a district surveyorship to hold a certificate of competency of the Royal Institute of British Architects. In addition to certificates of competency for the office of district surveyor under the Metropolitan Building Acts, certificates are also granted of competency for building surveyor under the Public Health Acts. Many architects in the past sat for it who have never applied for a district surveyorship, but have taken the examination as a qualification for private practice.

Antique Furniture.

Mr. Mordaunt Rogers, F.S.I., F.A.I., gave the first of two lectures on "Antique Furniture" at the College of Estate Management last week. The lecturer took as the starting point of his lecture the eleventh century, the period which saw the building of the Gothic cathedrals in France. He then dealt with the changes through the various centuries, showing how the ornamentation of panels on chests was introduced in the early fifteenth century, followed by the enrichment of chests in the sixteenth century. He also showed how later in this century the practice of varnishing furniture was introduced. The lecturer also dealt with the various woods and their uses in furniture, and mentioned that the walnut tree was not introduced to England until the end of the sixteenth century. The lecture was illustrated with lantern slides provided by the authorities of the Victoria and Albert Museum.

The Surveyors' Institution Examinations.

The paper on the Elements of Copyholds will be omitted from the Intermediate Examination after March next; Elements of Building Construction being substituted in its place. The Enfranchisement of Copyholds will, however, be continued as a subject for the Final Examination, the syllabus being extended to cover the calculation of compensation payable under the Law of Property Act. (Insanitary areas: basis of compensation.)—The Council have had under consideration the effect in operation of Section 9 of the Housing (Town Planning) Act, 1919, and in particular the proviso thereto, which has been shown in recent cases to impose extreme hardship in certain instances. A communication on the subject has been addressed to the Minister of Health, giving particulars of cases where this result is to be feared, and suggesting that until amending legislation can be introduced special care should be taken to ensure that only houses which are in themselves insanitary and unfit for habitation should be scheduled as "red."

COMPETITION NEWS

Holmside.

FOR THE HOLMSIDE AND SOUTH MOOR COLLIERIES.—Designs for a cottage hospital. Sending-in day, December 7. (See advertisement this week.)

New Law Courts, Cairo.

The Competitions Committee of the R.I.B.A. are in negotiation with the promoters of this Competition in the hope of securing an amendment of the conditions.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Singapore College (Jan. 1, 1924; March 30). Dudley Memorial (Jan. 5, 1924; Sept. 14). Eas and Bishopstoke Assembly Hall—*Ban R.I.B.A.* (Dec. 3; **August 24**). Memorials Missing (Jan. 1, 1924; Aug. 3). New Concert Hall (Feb. 1, 1924; Oct. 26). Empire Exhibition Decoration (Dec. Oct. 26). Essays on Concrete (Dec. Nov. 16). Belfast Union Heating and Li (Dec. 18; Nov. 9). Essays on Heatin Ventilating (Mar. 31, 1924; Nov. 9). Police and Fire Station (Dec. 18; Nov.

NORFOLK AND NORWI ASSOCIATION OF ARCHITECTS.

A LECTURE on "American Architectur Saw It" was given by Mr. E. W. B. A.R.I.B.A., at the Technical Institute, No on November 23. The chair was taken b A. G. Howlett.

The lecturer said he visited the Stat Canada in the spring of this year for the p of studying American architecture, beca believed the best work in the world was done in America. During his visit h nothing to modify and much to confirm belief. This was not to say merely t America their wealth enabled them to expensive buildings, for their best work. often rich, did not flaunt its costliness did not suggest that all American buildin good—far from it. There had been dur years or more an amazing amount of bu and a large proportion in America, as w case elsewhere, was not the work of arc at all. There was, of course, much th bad; but he did say the average in Ameri higher than the average of modern worl where, and the best in America was abs and unquestionably the best that was done anywhere. There were, of course, n less historical buildings in Europe of wh did not speak, and American architect their greatest admirers. This was for tecture a time of experiment and advance—of false starts and disappoint The architecture of America was leadi pioneer work, and he asked them to st with eyes not on the dead past, however but on the future. Only so could they ciate the interest and significance buildings he was going to show them.



The Franzeusring, Vienna: The Parliament House on the Left. *(See p. 842.)*

INGSTON-UPON-HULL ART GALLERY COMPETITION.

[By an Architectural Critic.]

Right Honourable T. R. Ferens having
l a site in Victoria-square, in the
f Hull, and the sum of £52,000, for
pose of erecting an Art Gallery, the
tion retained the services of Mr.
. Simpson, PP.R.I.B.A., as assessor.
instructions to competitors, whilst
limiting the cost, left the arrange-
the galleries entirely to the discretion
competitors. Briefly the accommoda-
uired consisted of various offices, "a
gallery of about 1,500 ft. super, or
junction with the paintings," for
g works of sculpture, and hanging
for the present City collection
t 550 lineal feet of wall hang-
ace, and 490 feet for the loan
n. The only means of access
ite was from the Victoria-square. It
ional whether the accommodation was
on one or two floors; further, it was
"The primary consideration is the
n of works of art rather than the
tural proportion or embellishment of
leries." Some seventy-nine sets of
ere on view in the Guildhall, Hull, on
er 22, 23, and 24 last, and none of
faultless. The contest has been one
the adherents of top-lighting and
top-side-lighting, there being 30 sets
40 top-side-lit, and nine composite.
ll the top-side-lighted sets provide top
ly for the sculpture. Although the
of the competitors favour the top-
ting of their galleries, the question
haps still be considered an open one.
l examination of the whole of the sets
s one that it is easier by the top-lit
to evolve a satisfactory plan. Despite
culty, there are among the top-side
schemes some very excellent plans, but
the premiated designs are simply

ssessor states in his award:—"I
. been obliged to set aside many
designs after satisfying myself that
ld not, at present building prices, be
without exceeding this prescribed
cost."

were about ten designs which appear
h they exceeded the stipulated sum,
gh in some cases they are fine build-
ey are yet poor art galleries. We
ed one design that would cause us
lms to reject on account of cost.
ing the top-side-lighted sets, the
nt was no easy matter, and it would
s though the final struggle had been
Nos. 15, 21, 44, and 59. If the
ad been the assessor the second place
ve gone to one of these, and the first
design No. 28, a top-side-lighted
If it be conceded that the top-
is right, then, bearing in mind the
s and cost, the actual winners are
lf a point in essentials better than
als. The result is a disappointment.
e seen from our criticism of the suc-
esign, it is an accumulation of com-

rst premiated design, No. 15, is by
S. N. Cooke, F.R.I.B.A., and E. C.
A.R.I.B.A. (illustrated in *The*
November 23). They have adopted
ceiling lights, double glazed, their
section being apparently identical
t of the existing Corporation of Hull
ery (which, though better than many
is not perfect—it is modelled on
Ghent). Their artificial lighting is con-
the roof between the roof light and
ng light. The plan is simple. The ac-

commodation is provided on two floors. There are seven galleries on the ground plan, all of adequate width and good proportion, grouped round the central sculpture hall. On the first floor is one gallery for the loan collection. In addition, pictures are hung round the upper part of the sculpture hall. We consider this a defect in the plan. As submitted, the plans show two galleries of the loan collection on the right hand side of the entrance, separated from the lift by the entrance hall. This would cause confusion when the loan collection was being rearranged. It could be obviated by reversing the use of the galleries and exchanging the position of the curator and sanitary conveniences. The ladies' and gentlemen's lavatories are too close together. The principal elevation to Victoria-square is in Ancaster stone in the Renaissance manner, well illustrated by the ½-in. detail, but hardly suggestive of the use to which the building is to be put. The elevations to the south and east are of brick, plain and incongruous. The building will be seen from three sides. It will be possible to see the front and part of the east elevation at the same time; it is a pity that they have no relation. But the authors, having spent their money where it will be always seen, have been obliged to neglect these two fronts east and south in order to comply with the clause as to cost. In thus deciding they are unlike the great majority of the competitors, who have treated the three elevations, though not of equal value, at any rate as a whole. Much as we dislike the pictures in the upper part of the sculpture hall and the neglect of the side elevations, we think the authors provide a slight margin of satisfactorily lit hanging space over the other top-lit competitors.

The second premium goes to Messrs. J. S. Gibson and Gordon. Their plan is better than the winners'. All the accommodation is on one floor, except the curator and ladies' lavatory. All the elevations are treated with respect. The lift is properly placed to serve the loan collection. But where they fail is in their method of lighting. They have only provided simple skylights without any outer glazing; these would cause trouble in practice. The elevations suggest the use of the building, but are in no way remarkable. Their artificial lighting is stated in the report to be concealed on the cornices of the gallery.

Among the top-lit designs deserving of comment are the following (where no address is given the authors are of London):—

No. 21, by Mr. E. Vincent Harris, places all the galleries on one floor. His sculpture hall runs from north to south of the site. His elevations are simple and scholarly. The building looks what it is. His roofs are double glazed. The porter's box is omitted. Could be built for the money.

No. 42. Messrs. H. V. Ashley & Winton Newman submit an imposing scheme for a fine building viewed from all sides. It does not appear to be adequately lit on the ground floor.

No. 59, Messrs. Lanchester, Lucas and Lodge. A bold building on two floors. Represented by a fine set of drawings.

No. 61, by Messrs. Forbes & Tate, FF.R.I.B.A. This is a design which is probably as good as either of the premiated, in some respects better. The lift is badly placed. The porter is not as well placed to supervise the entrance as in the winning design. Possibly this set was regarded by the assessor as likely to exceed the cost. It is cubed by the authors at 2s. 1½d. a foot.



Chapel of the Asylum, Vienna (1909).

By Otto Wagner. (*See p.* 842.)

The competitors who favoured the top-side-lighted methods, though defeated, are not disgraced.

No. 7, Messrs. Louis de Soissons & George G. Wornum, F.R.I.B.A., are represented by a beautiful set of drawings. Their sculpture hall traverses the site from east to west on the north front. The scheme No. 19, by Messrs. Horth & Andrew, of Hull, is entirely top-side-lit, including the sculpture hall. They have provided two floors with more accommodation than is asked for. The section through the galleries is ingenious. The curator has a big room in the basement. No. 24, by Mr. A. G. R. Mackenzie, F.R.I.B.A., is represented by a good design. His sculpture hall is not very well lit. No. 28, by Messrs. Taylor & Young, of Manchester, in our opinion, is the best of the top-side-lighted designs. The accommodation is all on one floor. The galleries are, perhaps, a shade narrow. The entrance to the galleries is from the sculpture hall; we do not think this a serious point. The porter is well placed. There are two lifts as in the winning design. The elevations are good and suggest the intention of the building. No. 35, by Mr. Dudley Harbron (Harbron & Robson), Hull, provides all the accommodation on one floor. His sculpture hall is insufficiently lit. No. 68, Mr. Cecil Alexander Sharp, F.R.I.B.A., like No. 19, is entirely top-side-lighted, including the sculpture, though in the sculpture hall the wrong wall appears to be illuminated. The sculpture hall is across the front of the site. It is too narrow, and not big enough. His loan collection is arranged *en suite* on one side of the entrance; his permanent collection on the other. He has an interior court-yard lighting the basement, and his elevations are the most unusual of all those submitted.

The Master Carvers' Association of London.

The annual general meeting of the Master Carvers' Association was held on November 23, at the studios of Mr. W. Aumonier. The President, Mr. W. D. Gough, having occupied his position for three years, vacated the chair, and Mr. Lawrence A. Turner was elected in his place. The following are the results of the other elections:—Vice-President, Mr. W. D. Gough; Hon. secretary, Mr. W. Aumonier; assistant hon. secretary, Mr. W. Whitworth Aumonier; hon. treasurer, Mr. J. D. Daymond; committee, Messrs. Bentham, Bradford, Broadbent, Frith, Hook, Morton, Southwick. The Master Carvers' Association is representative of employers of carvers in London, and any employer of stone carvers who is not already a member of this association is invited to apply to the hon. secretary, Mr. W. Aumonier, 84, Charlotte-street, Fitzroy-square, London, W.1.

CORRESPONDENCE.

Hull Art Gallery Competition.

SIR,—The result of this competition must be somewhat of a shock to those competitors who endeavoured to model their galleries on the now accepted and correct principle of lighting, for the reason that it has been conclusively proved by those who have devoted much study to the subject that the usual central ceiling lighted gallery is a failure.

In such gallery the spectator is better lighted than the picture, resulting in glitter and reflections; the spectator is compelled to adjust his eyes to two focal planes and suffers in consequence; moreover, the picture can neither be properly seen nor studied. That the picture and not the spectator should receive the greater light is well understood, if the glaring defects peculiar to the central top-lighted gallery are to be avoided, and that, therefore, the proper and correct lighting is the top side light, which is now an established fact.

Clause 10 of the Instructions contains the following:—"The Galleries may be disposed on two floors, and special consideration must be given to both daylight and artificial lighting. The primary consideration is the exhibition of works of art rather than the architectural proportion or embellishment of the galleries." It was fair, therefore, to assume that whatever the plan, this fundamental principle of lighting would be adhered to.

The assessor has selected a design which apparently is based on the central top-lighted gallery type, with its attendant defects. It seems quite hopeless, and one is tempted to ask, in view of this award, Why lectures by experts? Why the publication of papers and data in the Institute *Journal*? Why any definite decision? if the scientific and correct principles established are to be set aside.

The architectural treatment may be a matter of opinion and taste, but the fundamental principle of correct lighting is neither a matter of opinion nor a matter of taste; it is one of fact.

That the assessor has selected, *in his opinion*, under the circumstances, the most suitable design may be perfectly true; but the fact remains that in view of the considered opinion in favour of top side lighting, of those qualified by study to speak with authority, a design has been chosen which follows the old-fashioned central top lighting with its attendant defects.

Unless, therefore, one is to believe "A Different Assessor," "A Different Result," the existing competitive system sadly needs revision, and I suggest the constitution of a tribunal of experts, in the case of a single assessor, which should consider the award before the final decision were determined.

Croydon. W. BEVAN.

SIR,—Your recent letters and articles on the subject of competitions have awakened considerable interest, especially amongst the younger members of the profession. There is an increasing feeling that the present system of assessing is obsolete; a jury is essential.

May I point out a few facts concerning the recent Hull Art Gallery Competition. Quoting from the "Instructions,"—"Special consideration must be given to both daylight and artificial lighting. The primary consideration is the exhibition of works of art. . . ." Of recent years much time and study have been devoted to the perfection of a scientific system of lighting picture galleries. Mr. S. Hurst Seager has demonstrated the case very clearly. (*Vide* R.I.B.A. *Journal*, November 1912 and January 1923.) He has proved that satisfactory lighting can be obtained only by fulfilling two conditions: (*a*) the pictures must be so arranged that the source of light cannot be reflected to the spectator's eye; (*b*) a full and direct light must fall on the picture whilst the spectator must be kept in a more subdued light, to minimise the reflection of his own image. The latter condition has been utterly disregarded in the winning design, which repeats the monotonous fallacy of a glaring top light falling on the spectator. It is safe to predict that the results in practice will be highly unsatisfactory. That more scientific solutions were submitted is shown by the exhibition at Hull. If functional fitness be the essence of architectural design, how can the present award be justified? I realise, of course, that other conditions may have been such that the assessor considered them of primary importance, but, as a matter of principle, I do not wish to let this assessment pass without a protest against the repetition of demonstrated fallacy and the loss of one more opportunity for progress. Disregard of such matters cannot but tend to lessen the confidence of the public, to the detriment of the whole architectural profession. Relying upon the cumulative force of insistent repetition, I once again point out the urgent necessity of adopting the jury system of assessment.

I trust that all who read this letter may recognise in it a broad plea for the reformation of our methods, and the entire absence of any personal imputation whatsoever.

T. H. FIELDER.

The Cambridge Collegiate Buildings Competition.

SIR,—As one of the architects who was honoured with an invitation to take part in the competition for the new buildings for King's College, Cambridge, I feel very strongly that the letter published in your issue for November 16 and signed by Messrs. Tait, Holt and Rees, cannot be allowed to pass without comment. The authors of that document in making public their several private misfortunes appear to place themselves professionally in a very queer position.

They assert that the winners of the competition ignored the conditions, and instance as an example the fact that twenty instead of twenty-two sets of chambers were provided in the successful design. This arrangement any competitor was perfectly at liberty to adopt in his scheme if he thought fit, just as he was equally free, according to the conditions, to put his top story either in the roof or not, as he might think best. In the early stages of developing my own design, I, at least, tried these alternatives and for various reasons abandoned them. Perhaps it would have been better for me if I had not done so; but I am not now going to pretend that they were specifically ruled out by the conditions, and Messrs. Tait, Holt and Rees should not either. These gentlemen are at pains to imply that the assessor was unfit to act and that a result more satisfactory to them would have been obtained if a jury rather than an individual had been entrusted with the responsibility of judging.

I would point out that neither Mr. Tait, Mr. Holt nor Mr. Rees were under any compulsion to accept the invitation to enter the competition; that, if they had such definite opinions about the incapacity of the assessor and about the defects of the system of individual judgment, they should have declined to enter; and that if, in spite of these considerations they still desired to compete, they should have regarded themselves as bound to accept the result decently. Professions of general public zeal and of particular concern for the welfare of the profession cut more ice when the issues are raised by persons less obviously interested than are Messrs. Tait, Holt and Rees in the present case.

I am sure that I speak for the rest of the younger men who were invited by King's College to participate in this competition when I say that we valued the invitation because it gave us just that kind of opportunity and recognition which we need and which so rarely comes our way. I at any rate want to dissociate myself from any criticism of the conduct of the competition. W. NASEBY ADAMS.

Strand-on-the-Green Wall.

SIR,—I was amazed to read in your issue of November 23 that the Art Standing Committee of the R.I.B.A. had thanked the Chiswick Council for conforming to their wishes in regard to the new river wall at Strand-on-the-Green. I take the following paragraph from the *Journal of the R.I.B.A.*, of July 14 last:—

"Members of the R.I.B.A. Art Standing Committee accordingly attended a n the site, and then discovered that th the foundations of the new section at present being dealt with was a position, and a fairly long stretch o walling almost completed, faced wi walling of a most mechanically uni kind entirely out of harmony wit roundings. The Institute's repre pressed that the exposed portion o still to be completed should be face bricks of the character shown in porti existing adjacent river walling and i charming houses lining that part of and should be finished with a thin, p coping, also of the character of the w vicinity. It was understood from the to the Council that they had a quant bricks in store that could be used, discussion the Chairman of the Co other members attending *agreed that t in treatment of the wall should be arra*

The wall as executed is of the same ally uninteresting rubble. The stone clumsy with only a slight projectio river side, and none on the walk s wall is by no means almost entirel but is, on the contrary, very conspicu

The *Chiswick Times*, of November observes that the alteration in the c the only point in which the Council h its original design, which is now s approved."

Those of us in Chiswick who ar against heavy odds to preserve what our old-world riverside will never en Art Committee's approval of a work consider poor and unworthy of the op

Chiswick. E. DACE

The Architecture Club.

SIR,—Architecture is so noble and re tive an art that the sentimental at which are sometimes given to it, as t were present at the last dinner of t tecture Club may have realised, are akin to "painting the lily," and wi cheap colours. These daubers and of architecture are really not its bes flatterers rather of that vain inver "mistress" art. The arts are seen be out of and through each other, and a whole. There is no first or last in ar tecture is greatest when not too co itself, and the inflated attributions dinner orators designed to raise it to plane than poetry, music, painting or are not only apt to raise a smile, their ignorance of wherein its true grea Architecture is not well served in suc ing, and I recall something about "goo Architecture has been described as "t manly profession"—horrible phrase—diction, no doubt, of the more provi couth and parlour qualifications of poetry, painting and sculpture. H better than all this to let the art itself, and so withstand the challeng who find only a quarter of the artist in of the architect.

Does it not increase the feeling of t to art of the very means through seek to promote it, forgetting that add one cubit to its stature by all our tion and oratory, though it may appe to our own. We have grown so muc habit of belief that large membership, dinners, and much official activity water the garden of beauty, that we t for granted—but does it do so? May be some misunderstanding of the nat in such reliance on it? The most of individuals may even feel a doubt an account recently given of the great in manifold ways of the R.I.B.A. Un of it I had not realised that this di already overtaken architecture, and I whether all this gregarious sort of fostering, with its registration enterpr not yet prove the grave of such encou of architecture.



Mr. E. Stanley Hall, F.R.I.B.A. (President), cupied the chair at a general meeting of the chitectural Association held at No. 35, dford-square, W.C., on Monday last.

Accounts.

After the Minutes of the previous meeting had en read and approved, the Honorary Treasurer r. L. S. Sullivan) presented the accounts for the sion 1922–1923, which showed a deficit of 84 for the year. During the year a sinking nd of £12,000 had been formed, which would ture a year or so before the lease of the pre- ses expired. During the year £600 of deben- res had been paid off. He also announced at the Massachusetts University had offered annual sum of 100 dollars for the use of the sociation, and that it had been allocated for e purposes of the library.

New Members.

The following were unanimously elected new mbers of the Association :—

r. E. C. P. Allen	Mr. H. H. Goldsmith
ss C. W. Preston	Mr. L. H. B. Roberts
r. S. H. F. Lloyd.	Mr. J. H. Bolton
r. G. C. P. Gough	Mr. J. Breakwell
r. R. T. Beck	Mr. H. Cholmondeley
r. A. B. Whittingham	Mr. H. J. R. Pease
r. F. J. Lander	Miss M. E. W. Colam
r. L. M. White	Mr. G. Pringle
r. H. A. Welch	Mr. E. S. Smith
ss E. A. Swift	Mr. L. J. Collmann
r. K. Anns	Mr. A. W. Hastings
r. B. Coghlan	Mr. S. D. W. Timmins
r. G. A. F. Parry	Mr. R. S. De R. Harman
r. G. D. Smart	Mr. D. C. Saunders
ss J. Fletcher	Mr. E. B. O'Rorke
r. E. G. Gardner	Mr. A. V. Booker
r. H. T. Rix	Mr. D. H. Davies
r. N. Bomer	Mr. K. S. Tayler
r. A. W. Warland	Miss A. J. Cooke
ss B. Scott	Mr. A. W. G. Lowther
ss D. E. Spencer	Mr. E. I. B. Jeffcott
r. B. Dower	Mr. G. D. Shields
r. K. J. R. Peacock	Mr. E. G. Gillick
r. L. F. R. Coote	Mr. A. T. Bradford
r. C. W. Sully	Mr. J. R. Moore
r. J. H. Watkins	
ss F. V. J. Barker	

Six nominations for election were announced.

THE STUDY OF OLD BUILDINGS.

Mr. J. A. Gotch (President of the Royal titute of British Architects) then gave an ress on "The Value of the Study of Old ldings," illustrated with a number of lantern es depicting the different periods of architec- e, woodwork, stone-carving, &c. He said le a great advance in the methods of archi- ural education had been made during recent rs in some respects, he hoped there had not n a backsliding in others. He had heard it ed that the study of old buildings was not sed on with such favour nowadays as in the t, and that the study of Gothic work was g neglected. But he was fully persuaded of value of studying old buildings, and par- ularly Gothic work. Since he took up sketching old work the practice had been a pleasure to him every day. It had the advantage of getting one into all parts of the country; or if business or pleasure took one on trips to fresh parts of the country some very pleasant hours could be put in with a sketch book. Measuring and sketching buildings helped the student to learn for himself, and in his opinion that was better than being taught by even the most able teachers; he was sure that what one found out for oneself was retained in the mind more permanently than what one learnt from books. He believed nothing was more useful in designing buildings or adjuncts to buildings than to see a model of them, and in the ancient buildings were to hand the most admirable models. The object of architectural sketching was not primarily to make a picture for exhibition, but to convey information of how things were done and how they could be done again. He had nothing to say against pretty pictures, which exercised a very special kind of talent, but in his view the real object of architectural sketching was to get at the heart of the building or object sketched and see how it had been executed in the past and to judge the effect of the work that had been done in the past by someone else. He thought it quite impossible for even the most enthusiastic person to evolve in a moment a new style of architecture. The whole of architecture hitherto had been a process of evolution, and that was one reason why he could see no beauty in and no future for the cubist school.

In conclusion, he said heraldry was a subject of the greatest interest to architects. The subject was not so difficult as might be supposed, and with the aid of a simple book on heraldry it could be mastered fairly easily. Nothing was so good for studying the subject as a series of tombs, and nearly all over the country tombs could be found with the same sort of angels holding the same sort of shield in the same sort of niche. He knew of no art which so well led one to study the vigour of line. Some of the heraldry was extraordinarily interesting; the same sort of animal which occupied a long and narrow space on one occasion would be found in a square space in another example, but the skill of the artist and the vigour of the drawing had managed to fill both spaces properly with the same device. Those who wanted to spend their holidays with a sketch book could find an enormous variety of work of a simple kind all over the country.

The Chairman proposed a vote of thanks to the lecturer, and said they were very pleased indeed that the President of the Royal Institute had been able to find time to address the Association. It was thirty-six years ago since Mr. Gotch was President of the A.A., and he was the fourth President of the A.A. who had passed on to be President of the Royal Institute. He thought architects who built so much in the Renaissance also loved the old architecture when they got away to see the charming examples of past architecture with which this country abounded. For better or for worse, it had been judged that such work was not applicable to the present time, but it was for present-day architects to see that modern architecture was as suitable for the present as was the glorious architecture of the past in its own time. The architect who thought he could design a building like nothing that had gone before must be a most arrogant egotist. After all, the Parthenon was designed in a style which had been running for many centuries; the Taj Mahal was a typical example of that type of Mogul architecture. Old buildings could be studied in two ways: they could be studied archæologically, but architects should also endeavour to make them live—to find out what relation the old buildings had to the problems of the present day. The fundamental problems of building were the same from the beginning of time; the provision of a weather-proof wall and roof on sure foundations, with holes to let in the light and to permit people to get in and out. Those fundamental requirements had to be studied in connection with the conditions which affected them at the time—conditions of climate, and sunshine, and materials; of traction, political conditions, &c., a stable or an instable government, and, perhaps more important than all, the ideals and beliefs of the people.

Mr. Arthur Keen, F.R.I.B.A., (Hon. Sec., R.I.B.A.) said in the days before the architectural schools it was not so much a matter of being taught as of learning for oneself, and that learning was chiefly obtained by the study of old buildings. At that time nothing was regarded as so important as the study of old work, and those who practised it successfully became good architects. He did not know what the education of Street, for instance, consisted of except diligent sketching and measuring. It was the accepted method of study, and it produced very good results indeed; whether those results were comparable with the results to be achieved by present methods of education remained to be seen, but the older methods were not to be thought lightly of when one thought of the results. However, if men with an aptitude for study were put through a proper scheme of education, it could not fail to raise the standard of their future work in a very marked degree, and the value of school training would be apparent in the general increase in the quality of work in the coming generation. He thought it was the duty of every architect to know all about Gothic work, whether they practised in it or not: it was a matter of the history of the country.

Mr. Gilbert Jenkins said the A.A. School did encourage the students to sketch and measure old buildings.

Mr. Philip Tilden emphasised the value of sketching from a purely historical point of view. Many of the City churches which were now threatened with demolition had never been measured, and he suggested that architectural students should consider it their duty to sketch and measure all old buildings which were threatened with demolition, so that a proper record would be left for posterity. He said in the north of England he had recently seen one of the most beautiful houses ever built being pulled down, and fire-places of William and Mary's time had been hacked down with pickaxes.

Mr. Keen pointed out that all Wren's churches were measured by Clayton in 1848, and there was a copy of the portfolio containing them in the A.A. library.

In replying to the discussion, the Lecturer said the methods of teaching at the A A. Schools were admirable, but he thought the students should supplement what they learnt at the school with what they could learn themselves by sketching and measuring old work. He urged them, however, not to trust slavishly to their sketchbooks, for there was nothing more annoying than to see a new building and recognsie features from other buildings.

MEETINGS.

Friday, *November* 30.

Glasgow Architectural Craftsmen's Society.—Dr. W. Carrick Anderson on "Stone Decay, Its Causes and Treatment." 7.45 p.m.

Tuesday, *December* 4.

Liverpool Architectural Society.—Mr. H. A. Welch on "Our Clients and Ourselves, and Possibly Other Thoughts."

Wednesday, *December* 5.

Reading Society of Architects.—Mr. W. E. Vernon Crompton on "The Renaissance and Modern Point of View." At University College, Reading. 8 p.m.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Origin and Evolution of the Ionic Order." At Southampton-row, W.C.1. 6 p.m.

Royal Archæological Institute.—Mr. A. Oliver on "Some French Abbeys and Cathedrals." At Burlington House. 5 p.m.

Leeds and West Yorkshire Architectural Society.—Professor C. H. Reilly on "New Buildings in Regent-street and the Strand." At Philosophical Hall, Park-row. 7 p.m.

Society of Antiquaries.—Mr. E. T. Leeds on "An Anglo-Saxon Cremation-burial in Asthall Barrow, Oxon." At Burlington House, Piccadilly, W.1. 8.30 p.m.

A CENTURY OF ARCHITECTURE IN VIENNA.

By H. V. LANCHESTER.

In wandering through the well-planned and spacious city of Vienna one receives an impression of ordered dignity and studied effects such as is only to be equalled by that great prototype of western capitals on the banks of the Seine. The vistas and massing of the latter are emulated by the groupings made possible when the Ring Strasse of Vienna was constructed through the wide glacis of the fortifications during the years following 1857.

No comprehension of Vienna is possible until this feature of its history is clearly recognised and its aspect prior to that date visualised. We find conditions which are without parallel elsewhere on anything like so extensive a scale—namely, a compact and intensively occupied central city, separated by a belt of half a mile in width from a ring of busy and wide-spreading suburbs which had begun to develop some two centuries previously.

In order to appreciate clearly the architecture of Vienna it is of first importance to understand its growth, and the two accompanying plans of Vienna before and after the formation of the great Ring Strasse will give a broad impression of the salient feature in this.

Without a clear recognition of this salient feature Vienna would remain a puzzle to anyone wandering through its streets, for the reason that after completing perambulations in the central city he emerges from it into surroundings so spacious and obviously modern that he will inevitably assume the growths beyond to be still more recent. Instead of this, on travelling outward, in almost any direction, he finds himself plunged once more into the Vienna of the eighteenth century, appearing in its general character more or less contemporary with the heart of the city, possessing important churches and great palaces, built in the Baroque manner of the period and with long radial highways and formal planning between them all solidly built up in the style characteristic of their date. Once given the clue, all becomes clear and obvious, but without it the solution would take long to arrive at.



The Rathaus.

Not only have the special conditions of growth affected Vienna in the mass, but their influence has also been manifested in the architectural treatment of its buildings, and thus, in dealing with this aspect, it was impossible to omit these very brief notes on the growth of the city as an introduction to the subject.

Prior to the formation of the Ring Strasse the course of architecture in Vienna had b more traditional than in most Continer cities. The great undertakings of the vious century, carried out in a vigor Baroque manner by Fischer von Erl Lukas von Hildebrand, and their pupils successors, had so strongly determined character of the place that the revival Greek architecture at the end of the eightee century left Vienna almost untouched. C the Greek temple in the Volksgarten and or two minor efforts in this direction are be noticed, while the general course contin the Baroque tradition, only eliminating more extravagant elements and drawing somewhat towards a more academic sever This might be termed the first period of century with which we are dealing, and Vienna at that time possessed within its w a strong school of architecture, this "A demic Baroque" might have formed a g starting point for future developments. S a school was, however, lacking, and when formation of the Ring Strasse, and the sk planning linked up with it, provided a se of magnificent sites such as has fallen to lot of no other city, the incentive to fill t sites with worthy buildings was bound induce an extraordinary activity in archi tural design, and we find as a result a se of buildings displaying a very high qualit artistic skill at every point as we circle ro the old city. Yet it is impossible for architect to feel the unalloyed satisfaction such an achievement should evoke; his n reverts to Paris, and to the consistent velopment of design there through almost whole of the nineteenth century; he may may not, according to his temperame regret that in lieu of a series of build carried through with a single dominant as to the meaning of architecture interpr by the mentality of the age, he finds a v able museum of the architectural forms expression of all types recognised by academies of that period.

The Burg Theatre (Semper and Hasena perhaps comes nearest to the manner w would harmonise Viennese traditions with modern spirit; but apart from this we in 1860 a sudden plunge into the second p of our period, and into a pronounced ecl cism which made a clean sweep of the traditions, and presented Vienna with



Vienna in the Eighteenth Century. (Fortifications removed 1857.)

ic Rathaus (Friedrich von Schmidt), the
e Church, the Greek Parliament House
Theophil von Hansen), the museums
per and Hasenauer) and university in
mic Renaissance, while the Opera House
a form of Renaissance which it is impos-
to define. Some of the other buildings
period are scholarly and others are not,
he position is to some extent saved by
massing and by the relative simplicity
teadiness of the masses of private build-
which fill in the less dominant sites. On
hole, the claim may fairly be made that
agnificence of the Ring Strasse would
been materially enhanced had the
ese school of architects during the latter
of the nineteenth century been able to
p a uniform and consistent ideal in
ecture instead of seeking expression in
r other of the styles which are recog-
as the outcome of various specific con-
s, and which, when placed in conjunc-
must necessarily emphasise the illogical
of their employment.

is probably due to the fact that the
ant electicism of this period was dis-
l in such an obvious way that towards
there was a movement towards a definite
ese style, not entirely uninfluenced by
emporary movement in Germany, but at
me time possessing the distinctive char-
stics of lightness and grace, while re-
g in the hands of the late Otto Wagner
ked severity of form and line.

drich Oman, as his studies show,
d his art more directly from the
ue tradition, but, except where de-
tely repetitive, he has entirely recast
nd evolved a technique of great plas-
bringing the art of architecture as near
ssible to that of the sculptor. These
rtists may be regarded as the pioneers
modern Viennese school, and they both
d from a strictly traditional standpoint,
eveloped their highly individual methods
y step from this. The younger archi-
owe a good deal to the efforts of these
en, but their example has not resulted
re copying, and while their sense of
has not been surpassed, more recent
pments are influenced by the increased
tance given to a form of design domi-
by structural methods. To the tradi-
st the results sometimes lack beauty,
ere is no doubt of their logical sound-
and the exponents of this school of
t can claim supporters in most of the
centres of art in Europe.



Vienna in 1880. The Ring Strasse.

As regards buildings for a definite purpose, the principles now inculcated seem to be leading to a very interesting phase in architectural design; but in purely symbolical or emotional forms they appear to leave their followers a little in the air, and to provoke experiments, many of which may be doubtful as representing the ideas intended to be conveyed. This is, of course, a danger to which every living art is liable to be exposed; it must away with methods that have become trite and hackneyed, while it is only to the rare genius that it is given to find a new mode of expression to replace these. The hope of the modern school in Vienna is that by experiment with new forms facility may be gained by means of which the genuinely imaginative mind may be aided in finding a mode of expression, but such a course must run the risk of encouraging many who may be capable of evolving sound work on recognised lines to attempt flights beyond their powers, and produce novelties that have no real meaning to justify the attempt.

Of course, but little has been built in Vienna during the past nine years, and there is no immediate prospect of important works in the near future; but such buildings as are now being constructed, mainly in the surrounding country districts, show a high standard of design is upheld.

Despite the departures in idea to be seen in the schools, most of the executed work shows its continuity with pre-war designs, and it can be claimed that the latest of the three phases of Viennese architecture during the century under review is still in process of evolution, and that, following the traditionalist period from 1820 to 1860 and the eclectic one from 1860 to 1890 or somewhat later, we arrive at a stage that, in so far as it is not typically Teutonic, can fairly be called a national one.



The Burg Theatre.

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ILLUSTRATIONS.

Design for New Premises for the Holt Line.

We give this week the design submitted in the recent competition for new premises for the Holt Line, Liverpool, by Messrs. Mewès & Davis. The selected design, by Mr. Arnold Thorneley, F.R.I.B.A., and Mr. Herbert J. Rowse, A.R.I.B.A., was given in our issue for October 12; and the designs submitted by Sir Edwin Cooper, F.R.I.B.A., and Messrs. Willink & Dod were given in our issues for October 19 and November 16 respectively. The design submitted by Mr. Curtis Green, A.R.A., was given in our last issue.

Harlington Parish Church.

Some notes on Harlington Church, which is now being repaired under the direction of Messrs. Richardson & Gill, FF.R.I.B.A., are given on p. 849.

Paddington Baths.

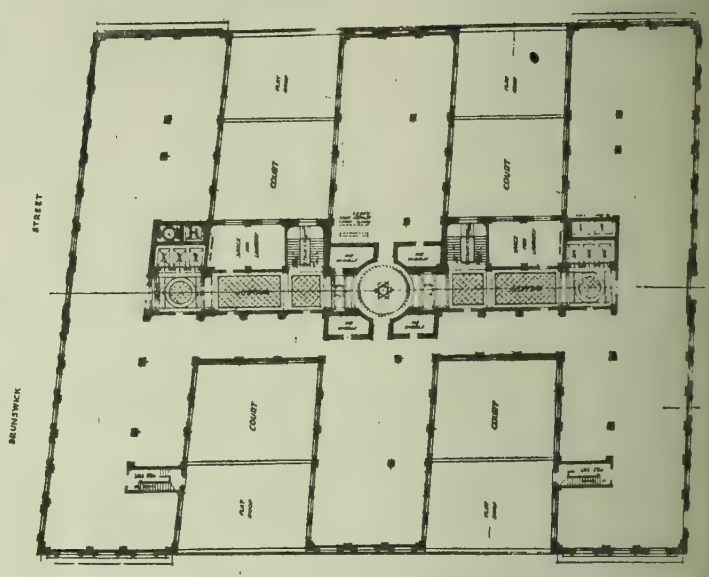
The New Central Baths, Paddington, are being erected at the north end of Queen's-road, on what is known as the Lodge Site, a portion of which, fronting Porchester-road, has been reserved for the erection of a proposed Public Hall, &c. The New Baths Buildings comprise first and second class swimming ponds, over sixty men's and women's slipper baths, public laundry with 30 tubs, establishment laundry, superintendent's quarters, &c. The first class swimming pond is being provided with collapsible dressing-boxes, and a temporary timber floor to enable this hall to be used in the winter months for entertainments and other purposes.

One of the problems was to design the main entrance to Queen's-road to meet the double needs of a baths establishment and a concert hall during part of the year without the working arrangements for the one interfering with the arrangements of the other.

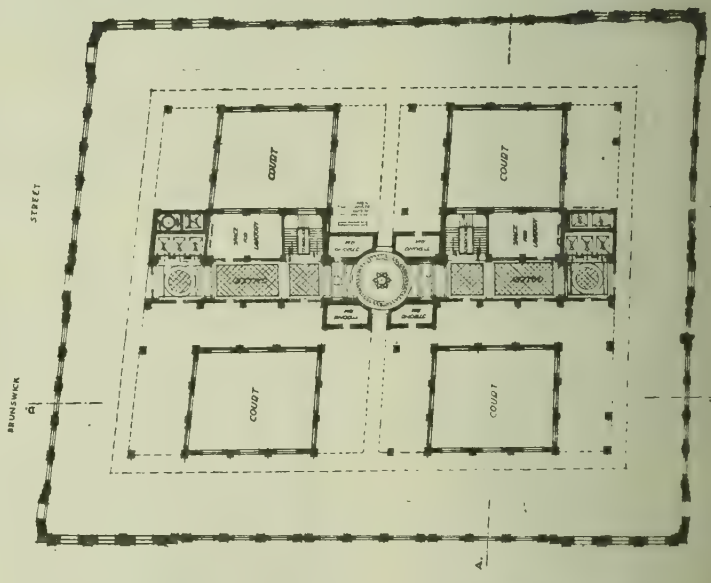
Three Paxman's economic boilers are being installed in connection with the heating, hot-water, and generating plant. The engineering contract is being carried out by Messrs. Z. D. Berry & Sons. The new front to Queen's-road is being built in Cornish granite, Portland stone, and 2 in. purple and red facing bricks.

The general contractors are Messrs. Perry & Co. (Bow), Ltd., the sub-contractors including Messrs. Archibald D. Dawnay & Sons, Ltd., constructional steelwork; Messrs. Siegwart Fireproof Floor Co., Ltd., concrete floors and flat roofs; Messrs. Empire Stone Co., Ltd., reinforced concrete ponds; Messrs. Farnley Iron Co., and Leeds Fireclay Co., glazed bricks; Hathern Terra Cotta Co., terra cotta work; Messrs. Williams Gamon & Co., Ltd., steel and bronze casements. Messrs. Gilbert Seale are executing the stone carving.

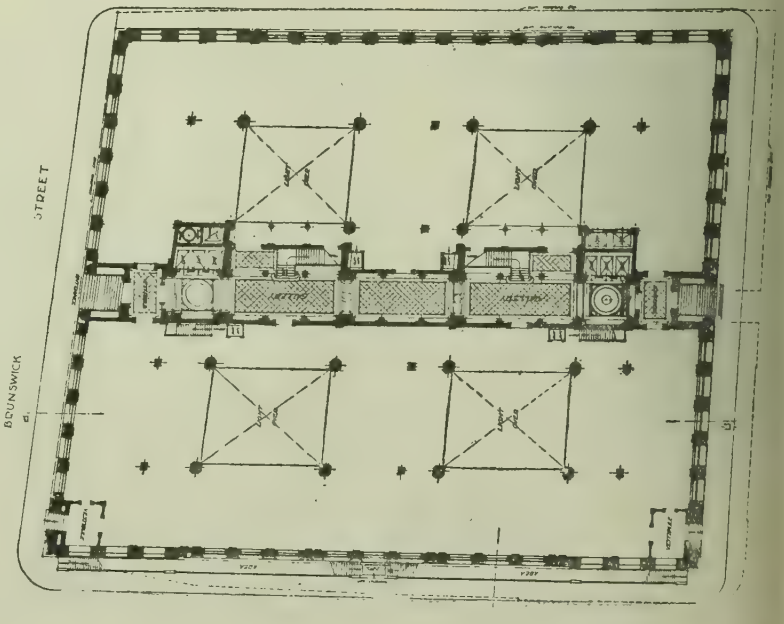
The architect is Mr. Herbert Shepherd, F.R.I.B.A.



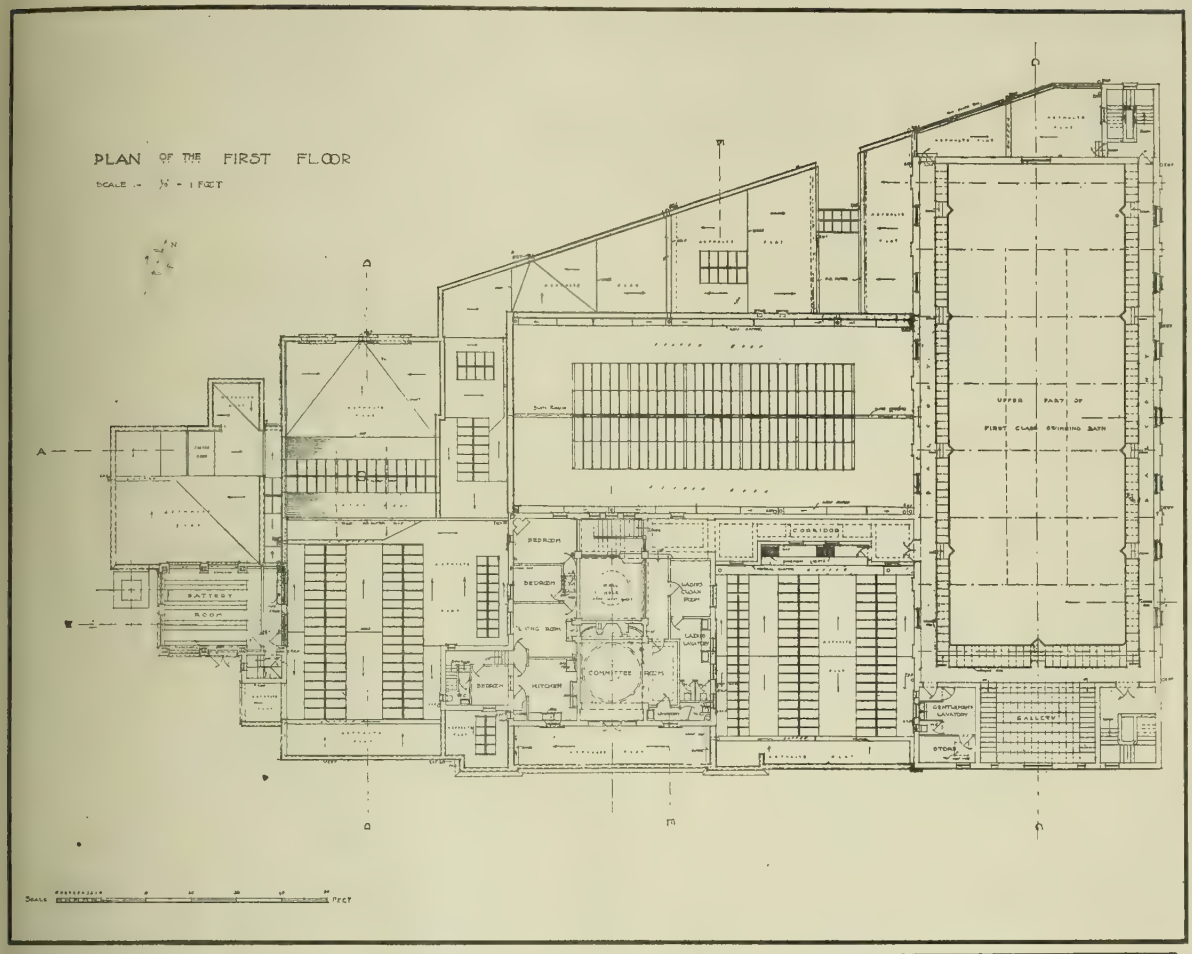
THIRD FLOOR PLAN.

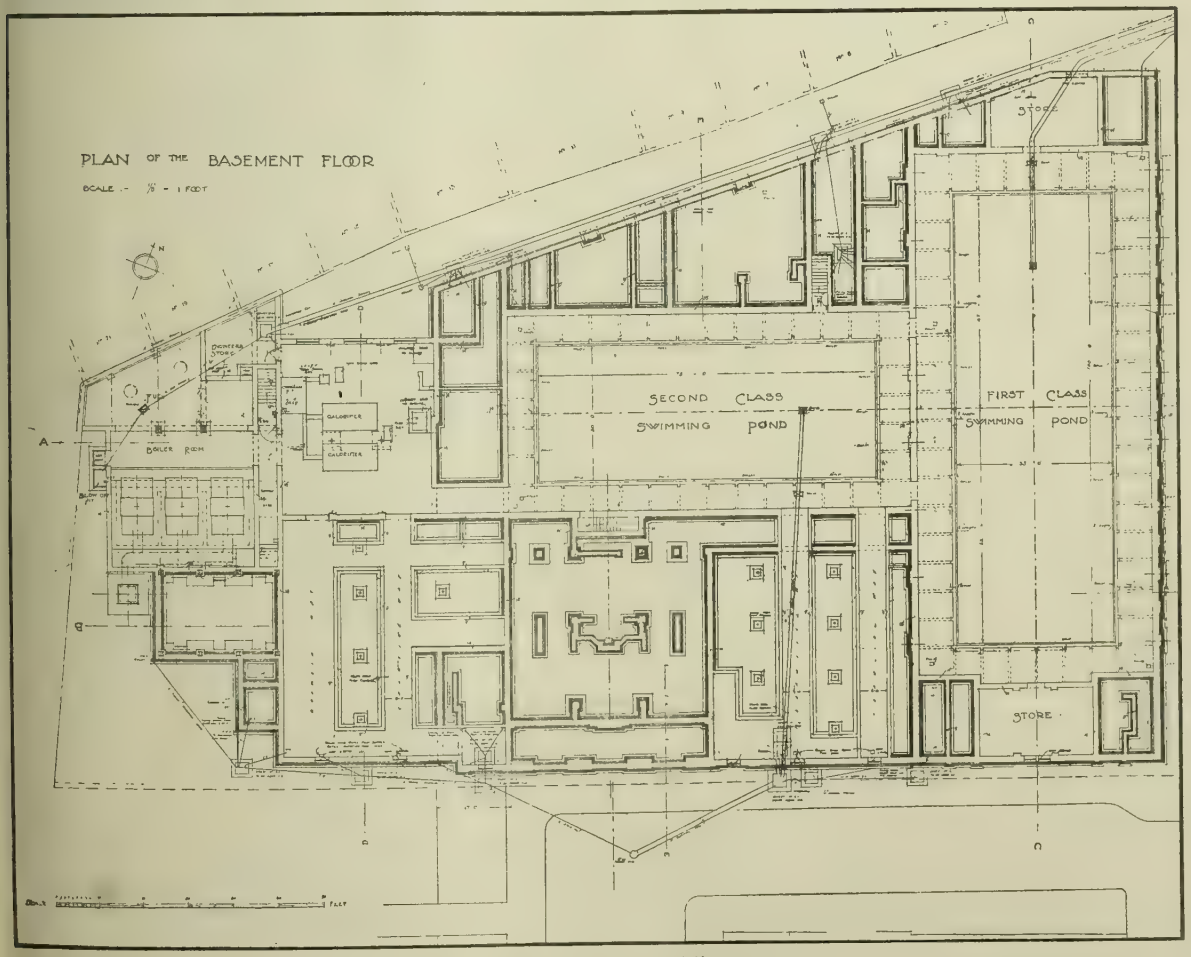


SECOND FLOOR PLAN.



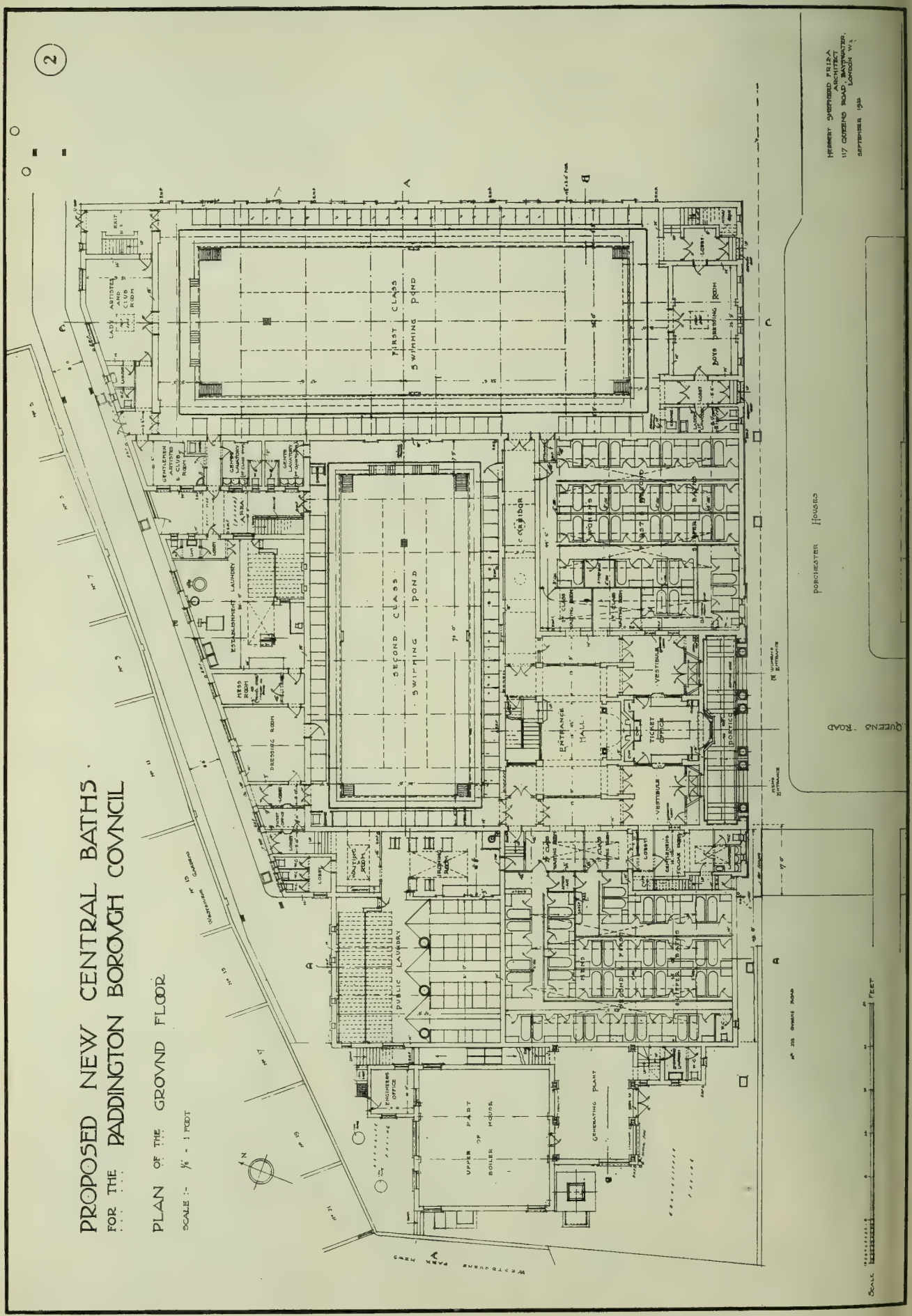
GROUND FLOOR PLAN.

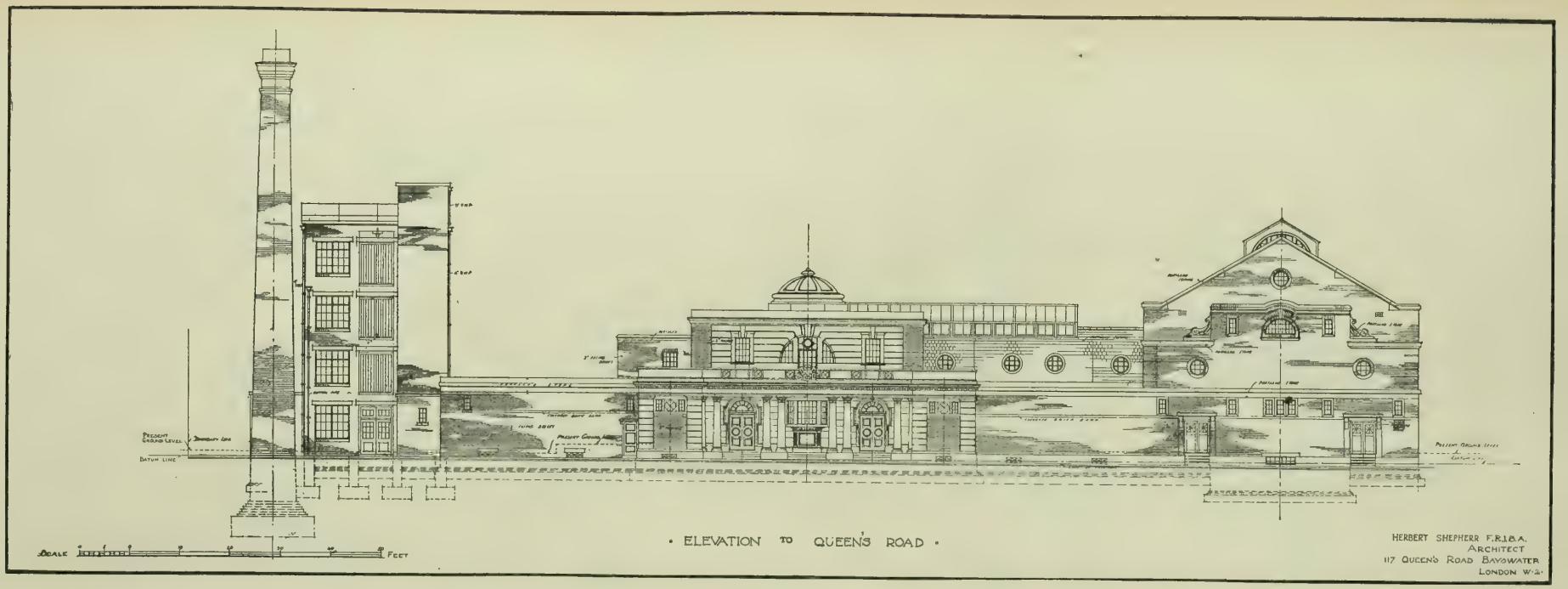




New Central Baths, Paddington.

MR. HERBERT SHEPHERD, F.R.I.B.A., Architect.


(2)
PROPOSED NEW CENTRAL BATHS
FOR THE PADDINGTON BOROUGH COUNCIL
PLAN OF THE GROUND FLOOR
SCALE :- 1/8 - 1 FOOT
HERBERT SHEPHERD FRIBA
ARCHITECT
117 QUEENS ROAD, BAYSWATER, LONDON W2
SEPTEMBER 1923
FIRST CLASS SWIMMING POND
SECOND CLASS SWIMMING POND
ENTRANCE HALL
TICKET OFFICE
VESTIBULE
PORTICO
CORRIDOR
PUBLIC LAUNDRY
ENGINEER'S OFFICE
UPPER PART OF BOILER HOUSE
GENERATING PLANT
DRESSING ROOM
PRESS ROOM
LOBBY
PORCHESTER HOUSES
QUEENS ROAD
WESTBOURNE PARK ROAD
SCALE FEET

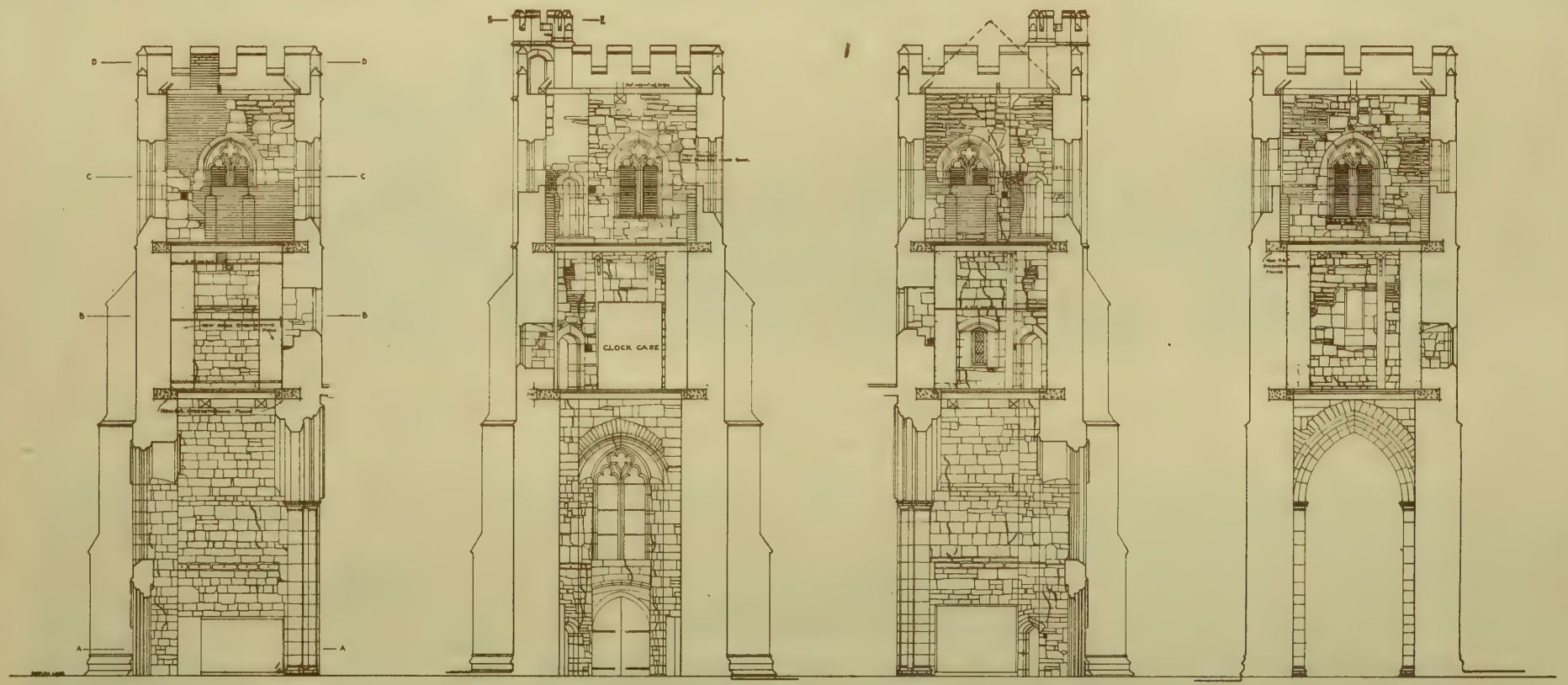


· ELEVATION TO QUEEN'S ROAD ·

HERBERT SHEPHERD F.R.I.B.A.
ARCHITECT
117 QUEEN'S ROAD BAYSWATER
LONDON W.2.



New Central Baths, Paddington. MR. HERBERT SHEPHERD, F.R.I.B.A., Architect.

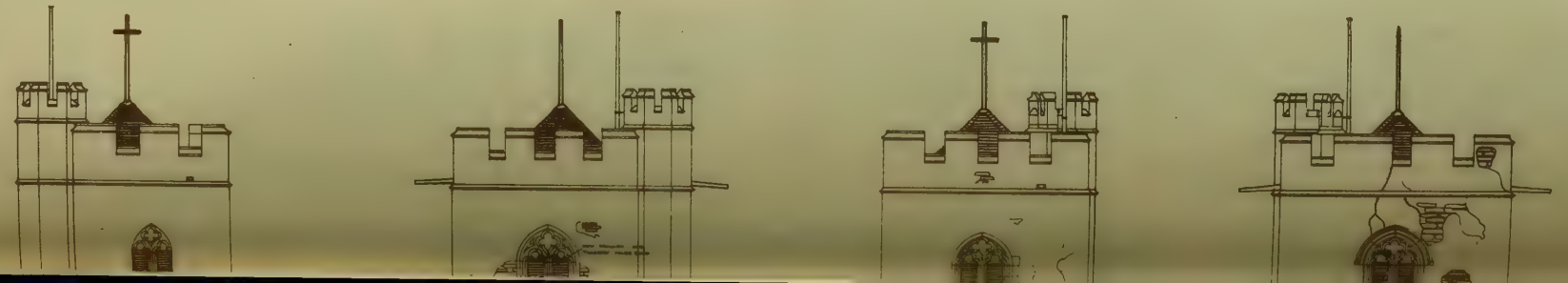


SECTIONAL ELEVATION LOOKING NORTH

SECTIONAL ELEVATION LOOKING WEST

SECTIONAL ELEVATION LOOKING SOUTH

SECTIONAL ELEVATION LOOKING EAST



THE BUI

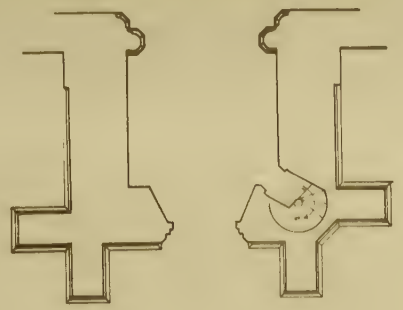


SOUTH ELEVATION

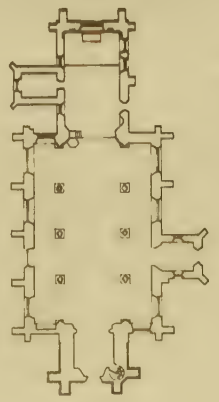
WEST ELEVATION

NORTH ELEVATION

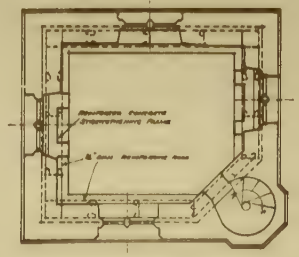
EAST ELEVATION



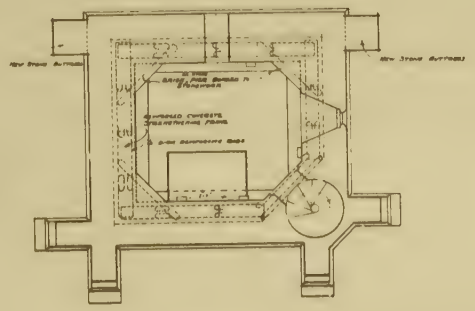
PLAN AT A-A



GROUND PLAN



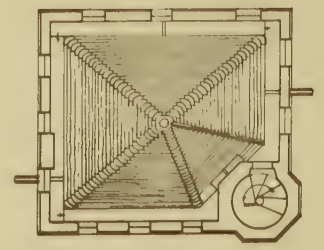
PLAN AT C-C



PLAN AT B-B



PLAN AT B-B



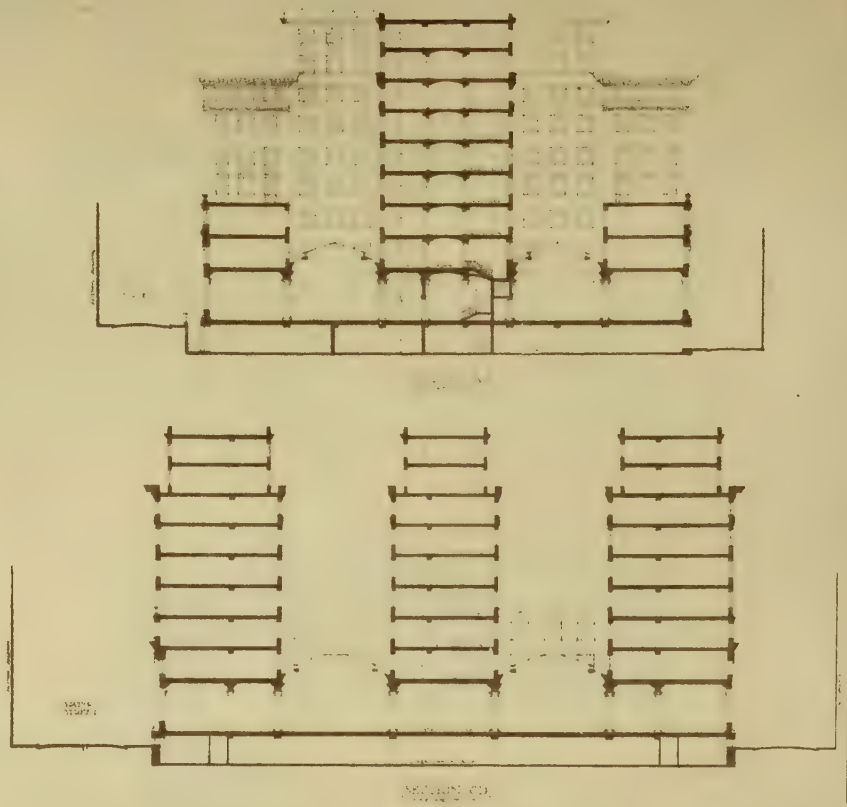
THE PARISH CHURCH, HARLINGTON. MESSRS. RICHARDSON & GILL, FF.R.I.B.A., ARCHITECTS.



·WATER·STREET·ELEVATION·
Scale ⅛ths equals 1 foot.

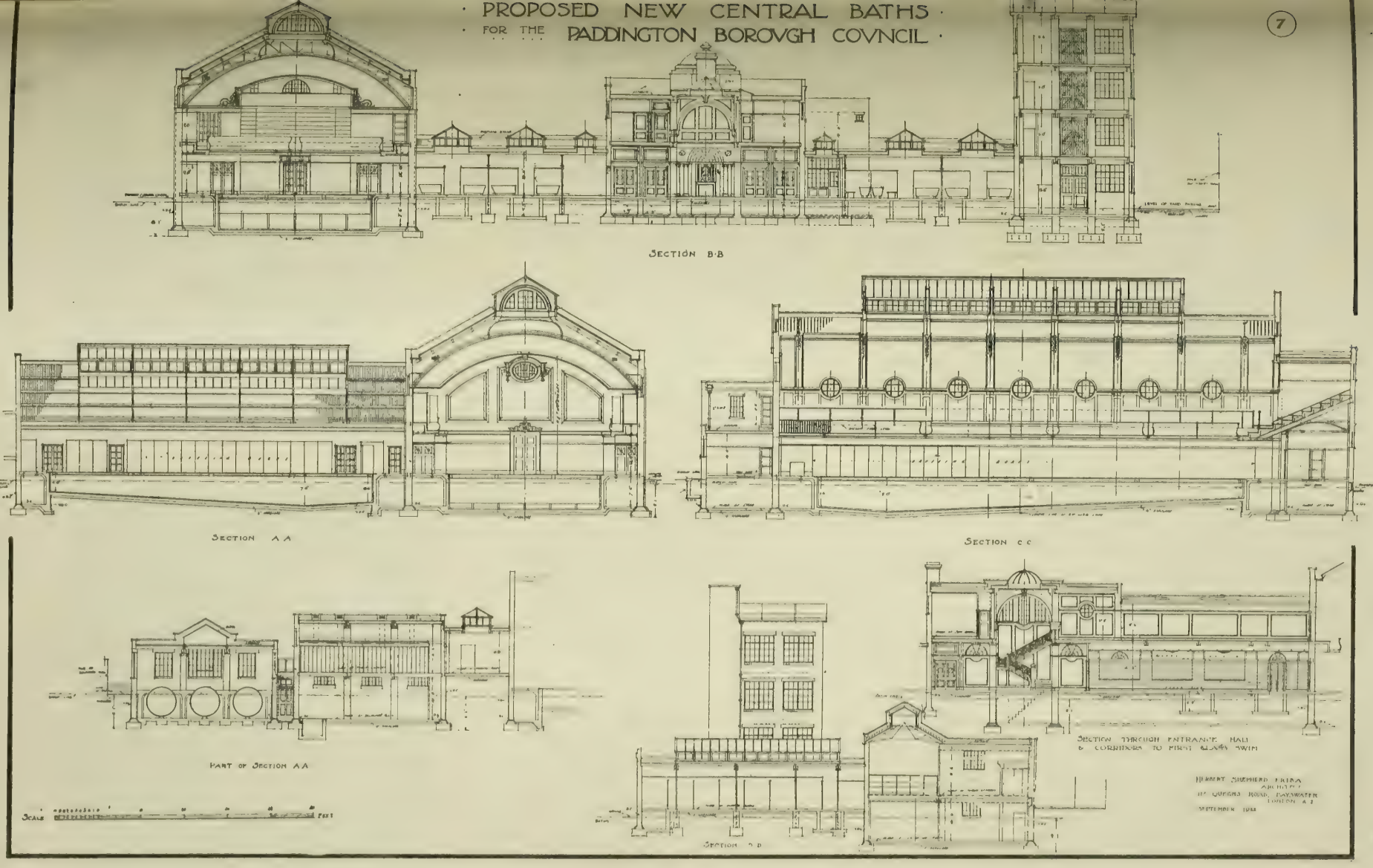


PENWICK STREET ELEVATION



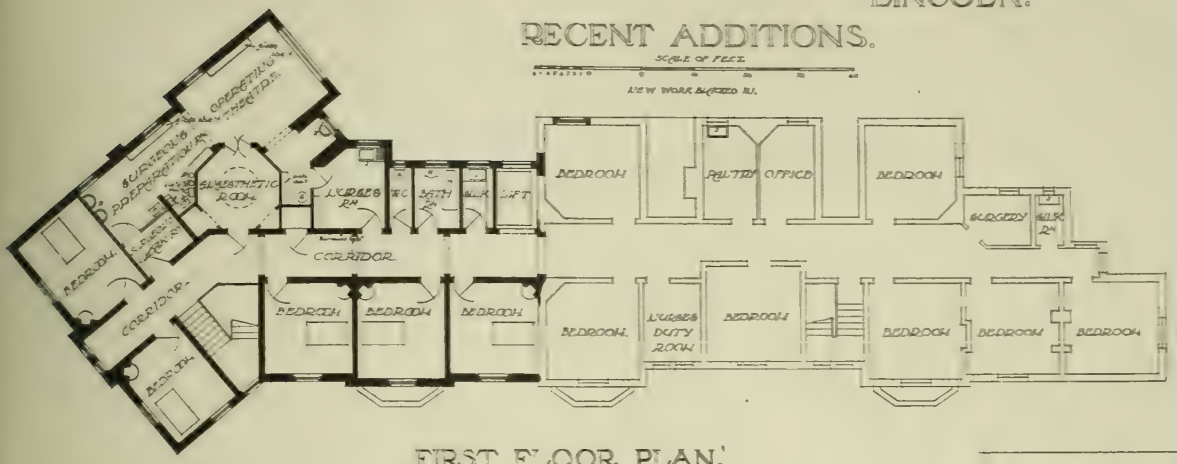
DESIGN SUBMITTED IN THE RECENT COMPETITION FOR NEW PREMISES FOR THE HOLT LINE, LIVERPOOL.

BY MESSRS. MEWES & DAVIS, ARCHITECTS.

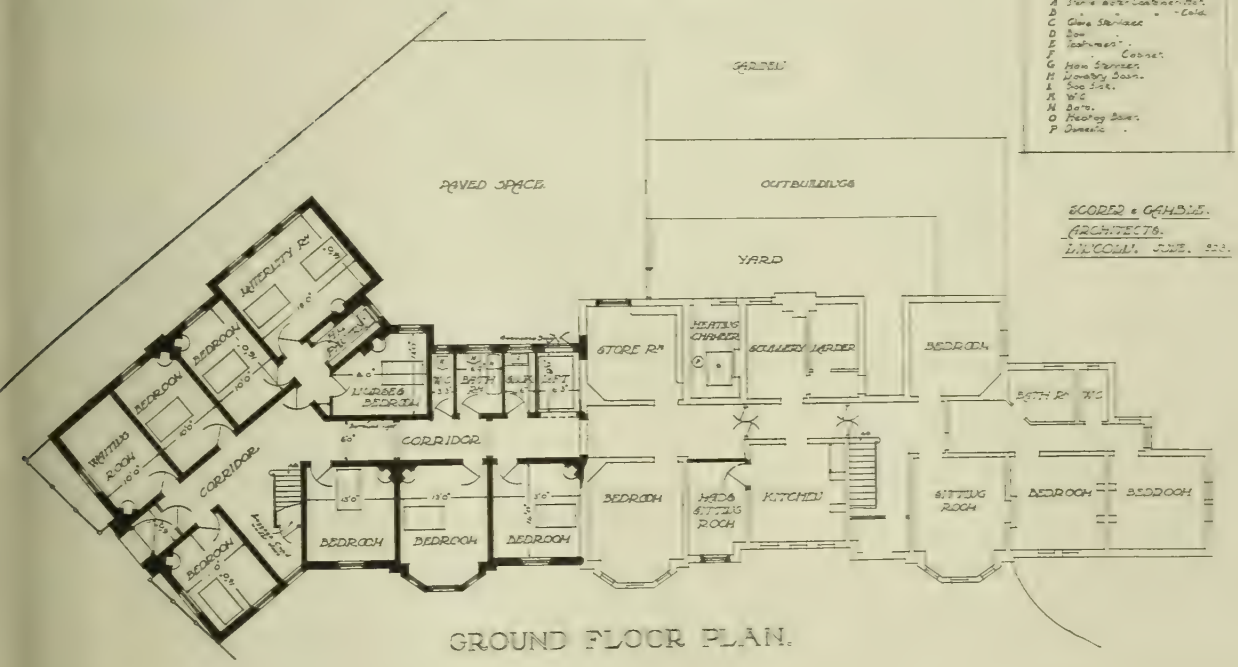


Mr. Herbert Shepherd, F.R.I.B.A., Architect.

THE BROMHEAD NURSING HOME
LINCOLN.
RECENT ADDITIONS.



FIRST FLOOR PLAN.



GROUND FLOOR PLAN.



W FROM OPERATING THEATRE INTO ANÆSTHETIC ROOM.



OPERATING THEATRE.

MESSRS. SCORER & GAMBLE, Architects. (*See p.* 848.)

EXHIBITION NOTES.

TOWN PLANNING AT OLYMPIA.

WITH twelve thousand square feet of wall space and half an acre of floor Major Hardy, Syms has been able to arrange the most interesting exhibition of Town Planning at Olympia which has probably been seen in London. The whole exhibit is well schemed in sections, beginning with the Civic Survey (1), and showing (2) Town-Planning Schemes under Town-Planning Acts, (3) Road Forms, (4) London, (5) City Development, (6) Regional or Joint Town Planning, (7) Garden Cities, and (8) Parks, Playgrounds and Athletic Grounds. There should be few architects who would not be interested, and may we not say instructed, by a careful consideration of this accumulated mass of information. Much of it has been actually collected by Major Hardy-Syms from Hungary, Austria, Sweden, Germany, &c., and a review of what has been collected would show that we have much to study, admire, and emulate in what far distant cities have done. That this exhibition might have been larger and more comprehensive still, we do not doubt, but it is sufficiently up to date and vital to make it for us the most interesting we have seen.

The sequence of action following a civic survey may be well understood if the visitor to the exhibition follows the various sections in the order they have been placed. As an instance of the practical application of town-planning design, we may point to the clever plans and elevations which have come from the London University School of Architecture and the A.A. schools. A quite new type of building, called for by modern developments, is the Motor Charabanc Station, which was suggested as a subject to the schools, and has met with an admirable response.

In the space at our disposal this week we cannot do justice to an exhibition so full of interest. It was stated by a public speaker the other day that there was no plan of London. A contradiction is provided here by the fine exhibit of plans by the London Society, dealing with Stoke Newington, Bethnal Green, Stepney, Hackney and Islington, and plan of roads in and out of London by the organising secretary.

The study of town development is illustrated by a fine series of drawings of Manchester as it was, as it is likely to be, and as it might and should have been. A wonderfully interesting series of drawings shows how a beaver altered the history of the town of Newbury. There was a river ford over a thousand years ago where roads met, and where building had begun, but one day a beaver or beavers set to work and built a dam across the stream further to the east, so that in time its ledge formed a better crossing of the river than the ford, and thus after the formation of a Roman camp this became the centre of the present town.

Bath, Birmingham, Oxford, Bolton, Blackpool, Dundee, Lancaster, Rochdale, Leicester are all shown together in an interesting section of the exhibition. Ramsgate's sea-front as propounded by Sir John Burnet & Partners, and Messrs. Lancaster, Lucas & Lodge, occupy another section.

The map designed by Mr. Pepler, showing a system of notation for the plan of a town in regard to its various aspects of density of population, location of industries, &c., is a valuable contribution. A map of England and Wales, showing the town-planning schemes already projected, in operation, or hereafter necessitated, gives a vivid impression of how much there is to be done. And whilst all this is before us it is interesting to see in various sections how vigorously the subject has been already dealt with in other countries, in some cases with very marked success.

The model which shows a design for a new bridge at Charing Cross should be useful in showing what such a scheme could produce; perhaps some will find it attractive. There would certainly be good space for all-night shelters under the embankment arches of the bridge, which will also serve to cut off the present fine view up and down the embankment. The model suggests, apparently, giving the south side over to dull, severe-looking types of commercial buildings.

A floor model 220 ft. long and 20 ft. wide, of the Great West Road out of London, occupies one end of the Gallery, and perhaps the large scale helps one to realise the great extent of the work. There are 22 models of various kinds, of which the most interesting is Mr. Barry Parker's development scheme for Oporto. Other excellent ones are No.16, of the Flackwell Housing Estate (W. S. Grice, architect), showing a pleasant lay-out, Bourneville and Gothenburg.

The graphic illustrations of Bournemouth, Bellingham, Golders Green, Welling (housing), Marsh Green, Merton, Barking, Hampstead, Mitcham and Hendon, will perhaps seem rather lacking in quality and originality compared with Zurich, Gothenburg, Upsala, and other Continental examples, but most British citizens may well feel assured that in the expression of pleasing domestic feeling in architecture we have really nothing to learn from other countries.

A valuable volume might be compiled from the materials got together in this one exhibition, but books are only one of various methods for the spread of knowledge. What we should like to see would be a series of lectures in all our towns dealing with town planning treated in a summarised and popular form, so that the general public—the so-called cultured and the rest!—might realise what goes to the making of a beautiful, healthy and well-ordered city. How many are there who realise what has been done so well in Liverpool for the better arrangement of tram roadways (shown in a fine photograph at the exhibition), or what the system of, transport fares and routes has done for Paris shown in a graphic map! Underlying or overlaying all the many activities which are necessarily associated with town planning, how many people are there who realise the sociological point of view? For our own part we frankly admit our already keen interest in this great matter of efficient town development has been stimulated greatly by this exhibition, which owes so much to the able committee in charge of it and the discriminating industry of its organising secretary.

BROMHEAD NURSING HOME, LINCOLN.

THIS building (see p. 847), called "The Red House," was erected from plans prepared by Mr. Wm. Watkins, F.R.I.B.A., in about the year 1887. It has been added to from time to time. The recent additions indicated in black on the plan were made in order to meet the growing demand for additional private nursing home accommodation. It consists of a waiting-room, five private wards, together with a maternity section, including maternity nurse's bedroom, and sanitary arrangements and lift on the ground floor; five more private wards and the operating theatre section, which comprises an anæsthetic room leading into the operating theatre, with the surgeons' cloakroom and surgeons' preparation room and nurses' preparation room on either side, and sanitary arrangements and lift form the first floor.

The plans of the theatre section were designed in accordance with the latest views on the requirements of aseptic surgery. The theatre itself contains only the absolute necessities, instrument cabinets and other equipment being kept in the subsidiary rooms. The surgeons' cloakroom and nurses' preparation room are shut off from the theatre by doors, thus ensuring the passage of the least possible amount of dust from the outside corridors into the theatre itself.

The walls of the operating theatre and surrounding rooms are finished in Portland and Parian cement and painted in enamel, the dado being dark green and the remainder white. The floor is dark green mosaic, this colour being chosen specially to throw up objects contrasted against it. The floors of the anæsthetic room and sanitary rooms are covered with doloment. The doors between the anæsthetic room and the operating theatre are solid enamelled doors, self-closi rising butts, and are cut short both top and at the bottom, the former for v tion and the latter to prevent the mo of dust. Special curtains and sha opaque black material have been arran use in the anæsthetic room, which n darkened for operations requiring the The ward floors are covered with " ship " linoleum stuck down to the conc

In addition to the low-pressure apparatus it was thought advisable small " Devon " grates in the different for ventilation and additional warming elevations, which are of a plain and character to harmonise with the o building, are faced with local facing and the roofs are covered with Ro tiles. The whole cost of the additio been about £7,500.

Messrs. Wm. Wright & Son (Li Ltd., were the general contractors. W. Gregory & Son, of Lincoln, the el engineers concerned, and the Brightsi gineering Co. carried out the heating the architect being Mr. Henry G. G F.R.I.B.A., of Messrs. Scorer & G architects and surveyors, Lincoln.

RENAISSANCE GARDE AND TOWN PLANS

FOLLOWING is a summary of the sixth series of lectures on Town Planning, giv Mr. Wm. Haywood, F.R.I.B.A., at Birmi University :—

The influence of landscape architecture Renaissance town planning was more ap in seventeenth-century France than in teenth-century Italy. Italian gardens fa the hill side, and the prospect of great n effects external to their boundaries. I gardens were horizontal, and were asso with distant landscapes, where these co made to appear as part of an artificial

Le Notre, the greatest of French lan architects, was responsible for the best I work between A.D. 1661 and 1700, includi gardens of Versailles, St. Germain-en Trianon, Marly, and St. Cloud. Versaill especially interesting, as it had formally-pl gardens on the west front of the Palace, formal planning of streets and buildings east; the composition in each case centr the Chateau. The Place d'Armes, around the Palace and town were grouped, had c and branching avenues, evidently inspir the plan for the Piazza del Popolo at built eighty years before. This feature a appeared in Germany at Karlsruhe (A.D. where the geometrical association of town Palace, and Palace gardens—which Ver uses with discretion—was carried to extremes. Neither at Versailles nor else did any town planning appear in the seventeenth, or nineteenth centuries, which compare with Wren's plan for rebuilding L in 1666. For spacious effect, and a utility to its own and later times, this plan alone, and there was no greater lesson learned from the history of town planning the loss suffered by London from an absen legal power at a time of great opportunity.

Paris—to which one's thoughts t naturally when one thought of cities planned and adequately built—was the out of many apt adjustments, rather than comprehensive design. Her first move to emancipation from mediæval congestion occ with the use of her seventeenth-century fications as promenades, and their subse adaptation—when removed by Louis XI tree-lined avenues. This sweep of av on the north bank of the Seine, known la the "Grande Boulevards," was the first towards modern planning in Paris. It conceived 85 years after Fontana's wo Rome, and 10 years after Wren's plan London. Paris had profited greatly b successive enclosures.

E ARCHITECTURE CLUB.

hursday last, at the Hotel Cecil, the ture Club held its fifth quarterly dinner. hair was occupied by Mr. J. C. Squire, ongst those present were The Hungarian . Lord Riddell, Viscount Bury, Sir Cewnes, Sir Charles Walston, Sir Hugh r Theodore Cook, Sir John Hall, Sir Biron, Mr. Hope Bagenal, Mr. Oswald Mr. R. S. Bowers, Mr. Ewart G. Culpin, F. W. Dening, Mr. W. Reid Dick, Mr. . Eagar, Mr. A. Trystan Edwards, Mr. ler-Duncan, Mr. H. M. Fletcher, Mr. G. Forrest, Mr. W. A. Forsyth, Mr. H. S. -Rendel, Mr. Edmond Gosse, Mr. E. Hall, Mr. H. Austen Hall, Mr. Stanley Mr. Ambrose Heal, Mr. Lewis Hind, les Holden, Mr. Ralph Knott, Mr. H. V. er, Mr. Nathaniel Lloyd, Mr. Edward Ir. Oswald P. Milne, Mr. Ian MacAlister, . Newton, Mr. Paul Phipps, Mr. A. R. Mr. Howard Robertson, Mr. Charles Mr. Philip Tilden, Mr. T. S. Tait, . Walkley, Mr. John Walter, Mr. Paul ise, Mr. Trenwith Wills, Professor J. Worthington, Dr. Thomas Worthington, . P. Maule, Mr. R. S. Bowers, Mr. Wyon, and Mr. F. R. Yerbury.

he loyal toasts, the CHAIRMAN gave a ort of the progress of the Club. The had, he said, been very evident of late ncreased attention which the press and e paid to architecture. The member- he Club was increasing, and its sphere y was extending. They had received ort of the architectural profession and Royal Institute of British Architects, ch body the Club was co-operating in g an exhibition of architecture at next itish Empire Exhibition. That Exhi- ould include photographs of a repre- selection of the best buildings erected e Empire during the past twenty years. committee of the R.I.B.A. and the been formed, and he hoped it would le to place the Press Committee of the the disposal of the Royal Institute. b now had three sub-committees in order: (1) the Press Committee; Lecture Committee, which would lectures on architecture in various parts ountry; and (3) the Exhibition Com- which was organising the second Exhi- the Club to be held in the Spring of r. In future those exhibitions would ections devoted to the best architecture preceding twelve months, housing gardens, memorials, &c.

OMUND GOSSE, proposing the toast of ecture," expressed the pleasure he from seeing beautiful buildings, and although he had travelled extensively ings appealed to him so much as the ical buildings of France, particularly hic cathedrals of the twelfth and h centuries in the north of France. ad splendidly preserved her memorials st. In the seventeenth and eighteenth there was considerable opposition to Gothic minsters of France, and there anger that many of them might have nolished, but that could not happen use they were protected by legislation. very serious thing that there was no legislation to protect architectural ces of the past in this country, and itecture Club might do a great deal to the magnificent buildings which were langer of being lost to us through the of industrial arguments, particularly r of the City churches. Probably the rches were not all as beautiful as Ely l, but they were all works of art and ought to be judged on its own parti- erits. Never in the history of our on had a beautiful ancient building troyed without it had been regretted ds. If one of the beautiful City were destroyed it would be gone for l it was possible that the next genera- tion, finding the building had beauties not now realised, would hold the present generation up to execration. It must be realised, however, that industrial necessities existed, and that every building was not worth preserving simply because it was old, but every movement to destroy an ancient monument should be carefully watched.

In responding, Mr. PAUL WATERHOUSE, PP.R.I.B.A., expressed the pleasure he felt at the existence of the Club, whose aim was to blend together architecture and literature. There was much that literature could do for architecture, and no doubt architects could do something for literature.

The toast of "The Club" was proposed by LORD RIDDELL, who said it was a melancholy fact that there was no subject on which the general public had less knowledge than architecture. Very few of the public knew anything about the important buildings in the towns in which they lived, and fewer still knew anything about the architects who designed them. That ignorance was largely due to architects themselves, who were a very reserved body of men. So far as he knew no architect had yet been bold enough to put his name to a building he had designed. He was quite certain that architecture would never become popular, nor would the public take an interest in architecture, until architects took the trouble to advertise themselves more in the editorial columns of the press, by speaking, and in other ways. In addition to interesting the public in architecture he thought the Club might do good work by inculcating better business methods into architects. The system of treating architects as artists rather than business men had its defects. What frightened many people from building was the possibility of "extras," and it would be to the benefit of all concerned if a client were told exactly what a building would cost without the fear of any extras unless incurred by the client himself varying the design whilst the building was in progress of erection.

Mr. A. B. WALKLEY responded.

HARLINGTON PARISH CHURCH.

THIS is a well-proportioned building; the chancel measures 32 ft. by 16 ft. 10 in., with, north vestry; nave 55 ft. 8 in. by 18 ft., with aisles 7 ft. wide, and a characteristic porch; the west tower measures 9 ft. 4 in. by 11 ft. 7 in. internally. Both the nave and aisle are fine examples of early fourteenth-century work; the chancel is of slightly later date. There was no tower to the original design. In the fifteenth century the present tower was added and, without regard to constructional needs, was built against the west wall of the nave. The nave arcades are fine examples of their type, being tall and slender with moulded details; in this respect the work is similar to that at Houghton Conquest Church.

All the original windows have been removed from the aisles with the exception of one in the east wall of the north aisle. There are remains of a similar west window, now blocked. The uncusped sixteenth-century windows of four lights in the aisle, and elsewhere of three lights, have the character of early Tudor work.

In the fifteenth century, probably when the tower was added, the aisle walls were heightened, and low-pitched roofs finished with lead flats were put over the nave and aisles; the line of the high-pitched fourteenth-century nave roof can still be seen in the west wall of the tower. This portion of the nave wall is built of clunch and was evidently exposed to the weather for centuries, after the alterations were made. The exterior was repaired about ninety years ago.

In the chancel there is a three-light east window with flowing tracery of original date (probably *c.* 1345), flanked by fine contemporary gabled and pinnacled niches revealing the influence of Walsingham's work at Ely (the northern niche is richer than the other).

In the north wall of the chancel are two two-light windows equally spaced with a fifteenth-century vestry door between them, and in the south wall are two similar windows set close together at the east end of the wall with a small door farther to the west, and at the south-west a small square-headed low-side window, all of original date and all having moulded arches of the same section. A plain seat below the south-east window and a locker in the north wall are evidently original work. The jambs of the chancel arch have towards the nave clustered half-responds of the same build and detail as the nave arcades, but towards the chancel are rough blocks of masonry, perhaps the remains of the side walls of an older and narrower chancel against which the 14th-century work was built.

The upper stones of the outer order of the arch on the chancel side appear below the chancel ceiling which hides the rest of the order; they are worked with a deeply-cut thirteenth-century section.

The nave has fourteenth-century north and south doorways of moulded detail, the latter under the fifteenth-century porch, and in the tower is a third doorway in the west wall, of Decorated date; in fact, the stones may have been moved from their previous position under the wall of the nave.

The tower opens to the nave by a fine moulded arch of two orders of fifteenth-century date, and has a two-light west window. The staircase is at the south-west angle. The chancel roof is modern, but the tiles are old, probably early eighteenth century. The roofs of the nave and aisle are of the fifteenth century and have simple moulded timber with bosses at the intersection and wall posts.

At the west of the nave several rows of late Gothic benches, with buttressed ends with fronts and moulded rails, are still extant, but otherwise the woodwork of the church is modern, except for a seventeenth-century chest and a chair dated 1601.

In the north aisle is a flat arched recess, apparently early seventeenth-century date, which must have once held a monument. This now contains the war memorial tablet.

The whole of the church is to be repaired under the direction of Messrs. Richardson & Gill, of London, whose report is to be considered by the Society for the Protection of Ancient Buildings. **Drawings of the tower are given this week.**

THE ARCHITECTURE OF OXFORD.

UNDER the auspices of the South Wales Institute of Architects (Central Branch) and the Institute of Builders (South Wales Branch), a lecture on "The Architecture of Oxford" was given recently, by Mr. W. S. Purchon, M.A., A.R.I.B.A., head of the department of architecture and civic design at the Technical College, Cardiff. Mr. J. E. Turner, J.P., was in the chair.

The lecturer explained that he selected Oxford for his subject partly because the forthcoming Conference of the R.I.B.A. was to be held in that city, but mainly because carved in its stones was a record of English architecture from its early beginnings to the present time. It was difficult, he said, to over-estimate the influence of that architecture on those who had studied at Oxford. Having expressed regret that modern developments in Oxford outside the Colleges were not more worthy of the noble traditions of the city, the lecturer proceeded to consider, in chronological order, some of its leading buildings.

He pointed out that it was often only lack of funds which saved fine Gothic work during the Renaissance, and that the architects of the Gothic revival often had as little respect for Renaissance work, but that the attempt made in 1910 to pull down Butterfield's Gothic Revival Chapel at Balliol was frustrated.

LEEDS & WEST YORKSHIRE ARCHITECTURAL SOCIETY.

In his Presidential Address to the Leeds and West Yorkshire Architectural Society, held on November 23, Mr. Eric Morley, F.R.I.B.A., F.S.I., said the last R.I.B.A. elections revealed an altogether new feeling amongst its voting members and marked still another step forward, and the number of provincial architects now serving on the Council was larger than ever before. It must be apparent to all that the provincial members of the R.I.B.A. would now be able to secure their demands at any future election, if only their full voting power were exerted to do so. Most important of all, and for the first time in history, they had elected a provincial architect to the chair of the Royal Institute. They would not then be unduly sanguine in fostering the hope that they were at last coming into their own. It only remained for each one of them to ensure his further advancement and to grasp the opportunities to his hand.

Nothing had affected so vitally the street architecture of this country as the crying demand for glazed acres of shop windows. It was the shopkeepers' one essential for successful trading, and even the most conservative of architects had been compelled to modernise his ideas and to modify the scale of his elevations to provide it. That had been achieved by the shopkeepers, but the shortage of office accommodation, calling equally for attention, was surely another example of the suddenly apparent and devastating troubles which appeared as a result of the war. The only possible solution was higher buildings. He was not advocating skyscrapers 600 ft. high, but buildings of from six to eight stories. A great deal had already been said on that subject, both for and against, but it appeared to them in Leeds and Bradford, at any rate, expansion in an upward direction was both desirable and inevitable. Any town with a limited central area, with a limited number of streets suitable for offices near the important centres of civic and industrial life, had its business locality finally restricted or confined so as to make lateral extension, except on the very smallest scale, almost impossible. The width of streets was, of course, a governing factor, but the recent case of Charles Semon & Co., Ltd., *v.* Bradford Corporation had established one fact for their guidance; that a building half as high again as the width of the street would still leave a sufficiency of light for the opposite owner.

There was little doubt that since the war the number of clients who inclined to the desire for higher buildings had increased, but there again a note of caution in dealing with them was essential. It was not usually feasible to erect such buildings on small sites, for the reason that the proportion of area required for lifts and staircases was often too great to ensure a sound financial undertaking. Sites must be sufficiently large to provide those necessities with economy, and the interests of a city were better served by one owner selling to, or sharing with his neighbour, than by either covering his own small site with a building not really suitable for the position it occupies.

Last year he visited the school of art whilst the preparation of designs for the front of a large post-office was in progress. He was amazed at the high standard of excellence in that room, and, though it occurred to him that the importance of scale and proportion as a preliminary essential for a façade of that description had possibly escaped one or two students at the outset, he felt really envious of the facilities the school provided. In spite of all that, he would say one or two words of counsel to the students. He would remind them that the nature of their earlier work would not, for the most part, include at all the planning of great monuments or the erection of buildings with imposing façades. It would rather consist of the alteration of houses, the building of garages and other very much smaller contracts. But should they feel disappointed or disheartened at the lack of public confidence that might seem to reflect, it would help them to remember that even garages were of two kinds—good and bad—and that it was just as essential to do their best with the smaller buildings as it was to achieve greatness with the larger. There was nothing so true in the architectural profession as that only the best was good enough, that success was only achieved by giving constant attention to the very smallest detail. If young architects gave this requisite attention they would have more work than they could do, and when that time arrived they would do well to have grasped early two other points of importance. First, they should cultivate strenuously the faculty of quick thinking, of coming quickly to a decision. Every architectural problem had a variety of solutions, and many of them must occur to every architect as he tried to evolve a design. Second, however sound and thorough their training, and however inviolable their position as architects, a good builder was their best friend. Remembering that the autocratic and dictatorial architect was not always the ideal, they should see that they worked actually with the builder and not exclusively apart from him. They should consult him whenever his experience would be of value. Fresh from the school, they will be gifted with a range of knowledge by the side of which that of the average builder appeared limited and unimportant.

The prizewinners in the Society's Competitions are as follows:—

SILVER MEDAL (for MEASURED DRAWINGS).—Mr. G. A. Burnett.

DESIGN.—(1) Mr. F. Chippendale; (2) Mr. George W. Alderson.

THE "HALDEN" PRIZE ESSAY.—Mr. F. Chippendale.

THE SOCIETY'S TRAVELLING STUDENTSHIP FOR 1923.—Mr. F. Chippendale.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

The following are notes from the Minutes of the meeting of the R.I.B.A. Council on November 19:—

TOWN PLANNING.—It was decided to circulate a memorandum on the subject of "Architects and Town Planning" to all Members and Licentiates and to the Allied Societies, with a request to the latter that they should use their influence to bring it to the notice of the Local Authorities in their districts.

HOUSING FEES.—A Committee was appointed to draft a new Scale of Charges applicable to Housing Work under the Housing (No. 2) Act, 1923.

THE R.I.B.A. LIBRARY.—A Committee was appointed to consider and report on the question of better and safer accommodation for the R.I.B.A. Library.

APPOINTMENT.—Mr. Digby L. Solomon was appointed to represent the R.I.B.A. on the Sectional Committee on Cement of the British Engineering Standards Association.

PROFESSIONAL CONDUCT.—A member was censured and suspended for six months for quoting fees lower than those prescribed by the R.I.B.A. scale when applying for appointment as architect to a public authority.

THE FRANCO-BRITISH UNION OF ARCHITECTS.—It was decided to make an annual grant of £20, to meet the expenses of the British Section of the Franco-British Union of Architects.

MEMBERSHIP.—The applications of four candidates for the Fellowship and two candidates for the Associateship were approved.

RESIGNATIONS.—The following resignations were accepted with regret:—J. Coulson Nicol, K. Gammell.

The Oldest Orphanage.

Sir James Carmichael, K.B.E., will preside at the 165th anniversary festival of the Alexandra Orphanage and Orphan Working School, to be held at Salters' Hall, E.C., on Tuesday, December 4.

READING SOCIETY ARCHITECTS.

"The Mediæval Point of View."

THE third of the course of four lec architecture, arranged by the Reading of Architects in conjunction with the Branch of the Workers' Educational tion, was given at University College, on Wednesday last week. The chair w by Mr. W. Galt Millar. F.S.I., the Chai the Executive of the Reading Society tects.

The lecture, which was on "The M Point of View," was illustrated by lante The lecturer, Major H. C. Corlette, F.R.I.B.A., began his address by to the evidence of a continually ing tradition of building through all pe history, which was, he said, to be see relationship of Greek and Roman ideas to one another and of both to earlier E forms. He then showed that all m building was related to Roman work e direct influence or through the work Byzantine builders, but the mediæval view grew rapidly away from both influences and moved on to the use methods unknown before. It was not ap a conscious view but rather an attitude an instinct of freedom, that enabled t make discoveries. They were practic working men, not moved by weak emoti stirred by energy of mind and body to o new problems of structure by every a scientific device they could use. But spirit of enterprise, of experiment, they a all questions, whether of government, ministration, or of building. By doing discovered the practical superiority pointed arch over other forms as a m which to solve the special difficulties p to them. In the result they produced wonderful varieties of Gothic architectur this Gothic work, which in itself was pression of their sense of freedom, of was used under organised and appro straints. In the northern parts of Euro built as the climate required and the m available allowed, and in the south they the same considerations of sense to i them in their work. Geography left pression on their architecture. They copied others who had built before th they never initiated their own successes

The influence of the mediæval point was not confined to a period from, say, th to the fifteenth century; it extended, es in England, till the end of the sixteenth and later, and during the latter part period the Gothic mind was at work menting, with wonderful success, on t and more modern problems of planni design. Gothic architecture was not a t religious impulse or feudal demands, or of traceries and cusps, or any other pa details. It was more an attitude of mi attacked questions of building with sonn converting all difficulties of plan or const into something usefully beautiful. T among the craftsmen was its backbo operation among them gave it power. T guilds were a school of workers. They fact, a "workers' educational associatio they lived and learned not only by boo words but by the things they could tou see, always searching for ideas of perfec means of action and adventure, experim enterprise. The mediæval point of vi duced achievements which have neve equalled in beauty nor surpassed in br of intellectual power.

Exhibition of Decorators' Work.

An exhibition of decorators' work held at the School of Art, Mount-street, pool, from December 5 to December 1 sisting of travelling exhibition works from those shown at the recent exhibiti in London by the Decorators' Federati much local work.

ERIES OF ANCIENT STAINED GLASS.

A. KNOWLES lectured before the ety of Arts on November 21 on t. The Earl of Crawford and K.T., P.C., F.S.A., presided.

urer said there was no greater ll true lovers of old work and old ip than the forger. Even those othing of the joy of possession, the essence of collecting, but who ake a living, and an honest one, and selling, the forger did the rm. They were very frequently his d his productions turned up so in auction rooms that both private and dealers were very shy of bid- nething that might eventually prove lless. Therefore, sometimes abso- ine specimens were passed over, or small figure. Unfortunately glass ject which was little understood, here might be scores of people who le of giving expert advice on an g. and hundreds of others who had udgment to exercise a very sound n such cases, those who were simi- pped with a knowledge of glass ere comparatively few.

as a comparatively fragile material. pport of this statement the lecturer d not been made without due consideration. One could not but r example, that pieces of glass were to be seen, such as those in St. Spurriegate, York, of the most d shapes to cut and glaze, which ined intact for hundreds of years break or crack in them. Other were the quarterings of the shields seen in English and French ass, where the charges, three fleurs- d been let into a piece of blue glass three lozenge-shaped holes had been d cut to receive them, yet the glass ined intact until this day.

. the lecturer said, was an iniqui- eeding, inasmuch as it was an o extort large sums of money under ences. Forgers frequently bought of glass from old windows, and n them so that, though the glass aratively old, the painting was new. ine whether or no a glass painting rgery, a thorough knowledge of the history of the art was very im- for it was in this, and not in dex- and, that the forger most frequently self away, through not knowing at ods the various improvements in the and methods of working were intro- A glass painting that showed, for the use of yellow stain before the of the fourteenth century was in st degree likely to be a forgery, for st known example was dated about 1310—the Peter de Dene window in of York Minster.

The Glass.

inting of a forged panel might have skilfully executed as to deceive an But unless the glass upon which it done exactly corresponded in every with glass of the corresponding hat to which the forgery pretended it had to be rejected. The various sties which it might possess were the difficulties of finding glass at day which would agree with all of great. The material on which the had been done must agree in (1) 2) texture, (3) waviness, (4) tint. to stain without metalling.

The Enamel.

xt point, the lecturer said, was the of the enamel with which the glass painted, and by enamel he did not ured enamels, but merely the opaque brown, red or black pigment which was used for painting the outlines and giving the various tones and shades of the painting.

What glass-painters termed "foxiness" was a curious reddish cast communicated to the painting, to be seen when it was viewed from an angle instead of from a point directly in front. There were two forgeries of the sixteenth century which showed this. Generally speaking, modern enamel was greatly inferior in density to the old.

Coloured Enamels.

The lecturer then discussed the question of coloured transparent enamels—blue, red, purple, etc.—which were generally applied to the back of the glass. As a rule it might be generally laid down that, except in some few exceptional cases, the old enamels were never equal for brilliancy and transparency to those of the present day, and especially to those enamels of Continental origin. All this favoured the detection of fraud, for most of the forgeries of the present day were being made on the Continent, and the producers of them employed enamels of French or German make, which, no matter how superior they might be to the ancient ones, did not match them nearly as well as the English enamels did. Ancient enamels were very hard, but modern Continental enamels, on the other hand, were very soft. English enamels were much harder, and the colours were not so brilliant, but the forgers of glass were not generally aware of this fact.

Technique of the Painting.

The lecturer then dealt with the important question of the painting or "handling," as it was termed in oil painting. It was safe to say that a whole book might be written on the subject, and then all would not have been said. All he could do would be to lay down one or two main points of guidance. As regarded mediæval glass, the chief characteristic of the period was the tracing. Though much inferior work was produced, it would be a matter of the utmost difficulty to imitate the freedom and the endless variety of width in the traced lines in the best old work. There was one characteristic of technique which glass of all periods from the earliest to the latest must possess, and it was this: It must not have been passed through the kiln more than once. Although the lecturer said that it was always dangerous to dogmatise on these matters, and that he would not be at all surprised if some day an undoubtedly authentic specimen of ancient glass turned up which showed unmistakable evidence of having been fired more than once, and the painting carried further before the glass went into the kiln a second time, one could not be surprised at anything in stained glass. He had every reason to believe that the east window of St. Margaret's, Westminster, was a repainting by an eighteenth-century artist on the top of early sixteenth-century work.

Abrasion.

The lecturer then dealt with abrasion, and said that ruby glass had always been manufactured (and at the present day still was, except in one or two very exceptional cases) in a different way from the other coloured glasses. Instead of the sheet being coloured all through, the red laid in a thin film on the surface like the gelatine film on a photographic plate, the colourless glass beneath merely acted as a support. It was a great temptation to the forger to use acid, on account of the ease and speed with which it could be employed, but the edges of the film should be examined, and if they showed that acid had been employed the piece should be regarded with the gravest suspicion. Before the use of acid the red film had to be ground away with a grindstone or with either a copper wheel or an iron instrument and some abrading material such as sand or emery. It was obvious that by such a method it was impossible to leave a sharp, clean edge.

Corrosion.

Old glass was frequently corroded. Many people thought that a piece of glass could not be old if it were not corroded or pitted, but this had nothing to do with age. For example, they had two heads from the same subject, viz., the Coronation of the Blessed Virgin, in St. Helen's Church, York. The one was in a bad state of decay, the other not touched. They were both of the same age, and had both been subject to the same atmospheric conditions, yet the one was preserved, while the other was in an advanced state of decomposition on both sides. The causes of decay in glass were nowadays well understood, and the whole subject had been thoroughly treated in a paper by Mr. Noel Heaton (*Journal of the Society of Arts*, No. 2,834, March 15, 1907).

Swiss Glass.

Finally, the lecturer dealt with the subject of Swiss glass, and said that no glass was so much sought after as Swiss panes. Unfortunately there was not much of it to go round, and practically all the best pieces had long ago passed into public or private collections. This had led to a large number of forgeries of Continental origin appearing in antique dealers' shops and in auction rooms; the manufacture of them was almost a small industry. The skill, however misapplied, with which they were executed was amazing. Some specimens had even found their way into national collections, so that it was hopeless for the amateur to try to detect the good from the bad, as this would often tax the wits of the greatest experts. One of the most skilful of these forgeries was at Düsseldorf.

In conclusion, the lecturer said it was a great mistake to get into the habit of suspecting everything one saw, like a child who imagined there was a bear lurking in every dark corner on the way to bed. This was an attitude of mind to which experts were very prone; so that eventually they came to suspect their own shadows. Pieces which were offered at a reasonable figure were generally either perfectly genuine, or of the class of obvious shams which were turned out by hundreds.

Royal Sanitary Institute.

The next Congress of the Royal Sanitary Institute will be held at Liverpool from July 14th to 19th, 1924, by invitation of the Lord Mayor and City Council.



From an old Mural Tomb
Carisbrooke Church

LEGAL SECTION.

NOTES ON CURRENT CASES.

Lease Breaches of Covenant : Forfeiture.

We have lately noticed one or two decisions on forfeiture for breaches of covenants in leases, and the most recently reported case is Civil Service Co-operative Society, Ltd., *v.* Trustee of Sir J. R. D. McGrigor, Bart. (1923 2 Ch. 347). In that case the plaintiffs had demised certain premises to the defendant and another on a lease for 35 years at the yearly rent of £700 and a further sum as rent for hot water and heating the radiators. The lease contained covenants by the lessees to pay the rent and not to assign, underlet, demise or otherwise part with the premises or any part thereof, or any estate or interest therein without the consent in writing of the lessors, which consent should not unreasonably be withheld. The proviso for re-entry provided that if the lessees should be in arrears with the rent or any part thereof for 21 days after they had become due, or if the lessees should at any time fail to perform, or neglect to perform, any of the covenants or agreements of the lease to be performed by them, or if the lessees should at any time during the term become bankrupt or have a receiving order made against them, then it should be lawful for the lessors to re-enter. This lease was dated November 6, 1914, and on October 18, 1922, the lessees had presented their petition in bankruptcy and on the same day a receiving order in bankruptcy was made thereon, and on October 24, 1922, on the application of the official receiver with the consent of the debtors they had been adjudicated bankrupt, and subsequently the trustee in bankruptcy had entered into possession of the demised premises without opposition on the part of the bankrupts and without having to obtain any order requiring them to give up possession.

On November 13 the plaintiffs served a notice upon the defendants and upon their trustee in bankruptcy setting out the terms of the lease and giving notice that upon the expiration of 14 days from the date of the notice they intended to enforce the right of re-entry or forfeiture.

On November 28, 1922, the writ in the present action was issued claiming a declaration that the plaintiffs were entitled to recover possession of the premises as on a forfeiture of the lease, possession and mesne profits, on the grounds of (1) breach of covenant against assigning or parting with the premises and (2) bankruptcy. It may here be mentioned that on December 28, 1922, the defendants received from the plaintiffs a written demand for £203 15s. addressed to the liquidators, made up as follows : Rent to December 25, 1922, £175 ; rent of radiators, &c., £9 3s. 9d. ; water rate, £19 11s. 3d. and a cheque for the amount signed by the trustee in bankruptcy and a member of the Committee of inspection had been sent to the plaintiffs on the same day and accepted and cashed by them.

The defendant who was the trustee in bankruptcy raised various defences. First it was said there was no breach of covenant. This question as to whether the defendant by consenting to be adjudicated bankrupt had caused a breach of the covenant not to assign seems not to have been carried further, since under the lease bankruptcy itself was made a ground for forfeiture. The two main defences were that under the Conveyancing Acts for the space of one year the plaintiffs were deprived of the right to re-enter, and the question whether the receipt of rent created a waiver of the right to forfeiture.

The point under the Conveyancing Acts is complicated. Under section 14, subsection (1) of the Act of 1881 a right of re-entry or forfeiture under any proviso or stipulation in a lease for a breach of covenant or condition in the lease shall not be enforceable by action or otherwise until the lessor serves on the lessee a notice specifying the breach complained of and if the breach is capable of remedy requiring the lessee to remedy the breach, and in any case requiring the lessee to make compensation in money for the breach and by subsection (2) the lessee may apply to the Court for relief where an action is being brought by the lessor. Subsection (6) provides that this section does not extend to a covenant against the assigning, underletting or parting with possession of the premises, nor to the right to possession in the case of bankruptcy, but the Conveyancing Act, 1892, in section 2 subsection (2), as the Judge put it, introduces a complication for it enacts : "Subsection (6) of section 14 of the Conveyancing Act, 1881, is to apply to a condition for forfeiture on bankruptcy of the lessee or on taking execution of the lessee's interest only after the expiration of one year from the date of the bankruptcy or taking in execution, and provided the lessee's interest be not sold within such one year, but in case the lessee's interest be sold within such one year subsection (6) shall cease to apply thereto."

It was contended for the defendants that the effect of this subsection was to deprive the landlord of his right to forfeiture for the space of one year from the date of the bankruptcy, but the Court held that the effect of the legislation was as follows : "The right of entry or forfeiture or on taking in execution the lessee's interest, is fettered." That is, is made subject to the provisions contained in section 14 of the Act of 1881. "If the lessee's interest be not sold within the one year the fetter is removed at the end of the year"—that is, it can be exercised without observing the conditions in subsection (1) and (2) of the Act of 1881. "If the lessee's interest be sold within the one year the fetter is not removed but continues." In the case under consideration the lessee's interest had not been sold, and therefore the Court held that the landlord would be entitled to enforce the right of forfeiture on bankruptcy if the provision of subsection (1) and (2) of the Act had been complied with.

This finding made it necessary for the Court to consider whether those provisions had been complied with, and on behalf of the defendants it was contended that they had not, firstly, because the notice of November 13 named an unreasonably short time, 14 days, and secondly, because the notice did not require the lessee to make compensation for the breach. As regards the first point the Court held that no special circumstances had been shown in this case for an extended period, and as the notice is only intended to give the person whose interest it is intended to forfeit time to consider his position and of acting before the action is brought, the fourteen days was sufficient time. As regards the second point the Court said the point raised a curious question, as it was difficult to see what compensation for the breach could be asked in a case of bankruptcy for the breach was irremediable, yet the words of the section "in any case," seemed to imply a notice must be given whether or not the breach was capable of remedy, but the Court of Appeal in Lock *v.* Pearce (1893 2 Ch. 271) had held in general terms that the absence of a requirement for compensation does not invalidate a notice if the lessor does not require compensation, and following that decision the notice in this case would be a good one.

The only remaining point raised by the defence was whether the receipt of rent constituted a waiver of the forfeiture. The demand for rent was made with knowledge of the bankruptcy, for rent partly accrued due before the bankruptcy and in part due subsequently to it, and it had been followed by payment and acceptance. The Court held that the issue of a writ and service of a writ in an ejectme such a final election by the landlor mine the tenancy that a subsequen rent is no waiver of the forfeiture. relied upon the following cases : Carter, 15 M. and W. 718 ; Gr Moss, L.R. 7 C.P. 360 ; and Evens (1920 2 K.B. 315, *The Builder*, April and especially adopted the word Coleridge in this latter case : "There of cases which establish that if a brought for recovery of possession f of covenants in the lease that it is an election to determine the lease an subsequent acts of the plaintiff ca upon as qualifying that position."

We have recently dealt with this waiver in connection with two other c in Elliot *v.* Boynton (1923 1 Ch. 422, July 27, 1923), the Court pointed o receipt of rent after the landlord h vocally shown his intention to put an lease would not operate as a waiver. case Fullers' Theatre and Vaudeville *v.* Rofe (1923 A.C. 435, *The Builder*, 1923), the Privy Council approved t in Mathews *v.* Smallwood (1910 1 Ch "Waiver of a right of re-entry can where the lessor with knowledge of upon which his right to re-enter arises unequivocal act recognising the conti ence of the lease," and in our note t in the Privy Council we pointed ou complement to this proposition wou the receipt of rent after the landlord h vocally shown his determination to the lease would not operate as a wai right to determine the lease.

We have endeavoured to state the effect of this decision as briefly as poss illustrates the extreme complexity relating to what would appear ever dents in connection with the relat landlord and tenant.

Ancient Lights : Site Value

In our Legal Section, March 3 referred to a case Wills *v.* May, whi date was very shortly reported, and would be necessary to refer to it ag now fully reported, 1923 1 Ch. 317, an is one of importance to those possessi sites. The plaintiff owned two houses 117 and 119, adjoining each other. been purchased at public auction in 1921, and in the particulars it had be out that although the properties we site would be valuable for a factory commercial premises. The characte neighbourhood was in process of from a residential to a commercial di

It is unnecessary to go into detai nature of the obstruction which was t of the action, as it is sufficient to sa two houses were adjoining and it was the ancient lights in No. 117, the nor of the two houses, had been obstruct defendant's operation in developing fo cial purposes his site No. 115, so that t the staircase, and the larder had bee sensibly less fit for their purpose than before, but that the Court, after cons the circumstances, had considered tha not a case for a mandatory injuncti structural alterations the premises rendered as convenient as they were the cost of these alterations was a £50. But this did not dispose of the it was alleged that the obstructio light to No. 117 would damage the sit the sites of the two houses as one if for commercial purposes, and the that it had been proved that the been rendered less valuable for the buildings of a commercial character the obstruction of light.

s been held in the case Griffith *v.* Richard Sons (1912 1 Ch. 291) that damages can en for an obstruction which diminishes value, but there are some distinguishing s between that case and the one we are ring. In that case the plaintiff owned ises, but the ancient lights of *both* houses n obstructed. There was a piece of land ear of both houses and it was held that nages recoverable were not confined to preciation of the two houses alone, but ed to the whole of the plaintiff's premises red as one building site.

e was a further distinction between that d the present, as there the houses were l dilapidated, and would soon have had lemolished, whilst here No. 117 was still l condition, and likely to last several onger, and No. 119 was let on a lease bout 14 years to run, and therefore pment of the site must be delayed for eriod unless a surrender of the lease could anged.

owing the decision in Clay's case the awarded damages of £150 in all—that is, 50 mentioned above for the structural ions to No. 117 rendered necessary by struction of the light to that house as a and £100 in addition for the damage to ombined sites. But, having regard to int we have mentioned above that in this nly the light to one of the existing houses structed, and the possibility that in the of an appeal the Court of Appeal might hat the damages must be limited to the No. 117 alone, to avoid the necessity of trial the Court also assessed the damages t basis to that site alone at £50. Thus, if dgment remained undisturbed the damages o the house and the site of both houses 150, but if on appeal it was found the ge to the second site could not be taken consideration, then the damages would duced to £100.

rade Union Law : Inspection of Books.

case, Dodd *v.* Amalgamated Marine ers' Union, which we noted in our issue of mber 2, as to the right of members of a union to have expert assistance in proper where they desire to inspect the books e union, was the subject of appeal on the day that our notice of the case appeared, r is unnecessary to restate the facts as will be still within the recollection of our rs. The Court of Appeal affirmed the ion given in the Court below, and it is cessary to supplement our former note t to point out that the Court of Appeal, nsidering this case, indicated that although oint arose in connection with a trade union the Trade Union Acts, it was not limited ch matters but was of application where persons as members of companies, partners, thers claimed a right to inspect books. rrey *v.* Keep (1909 1 Ch. 561), which we red to in our former note, applying the law ade unions, was really founded upon Bevan bb (1901 2 Ch. 68), a case which turned on Partnership Act, 1890, which contains sions practically to the same effect as the Union Acts as to inspection of books. Court of Appeal referred to this case, n *v.* Webb, which also was decided by the of Appeal, and said it made the law per- clear that where a right to inspect books en the intention is that that inspection be made effective, and thus where a person der a disability not only physical, such as ness, but a disability from lack of skill perience, he is entitled to the assistance of pert agent.

is, as we pointed out in our former note, pplicant for inspection must make out a *facie* case for professional assistance, but nus then of proving that the application d not be granted on any grounds is laid the persons resisting the application.

Restriction: High Court Proceedings.

e recent decision of the Court of Appeal in . Luck (*Weekly Notes*, November 3) should red, as it deals with a point of importance gants. The plaintiff was claiming possession of a house which was let to the defendant on a monthly tenancy at a rent of £3 10s. a month, the tenancy being terminable by a month's notice on either side. The tenant had fallen into arrear with the rent, and on June 1 the plaintiff had given him due notice to quit. The defendant not having given up possession, the plaintiff on July 23 commenced proceedings in the High Court claming possession, a month's rent, and mesne profits. On the writ in this action the plaintiff, acting under the kind of summary jurisdiction conferred by Order XIV of the Rules of the Supreme Court, applied for leave to sign judgment, and this order was made by a Master and afterwards affirmed by a judge.

The defendant appealed from this order, and on the appeal two points were raised :—(1) Whether the High Court in proceedings arising out of the Rent Acts had jurisdiction, and (2) whether if it had jurisdiction the procedure provided by Order XIV was available.

As regards the first point the Court of Appeal held it was clear from section 17 sub-section (2) of the Rent Act, 1920, that exclusive jurisdiction was not conferred upon the County Court, and that an action could be brought in the High Court, but that in that action the plaintiff could recover no costs. The words of the sub-section are : "A County Court shall have jurisdiction to deal with any claim or other proceedings arising out of this Act or any of the provisions thereof notwithstanding that by reason of the amount of claim or otherwise the case would not, but for this provision, be within the jurisdiction of a County Court, and if a person takes proceedings under this Act in the High Court he shall not be entitled to recover costs." It will be observed that this subsection is more positive than some Acts relating to cases brought in superior courts which could have been brought in inferior courts for the deprivation of costs is absolute, and this makes it very important for practitioners before taking proceedings in the High Court to consider whether "the proceedings arise out of the Act or any of the provisions thereof." This point was illustrated in the case of Wolff *v.* Smith (see *The Builder*, July 20, 1923), which was a case of trespass brought in the High Court, but the plaintiff was a "statutory tenant" under the Rent Acts, and in that case it was held that as a statutory tenant could only prove his right or title under the Rent Acts the proceedings arose "out of" the Act, and no costs could be recovered. In the present case it was held that the proceedings clearly arose out of the Act, because they could only be enforced if the conditions prescribed in the Act in section 5 were fulfilled, and the Court thought it reasonable an order should be made under that section.

On the second point, as to proceeding under Order XIV, the Court of Appeal held that certainly in this case that procedure was not applicable, for no evidence had been tendered relating to those conditions, and in any case, having regard to those conditions and the provision requiring the Court to be satisfied that it was reasonable to make the order, it was very doubtful whether Order XIV could ever have application to cases under the Act.

We may notice a point mentioned by Lord Justice Bankes in his judgment. Questions of law are not argued under Order XIV, and he pointed out that a serious question of law arises in connection with the words "any rent lawfully due," in section 5 subsection (1) (*a*), as to whether they refer to rent due when the proceedings are commenced or due when the order is made. If the latter were the true construction of the words no order could be made if rent due at the date of the writ had been tendered before the order was made. In this case two months' rent had been tendered about a week after the issue of the writ. In the result, as no costs could be recovered by the plaintiff and the rent had been paid and possession had been given up, the appeal was by consent dismissed without costs.

Property Tax : Landlord and Tenant.

We may notice an interesting decision given in the House of Lords in the case Drughorn *v.* Moore (*Weekly Notes*, November 17). The respondents on this appeal were the lessors of certain premises in London and the appellant was the lessee. In 1918 negotiations had taken place between the parties for the leasing of certain stables to the appellant, and it had been proposed that the respondents should put the premises into repair and that the rent should be £85 per annum, but ultimately the appellant, the tenant, agreed to do what was required in the way of repair in consideration that no rent should be payable for the first year of the term. The premises were accordingly leased to the appellant for a term of fourteen years at a peppercorn rent for the first year, from Christmas, 1918, and thereafter at a rent of £85 per annum. Thus the first payment of rent in money would be due on Lady Day, 1920. The income tax payable under Schedule A of the Income Tax Act for the financial year ending April 5, 1920, was £23 5s., payable in two equal instalments. The appellant paid the first instalment and deducted the amount from the first quarter's rent, but the respondents returned the cheque. The appellant paid the second instalment and claimed also to deduct that from the rent, but apparently the respondents refused to accept that cheque also, for they brought this action in November, 1920, claiming three quarters' rent, but admitted that the appellant was entitled to credit in the action for the tax paid in respect of the period December 25, 1919, to April 5, 1920, that is, that portion of the period when rent in money was actually due. The contention of the appellant was that under the Income Tax Act he was entitled to deduct the tax from the rent, and the Court below had held that, as the money expended by the appellant on repairs by agreement took the place of rent, the deduction could be made; but the Court of Appeal had reversed that judgment (see *The Builder*, August 4, 1922). Rule 1 of Schedule A, No. VIII, to the Income Tax Act, 1918, provides, "A tenant occupier of any lands, tenements, hereditaments or heritages who pays the tax shall be entitled to deduct and retain in respect of the rent payable to the landlord for the time being an amount representing the rate or rates of tax in force during the period through which the said rent was accruing due for every twenty shillings thereof, the said deduction to be made out of the first payment thereafter made on account of rent."

The House of Lords held that the amount expended on repairs could not be treated as rent; the agreement between the parties was not that the tenant should pay rent in the form of repairs, but that he should do the repairs and pay no rent. It was also held that the instalments could not be treated as money paid for, and on behalf of, the respondents, and at their request, because the tenant and not the landlord was primarily liable for the payment of the tax. We may remind our readers that in the case Rossdale *v.* Fryer (1922, 2 K.B. 303, *The Builder*, November 24, 1922), where the original lessor of a house assessed for income tax at £450 net had sublet the premises at a higher rent than he himself was paying, it was held by the Court of Appeal that the subtenant could not deduct income tax on the rent paid by him, but only on the amount as based on the assessment. In that case it will be remembered that the subtenant had again underlet the premises and his under-tenants had deducted income tax from him based on the net assessment, and it was held that under Schedule A, VIII, r. 4, the sum paid by the under-tenants was equivalent to sums "actually paid" by the immediate landlord, and must be considered in the deduction he claimed to make as against his landlord.

Associateship of the R.I.B.A.

The Board of Architectural Education desire to draw attention to the following decision of H.M. Board of Education with reference to Technical Teachers' Qualifications :—Architecture.—H.M. Board of Education recognise the Associateship of the R.I.B.A. (if awarded after passing the Examinations of the Institute) as the equivalent to degrees of Universities in Great Britain and Ireland.

THE BUILDING TRADE.

YORKSHIRE EDUCATIONAL ASSOCIATION FOR THE BUILDING INDUSTRY.

AT a well-attended inaugural meeting of this Association, held in the Technical College, Bradford, on Saturday, November 17, Councillor Reeves Charlesworth, F.I.O.B., Sheffield, President of the Yorkshire Federation of Building Trades' Employers, was unanimously elected President of the Yorkshire Educational Association for the Building Industry.

In the course of his presidential address, Mr. Charlesworth said that they had met for the first time in history as a complete organisation for the purpose of encouraging and furthering building trade education—a body of building trade enthusiasts and experts, comprising technical professors, instructors, employers, employees and educational representatives. By their presence there he took it that they were all keenly desirous that the youths who wished to enter the building trade in the future should have the best instruction, on the best and most profitable lines that it was humanly possible to give them. Being elected to become the first President of such an important body, which had for its objects the better training and education of the building trade craftsmen and the closer relationship of the professors and tutors occupied in that direction, was no small honour. It had been publicly stated that to become a craftsman in the building trade only required a short training. It had been tried. Such a position of things was ridiculous and proved an utter failure. To be a craftsman of any note in the building trade involved hard work, both in study and practise. It required the guidance of eminently trained and capable tutors. It was not within his knowledge to say how many students they ought to expect in the various districts. Such knowledge was within the reach of every local authority who applied to the Secretary of their district, because their agreed rules laid it down that every firm might take on one apprentice and one to every four craftsmen in every skilled branch of the trade. The object of education in the building industry was to improve the knowledge of employers and operatives and all connected with the industry.

Mr. J. L. Manson, H.M.I., said he had been asked to sketch out, so far as it was possible for him to do so, some of the problems which the Association was likely to find. He would like to deal with the matter under the following heads :—

(1) The problem of apprenticeship in modern times was quite different from the problem of apprenticeship in days gone by. (2) Considerable changes had been taking place in the building industry, and they now needed a much more scientific treatment of their problems. (3) Improvement in the instruction given in technical schools. (4) Possibility of further co-operation of the industry.

He thought it was a fact they would all accept that there had been a very serious and marked decline in what they might call the historical or normal type of apprenticeship. It was unlikely that they would be able to return to the exact kind of apprenticeship that they used to have. Modern conditions were so different that the solution used in olden days would probably not be satisfactory now. Any solution that was satisfactory at the present time would have to be in relation to the developments that had been made in the past, and in so far as practical experience had shown them how to develop their knowledge this practical experience should be incorporated. They should realise that, apart from family and social relations, the relation between the master and the apprentice was one of the oldest personal relationships of which they knew. The main idea of technical education was the transmission of executive skill. In olden times the difficulties in transmitting that knowledge would arise, because it would not be merely mechanical skill but the accumulation of knowledge which would have to be transmitted, so that their work to-day bore a distinct relation to that work. Coming down through the ages, they could think of the period when ability to draw enabled men to transmit their ideas more readily. When printing was invented they could see the immense changes which had taken place. They could see the way in which the personal element had been lessened as soon as books were introduced, and one of the difficulties they had to face to-day was the diminution of personal contact. Coming down to manual work and the amazing specialisation which had taken place in modern industry, they saw difficulties introduced into the handling of this particular problem of the transmission of skill and knowledge in particular trades. They heard considerable talk of the evils that had arisen from the industrial organisations. He sometimes felt that they did not realise the amazing and wonderful development those organisations had given rise to. In the case of the building industry they had some peculiar conditions. The building industry had not, as yet, been greatly affected by the factory system. The builder could not produce his construction in a factory or workshop. He had to produce his construction on the site of the building. There could be no question, however, that wherever it could be done they were seeing the introduction of mass production and the increasing use of machines and large scale production. It was important from the industry's point of view that foresight should be exercised. Throughout the industry there should be that fore-knowledge and additional knowledge which was the only way in which they could be assured that there was a certain amount of elasticity in the way in which they met new situations. It was very important that they should have in view the whole range of those problems, past, present and future. In the immediate past they had to deplore that in many cases they had found the employers looked upon the question of apprentices from a business point of view. Masters had risen from the ranks and had generally themselves to thank for their success. Therefore, they looked upon the problems of the industry from the purely personal point of view, missing the fact that the industry might have problems which the individual must meet and help to solve. From the point of view of the employer, apprenticeship might not pay. There had been a certain difficulty with regard to the supply of skilled labour. The conditions and the enormous effect of the war on the building industry had undoubtedly brought them face to face with the shortage of skilled labour in a very acute form. The employees had had to form organisations for defence more than for anything else, so that these organisations dealt with wages and conditions, and not to any extent with the actual formation of skill in that particular craft.

Some of the changes wrought by the present civilisation were :—

(1) It had reduced the range of the activities of the individual worker; (2) It had reduced the apparent need for knowledge on the part of the worker. It had also enormously increased the requirements in the matter of knowledge on the part of the employer and the technical expert. The designer and manager were not taking an actual part in the construction. The non-manual designer tended to override the practical worker. The designer and manager were in one compartment and the practical worker in another. In some o other industries they had seen the enor development in the use of machinery. That tended to cover up the fact that there had a reduction in the actual skill of the wo In the building industry they saw the re of lessened skill and craftsmanship, and bemoaned the fact that it was so. One o difficulties they had to face was that, on industrial side, when a trade organis interested itself in trade instruction, there a strong tendency to limit that instru to purely trade things. He thought they w all agree that the person who was usefu life was the person who really knew a more than was actually necessary for his Even in the transmission of manual skill t was an accompanying knowledge which sh go with the training and mere manual This margin of knowledge was extremely portant in modern development. In the of the plumber they had seen the introduc of a number of new methods and mate and instead of those new materials and met continuing under the direction of the per originally responsible for them they had the developments of new trades—the hot-w engineer, &c. With the introduction of mo materials, it was important that even if worker did not enter into the design of the bu inghe should have some knowledge of the vari conditions to be watched during the erect Concrete buildings had sometimes failed bec of a lack of elementary knowledge on the pa the worker. In other industries where rese had been carried on, one of the problems w had arisen was the enormous difficulty of ap ing that knowledge because the workers obje and had not that margin of knowledge w would enable them to adapt themselves to conditions. Trade unions were anxious restrict the numbers of workers in each bra of a trade. They had the conception that could, by limiting labour to a definite fig exactly supply the demands of the industry. the building industry was so fluctuating tha was almost impossible, and there really mus a margin of skilled workers. Then there the problem of vocational selection. T could not always decide in the early st what the boy was fitted for. Their teach therefore, must not be too narrow. They n realise, particularly in the early stages, th boy might not have made up his mind at exactly what he was going to be, and in future he might be something vastly diffe from what he was aiming at at this partic stage. In the past the development of industry had not been on scientific lines. M of the operations were more or less unchan The time had now come when the build industry must be put on more scientific li The introduction of the specialist firm in duced a danger in the building industry wi he thought it was important that the indu should foresee. In the erection of a new bu ing in the past the architect had selected main contractor to undertake the main respo bility for the erection. In recent times th were so many sub-contractors that the n contractor was scarcely more responsible the work than any of the sub-contractors. was a situation which the builders ought no accept without some attempt to improve The line that he thought was sound was follows : In all those special methods of c struction they found that the architect was q ready to consult the specialist firms and mi even invite them to design that section of building with which they were concern Every architect considered himself quite capa of designing the work that the builder This could not go on, because the point ca up that modern industrial conditions had duced the expert who was not in actual cont with the construction.

The last point was that in the future t should come into closer contact with the ind

hey had in the building industry an ly interesting industry, because of its l because of the work that it undertook. hed humanity very closely. Modern ion would be quite impossible without ie and the home quite impossible without se, and we had in that sense elements of onal value which were found in such a rated form nowhere else, and on the side ical education we were coming to realise vas not merely instruction to help people their daily bread, but instruction which t the essence of real education.

meeting then appointed the various and council of the Association. The consisted of representatives of (*a*) employers, (*b*) building operatives, l authorities, (*d*) heads of technical ons, and (*e*) building teachers.

HE SURVEYORS' INSTITUTION.

Alexander Goddard, Secretary of the rs' Institution, writes as follows :—

Surveyors' Institution, as you are s one of the professional societies whose n the provisions of the draft Rating uation Bill were invited by the Minister h. The Council referred the measure ong Special Committee, representative of surveyors engaged mainly in rating it also of those who have to deal with s of local and imperial taxation in on with the management of urban al estates. This Committee, having dvantage of the Institution County organisation in order to ascertain the members in all parts of England and now engaged in considering the Bill l. In view of the fact that a certain of opposition to the Bill *in toto* appears eveloping, this Committee thought it to issue to the Council an Interim indicating that in their opinion the odied certain general principles which rthy of support by the Institution. port, a copy of which I enclose, has roved and adopted by the Council."

Report of the Special (Valuation and Rating Bill) Committee.

Special Committee appointed to con- l report to the Council upon the pro- f the Draft Rating and Valuation Bill yet concluded their detailed investiga- o and recommendations upon this but they consider it desirable to make m report in order that the Council may med as to the general conclusions arrived at. The Bill provides for such ded reforms as :

riodic revision of values throughout the and

l rates and taxes being charged on ppearing in one and the same valuation

e opinion of your Committee these principles should receive the support nstitution.

Committee's detailed recommendations endments will be directed particularly aining local valuation by local authori- while recognising that the use of the r taxation purposes of necessity involves itiative work and control by revenue that such work and control should be hin due limits such as now obtain in under the Valuation of the Metropolis 9. The proposals contained in the he establishment of a Central Valuation y for dealing with special properties ive careful consideration by the Com- nd specific recommendations in connec- rewith will be embodied in the Final

British Empire Exhibition.

nderstand that the Town-Planning will hold a conference at Wembley y 5 to May 10, 1924.

BUILDERS' BENEVOLENT INSTITUTION.

ANNUAL DINNER.

The seventy-first annual dinner of the Builders' Benevolent Institution was held on November 22, at the Hotel Victoria, the President, Mr. George M. Burt, F.I.O.B., presiding over a gathering of about 300, amongst whom were Major R. J. Holliday, M.C., F.I.O.B., Past-President B.B.I.; Mr. A. B. Falkner, F.I.O.B.; Capt. G. J. Aldous, M.C., F.I.O.B.; Mr. A. H. Adamson, F.I.O.B.; Mr. A. B. H. Colls, F.I.O.B.; Mr. F. Higgs, F.I.O.B.; Mr. Walter Lawrence, F.I.O.B.; Mr. Roland B. Chessum, F.I.O.B.; Mr. John T. Bolding, Mr. H. Le Marchant, Mr. F. Coleman, and Mr. J. M. Theobald, F.S.I.

Mr. A. H. Adamson, F.I.O.B., in proposing "The Builders' Benevolent Institution and its President," explained that the Institution was founded seventy-five years ago for the purpose of granting relief to necessitous builders over fifty-five years of age who had carried on business for ten consecutive years within a twelve-mile radius of Charing Cross. At the present moment there were fifty men and women pensioners. For the past three years the Committee had been able to supplement the pensions by a gift at Christmas of £5, and for the last year they had been able to make a similar gift at midsummer as a contribution towards the increased cost of living. He thought they would agree with him that the Institution deserved all the support that could be given to it. The Institution received support from all interested in the building industry, but sometimes wondered whether employers could not do something more in supporting the Institution, not so much in a direct way but indirectly. By that he meant they might all do what they could to prevent so many employers falling by the way. He thought the Institute of Builders had made a move in the right direction, because in their syllabus of the examinations which would in future be held for Licentiate and Associate members of the Institute they had made accountancy and costing one of the compulsory subjects, and if employers generally took more notice of accountancy and costing there would not be so many failures in the industry. He thought the members might help their fellow builders in trying to see if there was not some means by which the vast amount of labour which was thrown away in tendering could not be improved upon. The conditions in the industry at the moment were disquieting, much more so than before the war. The spectacle of a number of firms tendering for a job was wrong altogether. He had been going through his own tender book and had noticed one or two glaring instances of what he called absolute waste of labour. In one job to the value of £5,000 there were twenty builders invited to tender, and in another of £2,500 eighteen were invited to do so. That meant that a great deal of money was wasted by employers in tendering for jobs which there was no possibility of ever getting. If builders were asked to supply information as to the number of jobs they had tendered for and the number they got the probability would be that they would find they only got one job out of twenty. This was the result of fierce competition, and he hoped that one of these days the builders in conjunction with the architects and surveyors would find a more reasonable way of getting tenders for jobs than that which existed at the present time. As long as those conditions prevailed, it was up to everyone to do what they could to help their brother builders who met misfortune. He could not imagine some of the other industries in the country working on such a narrow margin of profit as the builders.

The President, in reply, said he desired to thank everyone present and all the subscribers for the help that they had given. He had hoped that they might have been able to collect as much as had been done in previous years, but unfortunately times were bad; he was roughly about £300 short of what the total was last year.

Mr. A. H. B. Colls, in proposing "The Allied Trades," said the prosperity of the allied trades depended upon the prosperity of the building trade. He felt sure he was voicing the feelings of his fellow builders that the success of a large job depended very considerably on the co-operation and goodwill of the sub-contractor to the builder.

Mr. H. Le Marchant responded.

Mr. A. B. Falkner, in proposing the toast of "The Vice-Presidents, Trustees, Committee and Stewards," said he was sure that the Committee had derived a great deal of satisfaction and pleasure from the realisation that they have brought a certain amount of brightness into the sad lives of their less fortunate brothers in relieving their necessities and endeavouring to smooth out their battles during their declining years. He coupled the toast with the name of a veteran, Mr. John T. Bolding, than whom he could safely say no one had longer or better served the Institution; he had been engaged in this work for 53 years.

Mr. John T. Bolding, in responding, said the large sum that had been collected during the last three or four years had been collected through the energy of the Presidents, and if the President instead of going back four years had gone back fourteen he would have had a large amount beyond the average.

Capt. G. J. Aldous proposed the toast of "Our Visitors." He said to the architects he would offer a special welcome, for it was always a pleasure to meet them at these functions and to get to know them in a more personal manner than it was possible in the average business acquaintance. It was by the closest possible co-operation between architects and builders that the best results were achieved in connection with any building contract. The quantity surveyors were with us to-night, in his opinion, the builders' best friends. By the excellence of their quantities, the clearness of their descriptions, they had saved many hours of labour in the preparation of estimates.

Mr. F. Coleman, in responding, said he was pleased to notice that the building trade kept a stiff upper lip during times of stress. He admired that spirit very much, and he thought that everyone who fought through periods of depression the same as the building trade did would get their reward.

At the close of the proceedings the President stated that after the collection during the evening he was still short of £73 15s. He would have liked to have got the extra money, but he must admit they had all been very good to him. The total amount which had been collected was £1,898 15s. 6d., about £102 less than was collected last year.

British Museum Lectures.

These lectures continue to open out interesting points in regard to ancient civilisations, both as regards methods of building and customs of the people. The Egyptians had a regard for planting trees, though lacking the advantage of any soil in which to plant them. At the Senusert Pyramid pits were found outside the walls. These curious round pits, coming at regular intervals, could not be explained, but it is now supposed they were filled with soil and that trees were planted in them. The rock tombs of Egypt are a remarkable example of the traditions of building being continued though the conditions required no such structural forms. They cut rafters on the face of the roof out of the solid rock, and columns were hewn out of the solid mass of the rock they were excavating in the same manner as if they were building. The temple of the Sphinx had wells inside it, in which were found statues in Diante and green basalt; this Sphinx dating probably from during, or after, the fourth dynasty. In the back of the Sphinx itself is a grave, and as no burials took place in that region after the period of the great Pyramid of Khufu, the Sphinx must date from after that time. It is cut out from the solid rock, its natural form having probably first suggested the form of a Sphinx, and so they carved it into one. Its face is believed to have been originally painted red.

PUBLIC WORKS CONGRESS.

As in previous years, a Congress was held this week in connection with the Public Works, Roads, and Transport Exhibition at the Royal Agricultural Hall, London (a review of the Exhibition is given on p. 858), and a large number of papers were read dealing with subjects of interest to local authorities.

The Road Beautiful.

In the course of an address entitled "The Road Beautiful," MR. J. L. REDFERN, A.R.I.B.A., Borough Engineer and Surveyor of Gillingham, said proper regard for proportion, a careful selection of materials, and attention to details, whether in the design of a bridge, a building, or a road, would produce a result that would merit the appreciation of those who had to use them, and redound to the credit of the designer. Good environment played an important part in the formation of good character. The house and its neighbourhood which possessed any elements of beauty helped in that way, and now that folk in their leisure had betaken to the highways, roads also should contribute to that desirable end.

It could not be gainsaid that the roads of this country were being adapted to meet their main purpose, and the development of road-making during the past dozen years had proved that British engineers were second to none in their ability to devise roads strong enough to bear any accession of traffic, and spacious enough to satisfy the most progressive; yet one sometimes saw roads strong enough to carry their burden but with some fault, it might be of design, setting out, or finish, which displeased the eye.

If a road were intended to be straight, the kerb should be laid straight in fact. Whatever pleasure a kinked or wobbled kerb gave to him who made it so, it gave none to the beholder. Where the road wound they should find curves set out with the utmost care, so that the eye swept them without offence. A carriageway which changed its width seldom looked so well as one in which the kerbs ran parallel. If there must be irregularity in road boundaries, the variations might with advantage be thrown into the footpaths. The cross-fall in a footpath, and the contour of a carriageway, should be regular to satisfy the eye, and crossings and intersections required skill in setting out, if the good form of a road were to be maintained. In the longitudinal grading of new roads, straight lines or gradual curves should be obtained, and kinks and sharp angles avoided. If a new road could, by a slight alteration to its axis, be aligned to a church tower, a clump of trees, a shrubbery, or a distant hill, the vista obtained added a charm to it. The size and position of gullies, the design and position of lamp-posts, tramway standards, ventilating shafts, water columns, or other necessary obstructions, demanded a good deal of thought.

Where a new road had been constructed in a cutting, the new boundary should be studied. One occasionally saw a clumsy retaining wall which might have been made beautiful with a little consideration, or an earth bank which could have been graded better and finished off with turfs. Walls, fences, and railings which defined road boundaries, if carefully designed, contributed to appearance. In urban roads good effects could be obtained with pavings. Paving slabs and paving bricks could be laid in many different ways. Most old country roads possessed a fine setting with their grass margins, bordering hedges, and stately trees. Some of them had been widened, and in certain cases where the sheltering hedges had been sacrificed a new view of the country was revealed. If the disclosed view were not impressive a new hedge should be planted, and where old trees had had to be sacrificed new trees should be planted, either on the path or near it, and an occasional seat provided to afford rest and shade to wayfarers. In urban districts judicious tree planting added materially to the amenity of the roads.

Was it not high time that telegraph and telephone wires were in underground conduits, and the wearying and irritating telegraph poles banished from the highways? A good tree should be planted to mark the spot where a pole once stood.

Tarring of country roads had become a fairly general practice, and although black was a very restful colour for the sight, one hoped that some day waterproofed surfaces might be finished in tints at once restful to the eyes and gratifying to the colour sense. Colour effects could be obtained in paved streets, and there a contrast should be arranged between the carriageway and the footpath. In some towns one had observed the kerb and pavement of pink-tinted natural or artificial stone or brick and the carriageway of grey stone, a pleasing combination. In every case it was very important that there should be a sharp definition of colour where the carriageway and footway met. If luminous kerbs could be produced they would be of great assistance to pedestrians and motorists, for they would glimmer in the night. Certain stones when used as kerbs tended to show white at night. Whitewashing kerbs was practised in some districts.

Footpaths on country roads were not receiving the attention they cried aloud for in these days. Many of them were utterly neglected. So long as the carriageway had a better surface than the footpath pedestrians would choose the road, and accidents would occur. There was room for great improvement in footpaths throughout the land, and a lot of useful work might be provided for the unemployed in putting them in order.

There had been a vast improvement in road signs, but neither signs, signals, nor numbers were large enough to be legible to those motoring at the average speed. Place names should be set up in bold type at each end of villages and hamlets for the information of road users, and all road signs which were not lamplit should be painted with a luminous paint so as to be visible on dark nights. The selection of the right colour for painting posts, standards, shafts, columns, and fences deserved careful consideration.

Road Reconstruction.

MR. W. P. ROBINSON, A.M.Inst.C.E., County Surveyor of Surrey, in a paper entitled "Reconstruction of Foundations of, and Carpets on, Existing Roads," said in one case he had recently entirely reconstructed and widened a main road carriageway with a cement concrete surface. The old road varied in width from 13 ft. to 20 ft., with a surface-tarred water-bound macadam crust, whilst the new carriageway was 30 ft. wide, and the sub-crust and surface was entirely of Portland cement concrete 8 in. thick. In places the new surface had to be laid in half-widths in order to keep the road open for traffic. No foundation was provided other than the shaping of the ground to a camber of 1 in 50, but the subsoil was of loamy sand which was well rolled before placing the concrete, which was placed in two coats simultaneously, the lower one being 6 in. thick of 4 parts gravel, 2 parts sand, and 1 part cement, and the upper or surface layer being 2 in. thick of 4 parts gravel, 2 parts sand, and 1½ parts cement.

The concrete was laid in alternate bays not more than 35 ft. long by 20 ft. wide, and the reinforcement was generally 10 lb. per square yard, but the weight was varied according to the stability of the subsoil. The joints between bays were laid at an angle of 60 degrees to the kerb line, and the reinforcement was laid parallel to and at right angles to the joints, which were vertical butt joints afterwards filled with hot bitumen. Two mixing machines were employed, one for t course concrete and one for the upp so that the concrete could be lai course and operations on any one tinued without cessation until that finished. The concrete, after levelli the finished surface, was immediatel with waterproof covers for about s when the covers were removed and face of the concrete brushed with sti to remove all surplus scum, and th was immediately covered with 3 in sand, which was not removed for Particular attention was given to th of water used, and he considered that of the most important points to watch to eliminate cracks. The correct p of water to give maximum strengt concrete necessitated much more l ramming the concrete than had been on some concrete roads. Cubes 6 i dimensions made from concrete tak the mixing machines and actually use road withstood on test a crushing 78 tons, or an average load of 4,87 sq. in., at 28 days; the cubes, howev not reinforced in any way.

Before any surface dressing was a the concrete, traffic was permitted t for some weeks, so that any loose m the surface might be disintegrated a off. When the surface showed a smoo mosaic appearance, he preferred to dressing of waterproofing material, a experimenting with various substance that good results were obtainable b first a dressing of tar-oils, followed l hot or cold bitumen, which would adhe than if applied direct to the concrete.

The concrete carriageway referred t was 1½ miles in length and 30 ft. w not yet shown any cracks, nor had th been chipped or affected in any way, the road had been used almost daily months by a 14-ton traction engine three trucks of gravel to the work. face was absolutely free from corruga camber was 1 in 50, and curves of radius had been given a maximun elevation of 7 in. from kerb to kerb were of pre-cast concrete in 3 ft. leng which might be set back when a wid the carriageway became necessary adopted a concrete surface for the carriageway of the new arterial ro miles) which were about to be constr the county of Surrey, as he was satis an 8 in. layer of reinforced concrete perly laid and cured, would give satisfaction to the users of the road more economical in the end than a adam or bituminous carpet on a found hardcore or pitched stone.

Mains in Public Highways.

"The Position of Mains in Publi ways" was the title of a paper read STEPHEN LACEY, B.Sc., Assoc.M.In Distributing Engineer to the Gas Li Coke Company, who said, in connect the question of the position that main occupy in public highways, there w chief points of view to be considered. first place it was obvious that mains be laid in positions which would ne the least possible disturbance of the ro when the main was originally laid o quently. In the second place, attenti be paid by the undertaking owning th to the relative costs incurred by the of alternative positions. It would g be found that the two points of view conclusions which were not in confl one another.

In any distributing system, whether gas, or electricity, there were, in gene classes of mains. There were trunk c mains which were not connected d consumers' houses; and there were the mains, fed by the trunk mains, from w consumers were directly supplied. generally agreed that one service mai be laid in each footway of roads ir

ts, where the number of service con- is were relatively numerous and where olume of traffic necessitated the laying high-class paving in the carriageways. eason for that was that with a main in footway the lengths of the services were d to a minimum, and new connections pairs to mains could be made without ing the carriageway. It was impractic- lay down a hard-and-fast rule defining cumstances which warranted the laying licate mains; each case must be con- on its merits. The provisional rule opted in setting out the distributing s for housing estates developed since r had been to lay single mains in sub- roads where the width of the carriage- as about 25 ft. or less, and to lay close kerb line in one of the footways, the ing that if, in the future, a change in ons should make it desirable to lay a main, both mains and all the service would then lie clear of the carriage- When single gas mains were laid in otway to supply customers on both f the road they had to be laid at a depth than usual, because service onveying gas had to be laid with a fall main in order to provide for the collec- d removal of water condensed from the

horoughfares with wide footways it be practicable to lay trunk mains as smaller mains in the footways, but the footways were not wide enough to re than accommodate all the service and cables. But there was less objec- laying trunk mains under carriage- han the service mains, for the reason no service pipes were connected to hey were not often opened up after once been laid.

depth at which mains were normally ow the surface of the road depended to xtent upon what they carried. Water had to be laid at such a depth as to be reach of frost; three feet was con- the minimum safe depth. The depth h gas mains were laid was not limited way, and it was usual to lay at about in. under carriageways and at 2 ft. footways. It would appear reasonable me that the greater the depth at which was laid the less the risk of damage ration or other causes. But that as- on was not borne out by experience. lidity and uniformity of the bed on the pipes lay were the factors that had atest influence in establishing and main- conditions which ensured the stability mains under the stresses due to vibra- c., and in his experience the depth at the main was laid had proved to be of ry importance.

construction of subways had often been ed as a remedy for the opening up of or alterations and additions to mains; ey could only be economically built special conditions. An examination of sting subways showed that they had lly all been built in new roads such as ctoria Embankment, Holborn Viaduct. ngsway, which had formed part of great ruction schemes in areas already highly ed. Schemes to build subways in exist- ds already congested with mains would not only the cost of building the sub- t the cost of diverting the existing That would certainly prove to be pro- .

ust be borne in mind when discussing stion of the position of mains in public ys that the distributing systems of nd gas undertakings in particular had n laid down in the last few years, but a great extent heritages from the past could only be slowly and laboriously d to conform to present-day require- The settled policy of all progressive kings owning mains under public hfares was to take every opportunity by the re-paving works of road autho- rities to overhaul and modernise their plant. New mains were then laid in the footways where possible and superfluous mains and service pipes under the carriageways thrown out of use. The importance of ensuring that that work should be carried out thoroughly and expeditiously was becoming more and more generally recognised. That being so, the cordial co-operation of road authorities and the undertakings, which was essential to successful working, followed as a matter of course.

Bridge Construction.

In the course of a paper entitled "General Construction of Bridges," presented by Lieut.-Colonel J. F. Hawkins, O.B.E., M.Inst.C.E., County Surveyor of Berkshire, and Captain C. G. Mitchell, A.C.G.I., B.Sc., Ministry of Transport, it was stated that in the last few years the number of mechanically-propelled vehicles had increased very rapidly, and the unit loads carried by them were much heavier than was contemplated even a few years ago. It was noticeable, too, that the average speed of these heavy vehicles was much greater than formerly, probably due to improved road surfaces. This revolution in traffic conditions had found a very large number of bridges to be quite inadequate as regards strength and width, and in the past two or three years very extensive schemes of bridge reconstruction had been put in hand. The improvement in roads generally preceded the improvement in bridges, and for this reason there were still a very large number of bridges not fit for present-day loading, and these provided a serious problem for the highway engineer.

During the last two or three years the Ministry of Transport had assisted to a certain extent in determining a minimum standard of loading. Previously every engineer had his own load for use in designing bridges, and it was obvious that that practice had great disadvantages. The standard load of the Roads Department, Ministry of Transport, was based on a 20-ton engine drawing three 13-ton trailers, with 50 per cent. added for impact. It was thought that that loading would provide for all normal traffic conditions for very many years to come. The 50 per cent. allowance for impact had given rise to a certain amount of criticism, and it was reasonable to argue that that impact allowance should be made to vary with the span. Impact on a road bridge was extremely difficult to determine owing to the very large number of variables. The condition of road surface, material of road surface and foundation, speed of vehicle, tyres, sprung and unsprung weight of vehicle, type of bridge and material of which the bridge was constructed, are some of the variables even when the span of the bridge is constant. Of these variables the condition of the road surface was not the least important, and it was essential to safeguard our bridges that particular attention should be given to this point. If a rational expression for impact on highway bridges could be determined and demonstrated there was no doubt that it would find general acceptance.

One effect of the standard load had been to eliminate, for all practical purposes, the type of bridge having two main girders with the deck supported on cross girders, except where very long spans were involved. That was, no doubt, due to the requirement that standard trains should be placed on the bridge side by side, one train for every 10 ft. width of carriageway. As an extreme example a road bridge having a 40 ft. carriageway and two 10 ft. footways would necessitate a live load of 88 tons being carried on one cross girder 60 ft. long.

Sir Henry Maybury, in summing up the discussion, impressed on those engaged in road work the importance of getting good value for money, and of planning on economical but sound lines. A calculation made in connection with the classified roads of the country showed that if it were possible to save in road works 1d. per superficial yard it would represent £1,800,000 a year.

Private Roads.

Mr. Edward Willis, Borough Engineer and Surveyor, Chiswick, in an address on "Estate Road and Private Street Construction and Standardisation," said the subject of town planning was intimately connected with private street and sewerage work, and therefore the designer of estate roads should have a knowledge of the foundation work of town planning; he should also have sufficient vision to anticipate the future of the area for which he was called upon to design the estate roads, and he should also bear in mind whether such roads were likely to be dedicated to the public use in the future, or be mainly retained as private roads.

Under the Town-Planning Act Regulations, the Ministry of Health quite recognised that the old fixed minimum width of 36 ft. or 40 ft. usually prescribed in by-laws, with greater widths of 50 ft. and 60 ft. under special circumstances, were not desirable under all conditions where new estates were being laid out, and a much better effect could often be obtained by the provision of *culs de sac* of narrow widths, roads with turning places, wider paths, grass margins, squares, and similar variations of the ordinary by-law road.

It would, therefore, appear desirable briefly to set forth a few suggestions as to roads which might be suitable for the ordinary building estate.

(1) Where reasonably straight or curved roads were desirable as main thoroughfares following the contours of the land, the houses adjoining such roads should not be brought out to the boundary of the road, but should be set back to building lines not less than 120 or more than 200 ft. apart, excluding any architectural ornaments, such as porches, bay windows, etc.

(2) Where roads were never likely to be subject to main through or cross traffic, the ordinary by-law width of 36 ft. to 40 ft. should be ample as the initial highway width, but since only the future could determine what might become an inter-communication road, he strongly advocated building lines set back about 20 ft., or more, giving a minimum width between buildings of 80 ft. Probably the by-law road usually specified with footways each one-fifth or one-sixth of the total width of highway would be the most convenient for traffic, both vehicular and pedestrian.

(3) Where roads could not be usefully adopted for even local traffic, then *culs-de-sac*, squares, or other similar methods might be adopted with carriageways of limited width, but with the provision of places for turning. It would, however, be undesirable to accept a total width of highway below, say, 24 ft., if a carriageway and footways were to be constructed, even in such short roads as a general rule, and he would emphasise the desirability of building lines being set back to provide 80 ft. between dwellings when possible.

(4) The 16, 14, or 13-ft. carriageways recently adopted for continuous roads in the lay-out of various housing schemes were not wholly desirable, but the two-vehicle standard is a *sine qua non* for all roads exceeding 150 ft. in length, and the least unit vehicle widths he had consistently advocated were—(*a*) 8 ft., for the lightest class of road (local); (*b*) 9 ft., for the intermediate class of road (Class 2); (*c*) 10 ft., for the main arterial roads (Class 1).

(5) In the lay-out of an estate not only should the contours have an important bearing upon reduced gradients, ease of traffic, sewer routes, etc., but careful design generally should lead to effective harmony with adjoining estates, and with slight deviations good aspects and vistas might be worked into the general plan.

PUBLIC WORKS EXHIBITION.

THE Public Works, Roads, and Transport Exhibition, held at the Agricultural Hall from November 19 to 26, formed a comprehensive collection of the machinery and materials used in modern road construction.

A selection of samples of their road surfacing materials was shown by the Limmer & Trinidad Lake Asphalt Co., Ltd. (34, Victoria-street, S.W.1), including Trinidad Lake bitumen, Trinidad asphalt-macadam, "Lithocrete" on Trinidad asphaltic concrete, compressible rock asphalt, "Lithofalt" paving blocks, and "Lithocrete" paving, Hutchinson's testing apparatus and instruments for standardising bituminous road materials, &c., and mastic asphalt as applied to modern buildings, were also shown.

Messrs. Tuke & Bell, Ltd. (27, Lincoln's Inn Fields, W.C. 2), exhibited a 5-ton 6-wheel lorry, fitted with "Constable" patent gravity hand-operated end-tipping gear and patent automatic tail-door; a 1-ton capacity lorry, with end-tipping body with patent gravity hand-operated end-tipping gear, on 1-ton chassis; a "Carlton" revolving sewage distributor; and "Grip" patent manhole-cover and frame, for heavy road traffic.

The exhibits of the Ingersoll-Rand Co., Ltd. (165, Queen Victoria-street, E.C. 4), consisted of air compressors, "Leyner" sharpeners, oil furnaces for forge shops, used in conjunction with "Leyner" sharpeners; samples of shanks and bits and set hammer samples, made up on "Leyner" sharpeners; "Jack-hammers," and numerous other devices.

Messrs. Stothert & Pitt, Ltd. (Orchard-street, S.W. 1), exhibited one of their No. 16 size combined stone drying and mixing plants. The machine is fitted with separate drying and mixing drums, and designed for giving under normal conditions an output of 60–80 tons per day. The drying drum is of the "Victoria" type, the mixing drum being of the tilting type. The combined plant is of the portable type, fitted with end loading device for feeding from ground level. The firm also exhibited one of their latest pattern tilting "Victoria" concrete mixers of 5 cu. ft. mixed batch capacity. This machine is fitted with elevating loading hopper, water tank, and driven by a petrol engine.

The stand of the Ransome Machinery Co., (1920), Ltd. (14–16, Grosvenor-gardens, S.W.1), exhibited (1) Batch type combined tar macadam dryer and mixer with double drying drum and fitted with pump for the binder, with an output of 2¼ in. tar-macadam at the rate of 6 tons per hour. This plant is made in three portable or stationary sizes, with outputs of 4, 6 and 12 tons per hour; and in two stationary sizes, with outputs of 20 and 30 tons per hour. (2) A light-weight tilting drum concrete mixer with barrow hoist, mounted on two large wheels to enable it to be run about by two men. This machine is self-contained with 7 cu. ft. elevating skip, water tank and 3 h.p. petrol engine, and turns out 40 mixed batches of 5 cu. ft. per hour. (3) A new block-making machine was also shown, with three moulding boxes mounted on a low revolving frame. While the first mould is loaded, the second is pressed, and the finished product in the third box is taken away. The machine will make solid or hollow, plain or ornamental blocks, bricks, slabs, copings, angles, &c., in innumerable shapes and any dimension within 18 in. by 9 in. by 9 in. Hoisting winches, steel sheet piling, concrete pile helmets, and steel hand carts were also shown on this stand.

Messrs. Ruston & Hornsby, Ltd. (Lincoln), exhibited a No. 6 crane navvy, mounted on caterpillar tracks. This machine has a cutting pressure on teeth of 6 tons, and a bucket capacity of 7–8 cub. yds. It is fitted with three sets of engines—the main engine operating the hoisting and travelling motions: racking engines; and slewing engines. The boiler is designed for 125 lb. per sq. in. The caterpillar tracks have cast steel track pads and are specially designed for standing up to hard usage. There are three operating levers and one foot pedal only, thus making it possible for one man to work the machine on light and medium outputs. An 8-ton tandem motor roller, a cold starting oil engine (42 b.h.p.), pumping plant, a 9½ b.h.p. portable petrol-paraffin engine, a centrifugal pump, and a helical centrifugal pump were also shown by this firm.

The Walker-Weston Co., Ltd. (Empire House, 7, Wormwood-street, E.C. 2), exhibited samples and models of their system of interlocked double-layer reinforcement. This system originated at the Port of London Authority in 1917, and was used by the Port of London Authority in the construction of King George V and Victoria Docks, for concrete surface work, including roads, quay-ways, floors, &c. The exhibits included a model of a reinforced concrete road, showing location of reinforcement in the concrete, and some illustrations and drawings of method of interlocking concrete joints. In addition, a film showing construction of Manchester concrete roads and the Dartford-Erith road, Kent, laid on the "Walker-Weston" system, was exhibited.

Messrs. Builders & Contractors Plant, Ltd. (51, Tothill-street, S.W. 1), made a special feature of the B.C.P. combined stone dryer and mixer, of a small portable size, fitted with an oil burner. This machine was specially designed for small road repair jobs. A petrol road roller, a petro flame heater for patching, a new road gritting machine of a small size suitable for gritting tarred roads or for rendering the surface of a wet road less slippery, the "Roll" concrete mixer, two-wheel tipping carts, a tar sprayer with a new patent steam driven pump, a complete working model of crushing and screening plant together with an elevator, and tar and bitumen boilers were also shown.

Messrs. Millar's Timber & Trading Co., Ltd. (Pinners' Hall, E.C. 2), showed the following machines in operation under their own power: (1) "Cummer" asphalt plants and accessories, which are supplied in either portable or stationary units for outputs of approximately 8, 12, 18, 20 tons of bituminous sand carpet per hour; or 800, 1,200, 1,800 2,000 sq. yds. 2 in. sand carpet per day. (2) "Jaeger" mixers, equipped with automatic tipping water tank, automatic loader, and hoisting drum. (3) Tandem steam road rollers, with a low centre of gravity, supplied in eight sizes, 2 to 10 tons in weight. (4) Steam shovels, with separate engines for hoisting, slewing and crowding. (5) The "Tructractor" motor truck, with tip body of 24 to 30 cub. ft. capacity, for handling road material. Portable pumps, wagon loaders, large melting tanks, air compressors, rock crushers, &c., were also exhibited on this stand.

Mr. Frederick Parker (Viaduct Works, Catherine-street, Leicester), exhibited (1) A multiple stone drying plant of the two-tube type, capable of dealing with upwards to 100 tons per day, complete with hot air exhaust fan, furnace, &c. (2) Asphalt and tar-macadam trough mixer, of two-thirds cub. yd. capacity per batch for dealing with small material for surface or carpet work. (3) A concrete mixer, of 7 cub. ft. capacity per batch of unmixed material, complete with loading hopper, automatic water tank, and power unit for driving. (4) A concrete mixer, of 4 cub. ft. capacity per batch, combined with a 2-h.p. petrol engine. (5) A 16 in. by 9 in. solid body type stone breaker and ore crusher, with an output approximately of 8–11 tons per hour. (6) A 12 in. by 4 in. solid body type granulator, capable of dealing with 2½ to 3½ tons per hour down to ¾ in. material.

Messrs. Richard Hill & Co., Ltd. (Middlesbrough), exhibited samples of "Maxweld" electrically welded steel fabric in varying strengths and spacings. A sample of double layer fabric, designed to provide for flexure, contra-flexure and shear stresses, which are with when slabs are constructed over mad or unstable ground, was shown. This firm exhibited a new product in the shape of trically welded fabric made from mild steel to British Standard specification. The rods taken from the rolling mills and without further process are manufactured into fabr

Messrs. Drummond Bros., Ltd. (Rydes Guildford), exhibited a selection of "Willing Worker" plant. The "Wi Worker" concrete mixer is a portable b mixer, with a capacity of 3 to 6 cub. yds. hour, driven by 3 b.h.p. paraffin engine, arranged in a steel trolley. The "Wi Worker" diaphragm pump is driven b 3 b.h.p. paraffin engine, and arranged complete outfit on a steel transport tro Its capacity is 5,000 gallons per hour. "Wi Worker" duplex force pumps and drag outfits were also shown.

The outstanding feature of the stand Messrs. Winget, Ltd. (24, Grosvenor-gard S.W.1), was a quarter-size model of the "Wo Plant" for the automatic production of macadam. This is a new stone-drying tarring plant which takes the crushed stone dries it, frees it from dust, dips it in t bitumen, and finally loads it into a railway tr practically without any handling by man la from start to finish. The plant is capabl producing 100 tons per eight-hour day. Pra ally all the exhibits on this stand were at work. They included a pressure mac for manufacturing concrete blocks and s a portable engine-driven crusher, mixers suit for wet or semi-wet concrete, and also, by addition of special blades, tarred or bitumi products. A new portable conveyor was shown.

Messrs. Johnson's Reinforced Conc Engineering Co., Ltd. (Manchester), special attention to their new pattern steel lattice reinforcement, as used for concrete ro culverts, tanks, floors, roofs, walls and sim construction, for which is claimed rigi without interference with the quality or tinuity of the main tension wires. "Keed fitments, used in conjunction with ordi round mild steel bars for concrete be columns, &c., were shown, and also "Brickt reinforcement for brickwork, partition s concrete blockwork, &c., where extra stre and lightness of construction are required.

Granite macadam from their various quar kerb, channel, setts, &c., granite for a tectural, monumental, dock, harbour engineering work, slag (tarred and untar "Silex" brand Yorkstone for pavings, "non-slip" stone footway paving, arti stone, &c., were exhibited by Messrs. Broo Ltd., of 65, Victoria-street, S.W.1.

The exhibit of the British Reinforced crete Engineering Co., Ltd. (1, Dicker street, Manchester), consisted of a large nu of photographic enlargements illustrating work in which B.R.C. fabric has been The exhibit also included a roll of B.R.C. f and a concrete slab showing the position o fabric in the road.

Messrs. C. A. Peters, Ltd. (Stores-road, De showed their "Carbolineum" wood pr vative, "Peteroid" cement special "Peteroid" coloured cements, "Peter special cements, "Peteroid" stucco and terr grains, sands, &c., "Peteroid" waterpro powder, and "Peteroid" fluoric crystal hardening old floors and all lime or con work.

The Phœnix Engineering Co., Ltd. (Ph Works, Chard), exhibited a bitumen h with a capacity of 320 gallons; a contin heating road tar spraying machine of 160 ga capacity; a pot-hole repairing outfit; a f gate hand lift contractors' trench pump; a hand lift contractors' diaphragm pump.

The exhibit of The Expanded Metal Co., (York Mansion, Petty France, Westmin London, S.W.1), consisted of samples of company's various products; a model sc of kerbing and road; photographs of muni works carried out on its systems; "Expan

rcement for roads; expanded steel sheet rcement; lathings for plasterwork, and net" reinforcement for brickwork, con- blockwork, &c.

ssrs. Ferodo, Ltd. (Sovereign Works, el-en-le-Frith), exhibited models showing odo" fibre and bonded asbestos fitted to is types of brakes and clutches, and nens that had been in use for long periods, ng the resistance to wear. Further its were samples and models of "Ferodo" t stair treads, and "Feroleum" fibrous ng.

large assortment of road materials and ng materials, including granite setts, slag, bricks, pipes, roofing tiles and slates, was exhibited on the stand of Messrs. t Matthews & Co., of West Africa House, sway, W.C.2.

e Helical Bar & Engineering Co., Ltd. 4, Victoria-street, S.W.1) exhibited Cher- quartzite of various sizes for macadam chippings for road surface binding and eting purposes, spalls for breaking, mac- , chippings, helical bars for ferro-concrete with a continuous mechanical bond to de security against slipping were shown, also mild steel round bars, all diameters h to 1½ in. with lengths up to 40 ft., and ven wire concrete reinforcement.

ssrs. William Shepherd & Sons, Ltd. stone, Rochdale), exhibited samples of ltic slag for roads, samples of asphaltic tone for playgrounds, footways, carriage s, hard tennis courts, floors, yards, and al surfacing work; lump slag for pitching foundations; broken slag, adhesive com- on for cementing wood block and boarded , and tramway parging blocks.

e exhibit of Messrs. Tangyes, Ltd. (Cornwall s, Birmingham), included a 25 b.h.p. -oil engine, cold-starting type, suitable for ith residual oils, fuel oils, refined oils, or ed to use tar oils, alcohol, &c.; a three- vertical treble ram pump, four types of n-Gyro" centrifugal pumps, and one of atest pattern single ram pumps, lifting e, &c., were also exhibited.

IE LONDON ASSOCIATION OF BUILDERS' OREMEN AND CLERKS OF WORKS.

IE London Association of Builders' Fore- and Clerks of Works held their annual er at the Holborn Restaurant, Kingsway, November 24, under the chairmanship of G. C. Hans Hamilton.

fter the loyal toasts had been duly oured, the CHAIRMAN proposed "The Lon- Association of Builders' Foremen and ks of Works," and said he had to apolo- on behalf of Sir G. C. Hamilton, , owing to the present political contest, been prevented from taking the chair. London Association of Builders' Foremen Clerks of Works was too well known for to go into unnecessary details, but the sec- ry had given him certain very impressive s. It was founded in 1894, and its objects e the promotion of friendly and social in- ourse by means of frequent meetings; to st members when in want of employment, provide pensions; to provide an in- ance fund against death; to provide an mployment benefit fund; to assist mem- s financially by grants from the funds. pensions fund asked for special assist- e: it paid out a sum of £420 yearly. The nbers of the Association were the lieuten- s and non-commissioned officers of the lding world. Not only was it their duty instruct the men under them, it was often essary for them to instruct the men above m. The principal object of their presence t night was to make the Association a success. Hard times made it difficult to subscribe as one would wish, but he made an urgent appeal that the guests would subscribe in order to make the dinner of the London Association a great success.

In response, the PRESIDENT of the Association said it was a very great pleasure for him to reply to the toast. He thanked all who had come to their assistance in the difficulties they had found themselves a few days back. The chairman had spoken of the principal aims and objects of the Association; but he would emphasise the benefit which accrued to members of their industry by joining an Association such as theirs. A general foreman, or clerk of works, had all to gain by becoming a member, as they catered for the educational side, in addition to the social side. This was only accomplished by giving lectures, visits to works of interest, and discussions on trade matters generally. In this direction their secretary had been very energetic, and had allowed very few opportunities to slip by him which might advance the knowledge of their members. It was his ambition to induce any architect, or professional man, who could be interested in their Association occasionally to read them a paper on a subject of general interest; and he felt sure he would be only too pleased to make arrangements for the success of such an object.

MR. F. SANDERSON proposed "The Building Trade," and said it was one of the oldest in the world, and had very great responsibilities in the country.

MAJOR RICE, in reply, said no doubt better times were in store for the industry, but they did not know how long that would be.

Other toasts included "The Architects and Surveyors," proposed by MAJOR A. VIGOR, and responded to by MAJOR N. OLIVER; "The Visitors," proposed by the VICE-PRESIDENT, and responded to by MR. W. MITCHELL; and "The Chairman," proposed by MR. BEN CARTER.

EXPANSION OF BUILDING AND CONSTRUCTION IN INDIA.

[FROM A SPECIAL CORRESPONDENT.]

THE "BUILDER" has always enjoyed an Indian circulation among prominent firms and officials, and its announcements are read with interest. Orders are sent through English firms and merchant-shippers in London, Liverpool, Glasgow, Manchester, etc., who pay and ship the materials. Indian constructors, engineers, builders, and architects are eager to secure sole-agents for suitable articles. Activity prevails everywhere and buyers are busy.

The construction of road railways on an extensive scale is to be taken in hand by the Gwalior State. Estimated cost of the railway, £800 per mile. The new reservoir project in the South Arcat District of Madras will, among other things, irrigate 25,000 acres of new land. Electric schemes are contemplated in Mysore to meet the demand for more power. As the City of Ahmedabad is extending, substantial additions are to be made for electricity, including buildings for three 750 B.H.P. generating sets. The last Punjab public works department returns show an expenditure of £1,363,950 on military works, civil works, post and telegraph works, archæological works, civil and deposit works. The new cantilever bridge between Howrah and Calcutta will, it is estimated, cost £6,380,000. A South Indian electric power project is being considered by the Travancore Government. Trincomalee as a naval store base instead of Bombay will gradually develop as a commercial port. It is one of the greatest natural harbours in the world. Large oil tanks and buildings are being erected.

Great activity prevails in introducing latest appliances and materials. An English provincial maker has six large firms in Calcutta stocking steam and power pumps of every description for contractors. American steel construction work is being introduced; also American tools and malleable fittings. Jointless flooring that can be laid upon wood or cement, fire resisting, impervious to water, white ant proof, highly suitable for railway carriage floors, is selling well. Also roofing for concrete: tiled timber and corrugated iron roofs are successful roofings for railway carriages. Demand exists for enamels, varnishes for floors, paints in all colours, wallboard for ceilings and partitions, flooring in dark green, red or slate colours, guttering, damp coursing for basements, steel rolling shutters. Business is done in ironwork paint against which rust is powerless. White or coloured Italian marble for builders, contractors, and engineers. Suppliers of suitable materials would do well to announce them.

Apprentices in Government workshops usually have a five-years' course; age limit 19. There is evidence that the old idea in India that manual labour and workshop duties are degrading and beneath the dignity of boys of good families is slowly breaking down. The workshop staff has had to use a good deal of persuasion and humouring.

Colombo municipal workshops have had machinery introduced, haulage plant, lorries; also steam street water sprinklers, which are cheaper than bullock-drawn vehicles. Up to March 31, 1923, registered in India were: 3,666 heavy motor vehicles, 37,903 motor cars, and 13,997 motor cycles. It is computed that one motor lorry is equal to 20 bullock carts.

BOOKS RECEIVED.

STRUCTURAL STEEL. (London: R. A. Skelton & Co., Ltd.) Price 5s. net.

CITY PLANNING AND ZONING. By Theodora Kimball. (Cambridge: Harvard University Press). Price 16s. net.

AIR RAID DAMAGE IN LONDON. Prepared by E. C. P. Monson and Ellis Marsland. (London: Offices of the British Fire Prevention Committee.) Price 5s. net.

PENZANCE AND THE LAND'S END DISTRICT. By J. B. Cornish and J. A. D. Bridger. (London: The Homeland Association, Ltd.) Price 1s. 6d.

THE DECORATION AND RENOVATION OF THE HOME. By A. S. Jennings. (London: W. R. Howell & Co.) Price £2 2s.

STREETS, ROADS AND PAVEMENTS. By H. Gilbert Whyatt. (London: Sir Isaac Pitman & Sons, Ltd.) Price 2s. 6d. net.

SOME ACCOUNT OF THE HISTORY OF PETERSFIELD. By E. Arden Minty. (London: John Lane, The Bodley Head, Ltd.). Price 3s. 6d. net.

ITALIAN RENAISSANCE ARCHITECTURE. By Georges Gromort. (London: John Tiranti & Co.). Price 17s. 6d.

SCANDINAVIAN ART ILLUSTRATED. By Carl Laurin, Emil Hannover and Jens Thiis. (London: Oxford University Press.). Price 35s. net.

ARCHITECTURAL BUILDING CONSTRUCTION. Vol. II, Part 2. By Walter R. Jaggard and Francis E. Drury. (Cambridge: At the University Press.) Price 18s. net.

A FIRST COURSE IN BUILDING CONSTRUCTION. By Brysson Cunningham. (London: University Tutorial Press, Ltd.). Price 4s. 6d.

PLANE AND GEODETIC SURVEYING FOR ENGINEERS. By David Clark. (London: Constable & Co., Ltd.). Vol. I, Plane Surveying, 26s. net; Vol. II, Higher Surveying, 25s. net.

ORIGINAL DESIGN. By S. J. Cartlidge. (London: Chapman & Hall, Ltd.). Price 6s. net.

THE NEW LAW OF PROPERTY. By Alfred F. Topham. (London: Butterworth & Co.) Price 15s. net.

OLD OFFENDERS AND A FEW OLD SCORES. By E. W. Hornung. (London: John Murray.) Price 7s. 6d. net.

BUNGALOWS. By W. I. Chambers. Price 2s. 6d.

COMMERCIAL MOTOR VEHICLE SHOW.

THE Commercial Motor and Roads Development Exhibition, now being held at Olympia, is so full of interesting exhibits that the following details can only give a slight idea of the extensive range of the exhibition. Berliet commercial vehicles, shown by Automobiles M. Berliet, of 40, Sackville-street, W.1, are represented by eight exhibits, of which four are chassis and four complete vehicles. The chassis are a 15-cwt., 30-cwt., 2½-tonner and a 6-tonner, and amongst these the 2½-tonner has the distinction of being equipped with four-wheel brakes. The 6-tonner is worm-driven, whereas all the others have spiral bevel gears as their means of final drive. The Berliet chassis will be found, upon examination, to have that neat and clean appearance which is typical of the majority of French chassis, a quality which is obtained as the result of careful forethought. It does not necessarily involve any decrease in accessibility. The complete vehicles include a saloon omnibus on a 30-cwt. chassis, a single-deck omnibus on a similar machine, an ambulance built to Local Government Board specifications, and a box van, the two latter being on 15-cwt. chassis.

The Bristol Tramways and Carriage Co., Ltd., of Bristol, show one chassis of each of the two models which they manufacture, as well as one complete passenger vehicle mounted on each type. In addition, there is a Bristol engine with the base of the crank-case removed so as to show the details of its construction. There is also a collection of finished parts as fitted to Bristol chassis, and a gearbox and a change-speed unit electrically operated and demonstrating the Bristol patent selector gear. Both the exhibits at Olympia of complete vehicles are passenger machines; one, on the 40 h.p. chassis, is a single-deck omnibus designed to carry 30 passengers and having front and rear entrances. The interior is divided into two compartments, that in the rear being set apart for passengers who desire to smoke. This vehicle is very well finished with domed wings and driver's cab with three-piece windscreen; it is equipped with electric lighting and runs on solid tyres. The bus on the 30 h.p. chassis is of the forward-dash type and has seats for 20 passengers.

The 20-cwt. to 25-cwt. chassis shown by Karrier Motors, Ltd., Huddersfield, is attracting a lot of attention. The construction embodies the unit-mounted engine and gearbox, the former being of 18.2 h.p. and the latter affording four speeds forward and a reverse. There is on this stand a pay-as-you-enter bus, with a capacity for 20 seats, mounted on a standard 2-ton 25 h.p. chassis, and also a special model of this chassis with 9-ft. wheelbase, and forward dash and body designed to be useful for the carriage of mineral waters and similar commodities. Other exhibits include model KV, which is designed for 5-ton or 6-ton loads, and JH, which is a 3½-tonner. The new 30-cwt to 40-cwt. chassis, which is built to the W.D. subsidy specification, is also displayed.

Renault, Ltd., have a very full stand of exhibits. The smallest is the 8.3 h.p. 5-cwt. chassis, which is shown as a boxvan and as a tradesman's van. The 13.9 h.p. appears four times on the list of exhibits, once as a 10-cwt., the other three being 15-cwt. Then there is the 24.8 h.p. chassis, which also appears in two capacities. This is shown in chassis form, the smaller having a capacity of three tons and being designed to have the engine beneath the driving seat, that is to say, it is of the forward-dash type; the other is for 3½ tons. A tipping wagon is shown on the 5-ton 24.8 h.p. chassis, whilst the twelfth and largest exhibit is the Renault 10-ton trailer and tractor. This also is equipped with a 24.8 h.p. engine, and the overall length of this exhibit is 31 ft. 5 ins.

The makers (Walker Bros.) of Pagefield motor vehicles exhibit an example which shows their ingenious system of refuse collection, which, introduced at Southport, is now being employed by municipal authorities all over the country. For the complete utilisation of this system, three horse-drawn collecting wagons, or containers, and one motor lorry are required. The container has a capacity of about 200 cubic ft.—say, three tons—and is designed to have a low loading level. When one of the containers is full it is taken by the horses to the motor wagon, upon which it is hauled by special arrangements of sliding ramps and winch. The motor lorry then quickly removes the loaded container to the tip, empties it and returns to pick up another full one. No special picking-up stations are necessary, as the exchange can be made in any ordinary road without interfering with traffic. The system is really a combination of horse haulage and motor traction, each in its most economical form, and it is, moreover, cheap and highly efficient. At Southport an actual saving of 1s. 11½d. per house cleared has resulted from the adoption of this system. A 3½-ton short wheel base chassis is also exhibited.

The Leyland exhibit is a most comprehensive one, embodying no fewer than seven vehicles, one engine and two models, representative of all types of Leyland production. The new 30-cwt. chassis appears fitted with a 'bus body and also equipped as a brewers' dray. The former has seats for 20 passengers, and is a typical example of this class of vehicle, for which the Leyland Co. have acquired a high reputation. The brewers' dray consists of an open body with the usual stanchions and chains which one associates with this type of vehicle. Another exhibit is an engine fitted to the new 30-cwt. chassis. This power unit is interesting on account of the advanced features of design, such as hemispherical cylinder heads and triple eccentric drive for the overhead camshaft, which are incorporated in its construction. Unusual flexibility as well as fuel economy are claimed for the power unit. The two models shown are an R.A.F. 4-tonner and a Leyland chassis fitted with a tipping body operated by Bromilow and Edwards gear.

The General Motors, Ltd., advertise that they are unable to show on their stand at Olympia a full range of their products, and although this statement is perfectly true, yet it cannot be denied that there are on their stand, and on those of firms allied with them in some way or other, a very representative selection of Buick, Chevrolet and G.M.C. commercial vehicles. They comprise a Buick 15-cwt. chassis and an attractive 15-cwt. van on the same substructure. There is also a traveller's brougham, neatly designed to give the same appearance as a private brougham and equipped with a wide door at the rear and long vestibule doors each side of the driver, and this also is on a 15-cwt. chassis. Amongst the G.M.C. exhibits of particular interest which may not be found on the stands either of General Motors, Ltd., or on that of General Motors of Canada, Ltd., mention must be made of the 15-ton G.M. tractor which is being shown by R. A. Dyson & Co., Ltd.

There are three vehicles on the Clayton stand, one of each principal type manufactured by Clayton Wagons, Ltd., these consisting of one electric vehicle and two steam wagons, one of the latter being an undertype and the other an overtype. The special features of Clayton electrics are the arrangement of the single motor unit, which has, combined with it, the countershaft bearings and the housing for the gears. The advantage of this construction is that there can be no trouble due to faulty alignment. The particular vehicle shown on the stand is a tipping wagon of the "run-back" type and fitted with steel body.

Those who are interested in the latest type of fire-fighting apparatus will be well advised not to miss the Dennis stand, upon which is staged, as one of this company's exhibits, a chassis of one of the latest type 60-70 h.p. 500-600 gallon fire-engines, equipped with the Dennis patent multi-stage high-pressure pump, which, amongst many interesting fea is notable on account of its light weight, h in mind its capacity. The pump is drive gearing which is mounted at the front en the chassis gearbox and enclosed in an alumi casing, the drive from this gear to the itself, which is, of course, located at the ext rear of the chassis, being effected by a cardan shaft, which is equipped with a fle disc joint at each end, and is supported at a the middle of its length in a journal whi carried by a cross-member of the main ch

The Sentinel exhibit includes no fewer five vehicles, all of them being new mo inasmuch as every chassis shown emb the new Super-Sentinel patent engine, w incorporates in its construction, amongst novel features, a differential, which is buil with the crankshaft. This is a most interes feature; the gear consists of a number of s and spur wheels disposed in and around crankpins and webs so as to give true differe action. An important point in its construc is the means whereby the differential is pre ted from functioning until a difference o per cent. or 15 per cent. of effort as between two chain sprockets is felt. It is claimed this arrangement abolishes 90 per cent. of tendency to skid. A full-size working m of this differential gear is on the stand, an well worthy of close investigation.

The exhibits of the Four Wheel Drive L Co., Ltd., comprise one standard chassis three-way hydraulic tipping lorry and a tipp trailer, a long wheelbase chassis with platform body, and a fire-engine. The tipp lorry and trailer are equipped with Bromi and Edwards three-way hydraulic tipping g which can be operated from the driver's on the lorry. The trailer is coupled to lorry by a telescopic tube with ball joint c nections. Both the bodies have sheet-s floors, so as to facilitate tipping the load, the design in general has been improved that the loading level is now 3 ins. less t that which has hitherto been customary. I important to note that both the lorry and tra are equipped with Westinghouse air-bral a feature of which is that, should the tra become accidentally detached from the lo the brakes are automatically applied to b vehicles.

The outstanding exhibit of Henry Gar Ltd., Birmingham, is undoubtedly the Gar Saloon Busvan. This is designed to be us on the one hand, as a comfortable passeng carrying vehicle; or, on the other hand, sol for the conveyance of goods; or, again, in mediately for carrying both passengers and go without inconveninence to the former or de ment to the latter.

The Dodge Bros. exhibit includes two cha and two complete vehicles. The former are 24-35 h.p. Dodge chassis and the Graham Br 30-cwt. truck chassis, which is fitted with Do Bros.' power plant. The small chassis ha four-cylinder engine of 3⅞ ins. bore by 4½ i stroke, three-speed gearbox with central chan multi-disc clutch and spiral-bevel gear. All brakes take effect on the rear wheels, wh are of the wooden artillery type, and acc modate 32-in. by 4-in. straight-sided cord ty The equipment includes electric lighting a starting, speedometer and tool kit. The ot chassis, of course, has the same power unit, its tyre sizes are 33 ins. by 4½ ins. on the fr and 36 ins. by 6 ins. on the rear. The 15-c panel-type van will be shown on a Do chassis, and a saloon bus on the Graham. T latter is by Hoods & Bodies, Ltd., and is the pay-as-you-enter type. Its capacity is 16 passengers.

The business of monumental mason carr on by the late Mr. James Gullett, of Holbo place, Plymouth, is being continued by M Margaret Annie Gullett and Messrs. Jan Gullett and John Ronald Hay Gullett.

E AND BLYTH DIS-RICT BUILDING ADES EMPLOYERS' FEDERATION.

annual dinner of the Tyne and Blyth Building Trades Employers' Federation, November 22, at the Grand Assembly Newcastle, Mr. Thomas Bertram the chair.

hairman proposed the toast "Our g Authorities," and said he believed lay there rested upon the governing greater responsibility than had ever en known in the history of the nation. e, however, worthy of confidence being n them. The houses built, it had been re not a credit to the governing s. Whatever criticism might be made, w perfectly well that it was unjust and If they had criticisms to offer they go farther afield. He expressed of members of the Tyne and Blyth n that Mr. Stephen Easten would have d strength to carry out the duties of office, as Lord Mayor of Newcastle.

ding, Mr. Easten said that many of o had criticised were men who had de anything in their lives. He wished e of them would come out and try to rk themselves.

Building Industry" was proposed by ff of Newcastle. They could, he said. it to themselves that during the most eriod through which they had passed been singularly immune from actual of work.

rsdike replied, and said the builders ountry had never valued themselves should. The Sheriff had very truly out that they had been singularly in not having any serious upheaval ilding industry, and for that they were ely indebted to the ability and foresight tephen Easten. Whilst the housing might be getting stale, houses were still nd he was one of those who believed ousing schemes had been left to those erstood housing the position would n a much more favourable one at the me.

W BUILDINGS IN LONDON.

ter-gate. — RE-DECORATION. — Messrs. arter, Ltd., of Holloway, N. 7, are out structural alterations, complete on of central heating, domestic water e-decorations, &c., in the extension of e Hotel at Lancaster-gate.

le-place, W.—All work in connection enlarging of the Norland Hotel, W. 1. executed by Messrs. G. H. Carter, Ltd., way, N. 7.

oad-street.—BUILDING.—Mr. Aubrey M. surveyor and land agent, 62, Oxford-V., reports the disposal, on a long lease, of the prominent site situate ld Broad-street and 1 & 2, Union-C., the ground floor of which is now eupation of the Bank of Simla. Mr. forms us that his clients intend erecting prominent building with stone front

ley.—BUILDING.—Messrs. G. H. Carter, Holloway, N. 7, have secured the con-building on the site at No. 17, Wembley ve. Mr. W. A. Lewis, F.R.I.B.A., insbury-square, is the architect.

y, S.E.—Messrs. G. H. Carter, Ltd., of y. N. 7, have had their tender accepted erection of a bungalow at Blenheim-kley. Messrs. Collis & Clark, of 526, treet, W. 1, are the architects.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick-layers.	C'p'ters. Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brentwood	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Colchester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
E. Glam. (Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Great Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Norwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Helens	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	1/2½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2

(For rates of wages in the Building Trade in Scotland, see page 867.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

DECEMBER 1.—**Adisham.**—RE-SHINGLING.—For the re-shingling of Adisham Church tower. Mr. T. F. W. Grant, 11, Buckingham-street, Adelphi, W.C.2.

DECEMBER 1.—**Bingley.**—CLASSROOMS.—Erection of two classrooms at Eldwick Sanatorium, near Bingley, for the West Riding Public Health Committee. West Riding Architect, County Hall, Wakefield.

DECEMBER 1.—**East Ham.**—PAINTING.—For the internal re-decoration of Napier-road School, for the B.C. Borough Engineer, Town Hall, East Ham, E.6. Deposit 10s.

DECEMBER 1.—**Huddersfield.**—BUNGALOW.—Erection of a bungalow at Birchencliffe, Huddersfield, for Miss M. Mossop. Messrs. Stocks, Sykes & Hickson, architects, 4, St. Peter's-street, Huddersfield.

DECEMBER 2.—**Weston-super-Mare.**—EXTENSIONS.—For the extensions of the Council Offices, for the U.D.C. Mr. Harold A. Brown, Surveyor, Town Hall, Weston-super-Mare.

DECEMBER 3.—**Barnet, N.**—HOUSES.—Erection of 23 houses and contingent work on land adjoining May's-lane and May's-lane-road, for the Barnet U.D.C. Mr. W. B. Chancellor, Engineer and Surveyor, Council Offices, Barnet.

DECEMBER 3.—**Blackburn.**—EXTENSION.—For general builders' work in connection with the War Memorial extension at the Blackburn and East Lancashire Royal Infirmary. Messrs. Sames & Green, architects, 14, Richmond-terrace, Blackburn. Deposit £2 2s.

DECEMBER 3.—**Leominster.**—HOUSES.—Construction of 10 parlour-type and 10 non-parlour-type houses, for the T.C. Mr. James Budd, Borough Surveyor, Town Hall, Leominster.

DECEMBER 3.—**Newton Abbot.**—REPAIRS.—For repairs of the Wesleyan Church Tower, Newton Abbot. Mr. Dodge, 87, Queen-street, Newton Abbot.

DECEMBER 3.—**Plymouth.**—LODGE, &C.—Erection of porter's lodge, office, and waiting-room, at Greenbank House, for the B.G. Messrs. Thornely & Rooke, architects, 3, Sussex-terrace, Plymouth.

DECEMBER 3.—**Plymouth.**—FOUNDATIONS.—Construction of concrete walls and foundations in connection with the extension of a coal store at the Electricity Works, Prince Rock, for the T.C. Mr. J. Wibberley, Borough Engineer, Municipal Offices, Plymouth. Deposit £2 2s.

DECEMBER 3.—**Swindon.**—LAVATORY.—Construction of lavatory at Mechanics' Institute, for the G.W.R. Co. Mr. R. R. Ford, Secretary, Swindon.

DECEMBER 3.—**Wandsworth, S.W.18.**—DEMOLITION.—Demolition of premises, No. 380, Streatham High-road, S.W.16, for the Metropolitan Borough of Wandsworth. Borough Engineer, Mr. E. J. Elford, M.Inst.C.E., 215, Balham High-road, S.W.17.

DECEMBER 3.—**Wandsworth, S.W.18.**—FOUNDATIONS.—Excavations and construction of concrete foundations with steel reinforcement for proposed public swimming bath and buildings on the site of No. 380, Streatham High-road, S.W.16, for the Metropolitan Borough of Wandsworth. Borough Engineer, Mr. E. J. Elford, M.Inst.C.E., 215, Balham High-road, S.W.17.

DECEMBER 4.—**Bodmin.**—NEW POST OFFICE.—Erection of a new post office at Bodmin, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

DECEMBER 4.—**Bray (Ireland).**—HOUSES.—Erection of three blocks of three houses each, for the U.D.C. Mr. P. H. McCarthy, 26, Lower Leeson-street, Dublin. Charge 15s.

DECEMBER 4.—**Burton-on-Trent.**—ALTERATIONS.—For alterations to offices, &c., at the Town Hall. Mr. George T. Lynam, Borough Engineer, Town Hall, Burton-upon-Trent.

DECEMBER 4.—**Golcar.**—HOUSES.—Erection of three dwelling-houses, Leymoor-road, Golcar. Messrs. Lunn & Kaye, architects, Milnsbridge.

DECEMBER 4.—**Hampton, Middlesex.**—ADDITIONS (BUILDING).—Additions to the Isolation Hospital at Uxbridge-road, Hampton-hill (new observation block and alterations and additions to Administration Block, &c.), for the Hampton Urban District Council. Mr. Sidney H. Chambers, Surveyor to the Council, Public Offices, Hampton, Middlesex. Deposit £2 2s.

DECEMBER 4.—**Monmouthshire.**—VARIOUS WORKS.—For carrying out the following, for the Monmouthshire Agricultural Committee:—(*a*) "Rock Cottage," Penhow, repairs and painting; (*b*) Penyworlod Farm, Penhow, repairs and painting; (*c*) road-making at Hill Farm, Llanvaches, and at Penyworlod Cottages, Penhow. Mr. A. Every Clayton, County Land Agent, 2, Gold Tops, Newport, Mon.

DECEMBER 4.—**Norwich.**—COTTAGES.—Erection of a block of six parlour cottages at the Corporation Sewage Farm, Whitlingham, for the T.C. Mr. Arthur E. Collins, City Engineer, Guildhall, Norwich.

DECEMBER 4.—**Wombwell.**—HOUSE.—Erection of a dwelling-house for the Manager at the New Scarborough Sewage Works, for the U.D.C. Mr. H. C. Huck, Clerk of Works, New Scarborough.

DECEMBER 5.—**Belfast.**—MUSEUM.—For superstructure works for first section of the Museum and Art Gallery in Botanic Gardens Park, for the T.C. Mr. R. B. Roe, Quantity Surveyor, 17, Wellington-place, Belfast. Deposit £2 2s.

DECEMBER 5.—**Brighton.**—HOUSES.—Erection of 87 houses on a portion of the Queen's Park Housing Site, for the County Borough of Brighton. Either member of the Panel of Architects: Messrs. Clayton & Black, 10, Prince Albert-street; Messrs. T. Garrett & Son, 34, Ship-street; Mr. E. Wallis Long, 56, East-street; Mr. W. H. Overton, 22, Ship-street. Deposit £1.

DECEMBER 5.—**Harbledown.**—HOUSE.—Erection of small house at Harbledown, near Canterbury. Mr. Edwin A. Jackson, M.S.A., architect, Ashford, Kent.

DECEMBER 5.—**Herts.**—SLATING.—Reslating the roof of water tower at Leavesden Mental Hospital, King's Langley, Herts, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

DECEMBER 5.—**Kent.**—TILING.—Repairing the tile roofs at White Oak, Swanley, Kent, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

DECEMBER 5.—**Swanley.**—ROOF REPAIRS.—For repairing the tile roofs at White Oak, Swanley, Kent, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C.4. Deposit £1.

DECEMBER 5.—**Various Places.**—WEIGHBRIDGE FOUNDATIONS.—Work to be done in forming weighbridge foundations at (1) Darenth Training Colony, Dartford, Kent; (2) Northern Fever Hospital, Winchmore-hill, N.21; (3) Queen Mary's Hospital for Children, Carshalton, Surrey, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1 in respect of each work.

DECEMBER 5.—**Woolwich, S.E. 18.**—CONSTRUCTION.—Erection of a new kitchen annexe and baker's oven, at the Brook Hospital, Shooter's Hill-road, Woolwich, S.E. 18, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4, after 10 a.m. Deposit £1.

DECEMBER 6.—**Colwyn Bay.**—HOUSES.—Erection of 34 houses at Church-road, Rhos, for the U.D.C. Mr. W. J. Dunning, Surveyor, Council Offices, Colwyn Bay.

DECEMBER 6.—**Doncaster.**—HOUSES.—For the erection of 19 houses at Oliver-road, Balby, for the T.C. Mr. F. Oscar Kirby, Borough Engineer, 2, Priory-place, Doncaster. Deposit £2 2s.

DECEMBER 7.—**Ewias Harold.**—SCHOOL.—For taking down and rebuilding Ewias Harold School (situate 1½ miles from Pontrilas Station), for the H refordshire C.C. Mr. G. H. Jack, County Surveyor, High Town, Hereford. Deposit £1 1s.

DECEMBER 7.—**Shoeburyness.**—CONSTRUCTION.—(1) The construction of two timber-built refreshment rooms upon the Common at Shoeburyness; (2) the enlargement of the existing public conveniences upon the Common; (3) the construction of a public convenience and refreshment room on Whitaker's-parade, at Shoeburyness, for the U.D.C. Mr. E. Read, Surveyor, Council Offices, Shoeburyness.

DECEMBER 8.—**Urmston.**—LAYOUT.—Erection of a brick pavilion, public conveniences, and certain drainage works in connection therewith, and also for the lay-out of a bowling green and two grass and four hard tennis courts, at Golden Hill Estate, for the U.D.C. Surveyor, Council Offices, Urmston. Deposit £2 2s.

DECEMBER 9.—**Ossett.**—HOUSES.—Erection of 47 houses on the Horbury-road Site, for the T.C. Mr. H. Holmes, Borough Engineer, Town Hall, Ossett.

DECEMBER 9.—**Weston-super-Mare.**—CONVENIENCE.—Erection of a public convenience with appurtenant works, fo the U.D.C. Mr. Harold A. Brown, Surveyor, Town Hall, Weston-super-Mare.

DECEMBER 10.—**Bolton-upon-Dearne.**—DWELLING HOUSES.—Erection of 20 dwelling houses (4 parlour type, 16 non-parlour type) in Barmborough-lane, Goldthorpe, for the Bolton-upon-Dearne U.D.C. Mr. William Hy. Adams, M.S.A., Council Offices, Bolton-upon-Dearne. Deposit 10s. 6d.

DECEMBER 10.—**Howdon.**—TIMBER JETTY.—Construction of timber jetty in Howdon Yard Bay, for the Tyne Improvement Commissioners. Mr. Albert Blacklock. Secretary, Tyne Improvement Commission Offices, Bewick-street, Newcastle-on-Tyne. Deposit £2 2s.

DECEMBER 10.—**Morar.**—ARCHWAY.—For erection of archway, for the Committee of the North Morar War Memorial. Bank of Scotland, Mallaig.

DECEMBER 10.—**Newcastle-on-Tyne.**—FLATS.—Erection of 208 dwellings in flats in two stories at Delaval-road, Benwell, for the T.C. Housing Architect, 18, Cloth Market, Newcastle. Deposit £2 2s.

DECEMBER 10.—**Scotland.**—MAINTENANCE WORKS.—For the execution of Maintenance Works during the period of three years as follows:—Edinburgh, Glasgow, Stirling, Aberdeen, Dundee, Paisley, Greenock, Perth, Inverness, for H.M. Commissioners of Works. Contracts Branch, H.M. Office of Works, Storey's Gate, S.W. 1. Deposits: 10s. for carpenters' and joiners' and ironmongers' work, and plumbers' work; 2s. 6d. for glaziers' work, and 5s. for other trades.

★DECEMBER 11.—**Edmonton, N.18.**—BUILDING ADDITIONS.—Erection of certain additional buildings at the Laundry, Edmonton House, Bridport-road, Edmonton, for the Guardians of the Edmonton Union. Mr. J. C. S. Mummery, A.R.I.B.A., 34, Bloomsbury-square, W.C.1. No quantities will be provided.

DECEMBER 11.—**Glasgow.**—HOUSES.—Erec tenements at Dumbarton-road, Balmoral, streets, for the T.C. Mr. J. Lindsay, To City Chambers, Glasgow.

DECEMBER 11.—**Gloucester.**—TELEPH PEATER STATION.—Erection of a telephone station at Gloucester, for the Commissione Majesty's Office of Works. Contracts H.M.O.W., King Charles-street, London, Deposit £1 1s. (payable to the Secretary).

DECEMBER 12.—**Cardiff.**—FIREMEN'S QU Erection of firemen's quarters, &c., at the Ce Station, Westgate-street, for the T.C. Mr. Frank, F.S.I., City Architect, City Hall Deposit £2 2s.

DECEMBER 12.—**Edinburgh.**—TELEPHONE E —Erection of a telephone exchange at N Edinburgh, for H.M. Commissioners of Works t ct, H.M. Office of Works, 45, Drumsheugh Edinburgh. Deposit £1 1s.

DECEMBER 12.—**Newton Abbot.**—LAVAT the erection of a gentlemen's lavatory in Mar for the U.D.C. Mr. C. D. White, Surveyor, T Newton Abbot.

DECEMBER 12.—**Southend-on-Sea.**—HOU the erection and completion of 66 house Corporation. Mr. Robt. H. Dyer, Borough Municipal Buildings, Southend-on-Sea. D

DECEMBER 12.—**Southend-on-Sea.**—CONCE &c.—For the execution and completion of hall and shelters on the Second Promenade, for the Corporation. Mr. Robert H. Dyer, Engineer, Municipal Buildings, Souther Deposit £2.

DECEMBER 13.—**Penarth.**—HOUSES.—For for the U.D.C. of 22 houses at Coleridge-av Comerswell-gardens' sites, Penarth. Cou accept tender for whole or part of the sche veyor, Council Offices, Penarth. Deposit £2

DECEMBER 13.—**Woolwich, S.E.**—E Erection of sixty houses, for the Metropolitan Council of Woolwich, on their housing estate a Council's Architect; Mr. John Sutcliffe, Engineer, Town Hall, Woolwich. Deposit

★DECEMBER 14.—**Morecambe.**—HOUSE.— of a detached residence at Heysham-road, M Mr. W. H. Porter, York House, Franklin Harrogate. Deposit 10s. 6d.

DECEMBER 14.—**Rowley Regis.**—HOUSES.— ing 12 semi-detached houses and incidental house drainage, &c., for the U.D.C. Mr. Danie Clerk, Rowley Regis.

DECEMBER 15.—**Huddersfield.**—EXTENSIO extensions to West Riding Court House, at field, for the West Riding Standing Joint C Mr. Percy O. Platts, County Architect, Cou Wakefield. Deposit £1.

★DECEMBER 17.—**Croydon, Surrey.**—HOUSE tion of 48 houses (comprising 80 tenements) more-road, Thornton Heath, in three sectio eight houses and two of 20 each, or as one t the whole, for the County Borough of Croyd Borough Engineer, Town Hall, Croydon. D for each section, or £6 for the whole of sectio will be returned on receipt of a bona-fide ten

DECEMBER 17.—**Poplar.**—TENEMENTS, & tion of 31 tenements with shops and showro site at Bow-road, for the B.C. Mr. Harley I Borough Surveyor, Council Offices, Poplar. £3 3s.

★DECEMBER 18.—**Cheltenham.**—ADAPTATION tation of the Wolseley Hotel, Cheltenham, t telephone exchange, for the Commissioners Majesty's Office of Works. Contracts, H.M.O.W., King Charles-street, London, Deposit £1 1s. (payable to the Secretary).

DECEMBER 18.—**Hackney, E.8.**—BUILDING —Building works, being extension and comp the electricity sub-station at Dalston-lane, I for the Metropolitan Borough of Hackney. Electrical Engineer, 306, Mare-street, Hackn on and after November 26. Deposit £1 1s.

★DECEMBER 19.—**Birmingham.**—BUILDIN tion of an employment exchange at Aston, Birm for the Commissioners of His Majesty's Office o Contracts Branch, H.M.O.W., King Charl London, S.W.1. Deposit £1 1s. (payable Secretary).

DECEMBER 19.—**Featherstone.**—HOUSES tion of 20 houses at Little-lane, Purston, nea fract, for the Featherstone U.D.C. Mr. Chesney, A.R.I.B.A., Council Offices, Featl near Pontefract. Deposit £2 2s.

DECEMBER 19.—**Hawksworth.**—FARMHOUSI (*a*) Farmhouse and buildings at Lane Sid Hawksworth; (*b*) alterations and repairs to farm buildings at Lane Side Farm, Hawksworth West Riding Small Holdings' Committee. Lan County Hall, Wakefield. Deposit £1.

DECEMBER 19.—**West Riding.**—REPAIRS.— tions and repairs to existing Farm-house and t on Loversall Estate and Carr Lodge Farm, for t Riding Small Holdings Committee. Count Agent, County Hall, Wakefield.

★DECEMBER 20.—**Leigh, Lancs.**—TELEPHO CHANGE.—Erection of a telephone exchange a Lancs, for the Commissioners of His Majesty of Works. Contracts Branch, H.M.O.W. Charles-street, London, S.W.1. Deposit £1 able to the Secretary).

★DECEMBER 20.—**Portsmouth.**—FLATS.—Fo to be executed and materials to be provided erection and completion of four blocks of flats i street, Landport, and for maintenance the thorough repair for six calendar months from t pletion thereof, for the Portsmouth T.C. Mr. A Ward, Borough Engineer, Town Hall, Portsm

DECEMBER 21.—**Kent.**—SCHOOL EXTEN Extension of the School of Art, Beckenham, U.D.C. County Education Architect (Mr. Robinson, F.S.Arc.), Room 69, Sessions House stone. Deposit £2.

CEMBER 28.—**Southampton.**—HOTEL, &C.—Con-
o. 1: the erection of a hostel for '45 students
£5 5s.);(2)For the construction of ferro-concrete
tairs and flat roofs to the Hostel, "Coignet"
deposit £2 2s.), for the County Borough of
npton. Mr. A. L. Roberts, County Architect,
tle, Winchester. Cheques to be made payable
sed "Lloyd's Bank, Ltd. (Capital and Counties
, Winchester."
ARY 9.—**Tynemouth.**—SCHOOL.—The Education
tee are inviting tenders for the erection of a new
ary open-air school in Lovaine-gardens, North
to accommodate 170 children; and also, by
e date, tenders for a new elementary school
g-gardens, North Shields, providing accom-
n for 845 children.
ATE.—**Barrhead.**—PAINTER'S WORK, &C.—For
ier and painter work in connection with the
s forming the Kerr-street housing scheme.
erk, Barrhead.
DATE.—**Golders Green.**—HOUSES.—Erection
rlour-type houses. Mr. Matthew J. Dawson, 9,
are, W.C.2.
ATE.—**Ramsgate.**—EXTENSION.—For the erec-
ew ward, &c., at Hospital, for the Ramsgate
morial Committee. Mr. S. W. Smith, Secretary,
n's-street, Ramsgate. Deposit £2 2s.

RNITURE, MATERIALS, etc.

BER 1.—**Dolgelly.**—ROAD PLANT.—Supply to
neth C.C. of steam roller with scarifier, haulage
th trailer, stone crusher and screen, two tarring
, and water-cart. Mr. Wm. Owen Jones,
Surveyor Dolgelly.
BER 1.—**Hythe.**—PIPES.—Supply of 200
in., 1,640 yds. of 4 in., and 140 yds. of 3 in.
pipes and special castings. Mr. W. F. Bickford,
Surveyor, Hythe.
BER 3.—**Nottingham.**—MATERIALS.—Supply
ers' and plumbers' materials to the Board of
s, for one year. Mr. J. A. Battersby, Clerk,
hakespeare-street, Nottingham.
BER 4.—**Audley.**—MATERIALS.—Supply of
l paving bricks, to the U.D.C. Mr. A. Cotton,
, Council Offices, Audley.
BER 5.—**Cowbridge.**—SUPPLIES.—For supply
ridgend and Cowbridge Guardians for use at
Homes and Workhouse of hardware, drapery,
., haulage, and also for use of recipients of
at Ogmore, Bridgend, Cowbridge and Maesteg
tricts, supply of boots. Mr. R. Hamor Cox,
the Guardians, Union Offices, Bridgend.
BER 5.—**London.**—PLATES.—Supply of enam-
n badges, plates, &c., for the use of the Metro-
Police, for one year. Receiver's Registry,
tland-yard, S.W.1.
BER 5.—**Neath.**—SUPPLIES.—For supply to
h Farm School of the Glamorgan County
of six months' supply of clogs, boots and
&c. Mr. C. Leslie Thomas, Solicitor, 42,
eet, Neath, Secretary of the Management
e.
BER 8.—**Crickhowell.**—SUPPLIES.—For supply
of Guardians of boots, petroleum, cordwood,
Thomas Vaughan, Town Hall, Crickhowell.
BER 8.—**Maidstone.**—MATERIALS.—Supply of
erials to the Kent C.C. Mr. H. T. Chapman,
Surveyor, St. Peter-street, Maidstone.
BER 13.—**Wallasey.**—OILS.—Supply of engine
n oil, cylinder oil, and Colza lamp oil, for a
six or nine months to the T.C. Ferries
Manager, Ferries Office, Seacombe.
RY 23, 1924.—**Madras.**—PIPES.—Supply of
e pipes and specials, ranging from 4 in. to
meter, and aggregating a total length of
neal ft., for the T.C. Messrs. James Mansergh
gents, 5, Victoria-street, S.W. Charge 5s.
TE.—**Porth (Rhondda).**—DRUGS.—For supply
and District Hospital of six months' supply of
d dressings. Secretary, Hospital, Porth.

NEERING, IRON AND STEEL.

BER 1.—**Guernsey.**—CONCRETE DECK.—For
al of the timber deck at No. 2 Landing, White
r, and the construction of a new deck in rein-
ncrete on the Considere system at the Harbour
ter Port, Guernsey. Mr. J. H. Duquemin,
ngineer, Guernsey.
BER 1.—**London, W.10.**—ELECTRICAL
Electrical work required to be done at the
lebone Hospital, Rackham-street, Notting
10, in connection with the X-ray Department
ure Room for Nurses, for the St. Marylebone
f Guardians. Messrs. Jarvis & Richard,
., 60, Tufton-street, S.W.1, between the
10 a.m. and 5 p.m. on November 13, 14 & 15.
£1 Treasury Note.
BER 3.—**Birmingham.**—REFUSE DISPOSAL
For the supply and erection of plant for
sposal and salvage works, at Redfern-road,
s, for the T.C. Mr. James Jackson, Superin-
Salvage Department, 161, Corporation-street,
ham. Deposit £1 1s.
BER 3.—**Bradford.**—ADVERTISING STATION.—
nd erection of a steel framework advertising
n Bank-street, for the T.C. City Engineer,
ll, Bradford.
BER 3.—**London.**—CONVEYOR.—Supply of 10-
l-operated overhead traveller, of 34 ft. 6 in.
the Isle of Dogs Pumping Station, for the
Chief Engineer, Old Country Hall, Spring-
S.W.1. Deposit £2.
BER 3.—**Norwich.**—FENCING.—Supply and
of wrought-iron fencing gates, &c., at Wensum
r the T.C. Mr. A. E. Collins, City Engineer,
l, Norwich.
BER 3.—**Sydney.**—SWITCHGEAR.—High tension
ar, for Municipal Council. Department of
Trade (Room 52), 35, Old Queen-street, S.W.1.

DECEMBER 3.—**Wandsworth.**—FOUNDATIONS.—Excavation and construction of concrete foundations with steel reinforcement for proposed public swimming-bath and buildings, Streatham High-road, for the B.C. Mr. E. J. Elford, Borough Engineer, 215, Balham High-road, S.W.17.

DECEMBER 4.—**Edinburgh.**—STEEL MAINS.—Supply of 1,200 yds. of 3 in., 700 yds. of 4 in., 2,400 yds. of 6 in., and 1,300 yds. of 9 in. spigot and socket solid drawn weldless steel mains. Gas Engineer, 15, Calton-hill, Edinburgh.

DECEMBER 4.—**Stoke-on-Trent.**—HEATING.—For extension of heating and hot-water service at Institution, for the B.G. Mr. T. Wood, Clerk, Union Offices, Stoke-on-Trent.

DECEMBER 4.—**Willesden.**—LAUNDRY MACHINERY. For supply and fixing of laundry machinery at Municipal Hospital, for the U.D.C. Medical Officer of Health, Town Hall, Willesden.

DECEMBER 5.—**London.**—ELECTRIC INSTALLATION.—Extensions to the installation of electric lighting and power in the new kitchen at Tooting Bec Mental Hospital, Tooting, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

★DECEMBER 5.—**London, S.W.17.**—GUTTERING,—Supplying and delivering cast-iron rain-water gutter and down pipes at Tooting Bec Mental Hospital Extension, Church-lane, S.W.17, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

DECEMBER 6.—**St. Pancras.**—PUMP.—Supply of vertical electric motor-driven condensing water pump to deal with 750,000 gallons per hour, for the B.C. Electricity Dept., St. Pancras. Deposit £1.

DECEMBER 7.—**Brighton.**—LANDING STAGE.—Extension of landing stage of the Brighton Marine Palace & Pier Company. Mr. M. Noel Ridley, Standard House, 133, Cardigan-road, Leeds.

DECEMBER 7.—**East Lothian.**—PIPES.—Supply to the East Lothian Western District Water Board of 3,600 tons of cast-iron pipes. Messrs. G. H. Hill & Sons (Manchester), 40, Kennedy-street, Manchester. Deposit £1 1s.

DECEMBER 7.—**Hitchin.**—PUMPING PLANT.—For supply and erection of steam-driven centrifugal pumping plant at Waterworks, for the U.D.C. Mr. W. C. Tines, Clerk, Town Hall, Hitchin.

DECEMBER 7.—**London.**—STEELWORK, &C.—(1) Steelwork for bridges, (2) cast-iron pipes and valves, for South Indian Railway Co. Offices, 91, Petty France, Westminster, S.W.1. Charge 5s. each.

DECEMBER 8.—**Grangemouth.**—WATER MAIN.—For laying about 3¼ miles of 12 in. diameter cast-iron pipes, or alternatively about 6 miles of 12 in. diameter cast-iron pipes, for the T.C. Mr. David A. Donald, C.E., Town Hall, Grangemouth. Deposit £2 2s.

DECEMBER 8.—**Radcliffe.**—CONDUIT.—Supply and erection of a steel and cast-iron sewage conduit over the L.M. & S. Railway, for the U.D.C. Mr. W. L. Rothwell, Engineer, Council Offices, Radcliffe. Deposit £1 1s.

DECEMBER 8.—**Ripley.**—PIPES.—Supply of 6 in. C.I. pipes and specials and laying water main, for the U.D.C. Mr. G. W. Bird, Surveyor, Town Hall, Ripley.

DECEMBER 10.—**Carlisle.**—BRIDGE.—Construction of a steel lattice girder footbridge, 252 ft. long and 6 ft. wide, over the River Caldew, for the T.C. Mr. Henry C. Marks, City Engineer, 18, Fisher-street, Carlisle.

DECEMBER 11.—**London.**—MATERIALS.—Supply to the Director-General, India Store Department, of copper and brass bolt, rod, tubing, plates and sheets, and Babbit's metal. Branch 12, Belvedere-road, S.E.

DECEMBER 11.—**Temple Cloud, near Bristol.**—HEATING (HOT-WATER).—Installing, for the Clutton B.G. in their Institution, a system of hot-water heating and hot-water service, together with sundry other improvements. The Engineer, Clutton Union, Temple Cloud, near Bristol.

DECEMBER 12.—**Bramley.**—ELECTRIC LIGHTING.—For installing electric light at the Institution of the Board of Guardians. Clerk, 1, Green Hill-road, Armley, Leeds.

DECEMBER 20.—**South Africa.**—MATERIALS, &C.—Supply to the municipality of Graaf-Reinet of (*a*) cast-iron water-pipes, valves and fittings; (*b*) crude oil engines, generators and street equipment. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

DECEMBER 31.—**Kempton Park.**—ENGINES, &C.—Supply and erection of two reciprocating engines and pumps at Kempton Park Pumping Station, for the Metropolitan Water Board. Chief Engineer's Department, 173, Rosebery-avenue, Clerkenwell, E.C. Deposit £3 3s.

DECEMBER 31.—**London.**—CRANES.—Supply of (*a*) 3-ton travelling crane, and (*b*) 30 cwt. workshop crane, for the Central Car Depot of the L.C.C. Tramway Manager, Victoria Embankment, W.C. Deposit £2.

JANUARY 16, 1924.—**Glasgow.**—REFUSE DISPOSAL WORKS.—Tenders and designs for proposed refuse disposal works, at Govan, Glasgow. Mr. W. Greig, Superintendent of Cleansing, 20, Trongate, Glasgow.

JANUARY 17.—**New Zealand.**—PIPES, &C.—Supply of 10 in., 12 in., and 21 in. steel pipes and fittings, for the Orongorongo-Karori Water Main. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

FEBRUARY 5.—**New Zealand.**—GIRDER SPANS.—Supply of plate girder spans to the Public Works Tender Board, New Zealand, for the Stratford Main Trunk Railway. Department of Overseas Trade, 35, Old Queen-street, S.W. Reference 12569/ED/EC.

FEBRUARY 14.—**Argentine.**—POWER STATION.—For the construction of a central electric power station of 15,000 h.p., for the Argentine State Oilfields Administration. Department of Overseas Trade, 35, Old Queen-street, S.W.

MAY 1.—**China.**—BRIDGE.—The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W.1. Reference 11647/F.E./E.C./2.

ROAD, SANITARY, AND WATER WORKS.

DECEMBER 1.—**Belfast.**—TRAMWAY TRACK.—Construction of about 3,200 lin. yds. of single track, for the T.C. Mr. S. Carlisle, General Manager, Corporation Tramways, Sandy-row, Belfast. Deposit £5 5s.

DECEMBER 3.—**Aberavon.**—CONCRETE CULVERT.—For carrying out for the Joint Committee of the Glamorgan County Agricultural Committee and the landowners on Aberavon Moors the construction, excavation, laying and jointing of a 2 ft. 6 in. concrete culvert with manholes and valve chambers. Borough Engineer, Municipal Buildings, Aberavon.

DECEMBER 3.—**Barnsley.**—ROADS.—For making up of Salisbury-street, Kensington-road, Canning-street (Worsbro' Common), Dillington-square, and Dumfries-row, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley.

DECEMBER 3.—**London.**—TAR PAVING WORKS, &C.—For carrying out tar paving works, &c., to the Council's elementary and other schools and other premises or sites provided or maintained by the Council for a period of twelve calendar months commencing on January 1, 1924, and thereafter until determined by three calendar months' notice given by either party, for the L.C.C. Architect to the Council, The County Hall (Room 3), Westminster Bridge, S.E. 1.

DECEMBER 3.—**Newcastle-under-Lyne.**—ROAD.—Construction of new road, for the T.C. Mr. A. A. Pattison, Borough Engineer, Newcastle-under-Lyne. Deposit £5 5s.

DECEMBER 3.—**Port Talbot.**—CULVERT.—Laying of a 2 ft. 6 in. concrete culvert, &c., for Glamorgan County Agricultural Committee. Borough Engineer, Municipal Buildings, Aberavon.

DECEMBER 3.—**Romford.**—WATER SUPPLY.—For construction of concrete tank and other works in connection with the water supply to Havering, for the R.D.C. Mr. W. J. Grant, Surveyor, South-street, Romford.

DECEMBER 3.—**Steyning.**—SEWERS.—Construction of about 1,750 yards of stoneware pipes for stormwater sewers, for the R.D.C. Mr. Geo. W. Warr, Engineer, Town Hall, Southwick. Deposit £2 2s.

DECEMBER 3.—**Stockton-on-Tees.**—SANITARY.—Conversion of 400 privy middens and pan closets into water closets, for the T.C. Borough Engineer, Victoria Buildings, Stockton-on-Tees.

DECEMBER 3.—**Tynemouth.**—ROADS.—(1) Laying random sett paving in the back streets between King Edward-road and Albury Park-road, and (2) laying cement concrete footpaths in Brislee-avenue and King Edward-road, for the T.C. Mr. John F. Smillie, Borough Surveyor, Tynemouth.

DECEMBER 4.—**Hereford.**—WATER SUPPLY.—For construction of small storage reservoir and other works in connection with the water supply, Little Birch, for the R.D.C. Mr. J. Parker, 141, St. Owen-street, Hereford. Deposit £2 2s.

DECEMBER 4.—**Normanton.**—ROADS.—For making-up Dalefield-avenue, for the U.D.C. Mr. W. F. Copp, Surveyor, Council Offices, Normanton.

DECEMBER 5.—**Birmingham.**—ROADS.—Construction of (1) Alcester-street: Reinforced concrete foundation to carriageway and supplying granite kerb; (2) Anderton-road: Granite sett paved carriageway on reinforced concrete foundation; (3) Wake Green-road: Reconstruction of carriageway in tarred macadam on slag foundation, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2 each.

DECEMBER 5.—**Cheadle.**—SEWAGE DISPOSAL.—Laying about 1,030 yards of 6 in. pipes, &c., and construction of sewage tanks, for the R.D.C. Mr. W. H. Makepeace, Westfield, Stockton Brook, Stoke-on-Trent. Deposit £1 1s.

★DECEMBER 5.—**Chiswick, W.4.**—CONCRETE ROADS.—Making up of a portion of Hartington-road, Chiswick, by the construction of a reinforced concrete carriageway and other works incidental thereto.

DECEMBER 5.—**Chiswick.**—WOOD PAVING.—For about 10,800 yards super. of wood paving on concrete foundation in Sutton Court-road, for the U.D.C. Mr. E. Willis, Surveyor, Town Hall, Chiswick.

DECEMBER 5.—**Ebbw Vale.**—ROADWAY, &C.—For construction of 570 yds. super. of roadway, with all necessary kerbing, footpaths, and storm water drains, at the Gautre Site, Ebbw Vale, for the U.D.C. Mr. P. T. Davies, Surveyor, Council Offices, Ebbw Vale. Deposit £1 1s.

DECEMBER 5.—**Glamorganshire.**—VARIOUS ROAD WORKS.—For carrying out for the Glamorgan County Council the following road works: (*a*) Cardiff and Swansea Main Road (widening between Keeper's Lodge and Star Cottages and between Curt-y-defaid and Pont-yr-offeiriad); (*b*) Bridgend and Bryncethin Main Road (widening between Coity Cross Roads and Cefn Hirgoed Common); (*c*) Cardiff and Pontypridd Main Road (widening near Walnut Tree Bridge Inn, Taffs Well); (*d*) Neath and Pontadawe Main Road (improvement at junction with Neath and Glynneath road); (*e*) Swansea and Loughor Main Road (widening at Lower Loughor. Wage and hour conditions in contract and insurance of workmen. For work No. (*a*) Port Talbot Police Station; (*b*) Bridgend Police Station; (*c*) Taffs Well Police Station; (*d*) Neath (County) Police Station; (*e*) Loughor Police Station; or, for all works, County Surveyor, County Hall, Cardiff.

DECEMBER 5.—**Hull.**—TRAMWAYS.—For the renewal of tramway tracks on Spring Bank and Prince's-avenue, a total length of about 1¼ miles double track, for the T.C. Mr. F. W. Bricknell, City Engineer, Guildhall, Hull.

DECEMBER 5. — **London, S.W. 17.** — ASPHALTE PAVING.—Asphalte paving to certain covered ways at Tooting Bec Mental Hospital extension, Church-lane, Tooting, S.W. 17, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4, on and after 10 a.m., Wednesday, November 21, 1923. Deposit £1.

DECEMBER 5. — **Manchester.** — ROADS.—Making-up part of Platt-lane and Demesne-road, for the T.C. Paving, &c., Department (District Surveyors' Office), Manchester. Deposit £1 1s.

DECEMBER 6.—**Aberdeen.**—SEWER.—Construction of sewer on North Esplanade, for the T.C. Mr. J. Gordon, Borough Surveyor, Town Hall, Aberdeen. Deposit £3 3s.

DECEMBER 6. — **Southend-on-Sea.** — ROADS. — For taking-up of Western-road, Fairmead-avenue, Fairfax-drive, and the sewering of Blenheim-crescent. Mr. Robert H. Dyer, Surveyor, Municipal Buildings, South-end-on-Sea. Deposit £2.

DECEMBER 8.—**Farnborough.**—ROADS.—For making up Fellows-road, South Farnborough, for the U.D.C. Mr. A. H. Dungay, surveyor, Alpha Chambers, South Farnborough. Deposit 10s. 6d.

DECEMBER 8. — **Kidderminster.**—PAVING.—Laying reinforced concrete foundation and paving with granite setts in Station Hill, for the T.C. Mr. J. Hawcroft, Borough Engineer, Town Hall, Kidderminster. Deposit £2 2s.

DECEMBER 8.—**Ripley.**—SEWAGE WORKS.—Reconstruction of Waingroves sewage outfall works, for the U.D.C. Mr. G. W. Bird, Surveyor, Town Hall, Ripley.

DECEMBER 9.—**Weston-super-Mare.**—ROADS.—For works of sewerage, surface water drains, &c., for the U.D.C. Mr. H. A. Brown, Surveyor, Town Hall, Weston-super-Mare. Deposit £5.

DECEMBER 10.—**Manchester.**—ROADS.—For making-up Clarence-street, Newton Heath; New-street, Newton Heath; and Coffee-street, Gorton, for the T.C. Paving, &c., Department (District Surveyors' Office), Town Hall, Manchester. Deposit £1 1s.

DECEMBER 10.—**Repton.**—SEWERS.—Construction of stoneware pipe sewers, &c., at Mickleover, for the R.D.C. Messrs. Willcox & Raikes, 63, Temple-row, Birmingham. Deposit £5 5s.

✱DECEMBER 11.—**Edmonton, N. 18.**—ROAD ALTERATIONS.—Alteration and re-forming at a different gradient the entrance road at the Silver-street entrance of the North Middlesex Hospital, Edmonton N.18, for the Guardians of the Edmonton Union. Mr. J. C. S. Mummery, A.R.I.B.A., 34, Bloomsbury-square, W.C.1. No quantities will be provided.

DECEMBER 11.—**Gosforth.**—SEWERS.—Laying new sewers and formation of roadway on housing site, for the U.D.C. Mr. Geo. Nelson, Surveyor, Council Chambers, High-street, Gosforth.

DECEMBER 11.—**Leeds.**—ROADS.—Making-up of Allerton-avenue, Allerton-grove, back Barkly-grove, and the kerbing and paving of channels at Weetwood-lane Improvement, for the T.C. Highways and Permanent Way Dept., 1, Swinegate, Leeds. Deposit £1 1s.

DECEMBER 11.—**London.**—SEWER.—Construction of a 4 ft. internal diameter sewer in brick of a total length of about 7,290 feet, in Wandsworth and Lambeth, for the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £5.

DECEMBER 11.—**London.**—SEWER.—Construction of a brick sewer of varying sizes from 5 ft. to 9 ft. internal diameter, of a total length of about three miles, in Lewisham, for the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £10.

DECEMBER 13.—**Rawtenstall.**—SEWERS.—For the sewering of Hollin-lane, for the T.C. Borough Surveyor's Office, Town Hall, Rawtenstall. Deposit £1.

DECEMBER 26.—**Mull.**—ROADS.—Construction of 2¼ miles of road in the Island of Coll, for the Argyll C.C. Mr. Arthur MacNaughton, Mull District Surveyor, Tobermory.

✱NO DATE.—**Banbury.**—DRAINAGE, ROADS, PAVING BUILDINGS, &C.—Various works, including surface levelling, drainage, tarmac yards and roads, concrete paving, buildings, &c., in the construction of the proposed new cattle market, adjoining the L.M.S. Rly. at Banbury. Mr. F. J. Cooke, M.S.A., architect, Prudential Chambers, Banbury. Deposit £3 3s.

Competitions.

(*See Competition News, page* 838).

Auction Sales, Tenders, etc.

DECEMBER 4 AND 5.—**London, E.9.**—Mr. F. H. Clark will sell, at the National Projectile Factory Hackney Marshes, E.9, all the materials contained therein, including a quantity of building materials, portable buildings, glass, &c. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W.18.

✱DECEMBER 11.—**Guildford.**—Messrs. Joseph Hibbard & Sons will sell (by order of Messrs. Sutton & Co. (Guildford), Ltd., who are relinquishing business), in three lots (unless previously sold by private treaty), at the offices in Woodbridge-road, Guildford, very valuable main road modern freehold timber yard, store, and suite of offices, situated at 86A, Woodbridge-road, Guildford; also valuable freehold mill site, at Merrow. Auctioneers, as above.

✱DECEMBER 11.—**London, S.W.**—Messrs. Veryard & Yates will sell without reserve at 255, Clapham-road, S.W. (close to the "Swan," Stockwell), a stock of timber, fittings, and building materials from demolition of a commodious residence. Auctioneers, 365, Norwood-road, S.E.27.

DECEMBER 13.—**London, E.C.**—Mr. Joseph Stower will sell, with vacant possession, freehold property containing the important area of about 75,000 ft., or nearly 1¾ acres, prominently and conveniently situated on the north side of and fronting the main Bow-road. Auctioneers, 43, Chancery-lane, London, W.C.2.

✱DECEMBER 13.—**London, S.E.**—Messrs. Veryard & Yates will sell without reserve, at 126, Norwood-road, S.E. (close to Tulse-hill and Herne-hill Stations), useful building materials, timber, &c., iron girders, York stone, paving, firewood, &c. Auctioneers, 375, Norwood-road, S.E.27.

Public Appointments.

DECEMBER 4.—**Cardiff District.**—The Cardiff R.D.C. is to appoint a Town-Planning Assistant at salary of £250 per annum. Must be draughtsman and experienced in surveying and levelling. Full particulars and copies of testimonials to Mr. M. Warren, M.B.E., Clerk to the R.D.C., Park-place, Cardiff. by December 4th.

DECEMBER 6.—**Greenwich, S.E.10.**—The Council of the Metropolitan Borough of Greenwich is prepared to receive applications for the following appointments:—(1) Grade B Clerk in the Works Department; (2) Grade A Clerk (between the ages of 17 and 21), in the Town Clerk's Department. Mr. Frederick J. Simpson, Town Clerk, Town Hall, Greenwich-road, S.E.10, endorsed "Grade B Clerk," or "Grade A Clerk," as the case may be.

NO DATE.—**Glamorgan.**—The Glamorgan C.C. is to appoint a Quantity Surveyor at a commencing salary of £289 15s. per annum. The Council will also appoint an Architectural Assistant in the office of the County Schools Architects' Office (Eastern Division) at commencing salary £171 per annum. Applications, with particulars of age, experience, qualifications, &c., to Mr. D. Pugh Jones, Architect, County Hall, Cardiff.

PATENTS.*

APPLICATIONS PUBLISHED.

202,921.—H. Abraham: Roofs.

202,926.—E. Unmack: Double window-panes.

203,004.—C. J. Evans and A. J. Allen: Theatre seats.

203,012.—A. C. Brock: Chairs, settees, and like articles of furniture.

203,030.—C. W. Cope: Device for determining the position of pictures and the like on walls.

203,033.—W. S. Graff-Baker: Escalators.

203,041.—C. H. Twigg and C. Cutt: Frame for mirrors and pictures.

203,042.—A. P. Laurie: Preservation of stone.

203,055.—H. T. Tudsbery: Apparatus for testing the physical qualities of materials.

203,088.—R. G. Kirton: Mould-board apparatus for concrete structures.

203,106.—R. H. Ellis and F. Simper: Packing-case.

203,112.—A. S. Douglass: Building-blocks.

203,132.—British Everite & Asbestilite Works, Ltd., and E. F. Jucker: Roofing tiles or sheets.

203,150.—North of England School Furnishing Co., Ltd., and J. H. Pease: Sliding and folding partitions and windows.

203,195.—L. Steingasser: Method and apparatus for grinding and polishing wood or similar materials.

203,206.—W. Wright: Chairs, sette similar furniture.

203,208.—G. J. Hone and J. West Co., Ltd.: Grabs.

203,226: W. Schonfield: Hand- mechanism or gear for opening and skylights, hinged windows.

203,234.—J. Cartland & Son, Lt C. Y. Hopkins: Hinges.

Applications published

203,235.—G. W. Pick: Folding cha

203,245.—R. Thomson and E. Po Co., Ltd.: Locking-device for sliding- show-cases.

203,277.—R. A. Janes: Music stool

203,390.—International One-Pipe Ltd. (International Heater Co.): He houses, factories, halls, and other buil

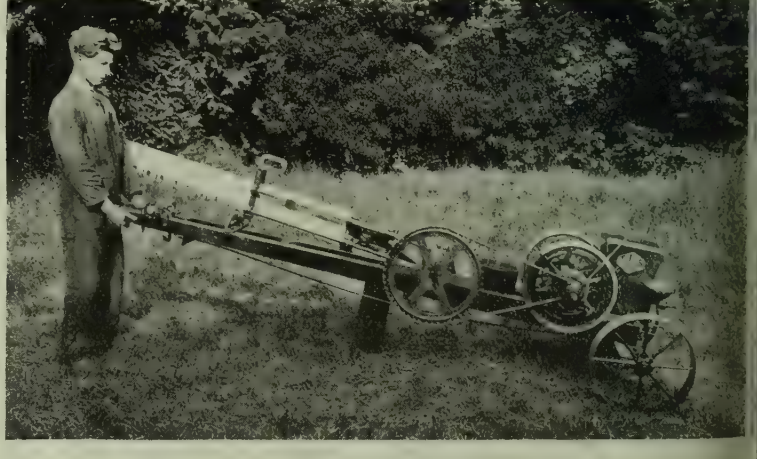
203,414.—W. Savage and Rus Hornsby, Ltd.: Excavating-machines.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

NEW INVENTION

THE "Teles" drag saw, illustrated h should be of considerable interest to th owners and those whose business inc cutting-up of trees. It is entirely o manufacture, and it is claimed that wit as much work can be done in a week as could do in a month without it. Tes shown that it will cut through a 45-in nine minutes, as against 45 minutes req perform the same work by two men hand cross-cut saw. The saw is furnish plete with engine and 5-ft. blade, or a blade can be supplied if required.

The engine is a hopper-cooled 4-cycl cylinder 1½ h.p. petrol engine, running revolutions per minute. It is fitted with tension magneto, and the speed is regul means of a very sensitive governor actin throttle. The engine can be used for oth when not required for cross-cutting. A r disc clutch, the same as used on motor furnished, and permits the engine to ru the saw is idle, thus saving time in stopp starting the engine. Among the special of the machine are: the guide handle holds the saw rigid while being moved, accidents; the long continuous tru extending from front to rear end, vibration and ensures increased strengt anchor hook is of special design, and g log and fastens the machine securely for An outstanding feature is that the saw on the opposite side from the engine which makes it possible to operate the r from the side opposite the saw, ensur operator against the danger of accidents machine is furnished complete ready wood. The clutch is detachable, and replaced by a pulley on the shaft. Th weight (packed) is 5 cwt.



New Drag Saw.

OPOSED NEW BUILDINGS & OTHER WORKS.*

these lists care is taken to ensure the accuracy of the information given, but it may nally happen that, owing to building owners taking the responsibility of commencing work plans are finally approved by the local authorities, "proposed" works at the time of publication een actually commenced. Abbreviations :—T.C. for Town Council; U.D.C. for Urban District l; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of ians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

RSTONE.—The U.D.C. has decided to adopt e for the clearance of part of the slum area in one, and for the erection of a large number of for the ejected tenants.

—Plans passed by Dean of Guild Court: 4 n Quail-road, at an estimated cost of £3,000, Hart & Cumming, joiners, Main-street; house rove-street, T. Williams, 8, Bath-place; house ont-avenue.

OR.—The Surveyor has been requested by the to elaborate a scheme for slipper and needle nd a heated swimming bath at Pickie.

ON.—An inquiry has been held by the Ministry h into the application of the U.D.C. to borrow or improvements at the Lunt sewage disposal

NGHAM.—Heathfield Hall, Handsworth, the James Watt, the famous engineer, and later the e of the late Mr. George Tangye, has been sold Gibson Watt trustees to a local syndicate, and posed to develop the estate for the erection of houses.

KBURN.—The Pastor (the Rev. H. Townley) and cons of the Congregational Church at Read uired the building of the Liberal Club, which it sed to convert into an institute for men and

?ORD.—The Housing Sub-Committee of the Committee have approved of plans for the of between 30 and 40 detached houses, all of re to rank for subsidy.

LEY.—Plans passed by R.D.C.: Mr. G. B. ouse, Croydon-road, Keston Park Estate; Mr. gor, house, Forest-drive, Keston Park Estate; I. Pedlar, two detached bungalows, Longdon venue, Keston Park Estate; Mr. B. Di-Corpo, ached bungalows at Cudham; Miss M. E. building at Kent Acre, Sutherland-avenue, ; Mr. G. A. Christensen, bungalow, Aperfield-dham; Mr. G. Coe, house, Chalk Farm Estate, rst-road; Messrs. Homsteads, Ltd., four ws and two houses, Oxenden Wood-road, Chels-r. E. J. Tagg, house, Beaumont-road, Orping-. H. Jelley, house, Irene-road, Orpington.—The of Health has agreed to the erection of 50 by the Council.

EIGH SALTERTON.—The U.D.C. is to arrange . Radcliffe for the building of 6 cottages, for subsidy will be given.

—Plans are being prepared by Mr. A. Brockle-rchitect and surveyor, for the structural altera-the "Roe Buck" Hotel, Bury, and the "Jolly ers," Buckley Wells, for the proprietors, The Crown Brewery Co., Ltd., Bury.

ISFORD.—The chancel of Chelmsford Cathedral extended eastwards, thereby providing accom-n for canons' stalls, as a memorial of the to Dr. Watts Ditchfield, the late Bishop of ord. Sir Charles Nicholson is the architect for ension, which will cost between £5,000 and

BOROUGH.—The U.D.C. has made application Ministry of Health for permission to borrow for works of conversion of privy middens to osets.

LE.—Four houses for Mr. J. Oxenforth.

ON.—Plans passed by U.D.C.: Mr. J. Meller, off Old Mill-lane and 2 houses in School-street.

Y.—The Ministry of Health has decided to give ble consideration to the project of the B.G. for tion of a new infirmary.

R.—Plans passed by R.D.C.: Bungalow, avenue, River, Mrs. Hunt; bungalow, E. , Mr. Finn; bungalow Stonehall, Mr. ck.

ERMLINE.—At the Dean of Guild Court the Fife on Authority were granted warrant to erect a ool for Catholic children at Rosyth Garden City. ool, which is to be built at Cross Roads-place, will be a construction of the Spiereseque type, ommodation for between 200 and 300 pupils.

GTON.—The Minister of Health, in a letter to ney Webb, says that in addition to the 250 o be erected by Easington District Council, he roved of proposals for assisting colliery pro- and others to erect 1,868 dwellings in the on Rural District, making a total of 2,118 in the present financial year.

BURGH.—There were 59 cases before the Dean Court at its last sitting. Of these 33 were full s, 28 being granted. Among the warrants were: Edinburgh Education Authority—School es-street, Leith, costing £30,000; Mr. J. Cra-wo-story house at Causeway, Duddingston; Davie, jun., villa at Craiglockhart-avenue; Mr. Duffield, bungalow and garage at Milton-road, Mr. D. A. S. Forrester, bungalow at Riversdale-Miss D. Hill, villa at Kirkbrae, Liberton; Mr. King, villa at Milton-road, Joppa; Mr. C. , bungalow at Saughton-road, Corstorphine; H. Oliver, house and garage at Buckston-park; C. Rutherford, bungalow at Hailes-gardens, ; Mr. A. Sim, two semi-detached villas at -crescent; Mr. J. Whyte, two houses and a w at Barony-terrace, Corstorphine.

GTON.—The West Riding Educational Com-re to erect a further school to accommodate 500 at Edlington, a colliery district near Doncaster.

—Plans passed by R.D.C.: Houses at Taplow, . G. Sherrett, Miss Dick and Mr. J. Whitfield; w at Wexham, for Mr. H. D. Bowyer; house,

*Also our List of Contracts, Competitions, etc.

Langley, for Mr. E. J. Cowles; lock-up shop at Boveney, for Mr. J. Pearson; bungalow at Denham, for Messrs. Adams; bungalow at Iver, for Mr. H. Evans; cottage at Datchet, for Mr. and Mrs. G. Kemp; house, Bath-road, Burnham, for Mr. L. G. Collyer; house at Langley, for Mr. Thurmott; bungalows at Iver, for Mr. W. Robinson and Mr. C. Page; house at Burnham, for Mr. F. Appleton; bungalow at Burnham, for Mr. S. G. Nicholls.

FAILSWORTH.—The D.C. have under consideration the widening of Walmsley Bridge so as to give a better footpath on the one side of the road.

FAIRHAVEN.—The Trustees of the Wesleyan Church have under consideration a scheme for the erection of a new Sunday school. Funds are being raised to meet the cost.

FARSLEY.—Plans passed: Conversion of premises in Town-street into a house and jeweller's shop, for Mr. Broadbent.

FENTON.—Messrs. Bunting, Ltd., brewers, are applying to the justices for sanction to make extensive structural alterations at the "Vulcan Arms."

FLEETWOOD.—Plans passed by U.D.C.: Two houses Warren-avenue South, for Mr. W. Cryer; shop, bake-house, &c., Lord-street, for Mr. W. T. Barfield; 11 houses, Galloway-road, for Messrs. J. Cryer & Sons.—The sanction of the Ministry of Health has been received to the borrowing by the Council of £2,800 for the improvement of Fleetwood-road, and £2,384 for works of private street improvement.

GALASHIELS.—The T.C. has agreed to instruct the Burgh Surveyor to prepare plans for the erection of a new traffic bridge over the Gala between Park-street and Stirling-place.

GILDERSOME.—Plans passed: House for Mr. Crowther.

GOLCAR.—Plans passed by U.D.C.: Three houses, Leymour-road, for Messrs. Lunn & Kaye.

HEMEL HEMPSTEAD.—Plans passed by T.C.: Pair of cottages, Bennetts End-lane, for Mr. J. K. Hart; pair of cottages, Featherbed-lane, for Mr. J. Nash.

HINDLEY.—The D.C. have instructed their Surveyor to prepare plans for the erection of 15 houses of the working-class type.

KENILWORTH.—Plans passed by T.C.: 4 houses at Crackley Hill, Coventry-road, for the Midland Housing Company; house at Windy Arbour, by Mr. J. H. Lawrence, for Mrs. Woodward; house, for Mr. J. Crouch, at Fieldgate-lane.

LONDON (BERMONDSEY).—The B.C. has decided to demolish 151 dwellings of a very bad type in the neighbourhood of Salisbury-street, displacing 1,035 persons. Forty-nine families will be housed in Parish-street Workhouse, which is to be converted into flats. On the cleared site 52 cottages are to be erected at an estimated cost of £27,300, or £525 each. The total cost of the whole scheme is £71,050.

LONDON (LAMBETH).—Sanction has been given to the B.C. borrowing £18,729 for sewerage and paving works.

LONDON (PADDINGTON).—The B.C. proposes to reconstruct the concrete foundations and renew the wood paving of Edgware-road between Church-street and Maida-vale at an estimated cost of £10,285.—Buildings, abutting on Hereford-road and Chepstow-mews, for J. A. Bowden.

LONDON (POPLAR).—Plans passed by B.C.: Griggs & Son, lock-up shop in Chrisp-street.

LONDON (WANDSWORTH).—The L.C.C. has sanctioned the borrowing by the B.C. of £30,507 for paving work.

LOUGHBOROUGH.—A M.H. inquiry has been held on the application of the T.C. to borrow £9,075 in connection with the gas undertaking, the figures including £3,850 for new offices and showroom, £3,225 for meters and stoves, and £2,000 for mains.

MANCHESTER.—The Manchester Ship Canal Co., Ltd., of 41, Spring-gardens, are proposing to increase the depth of the canal for the first four miles from Eastham to Stanlow, which will then provide a water channel of 30 ft. The cost is estimated at several thousand pounds.—Manchester Libraries Committee have under consideration proposals to erect branch libraries on the housing sites, and have asked the Housing Committee to set aside sites for library purposes in the Wilbraham-road and Burnage estates.

MORTON.—The D.C. is seeking the co-operation of adjoining District Councils to assist in the proposed scheme for a new bridge over the River Trent to connect Notts and Littleborough.

NORTHAMPTON.—Plans passed by T.C.: House, Boughton-road, for Dr. A. G. Bull; house, Park-avenue South, for Miss E. M. Branch; garage, Christchurch-road, for Mr. F. H. Mardlin; house, Bowden-road, for Mr. Fisher; bungalow, Towcester-road, for Mr. J. Adnitt; extension to grand stand County Ground, for Northampton Town Football Club, Ltd.; extension to factory, Stimpson-avenue, for Messrs. J. Sears & Co., Ltd.; house, Harlestone-road, for Mr. Walker; house, Stanhope-road, for Mr. A. H. Warner; transformer house, Ardington-road, for Co-operative Wholesale Society, Ltd.; three garages, Birchfield-road, for Messrs. Lack & Rivett; two houses, Balmoral-road, for Messrs. Lack & Rivett; two houses, Towcester-road, for Mr. H. M. Scriven and Messrs. A. Glenn & Sons; house, Woodland-avenue, for Mr. H. A. Beeby.——Application is being made to the Ministry of Health for sanction to the borrowing of the following sums for road and sewer works: Boughton and Ruskin-road site, £866 12s.; back passage to same, £560 13s. 6d.; Harlestone-road site, £882 2s. 10d.

NORTHWICH.—The Ministry of Health has sanctioned a loan of £45,000 as a first instalment towards carrying out an extension of the Northwich water scheme in order that the work may be commenced immediately to absorb local unemployed.

NORWICH.—The Housing Committee has been asked by the T.C. to prepare and submit to the Council a scheme for the building of 1,000 houses "as an instalment."

OLDHAM.—The Corporation are proposing new works at the Blackstone Edge Waterworks, at an estimated cost of £196,000, to be carried out in three sections, and have under consideration the construction of a new drain as an improvement at Slacks Valley Sewage Works, estimated to cost £975.

POULTON-LE-FYLDE.—Plans passed by U.D.C.: Mr. R. B. Mather, detached house in Hardhorn-road; Mr. C. H. Bullock, 21, Lewtas-street, Blackpool, for house and shop in Higher Green; Mr. Edward Ellison, Holt's-lane, Poulton-le-Fylde, 2 cottages in Curzon-road.

PRESTON.—Lancashire Higher Education Committee recommend the following building programme for 1924–5 :—Ashton-under-Lyne, new secondary school; Nelson, new secondary school; Waterloo, extensions of Girls' Secondary School; Urmston, site for grammar school; Chadderton, site for secondary school. Other work includes major alterations at Stretford Girls' School and Fairfield School, and improvements to playing fields at Middleton Queen Elizabeth Grammar School. The Elementary Education Sub-Committee programme includes new Council schools at Longton, Ashton-in-Makerfield, Crompton (Shaw), Little Hulton, Burtonwood, and Whitworth, and the acquisition of sites at Kearsley, Ainsworth, and Litherland. As a result of the conference with the Haydock War Memorial Committee, who suggested a Technical school as the local War Memorial, it has been suggested, on behalf of the County Council, that instead of this, there should be a building provided—a memorial hall—which could be divided into classrooms for use of elementary pupils and a special room for science instruction in evening classes. Director of Education, Mr. G. H. Gater, County Offices, Preston; County Architect, Mr. H. Littler, 16, Ribblesdale-place, Preston.

PUDSEY.—Plans passed: Structural alterations to Park Hotel, for Mr. Carter Smith.

ROMSEY.—Plans passed by R.D.C.: Bungalow, Luzborough, for Mr. G. F. Aish; bungalow, Whitenap, for Mr. C. Pearce.

SELBY.—It has been reported that the Aire and Calder Navigation Company have offered to contribute £2,500 towards the building of a new bridge over the Selby Canal. The new bridge will cost about £15,000.

SHERINGHAM.—Plans passed by U.D.C.: 2 bungalows, Common-lane, for Mr. R. W. Fetherstone; cottage, Sir Kenneth Kemp; tea room, Miss Vera Smith, in Holt-road; house, Mr. J. Cooper, Beeston-road; house, Miss Cremer, Holt-road; new road leading out of Common-lane, for Mr. A. J. Chapman.

SOWERBY BRIDGE.—An inquiry has been held by Inspector Mr. W. H. Collin, of the Ministry of Health, into a petition presented by the U.D.C. for an order sanctioning a scheme for the improvement of two areas in the town. Stansfield Court and district, and Old Causeway and district, are the respective areas. The scheme, if approved, is estimated to cost £20,091, exclusive of compensation. Strong opposition was shown at the inquiry.— The Wakefield Corporation are to apply for powers to acquire water rights and construct reservoirs in the Rushworth area.

STAFFORD.—The R.D.C. has passed plans for a house at Colwich, for Mr. R. Copeland.

STANLEY (YORKS).—Plans passed by U.D.C.: Two houses at Newton-hill, for Mr. Wm. Hogg; two houses and a cycle-shed at Leeds-road, for Mr. A. Green.

STOCKTON.—Plans have been passed by the U.D.C. for the following: 8 houses in Grange-avenue, and a pair of semi-detached bungalows in Allendale-road, for Mr. J. S. Earnshaw; 2 blocks of 2 houses in Imperial-avenue, for Messrs. Blackett's Construction Co., Ltd.; 2 bungalows in Bishopton-lane, for Messrs. Gibson & Brown.

SUNBURY.—The Thames Conservancy will spend £9,000 on enlarging Sunbury Lock.

SUNDERLAND.—Plans for a new bridge over the River Wear, at Sunderland, in substitution of the existing Wearmouth Bridge, have been prepared by Mr. Basil Mott, civil engineer, of Westminster. These provide for a bridge with a 300 ft. span, and a width of 80 ft., with a possibility of increasing this to 90 ft., at an estimated cost of about £300,000.

TYNEMOUTH.—Plans passed by T.C.: Two houses, corner Hotspur-street and Syon-street, Tynemouth, by Mr. W. Stockdale, for Messrs. B. Peel & Son.

UPPINGHAM.—Plans for the extension of the Victoria Buildings in connection with Uppingham School have been approved by the U.D.C.

WAKEFIELD.—Plans passed by R.D.C.: Butcher's shop at Walton, for the accommodation of W. G. Armstrong-Whitworth's workmen; house at Calder-grove, for Denby Grange Collieries, Ltd.; plans approved of houses for subsidy: 2 houses at Baptist-hill, Crigglestone, for Bettley & Mitchell; house at Main-street, Crigglestone, for F. Heaton; house at Sharlston Common, for W. E. Day; 6 houses at Sharlston Common, for W. Fisher; house at Sandy-lane, Middlestown, for Wm. Builth; 2 houses at Durkar-lane, Crigglestone, for Lister & Shaw; 6 houses at Wood-lane, Walton, for New Sharlston Colliery Co.; house at Coxley-lane, Shitlington, for Mr. F. Gill; house at Coxley, Shitlington, for Coxley Mills Co., Ltd.; house at Carr's-lane, Middlestown, for Mr. H. Poole; 2 houses at Potoven's-lane, Kirkhamgate, for Mr. H. Lindley. The question of subsidy for 32 houses, to be erected at Upper Cropton, by the Nostell Colliery Co., Ltd., will be considered when plans showing allotments reserved to each house are submitted. The Sharlston Colliery Company propose to erect 50 houses at Walton, and the Council 30 houses at Walton by direct labour.

WALTON.—The L.M. & S.R. Co. have undertaken to construct a new bridge across the road recently diverted by them, known as the Haw Park-road.

(*Continued on p.* 867.)

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£	s.	d.
Best Stocks	4	2	0
Second Hard Stocks	3	17	0

Per 1,000. Delivered at London Goods Stations.

	£	s.	d.		£	s.	d.
Flettons, at King's Cross	2	13	3	Best Blue Pressed Staffs.	9	11	6
Do. grooved for plaster	2	15	3	Do. Bullnose	10	1	6
Do. Bullnose	3	8	3	Blue Wire Cuts	7	11	6
Best Stourbridge Fire brick :—							
2½ in.	11	3	0	3 in.	13	2	0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22	0	0	D'ble Str'tch'rs	30	10	0
				D'ble Headers	27	10	0
				One Side and two Ends	31	10	0
Headers	21	10	0	Two Sides and one End	32	10	0
Quoins, Bullnose and 4½in. Flats	28	10	0	Splays and Squints	30	0	0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s.	d.		s.	d.
2 in. per yd. super	2	1	3 in. per yd. super	2	9
2½ in. "	2	5	4 in. "	3	7

	s.	d.		
Thames Ballast	10	6	per yard.	
Pit Sand	14	9	" "	
Thames Sand	15	6	" "	delivered
Best Washed Sand	15	6	" "	2 miles
¾ in. Shingle for Ferro-Concrete	14	0	" "	radius
¼ in. "	15	0	" "	Paddington.
¾ in. Broken Brick	10	6	" "	
Pan Breeze	5	6	" "	

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6
51/- alongside at Vauxhall in 80-ton lots.

	£	s.	d.
Ferrocrete per ton extra on above	0	10	0
Super Cement	4	8	0
Roman Cement	8	15	0
Parian Cement	5	15	0
Keene's Cement, White	5	15	0
" Pink	5	10	0
Plaster, Coarse, Pink	3	0	0
" " White	3	12	6
" Fine	5	12	0
Sirapite, Coarse	3	9	6
" Finish	3	17	6
Grey Stone Lime	2	10	9
Chalk Lime	2	10	9
Best Ground Blue Lias Lime	2	13	6
Hair	17	0	0
Granite Chippings	1	12	0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s.	d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2	9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2	11½
PORTLAND STONE—		
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4	4
Do. do. delivered on road wagons at above stations, per ft. cube	4	5
White basebed, 3d. per ft. cube extra.		

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

	s.	d.
Small random blocks, up to 10 ft. cube. Per ft. cube	7	/-
Random blocks from 10 ft. and over "	17	/-
Sawn two sides "	27	/-
Sawn three or four sides "	32	/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s.	d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5	3
6 in. rubbed two sides, ditto "	5	9
3 in. sawn two sides slabs (random sizes) "	2	1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1	5¾
1½ in. to 2 in. ditto, ditto "	1	3

HARD YORK—

Delivered at any Goods Station London.

	s.	d.
Scappled random blocks Per Ft. Cube	5	6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5	4½
6 in. rubbed two sides ditto "	6	0½
4 in. sawn two sides slabs (random sizes) "	2	10
3 in. ditto. ditto "	2	5
2 in. self-faced random flags Per Yard Super	7	11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s.	d.
Plain per ft. cube	6	6
Moulded " "	7	9
Cills " "	8	3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£14 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅞	21/-	1¼	33/6
⅞	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.		MATCHINGS (BEST).	
Inches.	per sq.	Inches	per sq.
1	26/6	⅝	17/6
1¼	33/6	¾	22/-
1½	38/6	1	26/-

Inches	BATTENS	s.	d.
¾ × 2		2	4 per 100 ft.

SAWN LATHS.

Per bundle				0	2	10
Dry Wainscot Oak, per ft. super, as inch	0	2	0 to	0	2	6
¾ in. do.	0	1	6 to	0	2	0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1	9 to	0	2	6
Cuba Mahogany	0	3	0 to	0	3	6
Teak (Rangoon, Moulmein or Java), per load	45	0	0 to	50	0	0
American Whitewood planks, per ft. cube	0	14	0 to	0	16	0
Best Scotch Glue, per cwt.	4	10	0 to	—		
Liquid Glue, per cwt.	4	7	0 to	5	10	0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£	s.	d.		£	s.	d.
24 by 12	37	12	6	18 by 10	21	2	6
22 by 12	34	0	0	18 by 9	18	12	6
22 by 11	31	5	0	16 by 10	17	12	6
20 by 12	29	15	0	16 by 8	13	15	0
20 by 10	25	12	6				

TILES.

	Per 1,000 f.o.r. London.		
	£	s.	d.
Best machine-made tiles from Broseley or	5	7	6
Staffordshire district	5	12	6
Ditto hand made ditto	5	12	6
Ornamental ditto	5	17	6
Hip and valley tiles (per dozen) Hand made	0	9	6
Machine made	0	9	0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£	s.	d.
R. S. Joists, cut and fitted	13	10	0
Plain Compound Girders	15	10	0
" " Stanchions	17	10	0
In Roof Work	20	10	0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£	s.	d.	Diameter.	£	s.	d.
¼ in.	16	10	0	⅜ in. to ½ in.	13	10	0
⅜ in.	14	10	0	⅝ in. to 2½ in.	13	0	0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3¾
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3¾	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

	Per ton in London.					
IRON—	£	s.	d.	£	s.	d.
Common Bars	13	10	0 to	14	10	0
Staffordshire Crown Bars—good merchant quality	14	0	0 ..	15	0	0
Staffordshire "Marked Bars"	17	0	0 ..	18	0	0
Mild Steel Bars	12	10	0 ..	13	10	0

METALS (*Continued*).

	£	s.	d.	
Steel Bars, Ferro-Concrete quality, basis price	13	0	0	.. 1
Hoop iron, basis price	16	10	0	.. 1
" Galvanised	31	0	0	.. 3
Soft Steel Sheets, Black—				
Ordinary sizes to 20 g.	15	0	0	.. 1
" " " 24 g.	16	0	0	.. 1
" " " 26 g.	18	0	0	.. 1
Sheets Flat Best Soft Steel, C.R. & C.A. quality				
Ordinary sizes, 5 ft. by 2 ft. to 3 ft. to 20 g.	21	10	0	.. 2
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22	10	0	.. 2
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24	10	0	.. 2
Flat and Galvanised Corrugated Sheets—				
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21	10	0	.. 2
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22	0	0	.. 2
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24	0	0	.. 2
Sheets Galvanised Flat, Best quality—				
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23	10	0	.. 2
Best Soft Steel Sheets, 22 g. and 24 g.	24	10	0	.. 2
Best Soft Steel Sheets, 26 g.	26	0	0	.. 2
Cut Nails, 3in. to 6 in.	20	10	0	.. 2

(under 3in. usual trade extras.)

METAL WINDOWS—Standard sizes suitable fo plete houses, including all fittings, paintin coats, and delivery to job, average price abo to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£
LEAD—Sheet. English, 4 lb. and up	4
Pipe in coils	4
Soil Pipe	4
Compo pipe	4

NOTE—Country delivery, 30s. per ton extra; lots 3 cwt., 2s. per cwt. extra and over 3cwt. and cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt

Old lead, ex London area, at Mills per ton	27	0	0	..
Do., ex country, carriage forward per ton	28	0	0	..

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCK IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- pe

NEW RIVER PATTERN SCREW DOWN STOP COCK UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- pe

NEW RIVER PATTERN SCREW DOWN MAIN FER

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per d

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per d

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz

NEW RIVER PATTERN CROYDON BALL VALVES, S

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- pe

DRAWN LEAD P. & S. TRAPS WITH BRASS CLE SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- pe
8 lbs. S. traps	35/-	45/-	66/-	126/-

COPPER—	£	s.	d.	
Strong Sheet per lb.	0	2	3	..
Thin " "	0	2	4	..
Copper nails "	0	2	3	..
Copper wire "	0	2	4	..
TIN—English Ingots "	0	2	3	..
SOLDER—Plumbers' "	0	1	0	..
Tinmen's "	0	1	2	..
Blowpipe "	0	1	4	..

PAINTS, &c.

	£
Raw Linseed Oil, in pipes per gallon	0
" " " in barrels "	0
" " " in drums "	0
Boiled " in barrels "	0
" " " in drums "	0
Turpentine in barrels "	0
" in drums (10 gall.) "	0
Genuine Ground English White Lead, per ton	56

(In not less than 5 cwt. casks.)

GENUINE WHITE LEAD PAINT—

"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered 79 1

Red Lead, Dry (packages extra) per ton	43
Best Linseed Oil Putty per cwt.	0 1
Filocol per cwt.	0 1
Size. XD Quality fkn.	0

[Concluded on next page.]

* The information given on this page has specially compiled for THE BUILDER and is copyri Our aim in this list is to give, as far as possible, *average* prices of materials, not necessarily the hig or lowest. Quality and quantity obviously a prices—a fact which should be remembered by t who make use of this information.

CURRENT OF MATERIALS (*contd.*)

GLASS.

SHEET GLASS IN CRATES OF STOCK D IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
hs....	3½d.	32 oz. fourths	8½d.
s	4½d.	32 „ thirds	10½d.
hs....	5d.	Obscured Sheet, 15 oz.	4d.
s	6½d.	21 „	5½d.
hs. ...	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
s	7½d.	En'lled 15 „ 5½d., 21 „	7½d.

according to size and substance for squares ock.

ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
ate.....	4½d.
olled	5½d.
olled	5½d.
Rolled, Oxford Rolled, Baltic, Oceanic, ic, Stippolyte, and small and large nish white.....	6½d.
tinted	9d.
heet	6d.
olled Cathedral.....	5½d.
do.	7½d.

late is same price as rough rolled.

VARNISHES, &c.

	Per gallon. £ s. d.
.....Outside	0 14 0
..... ditto	0 16 0
..... ditto	0 18 0
..... ditto	1 0 0
arriage ..... ditto	1 4 0
..... ditto	1 12 0
.....Inside	0 18 0
per ..... ditto	0 18 0
binet..... ditto	1 2 6
tting..... ditto	1 0 6
Oak ..... ditto	0 18 0
ying Oak.. .. .. ditto	0 19 0
rnish .. .. ditto	1 0 0
..... ditto	1 2 0
..... ditto	1 12 0
Gold Size.....	0 12 0
apan.....	0 12 0
ogany Stain (water).....	0 12 0
lack.....	0 9 0
.....	0 14 0
tent)	1 5 0
rush Polish.....	0 17 6
s in Terebine.....	0 9 0
Enamel.....	0 7 0

OSED NEW BUILDINGS.

(*Continued from page* 865.)

N (DURHAM).—Washington Coal Co. have using scheme for the benefit of their work- be Colliery, which is receiving encouraging approval from the men. The company provide sites free for employees, and to ges for transfer deeds, &c., and are to ost price all materials, together with rges. The purchaser will receive the Government subsidy, estimated at £73 d the houses, which are to be of three or with bathroom and garden, will it is ost £220 and £295 respectively. The osit on the agreement being signed will he company will receive interest at the ent. per annum on outstanding balances.

—Through the enterprise of P.iestman's d., who are at present engaged in the w colliery at Watergate, near Whickham, village is shortly to be created in that rs. Watson & Scott, architects, Newcastle, the company, presented to the R.D.C. n showing the lay-out of approximately providing for 295 houses, or 12 houses range of shops. The plan was approved.

Whitby builders, after conference with n Council, have decided to proceed with f 14 subsidised houses on the west side, lications have been received for sites on Estate on the east side. The work, the erection of the war memorial, cottage a large ballroom at the Royal Hotel, is ommence at an early date.

MPTON.—Thirty acres of land on the Estate, near Wolverhampton, adjoining arne Estate, are about to be developed ration for housing, the Ministry having cessary sanction. The construction of ers will be carried out by direct labour.

.—The E.C. have had reported to them d Buildings Sub-Committee the necessity room and new out-offices, at an estimated for the Badsey C. School.

—An inquiry has been held by Mr. A. W. n behalf of the Ministry of Health, with an application by the Corporation for rrow £5,870 for the purposes of an open- bath and eight additional slipper-baths. C. have made application to the M.H. o erect 200 houses. The Ministry have ioning an immediate start to be made

FIRES.

.—The Public Hall, London-road, one of ent centres in the town, has been fire.

H.—A fire has destroyed the corset ging to Messrs. Charles Bayir & Co., Ltd.,

THE SCOTTISH BUILDER

NEW BUILDINGS IN SCOTLAND.

Ayr.—Plans have been forwarded to the Board of Health for their approval for the erection of 50 two-apartment houses.

Girvan.—The T.C. has decided to erect 16 two-apartment houses and 12 three-apartment houses, making a total of 88 new houses in all under the municipal scheme.

Turriff.—The T.C. has decided to erect four houses, the plans for which were prepared by Mr. W. L. Duncan, architect.

Arbroath.—The Forfarshire Education Authority has agreed to erect a hut for a new classroom at Arbroath High School. The cost is estimated at £178, excluding the heating apparatus.

Bishopmill.—The Moray Education Authority has given instructions to the Clerk to obtain estimates for providing an additional cloakroom for the children, and a retiring room and lavatory accommodation for the teachers at Bishopmill School.

Largs.—The T.C. has decided, in view of the expenditure proposed by the London, Midland & Scottish Railway Co., to draw the company's attention to the inadequacy of Largs Station, which was erected in 1885 as a temporary erection, and to suggest that the existing wooden structure should be replaced by a station constructed of stone.

Kilsyth.—William Baird & Co., Ltd., coalmasters, have stated to the T.C. that they intend to erect 50 to 60 houses on the two-story tenement principle, in substitution for what is presently known as the "Brick Rows," and have asked the Council to grant £100 for each house. The London & North Eastern Railway Co. has also informed the Council that it intends to build houses, and desired to know what the Council is prepared to give for a subsidy.

Musselburgh.—The T.C. has decided to erect a golfers' pavilion on the links.

NEW COMPANIES.

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

COLE, LOASBY & CO., LTD. (192,896). Registered October 5. 45, Museum-street, Bloomsbury, W.C. Builders, contractors and decorators, heretofore carried on by Fred Walter Loasby at 45, Museum-street, London, 274, Hither Green-lane, and 237, Springbank-road. Nominal capital, £5,000.

CRANSTONS, LTD. (192,993). Registered October 10. 32, Bedford-row, W.C.1. Builders and contractors, surveyors, &c. Nominal capital, £100.

FRANCIS FLOWER & SONS, LTD. (192,994). Registered October 10. Gurney Slade, Somerset. Quarry masters and stone merchants, now carried on by Albert Edgar Flower and Samuel Wollen at Gurney Slade, Somerset, under the style of Francis Flower & Sons. Nominal capital, £6,000.

WILLIAM ROBINSON (BUILDING CONTRACTORS), LTD. (193,056). Registered October 12. 19, Charing Cross-road, W.C. To carry on the business of building contractors. Nomina capital, £1,000.

W. D. HORWOOD, LTD. (193,387). Registered October 27. 19, Charing Cross-road, W.C Building contractors. Nominal capital, £1,000.

GOOD & HENSON, LTD. (193,300). Registered October 24. Builders and contractors &c. Nominal capital, £3,000.

Contract Open.

DECEMBER 10.—**Morar.**—ARCHWAY.—Erection of memorial archway, Morar, for the Committee of the North Morar War Memorial. All particulars, Bank of Scotland, Mallaig.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters. Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick- Masons' layers'	Plas- terers' Labourers.
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/-	
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/8	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2	
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 861.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	per ft. sup.	50	0
Do. to beams	"	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		1"	1¼"
Deal wrot moulded and rebated	per foot cube		
Plain deal jamb linings framed	per ft. sup.	1/8	1/9
Deal shelves and bearers	"	1/5	1/7
Add if cross tongued	"	2d.	2d

STAIRCASES.

	1"	1¼"	1½"	2"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8

Housings for steps and risers		each
Deal balusters, 1 in. × 1¼ in.		per ft. run.
Mahogany handrail; average 3 in. × 3 in.		" "
Add if ramped		" "
Add if wreathed		" "

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	
Sash fasteners	11½d.	Mortice locks	
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

Rolled steel joists	per cwt.
Plain compound girders	"
Do. stanchions	"
In roof work	"

RAIN-WATER GOODS.

		3"	4"	5"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/1
Ogee Do. Do.	"	2/1½	3/1	3/10
Rain-water pipes with ears	"	2/9	3/7	
Extra for shoes and bends	each	4/4	5/11	
Do. stopped ends	"	1/11	2/4½	3/7
Do. nozzles for inlets	"	2/2	2/7	3/10

PLUMBER.

Milled lead and laying in flashings and gutters	per cwt		
Do. Do. in flats	"		
Extra labour and solder in coated cesspools	each		
Welt joint	per ft run.		
Soldered seam	"	"	
Copper nailing	"	"	

		½"	¾"	1"	1½"	2"
Drawn lead waste	per ft. run	11d.	1/8	1/11	3/5	4/2
Do. service	"	1/7	2/1	2/6	3/10	
Do. soil	"					
Bends in lead pipe	each					3/3
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6
Red lead joints	"	11d.	1/-	1/3	1/11	2/4
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6
Lead traps and cleaning screws	"				14/7	19/6
Bib cocks and joints	"	6/4	9/7	15/4	41/-	
Stop cocks and joints	"	15/4	17/2	25/8	64/-	

PLASTERER.

Render, float and set in lime and hair	per yard sup.		
Do. Do. Sirapite	"	"	
Do. Do. Keen's	"	"	
Add sawn lathing	"	"	
Add metal lathing	"	"	
Portland cement screed	"	"	
Do. plain face	"	"	
Mouldings in plaster	per 1 girth		
One-and-a-half granolithic pavings	per yard sup.		

GLAZIER.

21 oz. sheet plain	per foot sup.	
26 oz. Do.	"	"
Obscured sheet	"	"
⅛ in. rolled plate	"	"
¼ in. rough rolled or cast plate	"	"
¼ in. wired cast plate	"	"

PAINTER.

Preparing and distempering, 2 coats	per yard sup.	
Knotting and priming	"	"
Plain painting 1 coat	"	"
Do. 2 coats	"	"
Do. 3 coats	"	"
Do. 4 coats	"	"
Graining	"	"
Varnishing twice	"	"
Sizing	"	"
Flatting	"	"
Enamel	"	"
Wax polishing	per foot sup	
French polishing	"	"
Preparing for and hanging paper	per piece 2/- to	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of

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TENDERS.

unications for insertion under this heading should ssed to "The Editor," and must reach him not an Tuesday evening.

tes accepted. † Denotes provisionally accepted.
tes recommended for acceptance.
tes accepted subject to modifications.

LBY.—For erection of a Council School, for t Riding of Yorks C.C. The County Architect, Hall, Beverley :—
. Carr & Sons, Selby £6,010

NOCK.—For carrying out sewage works at cton, for the R.D.C. :—
rpe & Son, Cannock £2,033 8

PSTOW.—For conversion of Larkfield, Chepto a central school, for the Monmouthshire on Committee :—
rkins, Harris & Weaver, hepstow £3,875

PSTOW.—For extension of water main at wett, for the R.D.C. :—
kson & Baker £131 10

DBURY.—Repairs and structural alterations nion Infirmary, for the Board of Guardians :—
E. Pritchard, Kidderminster.

VER.—For erection of 32 houses, for the tion. Borough Surveyor, Alma-road, Wind-

ris, Sunningdale	£19,909	0	
s, Southend	18,622	0	
Carthy & Co., London	18,200	0	
eeler Bros., Reading	18,000	0	
e, Ltd., Luton	17,230	0	
sher & Son, Wallingford	16,771	3	
e & Hendry, Windsor	16,440	0	
t & Sons, London	16,200	0	
thon Bros., Maidenhead	15,950	0	
ey & Son, Luton	15,850	0	
g, Northampton	15,400	0	
ters, Ltd., South Norwood	15,279	0	

ESTOWN (MON).—For erection of a new ry infants' school at Dukestown, for Monire Education Committee :—
Smith, Cross Keys £2,050

HAM.—For painting at Council Schools, for :—

y-hill School—

phenson Bros.	£180	0	0
Burdon	120	0	0
Nicholson, Dunston-on-Tyne	98	9	0

on West School—

Burdon	500	0	0
ith & Jewitt	460	0	0
C. G. Wright	401	0	0
Brooks	394	15	0
W. Alexander	345	18	0
phenson Bros.	344	0	0
T. Wilson	328	0	0
S. Hetherington	325	0	0
B. Dobson	306	8	6
M. Reed, Whickham	305	0	0

side School—

Burdon	230	0	0
Hopper	193	0	0
T. Wilson	154	0	0
Hall	149	0	0
phenson Bros.	144	0	0
A. Turnbull & Son, Ryton-on-Tyne	125	0	0

kham School—

Burdon	250	0	0
Nicholson	170	8	0
phenson Bros.	169	0	0
M. Reed	150	0	0
Hopper & Son, Dunston-on-Tyne	149	0	0

rville School—

Burdon	287	0	0
A. Turnbull	190	10	0
mmerside Bros.	184	0	0
Hall	178	0	0
phenson Bros.	172	0	0
T. Wilson, Ryton-on-Tyne	170	10	0

ield School—

Burdon	157	0	0
Hopper	149	0	0
Short	147	5	0
phenson Bros.	137	0	0
ith & Jewitt	136	10	0
mmerside Bros., Blaydon-on-Tyne	120	0	0

NDALE (RHONDDA).—The Rhondda U.D.C. cepted on Ministry of Health approval the g tender for erection of 30 non-parlour type at the Ferndale housing site :—
n Thomas, Rhondda £13,500

NDALE (RHONDDA).—For laying of sewers, d construction, in connection with Ferndale scheme :—
G. Collins & Co., Barry .. £1,278 6 0

ETWOOD.—Erection of 50 houses in Shakespad, for the U.D.C. :—
J. Gleeson—

For parlour type	£444	17	6
For non-parlour type	374	3	4

GALASHIELS. — For erection of 18 houses in 3 blocks of two- and three-apartment houses, for the T.C. Messrs. J. & J. Hall, architects, Galashiels. Quantities by architects :—

Mason, &c., work—

*P. & D. Dalgliesh, Galashiels	£3,127	13	1

Joiner, &c., work—

*James A. Grant, Galashiels	2,377	5	3

Plumber and gasfitter work—

*B. Ruthven & Son, Galashiels	1,151	12	11

Plaster and cement work—

*James Gardiner, Galashiels	593	9	6

Slater work—

*L. McLaren & Sons, Galashiels	184	0	6

Painter work—

*Norfolk Decorators, Ltd., Glasgow	194	19	9

Glazier work —

*David J. Hope, Galashiels	57	6	1

GOOLE.—For erection of 12 "A" Type houses and 12 "B" Type houses on Pasture-road site, for the U.D.C. The Surveyor, Council Offices, Goole :—

Platt & Featherstone, Goole—A Type	£5,242
B Type	6,020

GUISBOROUGH.—For new water main at Darley, for the U.D.C. :—

Guthrie, Stockton	£199	0	0
B. Padget, Brotton	160	7	9
C. Jackson, Whitby	156	0	0

H.M. OFFICE OF WORKS.—Accepted during October :—

Building Works: Bethnal Green Housing Scheme—Tarmac work: Constable, Hart & Co., Ltd., London, E.C. Birmingham Post Office Factory—Plasterer: G. Prince, Birmingham; slater: Fergusson & Sons, Leicester. Camberwell Housing Scheme—Tarmac work: J. Wainwright & Co., Ltd., London, N.W. Didsbury Telephone Exchange—Erection: J. Gerrard & Sons, Ltd., Manchester. Edinburgh, General Register House—Alterations: Colin Macandrew, Ltd., Edinburgh. Edinburgh, Royal Botanic Gardens—Erection of plant relief house: Topping & Co., Edinburgh. Gloucester Telephone Exchange—Painter: Conway Jones & Co., Ltd., Gloucester. Halifax P.O., &c., Commercial-street—Extension: Mullen & Durkin, Ltd., Burnley. Hammersmith Sorting Office—Reconstruction of front wall, &c.: Chas. Watts & Co., London, W. Hampton Court, Great Hall roof—Steel reinforcement: Joseph Westwood & Co., Ltd., London, E. Hampton Court Park, Barge-walk—Repairs, &c., to wall and roadway: John Mowlem & Co., Ltd., London, S.W. Holloway, N., Money Order Department—Redrainage, &c.: Dent & Hellyer, Ltd., London, W.C. Liverpool, Ministry of Pensions, St. Anne's-street—Alterations: Hughes & Stirling, Liverpool; plumber, glazier and decorator: Thos. McHugh, Liverpool.

Maintenance Work: Barry Dock District: Vickery Bros., Barry Dock. Beacon and Lickey Hostels (Birmingham): J. E. Harper & Son, Ltd., Birmingham. Burton-on-Trent District: Thomas Lowe & Sons, Ltd., Burton-on-Trent. Hartlepool District: C. Turnbull & Son, West Hartlepool. Huddersfield District: Edwin Dyson & Sons, Huddersfield. Lincoln District: Edward Scarborough, Lincoln. Middlesbrough District: W. A. King & Sons, Ltd., Middlesbrough. Norwich District: Leonard Lincoln, Norwich; plumber: G. Marshall, Norwich. Sunderland District: W. B. Cooper & Sons, Ltd., Sunderland. Wigan District: John Johnson & Son, Wigan. Morriston Housing Scheme—Painter: Fred Morgan, Morriston. Mount Pleasant Letter Office—Asphalter: The London Asphalte Co., Ltd., London, E.C.; concrete work: Stuart's Granolithic Co., Ltd., London, W.C.; plumbing and c.i. drainage: W. H. Early, London, S.W.; rubbish remover: Henry Allen, Ltd., London, E.; steelwork: James Allan, senr., & Sons, Ltd., London, E.C. Rampton State Institution—Slater and tiler: Dawber, Townsley & Co., Ltd., Grimsby. Rhyl, "Plas-Glan-y-don"—Adaptation for telephone exchange: David Griffiths & Son, Rhyl. Roundhay, Leeds, Telephone Exchange—Asphalter: Tunstalls Seyssel & Limmer Rock Asphalte Co., Ltd., Leeds: bricklayer and mason: S. Flockton, Leeds; painter: R. Robinson, Bradford; plasterer: The Exors. of John Dobson, Leeds; plumber and glazier: Pearton Bros., Leeds; smith and founder: Leonard Cooper, Ltd., Leeds. Royal Mint—Reconstruction on East side: William Lacey, Hounslow; steelwork: Redpath, Brown & Co., Ltd., London, E.C.; stonework: G. F. Simmons, Hounslow. Rugby, P.O. Wireless Station—Erection of experimental building: Foster & Dicksee, Ltd., Rugby. Victoria and Albert Museum, South Kensington—Repairs to tile floors, &c.: Diespeker & Co., Ltd., London, E.C. Whitley Bay Post Office—Steelwork: Dorman, Long & Co., Ltd., London, S.W.

Engineering Services: Barnsley P.O.—Heating: Buckleys (London), Ltd., London, W.C. Golders Green Telephone Exchange—Heating: Cannon & Hefford, London, S.E. Somerset House, W.C.—Wiring: Samuel Reed & Sons, London, S.E. Southport P.O., &c.—Heating: Wm. Griffiths, Sons & Cromwell, Ltd., Liverpool. Windsor Castle Gardens—Boiler, &c.: Buckleys (London), Ltd., London, W.C.

Painting: Dilliway & Elvy, London, W.; J. Scott Fenn, London, S.E.; M. Greenwood & Son, Ltd., London, W.; Douglass Halse & Co., Ltd., London, S.E.; Hylton & Son, Lincoln; E. D. Winn & Co., Ltd., London, S.W.

INVERNESS.—For erection of two blocks of four-roomed houses at Lochalsh-road, and painter and glazier work in connection with erection of three blocks on same site. Mr. J. Hinton Gall, architect, Lombard-street, Inverness :—

Masons—

*Maclean & Son, Cawdor-road, Inverness	£541	15	10

Carpenter—

*Wm. Grant, Celt-street, Inverness	£554	0	0

Slater—

*J. Reid, Kenneth-street, Inverness	134	8	0

Plumber and drains—

*H. Fraser, Rose-street, Inverness	260	5	2

Plasterer—

*Wm. Johnstone, Kenneth-street, Inverness	182	0	0

Painter—

*T. Tulloch, Church-street, Inverness	61	9	0

KIRKBURTON.—For erection of 12 cottages in Turnshaw-road, for the U.D.C. Messrs. Abbey & Hanson, architects, 11, Cloth Hall-street, Huddersfield :—

Mason and bricklayer—

J. W Boothroyd, Ltd., Huddersfield	£2,315	0	0

Joiner—

David Light, Huddersfield	969	18	0

Plumber—

H. C. Stringer, Huddersfield	631	11	6

Slater—

Richard Fletcher, Ltd., Blackburn	352	15	0

Plasterer—

Thornton & Kitchingman, Huddersfield	392	7	6

Painter—

J. W. Cornes, Huddersfield	85	0	0

LEEDS.—Erection of new residents' bathrooms at the General Infirmary :—
*Wm. Sott & Son, Leeds.

LEEDS.—Rock asphalte paving in New Briggate and Lower Briggate, for the Highways' Committee of the Leeds Corporation :—
*Tunstall's Seyssel & Limmer Rock Co., Ltd., Leeds £987

LEEDS.—Erection of new banking premises near Old Oak, Headingley, for the Bank of Liverpool & Martin's, Ltd. Messrs. Gotch & Saunders, architects, Kettering :—
*Wm. Simpkiss, Highgate Works, Hunslet, Leeds.

LEEDS.—Erection of an electricity transformer chamber at Devonshire-avenue, Roundhay, for the Leeds Corporation Electricity Committee :—

Main contract—John Ferguson & Sons, Ltd.
Asphalter—Tunstall's Rock Asphalte Co., Ltd. } £461 18 6

LEEDS.—Structural alterations and extensions to the Premier Picture House, Briggate, Leeds :—
*Wm. Thompson & Sons, Leeds.

LEEDS.— Erection of new hotel, "Middleton Arms," comprising café, billiard-rooms, lounges, &c. for Messrs. Ind, Coope, Ltd., Burton, Brewers :—
**Mason*—Chas. Higgins, Roseville-road.
**Joiner*—Banks Mawson, Sheepscar.
**Steelwork*—Leonard Cooper, Balm-road.
**Asphalter*—Tunstall's Rock Asphalte Co., Ltd. Crown Point Bridge.
**Wood block and terrazzo work*—T. K. Yeates & Co., Albion-street.
(All of Leeds.)

LONDON.—For building work at 108, Sutton-road, Muswell Hill. Mr. George W. Newman, architect, 140, Wellington-road, Bush Hill Park, Enfield :—

G. Groves & Son, Tottenham	£206	0	0
G. Smith & Son, Muswell Hill	198	0	0
*J. Stewart & Sons, Tottenham	196	0	0
A. Harston & Co., Tottenham	189	5	0
S. G. Goulding, Hornsey	184	19	6
W. H. Barley, Tottenham	154	18	0

LONDON.—For the erection of public slipper baths in Church-street, for the Stoke Newington B.C. :—
*Harris & Wardrop £4,143

LONDON.—For provision of hot-water supply to baths, to be erected in Church-street, for the Stoke Newington B.C. :—
*Air-Vent Heater Co. £789

LONDON.—Supply of 400 ft. run of 12 in. by 8 in Cornish granite kerbing to the Battersea B.C. :—
*E. Matthews & Co.—4s. per foot run.

LONDON.—For repaving Tudor-place with asphalte, for the St. Pancras B.C. :—
Limmer & Trinidad Lake Asphalt Co., Ltd., "Lithocrete" asphalt, at 11s. per yd. super, including free maintenance for two years.
London Asphalt Co., Ltd., granited mastic asphalt paving, at 10s. 3d. per yd. super, including free maintenance for five years.
*Val de Travers Asphalt Paving Co., Ltd., granited mastic asphalt, at 10s. per yard super, including free maintenance for five years.
Whitehall Asphalt & Engineering Co., Ltd., "Durophalt" at 9s. 9d. per yd. super, including free maintenance for six years.

METROPOLITAN ASYLUMS BOARD. — The following tenders have been accepted by the Board :—

Joyce Green Hospital—Covering boilers with non-conducting composition.

Hobdell, Way & Co.	£165	0	0
Keenan, Matthew & Co.	163	0	0
C. Goodman & Co.	150	0	0
Reid, Macfarlane & Co.	140	0	0
Cape Asbestos Co.	120	5	0
*Sutcliffe Bros. & Bryce, Ltd., Voluntary-place, E.11	118	10	0

The Downs Hospital—Formation of engineer's office and workshops.

A. Abberly	£350	0	0
Burnard & Pickett	15	0	0
R. E. Shaw	235	0	0
W. Bickerton	230	0	0
A. A. Secrett	227	0	0
*T. W. Heath, Ltd., Chelsea	220	0	0

Training Ship Exmouth II—Repairs. *Estimate based on schedules.*

P. Tye & Co.	£645	0	0
London Graving Dock Co.	640	10	0
Glengall Ironworks	470	0	0
*Harland & Wolff, Ltd., North Woolwich	400	0	0

Tooting Bec Mental Hospital—Supply and delivery of kitchen fittings and appliances.

J. & F. May	£1,210	0	0
Carron Co.	1,082	15	0
Benham & Sons	1,047	11	8
Moorwoods, Ltd.	1,037	7	0
*Falkirk Iron Co., Ltd.	909	13	6

Tooting Bec Mental Hospital Extension—Supply of 12 pairs of hard wood doors.

H. Morris & Co.	£461	3	0
H. C. Sayce	423	0	0
W. Harris, Steam Joinery Works	387	0	0
Philip & Tacey, Ltd.	384	2	6
Gill & Reigate	325	0	0
The North of England School Furnishing Co.	323	11	6
J. Daymond & Son	299	0	0
J. Hatch & Sons	296	0	0
J. W. Cullen	283	0	0
The Gloucester Joinery Co.	238	0	0
Scales, Son & Bragg	237	12	0
J. H. Adams & Son	275	0	0
Harding & Marks	250	0	0
J. P. White & Sons	259	0	0
Holloway Bros. (London), Ltd.	247	10	0
R. E. Shaw	286	0	0
A. Williams	230	0	0
J. Darch, Ltd.	232	0	0
Holttum & Green, Ltd.	227	0	0
R. A. Evans & Co.	201	0	0
Soole & Son, Ltd.	215	0	0
J. Garrett & Son	230	0	0
Poole Sons	202	11	0
Holland & Hannen & Cubitts, Ltd.	229	0	0
Boorman & Perkins	201	6	0
J. Harrison & Co.	204	0	0
S. Redhouse & Son	227	8	0
Guild Housing, Ltd.	174	0	0
A. Foulds, Ltd.	174	0	0
W. J. Dixon & Son	152	0	0
*F. B. Young, Teddington	147	0	0

Goldie Leigh Homes—Cleaning and painting.

F. Shipman	£1,022	0	0
Bedford & Co.	887	0	0
R. E. Shaw	865	0	0
A. Vigor, Ltd.	794	0	0
Thomas & Edge	789	0	0
Forward & Sons, Ltd.	729	10	8
The Mayfair Services, The Mayfair Window Cleaning and Decorating Co., Ltd.	724	0	0
W. Harris	716	0	0
E. A. Vickers & Son	704	18	0
Croft & Co.	684	8	7
F. Cousins	684	0	0
W. Bickerton	683	10	0
P. Miller & Son	673	0	0
Guild of Builders (London), Ltd.	670	0	0
W. Ridge & Co.	640	0	0
W. Bailey	630	0	0
J. Fenn Scott	588	0	0
W. Palmer & Sons	586	0	0
R. Mansell	585	0	0
A. Black & Son	570	0	0
J. E. Ree	558	9	8
J. H. Sutch & Sons	546	0	0
Barnes & Co.	540	0	0
S. J. Mitchell	512	0	0
H. A. Thomas & Son	510	12	0
J. Hocking & Co.	494	0	0
Thatcher & Pritchard, Ltd.	480	0	0
D. C. Bowyer	473	10	0
*F. Cory, Deptford, S.E.	457	8	6



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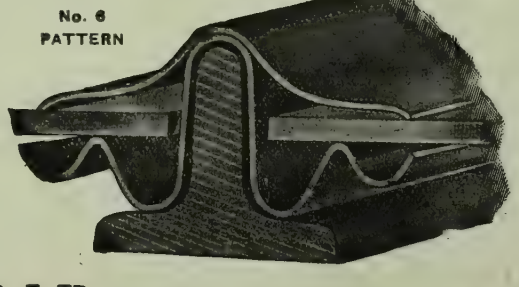
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THE BUILDER

JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

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WAYS AND MEANS.

"The World is so full of a number of things
I'm sure we should all be as happy as kings."

is one of the privileges of youth that the young architectural student can believe that art, and the enthusiasm for it, must suffer when ways and means have to be taken into account. The mind which tries to translate architecture into dull terms of wages and capital seems student to provide nothing but dry bones to stimulate eative mind. It is true that the student working at his g board approaches nearer to that elusive ideal of art 's sake than his employer wrestling with administrative ms incidental to the earning of a livelihood in the profes- f architecture. The increasing number of economic and problems which have appeared during recent years have harassing to the architect, and it is because we suspect e has become a stern realist, whether he is aware of it , that we deal so frequently with these problems.

ese thoughts occur to us in reading Mr. Strachey's book on nics, which we review on page 892. Here is a refreshing of economics written in a manner so attractive and simple despite what we have said about the idealist and realist, should be no excuse for those who believe that they abhor dismal science." The title, "Economics of the Hour," seem to indicate some immediate remedy for the ssing industrial conditions of the moment, whereas its cance to us is that the time has now arrived to state y some home truths in political economy, a science which to have been omitted in our promised post-war Utopia. ist have become obvious to everyone by this time that h our ideals of a better England may have been praise- y, it was not in the power of anyone to give conditions ing the maximum of comfort with the minimum of r. Political Economy is claimed by many to be a science, e know of no other science where it is so easy to invert and effect and build up theories based upon a fallacy or adox.

uring recent years we have all become experts in culti- narrow areas, preferring to seek any excuse and turn to emedy, however complicated, rather than accept a dis- able diagnosis which might involve harder work, longer or less payment for our labour. We can all discuss ems like inflation and deflation, nationalisation and dualism, craftsmanship and mass production, alternations oms and slumps, as if we were discussing sides in a Univer- oat race. We surely know all there is to be known foreign exchanges, stabilisation of prices, Government lies, safeguarding of industries; and to all of them we turned at various times in the belief that each of them he secret of our industrial depression. We do not mean dicate that because Mr. Strachey avoids these modern ms he merely restates an old creed; on the contrary, it old enough to appear new to this age, brought up on t remedies. Many of the conclusions we know have held privately by the few, and their silence can best be ned by the fact that experience proves that a nation has just come through a long and arduous war success- is seldom, in the first flush, in the mood to accept dismal day facts, but prefers for a time to dally with an easier ophy which promises better conditions for less labour.

r. Strachey confirms a belief which we hold and have sed on several occasions, that the only way of increasing wages permanently is by increasing production. It is us that our trouble to-day is that we are not producing ch as we could, or, in other words, there is not the demand at the price. During recent years we have seen the tendency on the part of labour (encouraged by idealists) to submit their requirements, both economic and social, as a first condition in the scheme of things, in the belief that these are the governing factors. The result we see to-day; the fallacy being responsible for prolonging the industrial depression from which we are all suffering. The cost of labour, i.e., cost of production, is clearly a governing factor in the price of the article, but it is equally true to say that it cannot ensure the demand if we are not in a position to pay the price. We proved during the war that we could exist without many things, or make them last longer, thus enabling the nation to concentrate upon war material. By doing without many things we paid a large amount of the cost of the war.

We have built up an amazing philosophy in recent years. We want to increase the happiness and prosperity of the poor, provide better housing, better schooling, better living, better health, more leisure, more freedom, more opportunities for enjoying the good things of this life. Enveloped in this atmosphere it is almost impossible for the individual to see the problem from a neutral and objective standpoint. Gradually he succumbs to verbiage, until in the end he can only listen to dialectical refinements about a truer freedom than being free. No one can deny that we have given this philosophy a fair test, even to the extent of bolstering it up by paying unemployment doles out of public funds. In the post-war deflation we see a general desire to make a stand at a level beyond the diminished purchasing power of the country, and when faced with the serious problem of unemployment we prefer to clamour for help from the Government, regardless of any principles upon which our whole industrial fabric is based. It is beginning to appear that there must be some serious flaw in our economic programme, and surely the time is ripe to study once again an old theory—that improved conditions or real wealth can only be measured in terms of production.

Any doctrine which enjoins the worker to contribute to lower prices is not fashionable, we admit, and at first sight it seems bitter medicine to offer when we sympathise with the worker in his discontent. The economist must, of necessity, seem hard and unsympathetic, but the sentimentalist, who is genuine but often mistaken, does not monopolise all the human qualities because his doctrines are popular. That Mr. Strachey had these ideas in his mind when he wrote his dedication we feel sure. In a world where values are comparative, we may some day find that the conditions prior to the war were not so bad as they appeared when the glittering future was dangled before us. It is true they were not so good but what they might have been better, but human progress and development did not end in 1914 because it was made to appear that it was a sudden discovery in 1918. Civilisation is all the while improving, and the whole difficulty to-day is not that we are reaching too far in our ideas, but that we are neither certain what we mean by better conditions, nor how they are to be obtained. In a letter in *The Times* of November 5, Lord Hugh Cecil deals with the problem of unemployment, and it is interesting to note that he confirms the general theory which we are discussing. The whole problem resolves itself into the question of how long we have to wait until these principles will be understood and accepted. In the meantime, we are doing everything we can to help the worker to prolong the depression. Salvation can only be found in a good will founded on common interest: in human relations between employers and employed; and in adopting an economic philosophy which is not based upon popular fallacies.

NOTES.

Proposed Exhibition of Architecture at Wembley.

We refer elsewhere to a proposed exhibition of architecture at the Empire Exhibition. But we are told it is to be strictly limited as to space, and to be limited to photographs and models, and also to be limited to those who are invited. This three-fold limitation is the reverse of encouraging. At the Ghent Exhibition, shortly before the war, the galleries devoted to architecture would probably have held nearly all the Royal Academy pictures. The drawings were fully displayed and the whole effect was as pleasing and dignified as our usual architectural shows are dull, crowded and mean. Of course, only executed works will be shown at Wembley, and only such as come from architects whose work is appreciated by the selecting committee.

Advertisement for Architects.

Among the many things offered in the abundant fare of after-dinner speechifying, on the occasion of the fifth dinner of the Architecture Club, Lord Riddell volunteered some advice—more useful perhaps to architects than to architecture—to those who feel the need of other than the accustomed ways identified with the profession for getting hold of work. To some of us, none the less, this subjecting a noble art to the flacid interpretations of after-dinner oratory, with the idea of encouraging it, is a matter of some surprise. His lordship's proposal that the architect should sign his building is not amiss, and has some warrant in old tradition, though some of us more intimate with architecture can read the architect's signature all over the building. But this hardly meets the needs of a commercial age, and he makes the suggestion that architects should advertise themselves more freely in the editorial columns of the Press. A course of "window dressing for beginners" plus the publicity agent should suffice, and if architecture cannot speak for itself, let the publicity agent take its place. Or does architecture not need to be saved from such friends! Seriously, this is not to the point, and such proposals can come only from those who know little of the nature or the obligations of this great art. The astounding thing to us lies in the fact that a number of p and distinguished persons should n that architecture is very badly serv such friends, and that in lending selves to this sort of publicity for tecture with the idea of aiding it may be doing it very bad service.



From an exhibit at the London Salon of Photography.

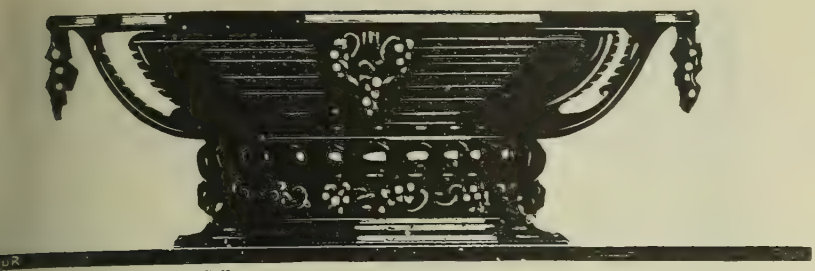
The Fyn Kirk, Prague. From a Photograph by Mr. J. McKissack.

"Hideous" City Churches.

If the interview with Hugh Cecil was cor reported in the *E Standard*, the opinio that eminent layman must be profo disturbing to those concerned i defence of the threatened City chu "Some of the churches," he tell "are very beautiful, and ought not touched, but some are very u frankly hideous." Now, referen authority in all matters of art val extremely difficult, but this calm ance of *fiat lux* in face of an a unanimous architectural judgme "frankly, very hideous," and were for the strong influence exerted by Hugh in ecclesiastical affairs wou too silly to bother about. But let be no mistake, the attack that is c is very real and admirably camoufl No one can deny the needs of G London, the poverty of the clergy the responsibility of the community justice to both; but the policy of representing the official Church att is not one to enlist the support o sympathetic layman. It is at material and yet sentimental. I Church authorities were to come fo and say—"here are Church and na treasures, help us to defend them can't, alone," their case would be s Instead, what are we told?—they ar treasures; they can be moved some else; perhaps they needn't all b stroyed—while the whole questio mixed up with ecclesiastical proce including the amazing suggestion tha four new rectors would (according to Hugh) "be the best judges as to would be done with the churches, which of them were really superf and could be removed." Were it n the very real danger, the scene this gests would be fit copy for comic o

Over-Production and Unemployment.

Many people have won how the science of e mics earned its reput for being the prosiest ject on earth, when its s ought to illuminate many of the difficult problems of the day. One o reasons put forward is that the att to interpret economics by making fresh and lively for the benefit of com folk invariably ends in the aren politics. Hence the theory that science of economics is studiously avo by politicians, on the principle that more essential to take sides in a c than believe that the issue can be se



at the Fine Art Society's Gallery.

Silver Bowl. By GEORG JENSEN. (*See p.* 895.)

natically. A classic example can in the contention that over-pro- is responsible for unemployment. lacy comes naturally to the worker, es that a particular job would be l among more workers if each man s of it. Assuming we could prove a to be fantastic and absurd, the will not accept an argument which that low wages are better than nemployment. There is a principle e, apparently, and there issues the ring argument that the lowering es may secure re-employment for oment but it leads to a lower rd of life; unemployment in due eturns with undiminished severity, a population sinks deeper and into poverty. Here are the argu- put crudely; and we can see that sues are so wide and the battle so popular that the politician is abandon a cause which he thinks be settled by common sense. The nt that "you have a perfect right vrong" is little more than a felici- pigram in political circles, but it nean a great deal more in the nic world. In a world which is all ven to easy half-truths and popular rities, we need not lose our belief an progress, though we may, with , be disbelievers in short cuts.

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hitec- Anno- ons.

IN his cosmopolitan volume of "Reminiscences," just issued by his old friend Mr. Macmillan, Dr. A. J. Sayce, of Queen's College, Oxford, some- Professor of Assyriology in the rsity, records interesting particulars repeated explorations in Egypt and ere among the ruined structures of ncient origin, and particularly con- g his archæological survey with omers Clarke (Surveyor, after Mr. se, to St. Paul's Cathedral), at on the west bank of the Nile, from Halfa to Dongola. The architec- side of their programme was ted to Mr. Somers Clarke, who had is dahabia and built himself a winter nce within an easy ride of El-Kab, Dr. Sayce had been his guest. explored together the country en the First and Second Cataracts 893–4, when Mr. Somers Clarke ured plans of the local temples and other historic buildings on both banks of the Nubian Nile. The far-travelled author of this book entertains his readers with a very varied series of home notes and among these occur a few personal incidents about other architects known to him.

Ruskin, Butterfield, Scott and Burges.

SIR HENRY ACLAND took a leading hand in founding the Museum of Oxford University during the fifties, built under the auspices of Professor Ruskin. Deane and Woodward, the famous architects, designed the buildings. The roofs were gay with purple and greyish-green slates symmetrically patterned and arranged, while the Bath stone mural treatment was relieved by marbles of various hues. Ruskin prevailed, but the result was much criticised as being alien to the traditions of Oxford. Strange to relate, notwithstanding this incongruity of style, Ruskin told Dr. Sayce that he could no longer take his usual walks past the Museum or enjoy his customary afternoon stroll in "the Parks," because William Butterfield's "streaky bacon" buildings for Keble College "made him feel sick." Keble's architecturally striking chapel, anyhow, made some amends for the deficiencies of the rest of its College buildings commenced in 1868. The late Dr. Creighton, Bishop of London, when he saw the interior of Keble College Chapel on its completion, remarked "Well, Butterfield has successfully solved the problem how to cover a wall with all the colours of the rainbow and yet leave it bare."

Building "Rings."

THAT the natural effect of competition is towards establishing the real economic prices of a thing, and that in the free play of this force there is some security against the artificial use of prices through combinations, few will deny. When this factor of competition does not exist, as in the case of combines, we are dependent on one of two things to secure a fair price; either that the members of such combine are animated by so much public spirit that we can depend on them not to use the control in their hands against the public welfare, or that a Government Department, probably the Ministry of Health, will intervene to control prices. The recently reported Exeter case (though as the builders say, there is nothing new in such an example) emphasise the fact that such combinations are by no means exceptional. "Rings to control prices" are not limited to builders. The Standing Committee appointed to investigate prices and trusts found that in connection with the building trade there were many associations in existence, and they thought that where 60 per cent. of an industry was controlled by associations steps should be taken to safeguard the interests of the nation. To take such steps is, however, very difficult. After all, it is a question of human nature. In the end it is in the slow emancipation of humanity to better objects, more essential values, that the remedy lies, and we must look to the forces of religion, education and citizenship to prevent humanity preying on itself.



From *The American Architect.*

Farm Cottage at Demarest, N.J. MR. F. J. FOSTER, Architect.

GENERAL NEWS.

Professional Announcement.

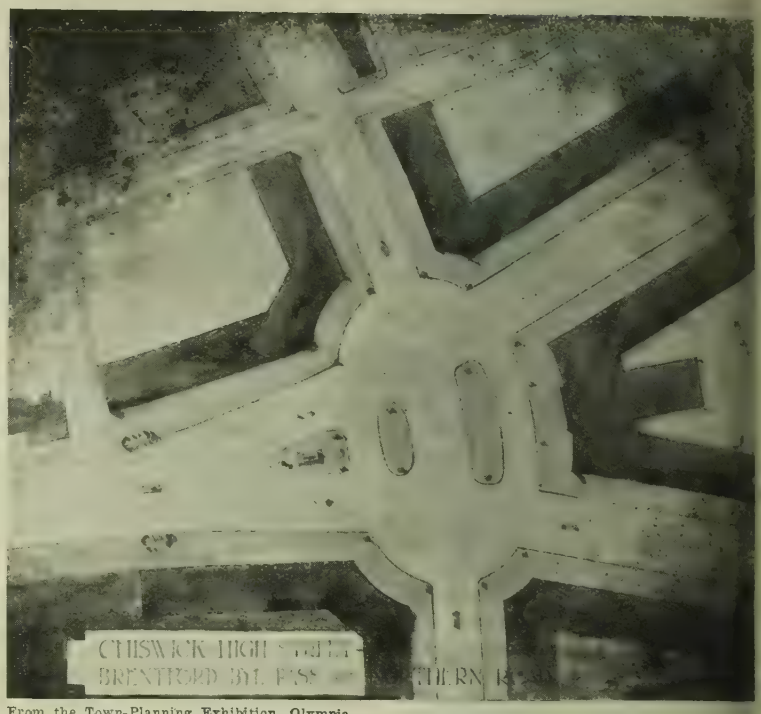
After Thursday, December 6, the address of Mr. Arthur Boxall, quantity surveyor, will be Lloyds Bank Chambers, 2, Henrietta-street, Covent Garden, W.C. 2. Telephone, Gerrard 8866.

Antique Furniture.

Mr. Mordaunt Rogers, F.S.I., F.A.I., gave his second and final lecture on this subject at the College of Estate Management last week. The lecturer traced the history of French furniture down to the time of the Revolution, which put an end to the age of furniture in that country. Mr. Rogers dwelt on the outstanding characteristics of the various periods of English furniture, and pointed out the way in which these were influenced at different periods from both France and Holland. The lecturer illustrated his remarks with a large number of lantern slides, which were kindly supplied by the authorities of the Victoria and Albert Museum.

Law of Property Act, 1922.

Mr. A. F. Topham, K.C., recently delivered the first of a series of three lectures on the above subject at the College of Estate Management. He said when the Act came into force so far as the general public was concerned, there would be very little difference to be seen. He traced the history of the attempt to simplify the transfer of land, starting from the Commission appointed in 1833 for this purpose. It had, he said, long been realised that it was impossible to simplify conveyancing until the law relating to land had been simplified. That had been done in the present Act by limiting the types of tenures; that was, by this Act, there were only to be two estates at law, the fee simple and the lease, all other estates and interests taking effect in equity only.

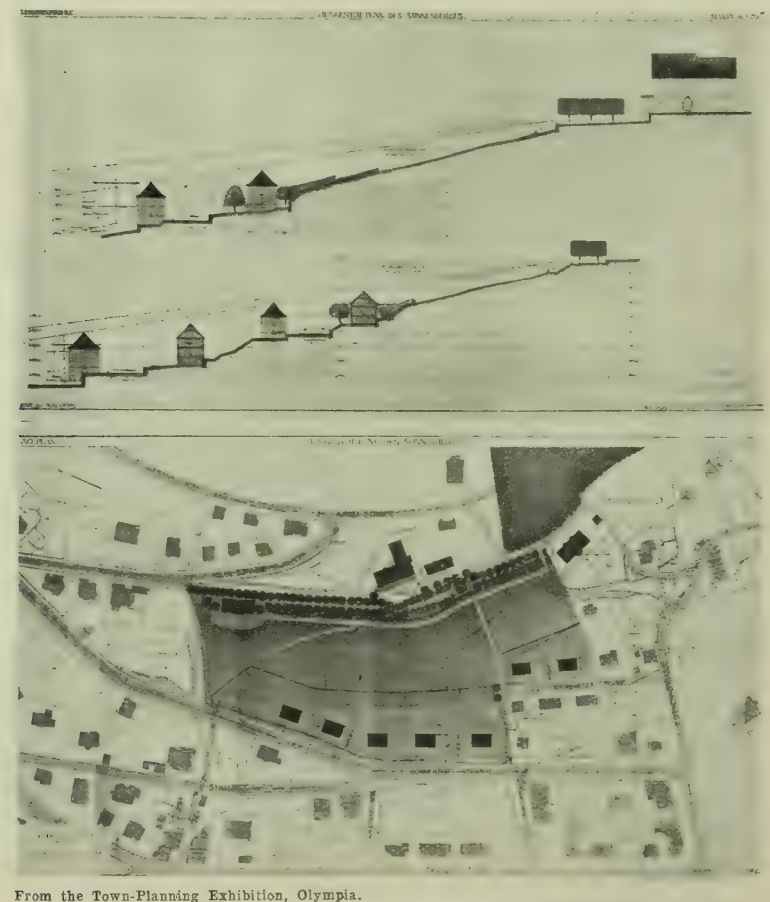


From the Town-Planning Exhibition, Olympia.

Great West Road: suggested junction with Chiswick High Road. (*See p.* 8

Mr. A. F. Topham, K.C., gave the second of the series of lectures on this subject at the College of Estate Management on Friday last week. The lecturer dealt with restrictive covenants and how these would be affected under the new Act, and pointed out that when restrictive covenants were created after the new Act came into force, they must be registered as land charges or they would not bind the purchaser, even if he had notice of them. He then ou the arrangements for the construction of holds and the methods of dealing with th pensation arising therefrom. Entailed in were next dealt with and also the posit mortgages under the new Act.

The final lecture will deal with the new of intestate succession.



From the Town-Planning Exhibition, Olympia.

Zurich: Preservation of view point and houses on sloping ground. (*See p.* 877.)

COMPETITION NE

New Headquarters for the Society of Fr

In a limited competition Mr. Curtis (A.R.A., F.R.I.B.A., the assessor, has plac design of Mr. Hubert W. Lidbetter, A.R.I of Amberley House, Norfolk-street, Strand, first. The other competing architects we C. E. Elcock, F.R.I.B.A., Messrs. Fred Row F.R.I.B.A., & Son, Mr. Ralph Thorp (M Hornblower & Thorp), and Mr. William A A.R.I.B.A. The site is situated at End gardens, and Euston-road, N.W.

Holmside.

FOR THE HOLMSIDE AND SOUTH COLLIERIES.—Designs for a cottage ho Sending-in day, December 7.

New Law Courts, Cairo.

The Competitions Committee of the R. are in negotiation with the promoters c Competition in the hope of securing an a ment of the conditions.

Manchester Grammar School.

The President of the Royal Institute of I Architects has nominated Dr. Percy S. W ington, F.R.I.B.A., as assessor in this petition.

Masonic Peace Memorial.

The Grand Lodge of England has decid erect a masonic temple on the Great (street, London, site, at a cost of about £1,00 The competition will be in two stages, an competition from which six architects w selected to take part in a final compe Three assessors will be appointed.

Other Competitions.

For competitions open see our last

FROZEN MUSIC.

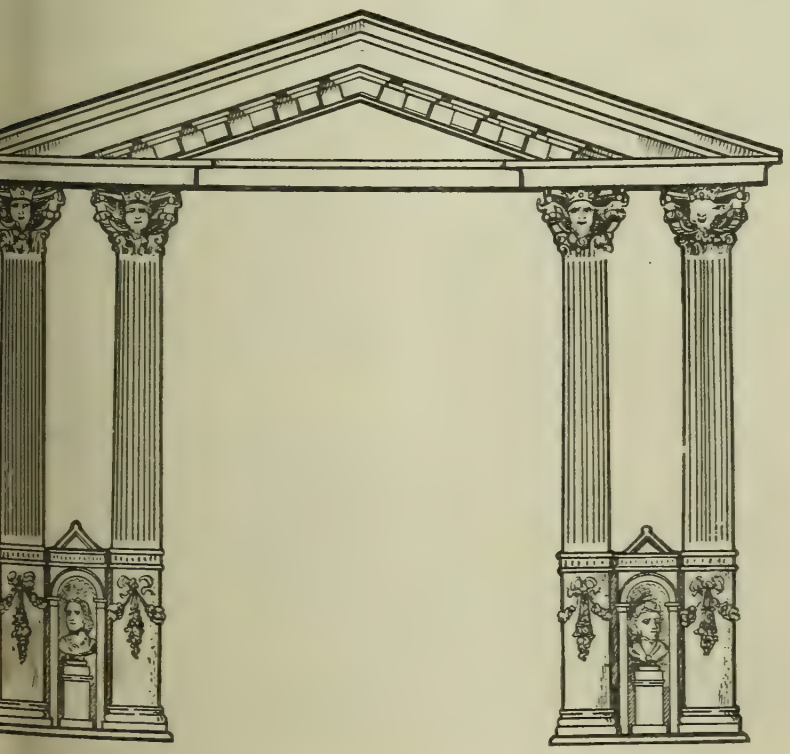
By MANNING ROBERTSON, A.R.I.B.A.

TECTURE has been called "frozen and most people will agree that constant n has invested the saying with some f authority. This being so, it is instruc- nalyse the particular icicle which can l on the programme cover of one of the series of classical concerts to be found orld. What kind of music is it that has zen into the solidity illustrated on this What can have been the origin of a com- such as this? Let us melt it down o music and see what we get—a pseudo- composition, played without a con- by performers who have hardly seen struments before, some playing in , others in B minor, many of them their scores upside down. Such is the ure, read in terms of music, that is set ie public to illustrate in architectural musical treat that is in store. Seeing music thus caricatured on the cover of some of the world's greatest master- splendidly performed, how can we for this amazing discrepancy between d contents? If it is argued that the n the outside means nothing it would e better to leave the page plain. is pictorial blunder we must blame the surrounding the various arts; they like islands, each with a self-contained with difficulty to discern the hazy out- ie others, but unwilling to admit that ie others can exhibit more than a hazy en to its own inhabitants. One does to stress the shortcomings of this par- rogramme cover; indeed, to criticise it ike hitting a deformed baby; the utter r of the design is in perfect keeping with ty of every detail, without one single n. The shafts, for example, are square, and the designer, having that columns are often fluted, thought be a good idea to have flutes here. nany?" he must have asked himself. rer (whatever it was) to this question to compromise by putting ten on the left, eight on the extreme right, eight on le left, and seven on the inside right. Again, take the little beetles, evidently of different ages and sexes, running up towards the flutes. There are eight of them under the ten flutes on the extreme left, six under the eight flutes on the extreme right, eight under the eight flutes on the inside left, and six under the seven flutes on the inside right. Could absolute originality be carried farther? Here there is no convention, neither one beetle per flute, nor even a fixed beetle-flute ratio.

As to the other details: the shafts rest on prodigious tins of Keating's, of different sizes, and we recognise old King Cole in the capitals that support a pediment which has not a fellow in the world. One wonders whether it ever occurs to those who draw such objects to go and look at a pediment, of which there are thousands in London; they would probably say that they had as much right to design a pediment as anyone else, and that if their's was unlike the others, so much the worse for the others. Admittedly the designer of this cover is entitled to do what he likes and as badly as he likes, in the way of drawing pediments, just as I may write down any arrangement of musical notes that may enter into my head; but herein lies the difference—I cannot make him and his abettors listen to my musical compositions (if I could they would hear, and hear often, such a symphony as would at least equal the pediment), but they can, in effect, make me look at their architecture; I, however, can only escape by staying away from the concert, or at least refraining from buying a programme and averting my eyes from that of my neighbour.

The principle of illustrating a piece of architecture on a musical programme, thus making one art assist the other, is excellent, and admittedly this design is in the nature of a compliment. Architecture is called upon to add dignity, and to assist in creating a receptive mood, instead of being, as usually happens, ignored altogether. Music complains of public ignorance and indifference; architecture does the same; and, since charity begins at home, one might hope that these two would at least sympathise with each other in their common distress; but of what use is it for good music to employ a travesty of debased architecture? Not only have those musicians in authority sanctioned this no doubt well-meant effort, but thousands of musicians have accepted it without a protest. If the musician employs this kind of symbolism to prepare his audience for the Choral Symphony, the architect might follow suit and help to instil a sense of mysticism and worship into a congregation by playing a defective comb in Westminster Abbey.

Probably the man who actually perpetrated this portal to harmony had no more knowledge of music than he had of pediments—he may have been merely a lost soul; but the misfortune is that the arts are so little interlinked that an architectural Caliban, which would be rejected by a pavement artist, is still allowed nightly to confront immense audiences as an example of "architecture." The architect's real grievance is not that his own sensitive eyes are outraged, but that at the very time when everything is being done to interest the public in architecture she should be betrayed by her twin sister.



Cover of a Programme of a Musical Entertainment.

THE GARDEN CITY.

THE following is a summary of the seventh of the series of lectures on Town Planning given by Mr. Wm. Haywood, F.R.I.B.A., at Birmingham University:—

Mr. Ebenezer Howard's conception of the modern garden city was in the same class of ideals as Plato's "Republic," St. Augustine's "City of God," More's "Utopia," and such projects for social reformation as those of Andreae and Swift in the seventeenth and eighteenth centuries; and Bellamy, Butler, Morris, and Buckingham in the nineteenth century. It differed from all these, however, in having surmounted the difficulties of practical demonstration; an achievement greatly aided by the pioneer work of Mr. George Cadbury at Bournville and of Lord Leverhulme at Port Sunlight—both of which communities were initiated about 1887-8. The first garden city of Letchworth was inaugurated in 1903.

The term "garden city" had been much misunderstood by the public, which appeared still to be unaware that towns like Letchworth and Welwyn—true "garden cities"—were self-contained and fully independent, standing upon land owned jointly by their citizens (or held in trust for purchase by them at their convenience); that these cities were artificially limited to an ultimate population of between 30,000 and 50,000 inhabitants, and that they were restricted in area by a permanent zone of open country, forming an agricultural belt for the health and mutual convenience of the grower and buyer of market produce. Therefore the term "garden city" stood for a policy rather than for a type of planning—a policy designed to oppose the evils of overcrowding, the exploitation of land values, and the growth of great cities, by substituting fully detached, self-supporting, and healthy communities as satellites of great towns, or as independent cities.

A "garden suburb," unlike a "garden city," was an integral part of a larger community, and, therefore, subject to control by those outside its boundaries. It was also more or less dependent on this larger community for certain social, educational, and occupative facilities; it might be simply a residential or dormitory area for the parent city, as in the case of Hampstead, London; or it might be practically self-supporting, as at Bournville, which, save in the matter of separate administration of the Letchworth type, approached the garden city condition very closely.

A resemblance between the two kinds of town growth described above, which was apt to mislead the public, was the method of planning for houses and roads which was common to both; this method was now common to all town-planning schemes. The special quality distinguishing true garden cities consisted in the adoption of Mr. Ebenezer Howard's policy of administration.

CORRESPONDENCE.

Cambridge Collegiate Buildings Competition.

SIR,—We should like the readers of your paper to understand that we are not in any way associated with Messrs. Holt & Rees, of London, who were competitors in the above.

We have never written to the Press to complain about the assessor's award in any competition we have entered, and we are entirely in sympathy with the opinion expressed in Professor Reilly's letter on this subject.

T. TALIESIN REES.
RICHARD HOLT.

Liverpool.

Charlatans and Pests.

SIR, — With reference to Mr. McArthur Butler's letter, I regret if I have done the Society of Architects an injustice by suggesting that it has done nothing towards securing the work of local authorities for members of the profession.

Mr. Butler states that local authorities were circularised twice. Why was this policy discontinued until the whole of the architectural work had been wrested from the hands of road and sewer men and placed in the hands of architects? Would the doctors of this country be content to rest on their oars if municipal medical work were in the hands of veterinary surgeons and chemists?

At the present time numbers of County and Borough Surveyors, City Engineers, &c., are responsible for the architectural work of education authorities, housing schemes, and numerous other building works. Is the Society content for this architectural work to be lost to the profession?

It may be argued that, when a town has to erect a large building, an architect is employed. In many cases this is so, and a qualified man —designated "temporary architectural assistant"—carries out the work. The surveyor's name appears on the drawings and in the Press reports, and the architect, unhonoured and unsung, receives a month's notice when the contract is completed. Is the Society satisfied that members shall act in this capacity for the benefit of local surveyors?

Again, the medical profession take strong action in any case where municipal posts are advertised at inadequate salaries. Does the Society attempt any action when architectural posts are offered at low rates of pay?

It might appear to the architect in private practice that this municipal work does not affect him. An official architect might appear to be as detrimental to his interests as a Borough Surveyor doing architectural work. I venture to state, however, that once local authorities are convinced that the best results are obtained by engaging architects to carry out their legitimate work, then private individuals will follow suit and a general increase in the number of clients consulting architects will take place.

Why is the architect debarred from competing with the surveyor on equal terms? A member of the Surveyors' Institution may practise as an auctioneer, estate agent and architect. He may also advertise. Is there some secret pact between the Institution and the Society whereby members of the latter are delivered into the hands of the former, bound hand and foot?

With Mr. Butler personally I have no quarrel. I have found him most willing to help members in every way possible, and realise that the present policy of the Society is not necessarily his own. I would ask him, however, to tell members what action (if any) the Society is taking to obtain the whole of the architectural work of the country for architects in general and members of the Society of Architects in particular? If no attempt is being made to do this, then, in my opinion, the Society fails in its duty to its members and cannot expect to hold its own with other professional bodies.

C. F. OVERY, M.S.A.

Housing and the Labour Party.

SIR,—I have read with care the article in your recent issue, wherein you castigate the policy of the political Labour Party in the matter of Housing. It is a debatable question whether it is the function of the professional and trade Press to deal with such matters from the political as opposed to the technical standpoint. As, however, the precedent has been set, and is being widely followed, perhaps you will, of your courtesy, allow me a little space for the expression of a contrary view.

So far as I can gather, the main objection you cherish to a State scheme as opposed to a private enterprise, is based upon the assumption that the former is necessarily wasteful as compared with the latter. We may agree that in the pre-war days it was possible for the private speculator to erect working-class houses and to let them at a figure at once within the means of the tenant, and yielding a reasonable return to himself. Be this as it may, the conditions to-day are, as you admit, entirely different, and in the opinion of many of us the National or State Scheme offers the only practical solution of a problem of terrible urgency.

You make much of the wastefulness of the war period, and argue on the assumption that similar wastefulness must be an inevitable condition of all public enterprise. May I, as an architect who has been a soldier, suggest that "blackmail" is a rather better word than "waste" in this connection? While a vast number of our men were risking their lives, health and worldly fortune, others in the security of the homeland availed themselves of an exceptional opportunity created by the state of war to feather their own nests. It is true, unfortunately, that the Governments of those days made many bad bargains to the disadvantage of the public purse, but, Sir, bargaining takes time, and, with lives in the balance, certain persons were able to demand and receive payments for their supplies which bore no just proportion to real value, and which, as compared with the fighting man's pittance, amounted to a gross scandal. Do you really think that a Labour Government would permit these persons and others of their ilk to repeat their performance in times of peace? You refer to the Addison scheme, which, although damning it with faint praise, you admit to have set a high standard. You are greatly upset on account of the ever-expanding cost of such schemes, but you do not explain the causes of such expansion. Well, Dr. Addison has been thinking; he has realised the cause of the increasing cost, and has been led to feel like many another man of education and vision, that the Labour Party's policy is the right one, and has associated himself therewith.

I suggest, Sir, that it is high time the nation realised that the men who most need the houses, and the work of building them, are for the greater part those who in the dark days gave themselves in service to her. To-day it is up to England to honour herself by making some real attempt, as a nation, to redeem her many promises.

Money is short, we know, but a debt of honour is a first charge. This is not primarily a matter of £ s. d.; it is, or should be, a first charge upon our corporate conscience.

Surely England has a soul.

F. R. I. B. A.

London.

[*** Our article dealt entirely with the manifesto of the *Independent* Labour Party, which is quite distinct from the Labour proper, and it was not intended as a cast of that or any party. We deprecated, over, taking political sides, and said t men of good will should do their best to the success in any scheme that for the tim was the policy of the Government in In speaking of waste at the Ministry of tions, we were not so much referring honesty or to bad bargains, but to the tape," or, in more polite language, cedure" which seems to be necessary Government department.—ED.]

Standard Method of Measurement.

SIR,—In reference to the letter of "(ties" on page 831 of *The Builder* I point out that the dimensions as given only to "granite"; if for any other the beds and joints should be measu "*half* beds or joints," if booked as the ex

Guildford. WILFRID L. EVERS

Architecture and Ancillary Arts.

SIR,—Please grant me space to say reference to the resolution passed unani by the late Council of the R.I.B.A. th Institute, in principle, should hold an exhibition of arts ancillary to archit that it is noticed that nothing has ye actually done.

What is asked of the powers that no reasonably prompt performance. The q at issue is a plain one: Is the profession official encouragement and support t workmanship and thereby fulfil the te its Royal Charter and render a national s or is it not? Upon their decision and en action on so vital a matter will be re whether the Council now ruling is a su of architecture proper or its mask.

It is quite unnecessary to appoint committees and sub-committees, which w confuse the simple issue and give endless tunities for quibbling and hole-picking. have a very simple scheme before them, in —according to careful calculations—less diture per annum than a very junior c

We await a definite pronouncement w usual respectful patience, but with the re that this is a very serious matter and one will be pursued with determination. Bo public and the public press are already a the importance of this movement, a looking to the Institute for guidance.

W. W. SCOTT-MONCRI

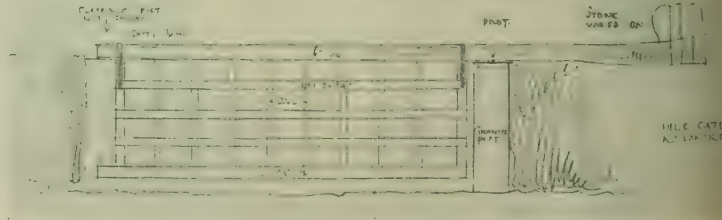
Field Gates.

SIR,—The recent letters and illustrat *The Builder* have been very interesting, thought you might care to make use enclosed drawing I made when at Landr 1918. It was measured and drawn on th and is different in some respects fro mentioned by your correspondents; he will see that the lattice portion is secure iron strap to the top. In the case I s gate opened into the field and the butt the tree swung out over the greensw clapping post stopping and securing the ot of the gate.

Norwich. STANLEY J. WEA

Architects and Advertising.

A letter on "Architects and Adver is given on p. 889.



THE TOWN-PLANNING EXHIBITION AT OLYMPIA.

By W. R. DAVIDGE.

MPIA is a place of vast spaces and ally so now that the new additions to the ng have been completed. The whole of allery of the new portion was given up Town-Planning Exhibition, but, even so, not easy to find one's way to one or the of the stairs giving access to the galleries the Exhibition was on view. Once though, it was evident that the pilgrimage vell worth while. The Exhibition was ily one of the best got together in recent and the material collected was for the part of essentially practical character, h one missed, perhaps, the huge pictorial ns which were such a feature of the first Planning Exhibition on the walls of the Academy in 1910. Much practical work, od work, has been done in the last thirteen n the direction of town planning. Arterial and road widenings have gone ahead all the country. Practical object lessons d everywhere, so perhaps there is less o appeal to the poster artist than formerly. ombination of colour and form in the tation of large maps and diagrams is subject better understood on the Continent e United States than it is in this country. ractical work, though, which has been nd is being done in the matter of town ng the world over speaks for itself, and xhibition at Olympia was but another that a world-wide movement of this tude gathers momentum as it goes.

n planning, after all, is essentially a on-sense problem and the problem of roads is essentially a branch of town ng. Hence, one can well understand how an important body as the Commercial Manufacturers came to give up so large an area of its Exhibition to the subject of town planning. The arrangement of this section of the Exhibition was in the capable hands of Major Hardy Syms, F.S.I., and his committee, and he was no doubt largely influenced in his scheme of arrangement by the interesting Town-Planning Exhibition which took place in Manchester last year. The great difference, though, between the two exhibitions was that at Manchester entry was free to all the citizens, young and old, who thronged the Town Hall daily; while at Olympia, from the nature of things, entrance was by ticket only and very largely confined to the invited few, though there was a large sprinkling of municipal engineers and others whose work brings them into touch with the problem of town planning. The *pièce de résistance* of the whole Exhibition was undoubtedly the great floor model, prepared by Professor Adshead and his students, showing one-eleventh full size the Brentford By-pass Road (the Great West Road). The professional model-makers will have to look to their laurels.

In the section dealing with civic survey as a preliminary to town planning proper, the value of aeroplane photographs is becoming clearly apparent and the time is undoubtedly approaching when every town will possess its periodical photographic record, showing pictorially and graphically the development of the city. Civic survey diagrams will be even more attractive than they are when they appear as actual photographic records of the town itself. The diagrams of New York, showing the density of population at various dates, proved the steady outward trend of industrial and commercial development, pushing out before it, like a glacier with its moraines, the congested areas where the poorer workers live. The city of Bradford had a fine series of maps showing present conditions and the way in which improvements are being steadily effected, despite difficult conditions as to topography and overcrowded humanity. The interesting little survey of Newbury went back to the beginning of things, and it is well in all towns to realise the reasons which brought the town at first to its present locality, and secondly, the reasons which have kept it there and are keeping it going to-day.

Mr. Pepler's interesting diagram showing the extent of town-planning schemes and regional-planning schemes all over the country showed what widely varied towns and regions are at present hard at work on town planning all over the country, and lends point to the recent suggestion of the R.I.B.A. to all its members that architects, of all people, should be taking a hand in this great movement which is going on everywhere. The diagrams showing the system of notation adopted by the Ministry of Health will help to standardise the colours and method of presentation of plans for the approval of the Ministry, but if insisted on too closely may eventually be found to stereotype the planning as well as the plans.

Birmingham and Manchester both prepared a useful series of maps showing the present utilisation of the surface in the neighbourhood of the city, and Cardiff made use of aerial photographs to very good purpose.

Even distant Lucknow made use of the aerial survey to indicate the comparative densities, and here we had an example, rare in Western lands, of a large city partly fallen into decay, largely through the loss of its position after the Mutiny as the capital of the kingdom of Oudh. Of foreign cities Vienna and Paris showed interesting examples of civic survey work. In the illustrations of schemes under the Town-Planning Acts, ranging from Leicester to Glasgow, there were many points worthy of note, though the Ordnance Sheet itself did not convey all the facts to the eye of the passer-by.

The Southgate Town-Planning Scheme was



Rotherham Region: Portion of Contour Model.



Bombay : Model of Back Bay Reclamations.

particularly interesting as an example of suburban development, in which the most was made of parks and open spaces. A contour model, however, even to the technical eye, is a very great help to a rapid grasp of the three dimensions that actually have to be dealt with on the site. The model prepared for the Rotherham Regional Planning Committee, of which an illustration is given, proved particularly useful in solving many of the problems, and such a model amply justifies the moderate outlay involved. The foreign examples from the larger cities of the Continent were one and all prepared in the pictorial style and excellently presented, the outstanding examples being those exhibited by the cities of Zurich, Breslau and Stockholm, and the Dutch city of Ysselmonde.

In all these, the massing of the colours on the town and its surrounding park lands re in a most pleasing result. The large model of Gothenburg, Sweden, showed could be done with the assistance of a p model in aiding the eye to take in di topographical problems. The blue wate the brown roofs formed a fascinating *coup* of the city of Gothenburg.

Professor Adshead's plan for Plymouth also a good example of colour, the blue c sea being reminiscent of the old maps o walls of the Vatican. Mr. Barry Pa model of Oporto, too, was an example of a model should be.

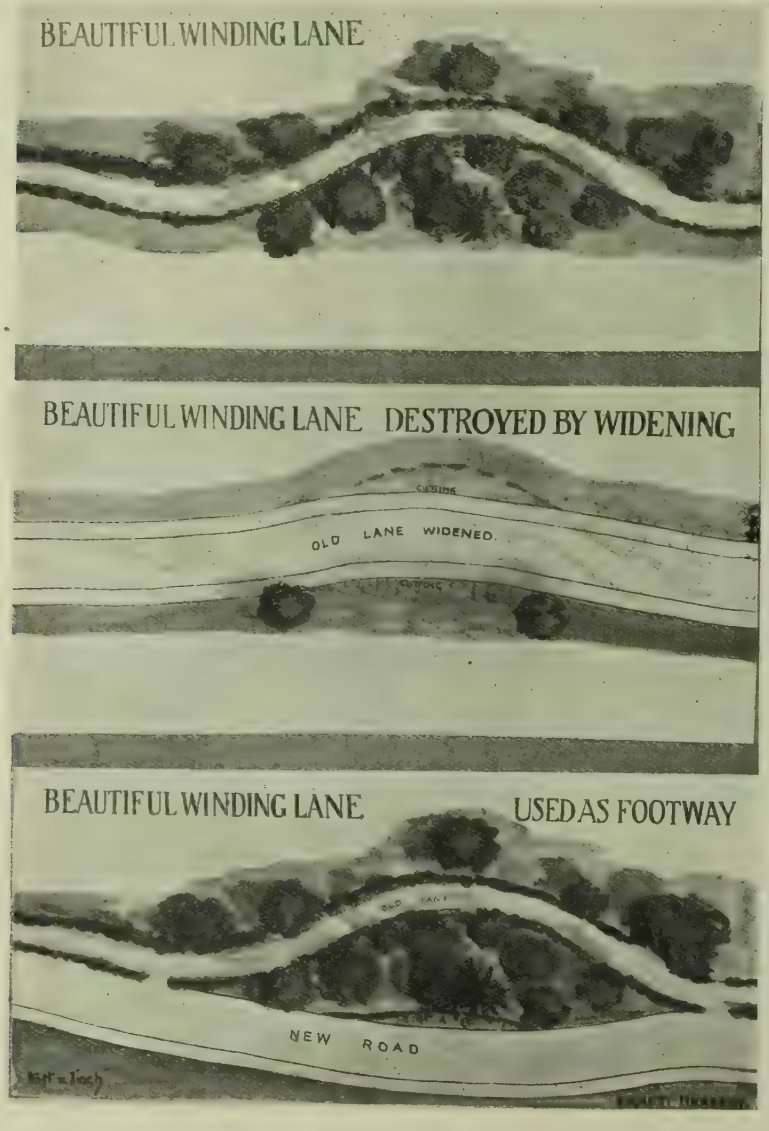
In Eastern cities the plans of Jerusalem Alexandria showed that the modern wa city improvement had reached even ancient cities, and both of these were str to emulate the Western cities in foresigh the future.

There are cases where one feels that the stones of these old cities are too precious touched, and in the case of Jerusalem, at rate, we may well hope that it will be ma long year before such sacred spots as the M of Olives are touched by the town pla Of modern cities in the East, none is develo more rapidly than Bombay. The great being carried out by the Bombay Develop Department was well illustrated by the r of the Back Bay reclamation works at pr in progress.

Under the head of Road Forms, cross sec of new streets showed what Manchester Birmingham, Leeds and Glasgow were d and in this section, too, the Ministry of T port showed in the London and Southend what great advantage an aeroplane survey give in expeditious working. In this cas the aid of aerial photographs, a great sc of relief work was put in hand weeks, i months, before it could have been read any other means.

The parking of motor cars in public street garages in all our great cities is a subject w will require a great deal of thought and atte and the students, both of the A.A. and London University Atelier, are to be cong lated on the way in which they have ta this new problem. The schools have be friendly rivalry in suggesting the lines on w wholesale accommodation can be provided the thousands of motors which are coming are now almost on top of us. The cars s into the huge garage, unload at the wa platform, and then proceed to park diago within easy call when required. Several o schemes illustrated showed great skill in planning and arrangement of these huge gar and the sketch elevations showed that even something new in the elevations of our streets was distinctly possible.

If ever, and whenever, aerial traffic bec general we shall completely revise all ideas of what a town ought to be. W the lifetime of the present generation will inevitably be vast changes.



Sketch showing necessity for preservation of trees on Arterial Roads.
By MR. ERNEST HERBERT.



Bombay—Portion of Model.

such a prospect, the preservation of the urches and their spires takes on an even nperative aspect.

l filling stations are becoming a wayside long the outlets from most of our large and it is to the credit of the various oil ies that these are in many cases very both in their design and layout. With e changes in our towns and in our sides the necessity for rigidly excluding sary advertisements and at the same eserving our beautiful country lanes and daily more apparent. A very telling by Mr. Herbert showed the wayside f trees, and what only too often happens nen the new arterial road comes along. nedy, though, is clear, and it cannot be ongly emphasised that trees once cut annot be replaced in the lifetime of this on.

have even now at least one Com- hard at work for the preservation ide greens and trees along such roads as ghton-road, and tree conservation is national service in more ways than one. ork of the London Society was well illus- at Olympia by a fine series of maps; y the most interesting and of most interest being the zoning maps of the Metropolitan boroughs, showing the of the industries and residential quarters. ese maps, one fact that emerged most was the enormous number and area of upied by public institutions in our slum . It looked from these maps quite clear vould be cheaper to the community, as a o have more open space for everybody, plenty of fresh air for healthy life vention of disease and crime, and avoid essity for curative institutions and of every description.

Herbert's ingenious model of Charing ridge has already been illustrated, and me is one which, in the light of events, nd to take even more definite shape ear future.

the section dealing with City develop- number of Scandinavian towns, par- in Sweden, showed what could be done enlightened public authority. Housing were illustrated by the L.C.C. estates ntree and Bellingham and elsewhere, as number of provincial housing schemes. Alwyn Lloyd's picturesque housing in South Wales were among the most ng of those exhibited. The Garden d Town-Planning Association also had esting series of plans, showing the of the garden city idea, or rather of self-contained towns as opposed to the extending our overgrown existing towns. w American city plans were given, phia being a typical example. r the chessboard plan has been adopted, he entire effort of all subsequent town- has perforce to be directed to the pro- one or more diagonal roads or avenues, n one appreciates the cost of such a e as that involved in the construction Fairmount Parkway, in Philadelphia, ises that one such "improvement" t as much as one generation can The checker-board plan is all right for the first small area, but when the city gets above a certain size, it costs in hard cash a good deal more than it is worth. Interesting French examples of town planning were shown from Belfort and St. Raphael, as well as the extension of the city of Paris and the reconstruction of Reims; but one may well quibble at the arrangement of an exhibition that puts under the head of *La Renaissance des Cités*, such diverse subjects as Birmingham—scheme for congested area; and Bath—aerial photograph of Royal-crescent.

Mr. Mawson exhibited a number of magnificently produced plans, one of the most attractive being his plan and perspective of the suggested developments for Blackpool, as well as a large number of parks and playgrounds.

Mr. Jas. Thomson's plans for Dundee, too, were examples of what an enlightened city can do under efficient leadership.

A number of regional planning schemes were shown, and it is satisfactory to note that at present there are no less than eighteen of these regional committees at work in various parts of the country. If they are to do real work, though, it will be necessary to see that they are put upon a statutory basis and not left merely as advisory bodies to their constituent councils. Power to act and act promptly in the public interest is essential. and it is not too much to say that the whole development of the country in the next twenty years or so will depend upon the boldness of the conception of our present regional and town planners.

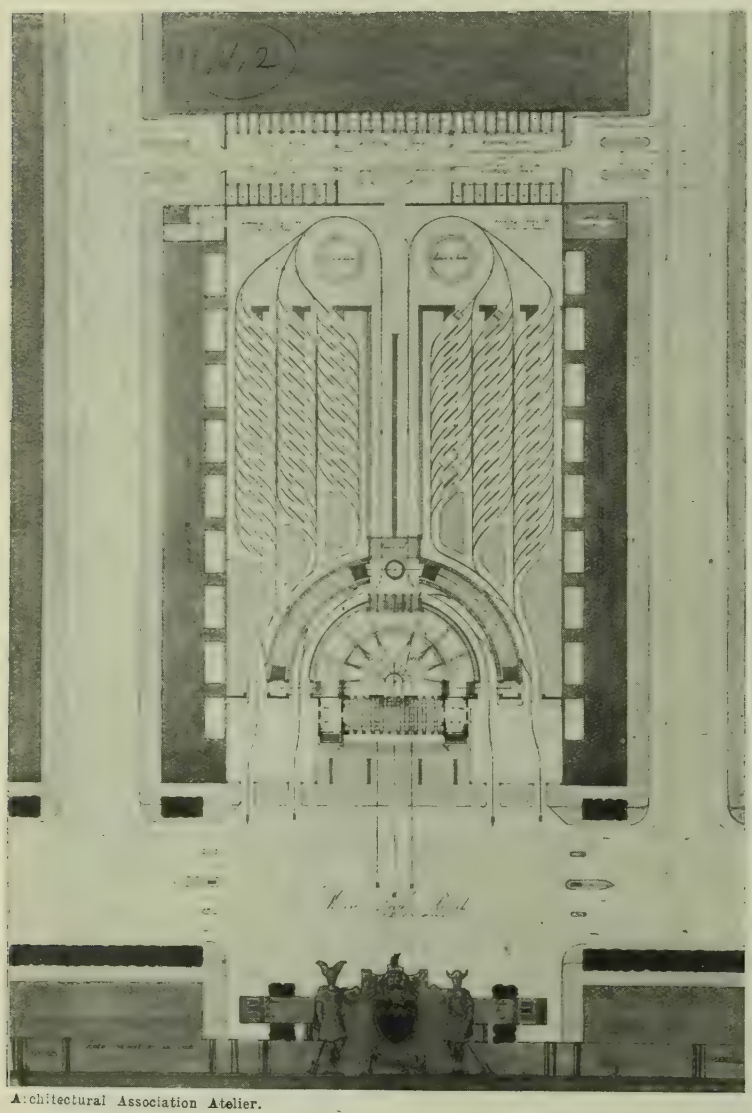


Great West Road—Suggestion for junction with Chiswick High Road.

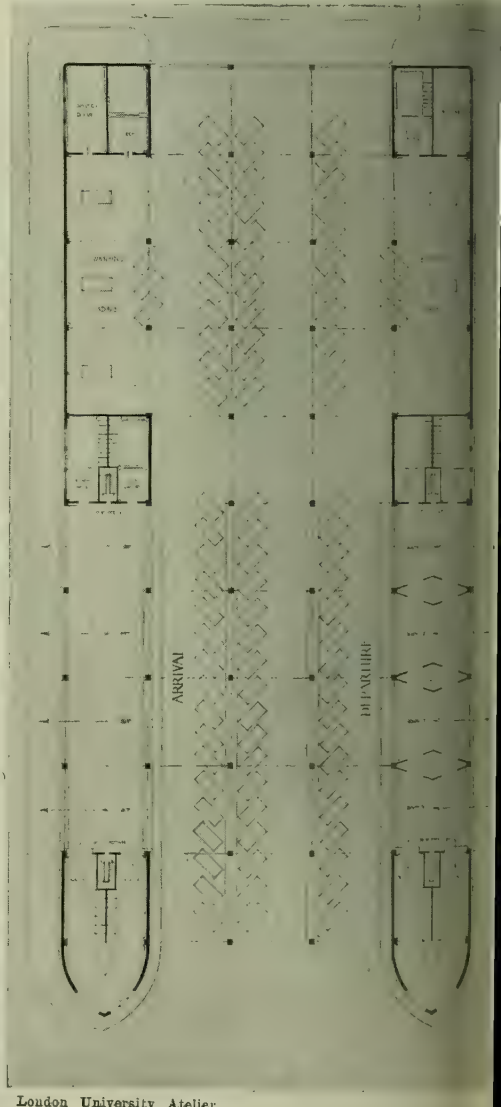


A MOTOR CHARABANC STATION FOR ONE HUNDRED CARS: ELEVATION FACING RAILWAY TERMINUS STATION. LONDON UNIVERSITY ATELIER. MALET ST.

London University Atelier.



Architectural Association Atelier.



London University Atelier.

Designs for a Motor-Car or Char-a-Banc Depot for a Large Town.

From the Town Planning Exhibition at Olympia (*See p.* 877.)

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ILLUSTRATIONS.

Architectural Sketches.

It has from time to time been assumed that the camera is responsible for a general decline in architectural draughtsmanship; a decline both in quality and in quantity. And there may, indeed, be some ground for such an assumption. The camera, for example, has well-nigh supplanted the pen and the pencil as a medium for illustrating buildings in books and journals. The camera is one of those appliances which, like the railway, the motor-car, the aeroplane, the telephone, or the broadcaster, lengthens life by enabling more to be achieved in a given time, and as we, therefore, cannot neglect it, it behoves us to use it to the best advantage; but however employed, it cannot wholly supplant the practise of architectural draughtsmanship except to the ultimate detriment of architecture.

First, the camera cannot give that accurate record of an existing building which is only to be obtained from the measured record, and, second, the camera cannot enable the student to *learn* great buildings, for this process needs prolonged personal contact and contemplation, such as is obtained only by sketching and measuring.

To those who imagine that there is a decline in the quality of contemporary architectural draughtsmanship, we would recommend the first part of the new volume of "The Architectural Sketch Book."* We are particularly glad to see the inclusion of so many Gothic examples. It shows that there are still young men who rise superior to any prevailing fashion to despise what is perhaps the grandest mode of vernacular building; it shows, too, that study and intimacy with the building is considered of greater importance than the production of drawings for, time for time and labour for labour, a great many sheets of classic detail could be exchanged for the one beautiful drawing of the screen at Southwold Church, by Mr. Philip Hepworth, or for the three sheets of Elgin Cathedral, by Mr. Gordon Holt.

The number of contributors to the sketch book is small, and most of the drawings are the work of three or four men. Considering that this is the first appearance of the publication since the war, the choice of material must have been unusually great; it would, therefore, seem to be unfortunate that the collection of plates is not more representative of the Architectural Association. Geographically there is a wide range covering England, Scotland, France, Italy and Belgium. Let us hope that a greater selection of names will appear in the second instalment of the book, while still maintaining that same high quality of work which has distinguished the sketch book since its inception in 1867.

*"The Architectural Sketch Book." Volume 1923. Part I. Edited and published by the Architectural Association, 34–35, Bedford-square, W.C.1.

British Officers' Quarters, Meerut, India.

This building has been erected in Meerut for the accommodation of single officers. The scheme consists of two blocks of single-story buildings similar to the illustration; each block provides eight quarters, comprising bed-sitting-room, dressing-room, and bathrooms, with small stores for each quarter in the end verandah.

The total cost of the two blocks amounted to Rs. 189,351 (£12,623). It was found that the cost of the building was reduced by constructing two single-story blocks, instead of one double-story block.

The design for the building was prepared by Mr. B. Matthews, F.R.I.B.A., Consulting Architect for Military Works in India.

Officers' Hostel, Lahore, India.

This hostel has recently been erected for the accommodation of British officers and their families stationed at Lahore. It comprises thirty-two unit suites of rooms each containing bedroom, dressing room and bath room. The quarters are built in two double-story blocks on each side of the public rooms as shown on the block plan. The walls are constructed of brick, which is plastered externally on the first floor. The main and verandah roofs are covered with Allahabad pattern tiling. Electric lights and fans have been fitted in all rooms.

The architect is Mr. B. Matthews, F.R.I.B.A.

MEETINGS.

TUESDAY, *December* 11.

British Society of Master Glass-Painters.—Dr. M. R. James on "Eton Wall Paintings." At the Victoria and Albert Museum. 3.30 p.m.

WEDNESDAY, *December* 12.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Origin and Evolution of the Corinthian Order: Examples." 6 p.m.

Royal Society of Arts.—Sir Frank Baines on "Preservation of Historic Buildings." 8 p.m.

THURSDAY, *December* 13.

London Master Builders' Association.—Annual Dinner. At Hotel Victoria, W.C. 6.30 p.m.

Architectural Association.—Conversazione. At 34, Bedford-square, W.C. 1. 8 p.m.

Edinburgh Architectural Association.—Mr. J. Purves on "Arnolfo di Cambio and the Earlier (pre-Renaissance) Architecture." 8 p.m.

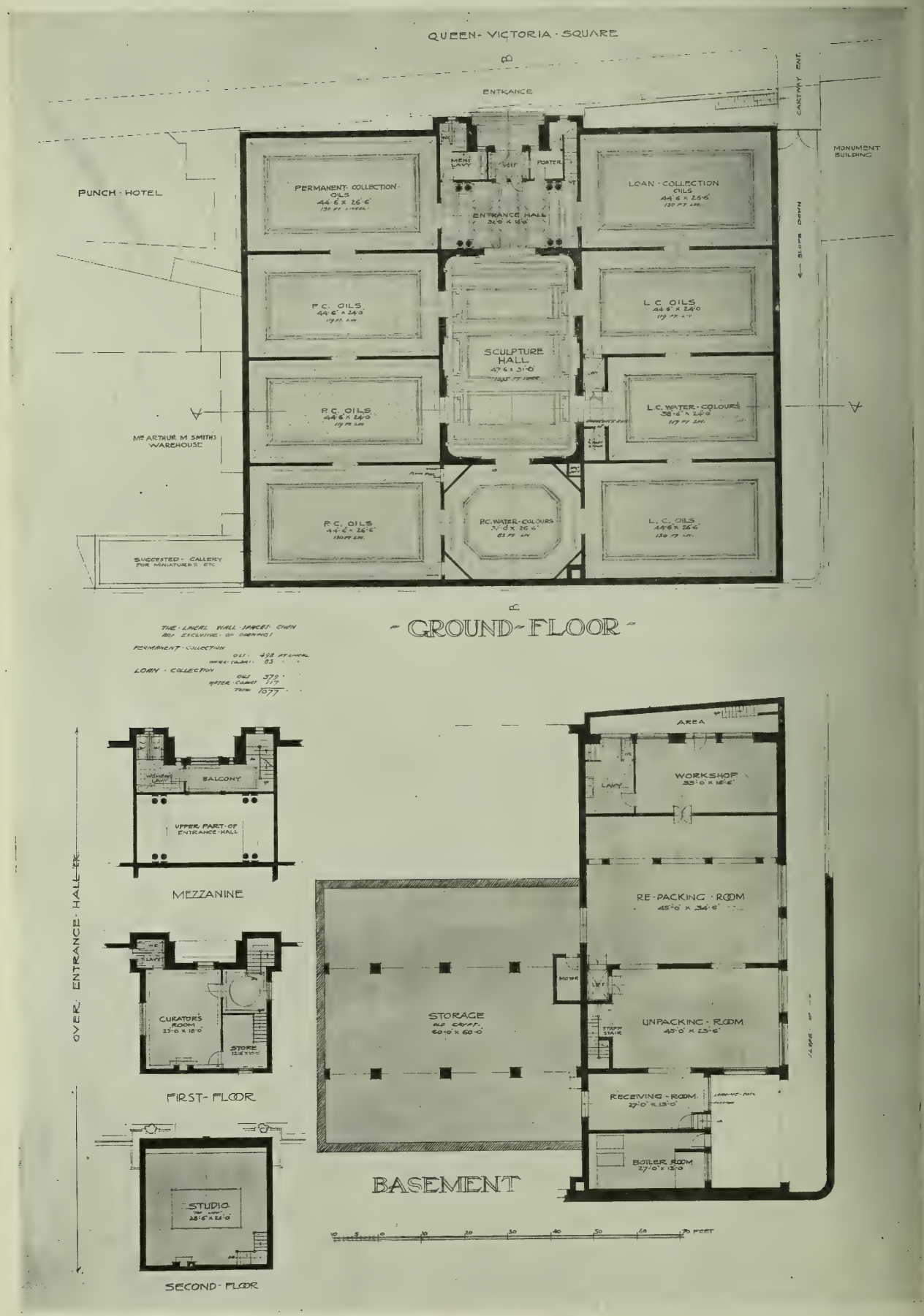
Society of Antiquaries.—Mr. R. G. Collingwood on "Roman Milestones in Cornwall." 8.30 p.m.

Incorporated Institute of British Decorators.—Mr. J. H. Sexton on "Fresco Painting." At Painters' Hall, E.C. 4. 7.30 p.m.



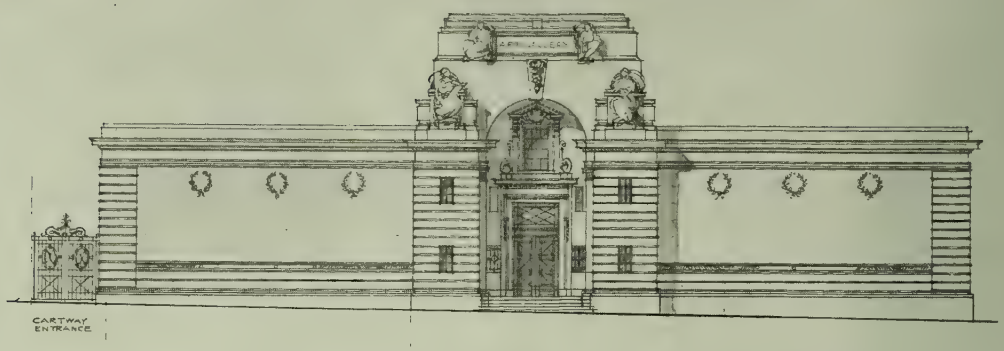
War Memorial, Lahore.—MR. B. MATTHEWS, F.R.I.B.A.

[This memorial has been erected to the memory of officers and men of the Royal Sussex Regiment who were killed in action in India. The materials are Agra stone, with white marble for the inscriptions.]

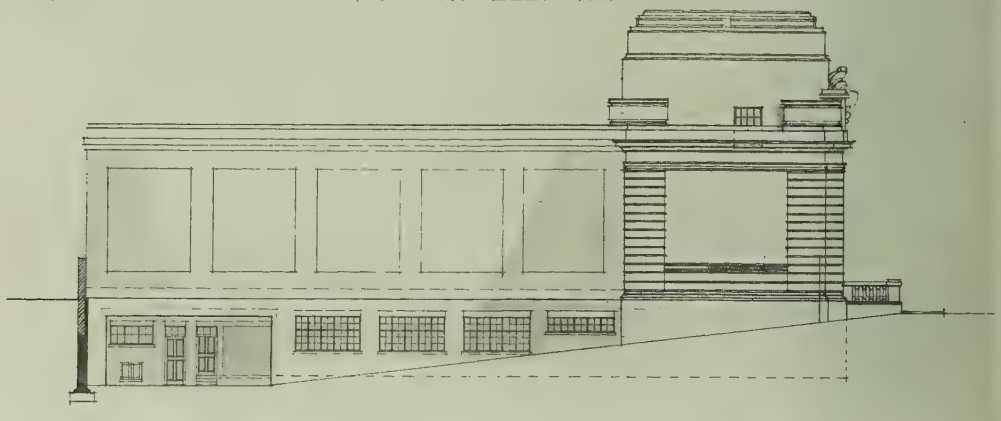


Hull Art Gallery Competition.

Design placed second: By MESSRS. J. S. GIBSON & GORDON, FF.R.I.B.A.

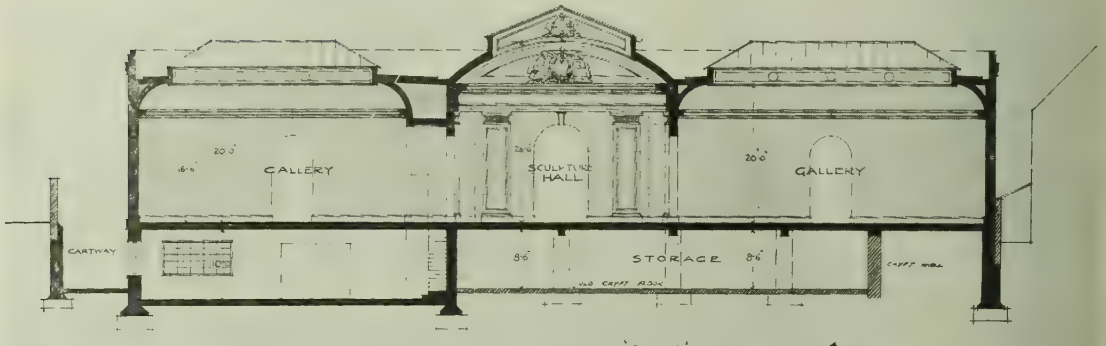


·NORTH · ELEVATION·

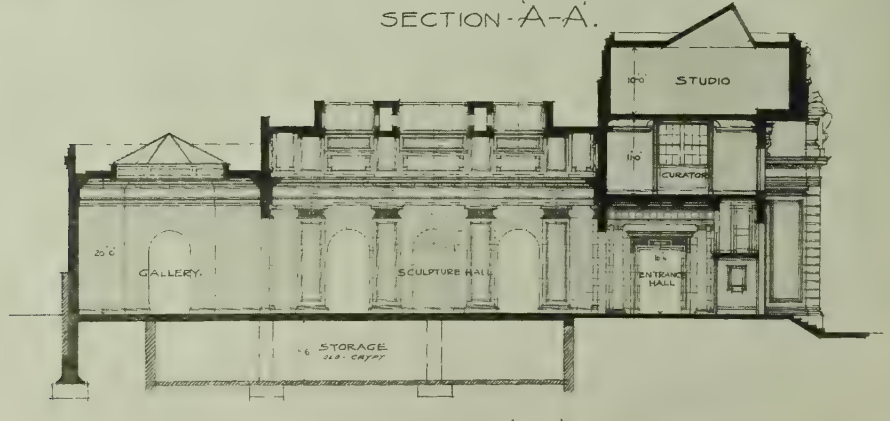


· EAST · ELEVATION ·

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SECTION · A-A.



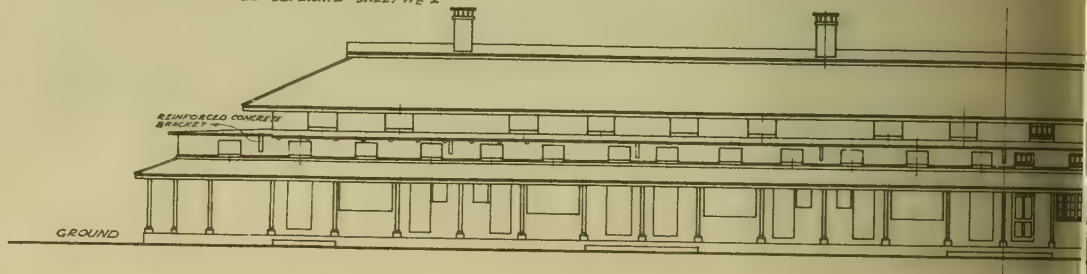
SECTION · B-B

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Design placed second: By Messrs. J. S. Gibson & Gordon, FF.R.I.B.A.



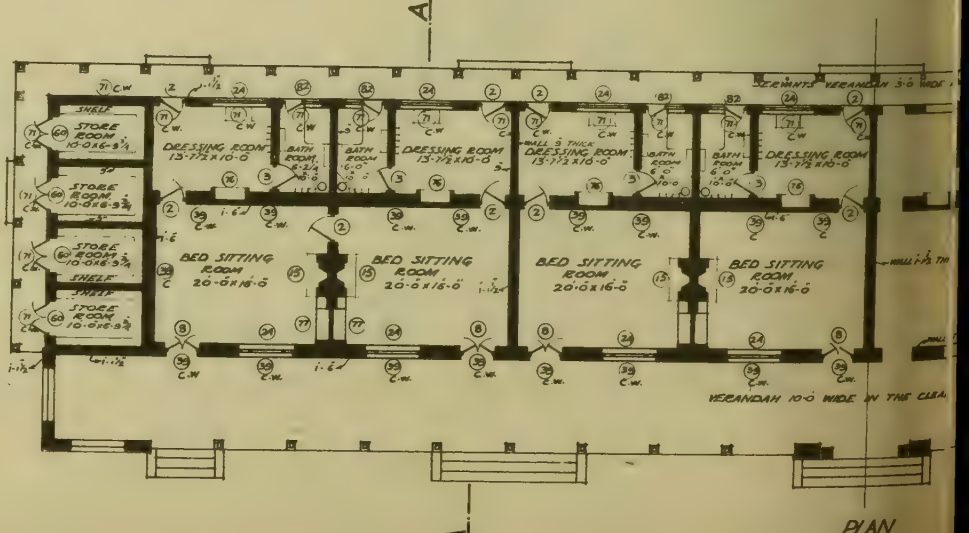
NOTE:—
FOR HALF INCH DETAILS OF THE QUARTERS SEE SEPERATE SHEET Nº 2



BACK ELEVATION

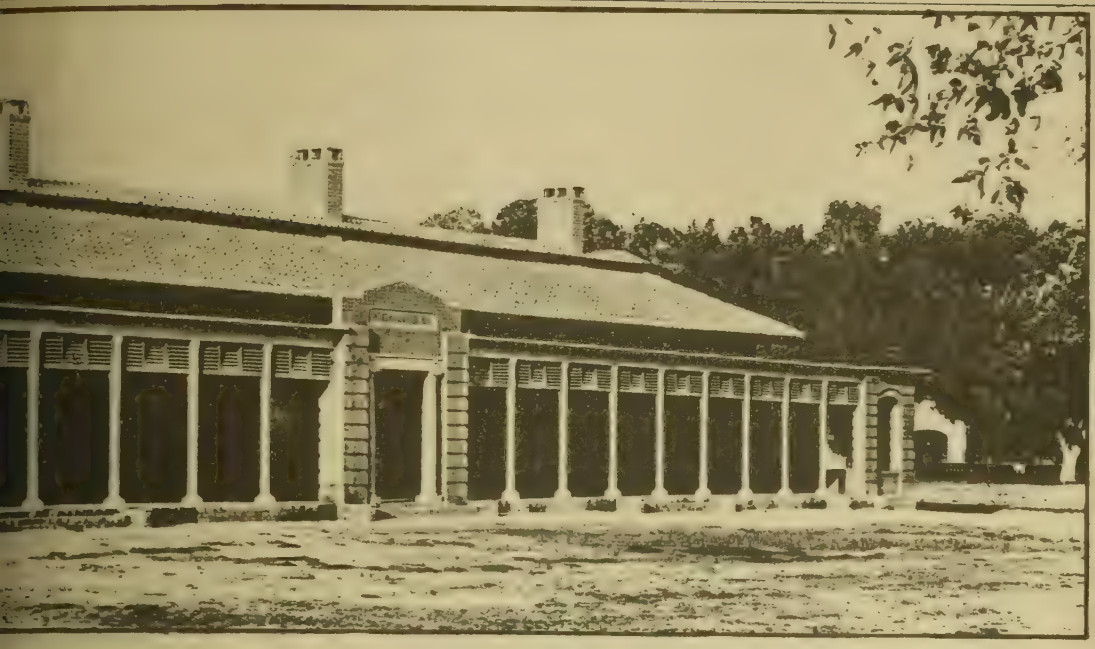


FRONT ELEVATION



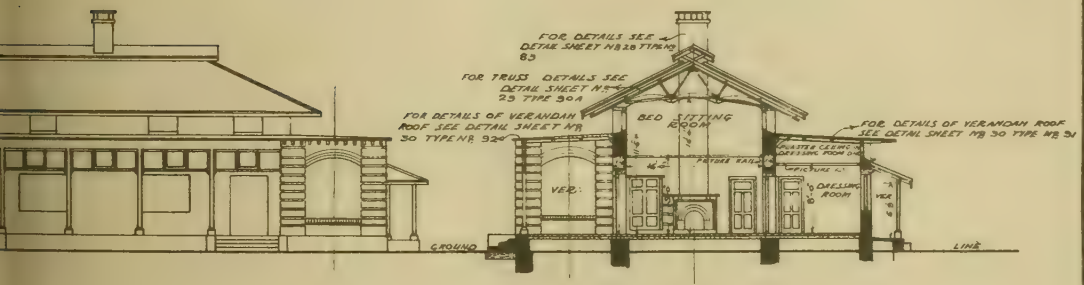
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D.B Nº 2063
DATED 13-7-1922
Drawn by S Lall
Traced by O.D. Ahmed
Checked by O. A MANDE

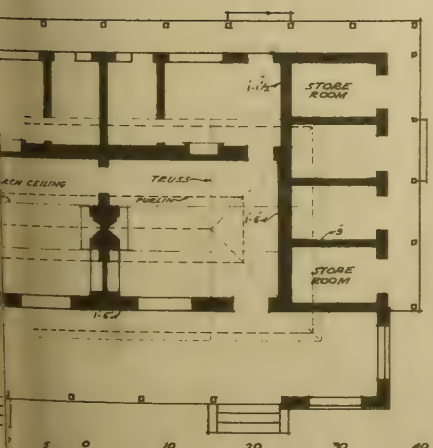




SIDE ELEVATION



SECTION A.A.



NOTES.-

1. FOR DOORS	TYPES Nos	2 & 3	SEE	DETAIL	SHEET	NO	1
2. "	"	"	8	"	"	"	2
3. "	"	"	60	"	"	"	21
4. "	"	"	82	"	"	"	27
5. " WINDOW	"	"	24	"	"	"	7
6. " CLERE STORY WINDOW			39	"	"	"	13
7. "	"	"	71	"	"	"	23
8. " CUPBOARD	TYPES Nos	76 & 77	"	"	"	"	25
9. " FIREPLACES	"	"	15	"	"	"	4
10. " CHIMNEY STACK	"	"	83	"	"	"	28

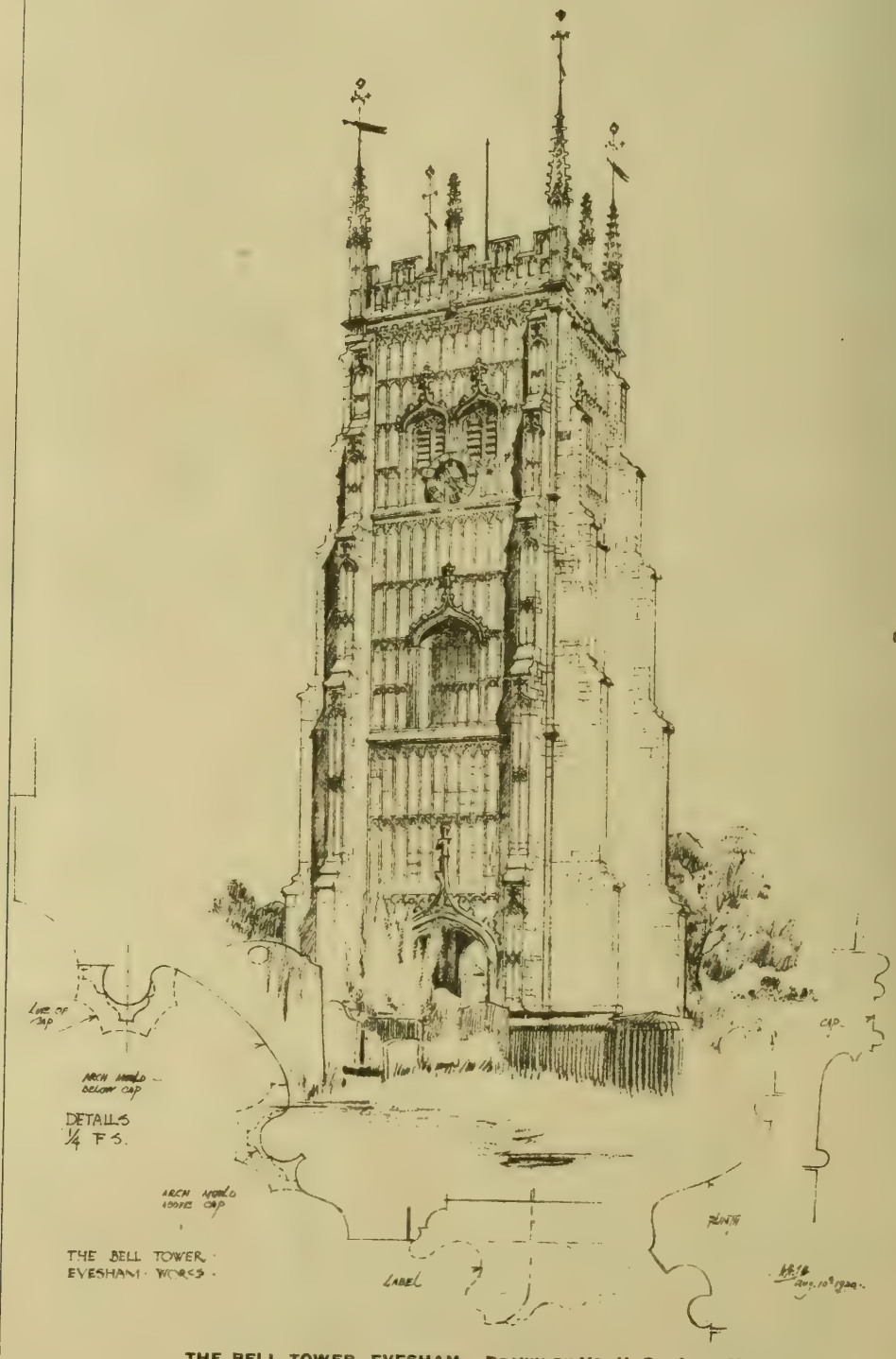
11. " REINFORCED CONCRETE VERANDAH TYPES Nos 31 & 32 SEE DETAIL SHEET NO. 30

12. FOR ROOF TRUSS TYPE NO 30A SEE DETAIL SHEET NO 29

13 WINDOW TYPE NO 24 TO OPEN OUTWARDS (FOR DRESSING ROOMS ONLY)

B. MATTHEWS, F.R.I.B.A.
CONSULTING ARCHITECT
MILITARY WORKS

5 0 10 20 30 40 50 60 70 80 90 100 Feet



THE BELL TOWER, EVESHAM. DRAWN BY MR. H. ST. JOHN HARRISON.



THE ODDFELL

MEASURED

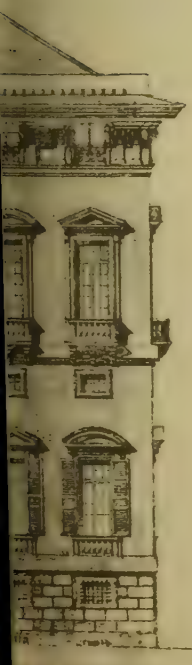


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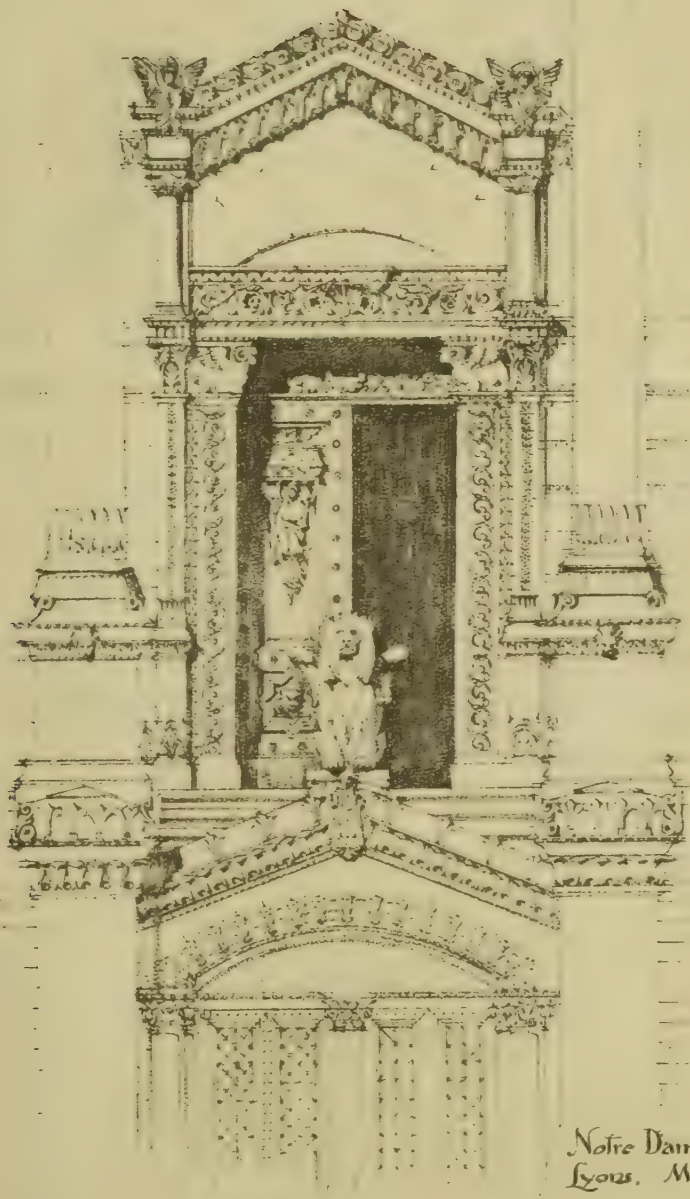
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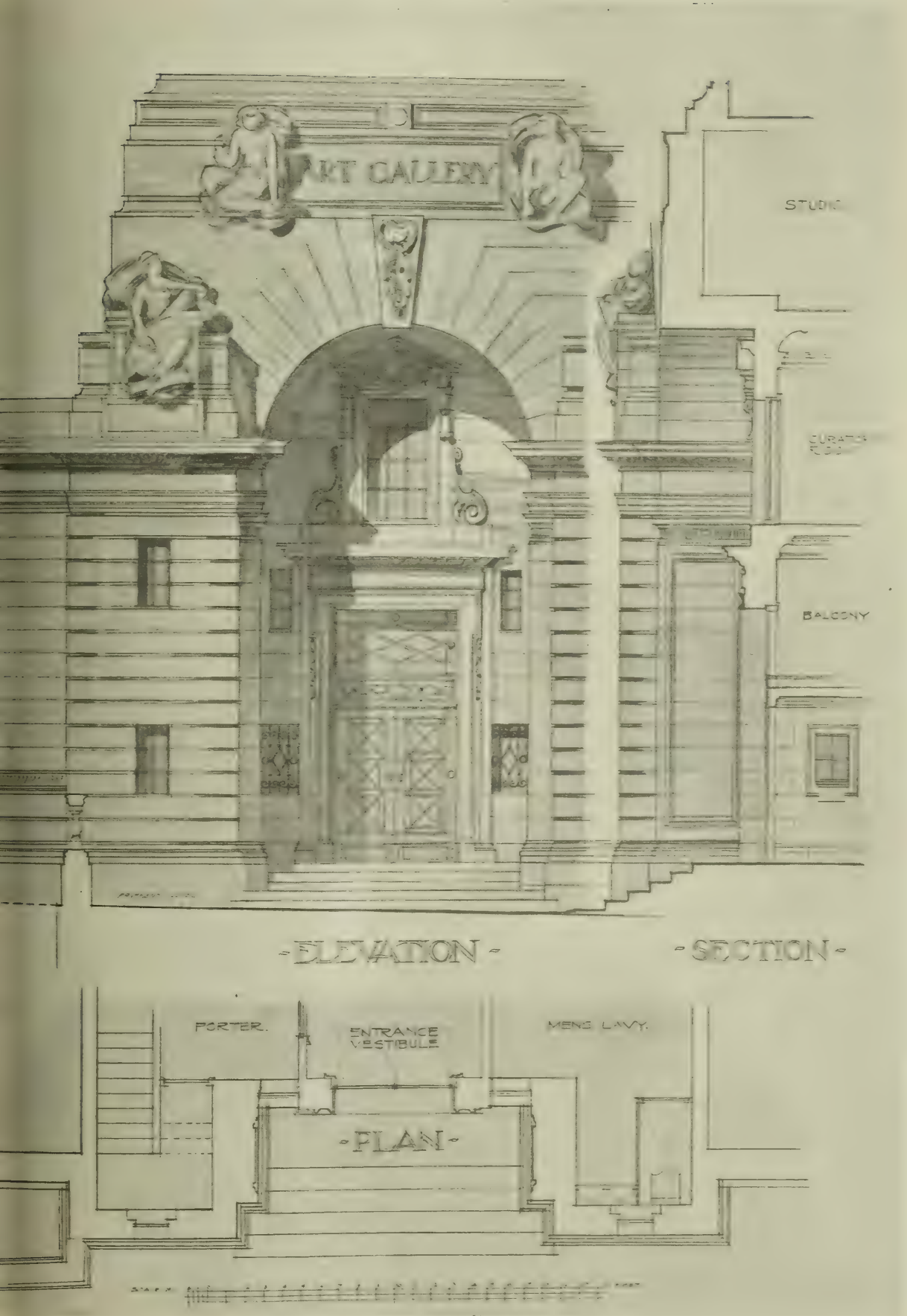
IP D. HEPWORTH.



Notre Dame de Fourvière
Lyons. Main door.

DRAWN BY MR. PHILIP D. HEPWORTH.

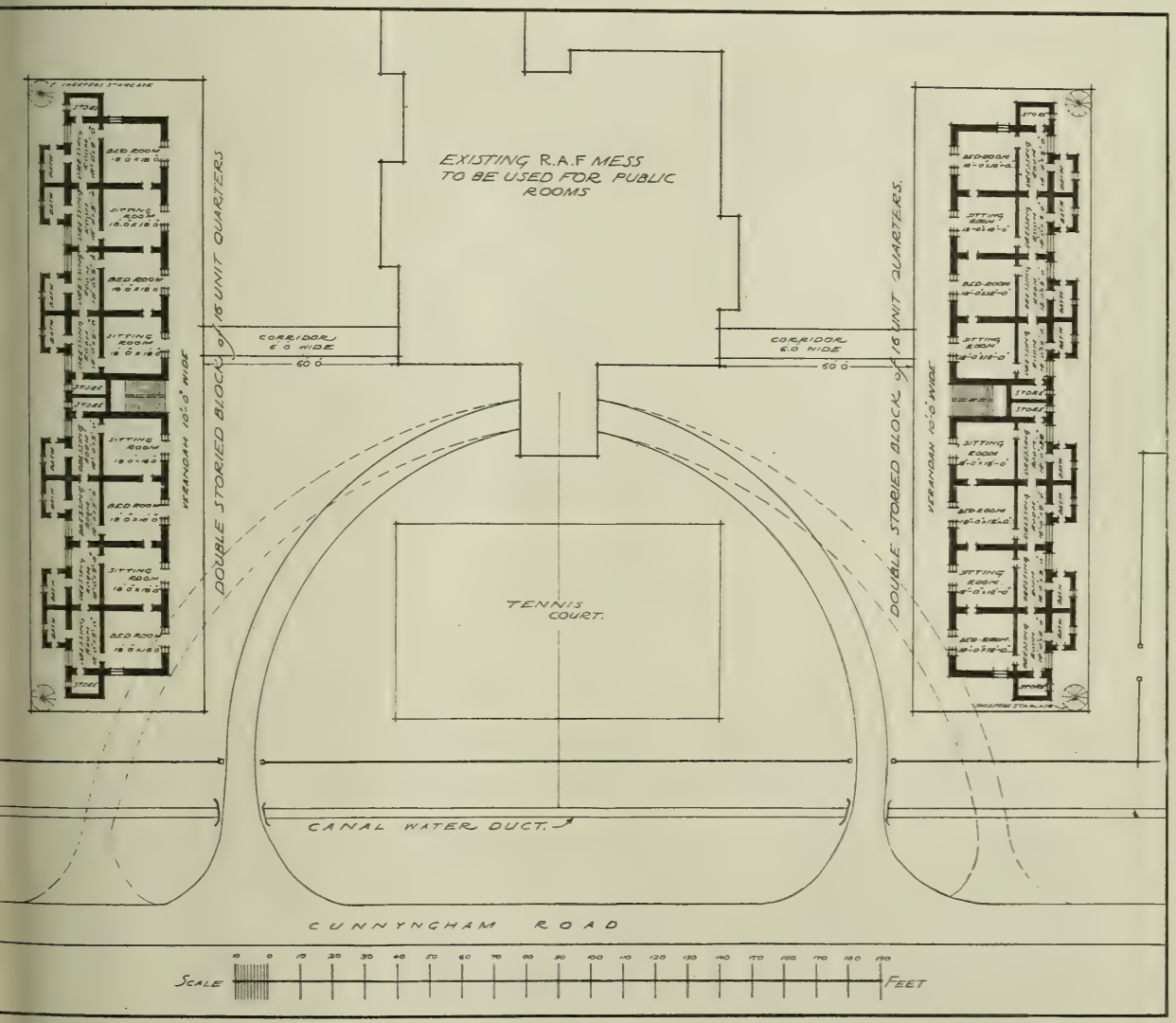
TCH BOOK.



Hull Art Gallery Competition.

Design placed second: By Messrs. J. S. Gibson & Gordon, FF.R.I.B.A.





LAY-OUT.

Hostel for British Officers at Lahore.

Mr. B. Matthews, F.R.I.B.A., Consulting Architect for Military Works in India. (*See p.* 881).



ONE OF TWO BALANCING GROUPS.





ONE OF TWO BALANCING GROUPS.

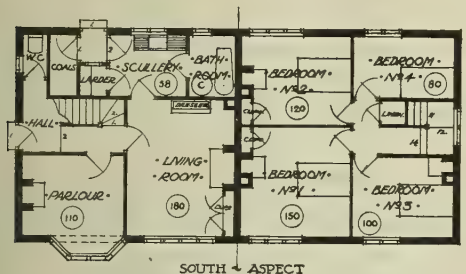
Hendon Urban District Council Housing Scheme : Child's Hill Site.

MR. GEORGE HORNBLOWER, F.R.I.B.A., Architect. (*See p.* 889).

:TYPE:~ B:21:



~FRONT~ELEVATION~



SOUTH ~ ASPECT

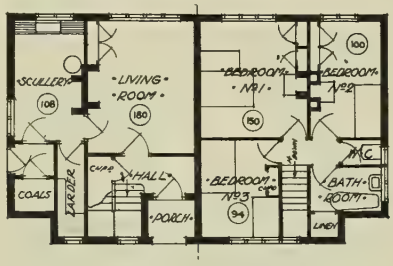
~GROUND~FLOOR~ ~FIRST~FLOOR~

SCALE OF FEET

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~FRONT~ELEVATION~



~GROUND~FLOOR~ ~FIRST~FLOOR~

NORTH~ASPECT

SCALE OF FEET

ARCHITECT
2 DEVONSHIRE TERRACE
PORTLAND PLACE. W.1.

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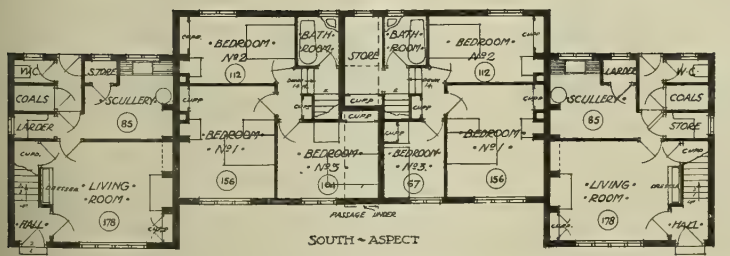


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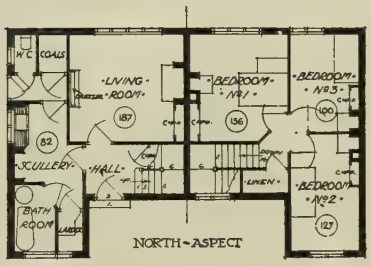


~FRONT~ELEVATION~



~GROUND~FLOOR~ ~FIRST~FLOOR~PLANS~ ~GROUND~FLOOR~

SCALE OF FEET



~GROUND~FLOOR~ ~FIRST~FLOOR~

SCALE OF FEET

Hendon Urban District Council Housing Scheme: Brent Hill Site.

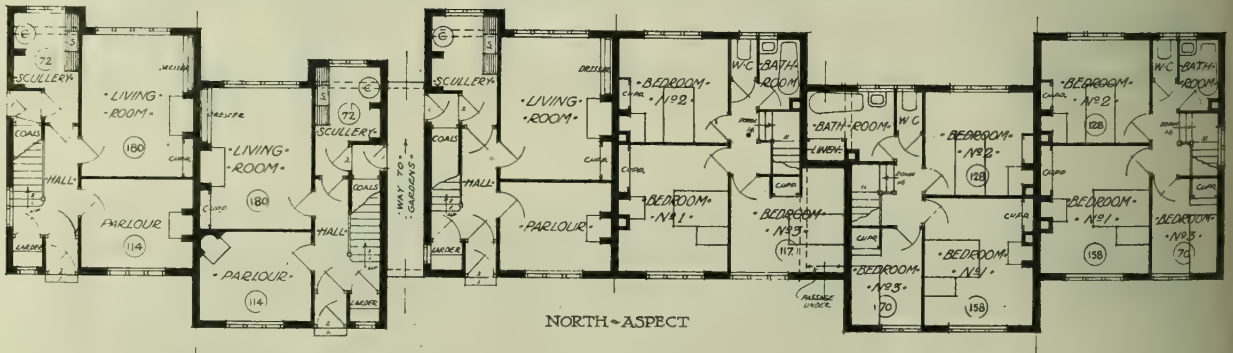
MR. GEORGE HORNBLOWER, F.R.I.B.A., Architect. (*See p.* 889.)



:HENDON:URBAN:DISTRICT:COUNCIL:HOUSING:~ BRENT:HILL:FARM:SITE:
:BLOCK:OF:SIX:HOUSES:TYPE:~ B:25:



~FRONT~ELEVATION~



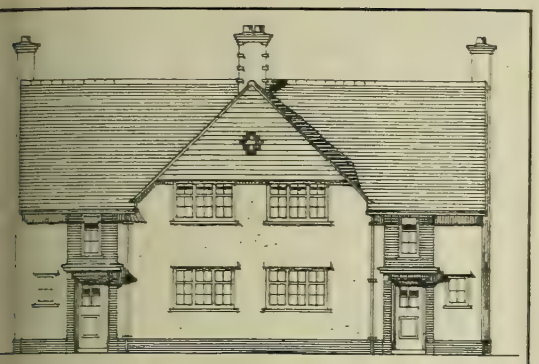
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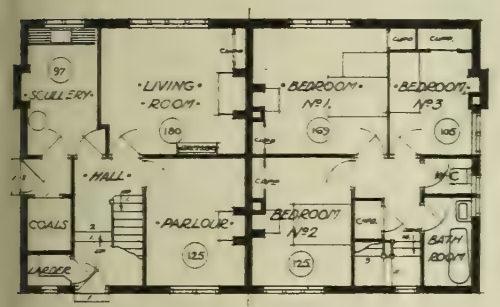
Geo. Hornblower F.R.I.B.A.
ARCHITECT
2 DEVONSHIRE TERRACE
PORTLAND PLACE W.1.

Hendon Urban District Council Housing Scheme : Brent Hill Site.

MR. GEORGE HORNBLOWER, F.R.I.B.A. (*See p.* 889.)



FRONT ELEVATION

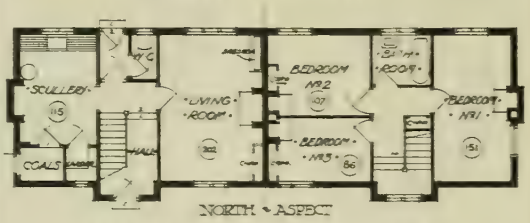


GROUND FLOOR FIRST FLOOR

NORTH ASPECT

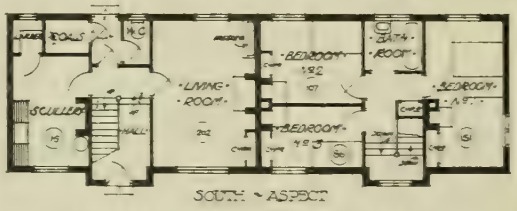


FRONT ELEVATION



NORTH ASPECT

GROUND FLOOR FIRST FLOOR

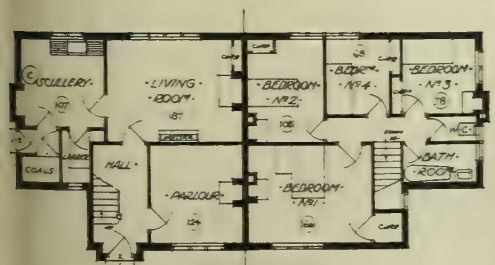


SOUTH ASPECT

GROUND FLOOR FIRST FLOOR



FRONT ELEVATION

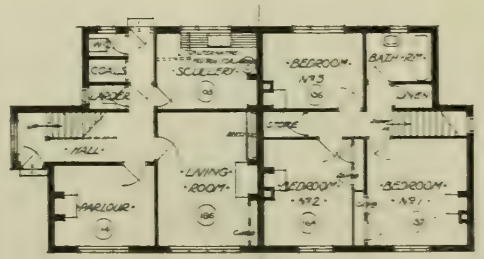


NORTH ASPECT

GROUND FLOOR FIRST FLOOR



FRONT ELEVATION



GROUND FLOOR FIRST FLOOR

SOUTH ASPECT

Hendon Urban District Council Housing Scheme: Brent Hill Site.

MR. GEORGE HORNBLOWER, F.R.I.B.A., Architect. (*See p.* 889).

· HENDON · URBAN · DISTRICT · COUNCIL ·

· HOUSING · — · BRENT · HILL · FARM · SITE ·

·H·U·D·C·
·B-39·



· BLOCK · PLAN ·

· ARCHITECT & SURVEYOR ·
2 DEVONSHIRE TERRACE
PORTLAND PLACE ·
· LONDON W 1
July 7th 1919

MR. GEORGE HORNIBLOWER F.R.I.B.A., Architect. (See p. 889.)

ARCHITECTS AND ADVERTISING.

R. D. ROBSON, of Barrasford, Northumber-, writes :—

—I read, with some interest, Mr. Overy's r appearing in a recent number of *The ler*, and although we may probably differ tail, I am (from experience) in complete d with the substance of his remarks. I ld like it to be quite clear that I take ontention to be "that the present unfor- te state of the profession, where the alified man can and does abuse the title tect whilst the qualified gentleman, or is pushed into the background, is remedi- and remediable by architects themselves." is well to bear in mind that for the majority e profession the æsthetic point of view is lled by the more mundane one of "bread butter"; and, as they cannot all be ged with monumental buildings, so they rce turn to the smaller things, for every needs a building for his home, and, to a extent, for his business and his recreations. nan can say that an architect is less an tect because his first consideration must be earn a living"—architectural ability ot, thank God, be bought with money!

l round us we see, glaringly, the hand of harlatan in architecture: in the absence of planning, haphazard lay-outs, and build- without any merit except that the walls se a space and support a roof. One has to study the reports of "plans passed" by local council to notice that builders— of them good and efficient men as lers—are responsible for the majority. I urther. I have noticed plans of some itude having been submitted by persons in my opinion, possessed no other know- but a smattering of construction, it evi- ly being up to the contractor to surmount all ulties himself as the work proceeded. In all ases I have in mind I believe the people who ucted these men were under the honest ession that they had secured the best advice course they had (if one asked them), or why the assignee designated himself far and as an "architect"? But who is to blame? "man in the street" (always the potential t) associates architecture and the architect great buildings and schemes costing nes, for it is only in this connection, *via* daily press, that he ever hears of the tect's existence.

e other day a gentleman, desirous of ng a wing to his house, consulted first, in three small country builders, and was recommended by one to consult me. I for certain reasons, unable to undertake work; but it appeared that the reason I consulted was that none of them could are a plan, and were quite incapable of g a price without one (leaving aside other alities). I shudder to think of what might e happened to a fine old house had one of n made bold and shouldered the respon- ity. I know them all well.

Again, a gentleman of my acquaintance constructing a cinema had, so he casually told me, some difficulty in finding a qualified architect in the neighbourhood as he was not acquainted with the methods of "digging out these retiring birds." I may add that he was candid enough to tell me that the need for an architect only arose when he discovered that the combined architecture of himself and his builder was not the architecture that had fired his imagination; and, incidentally, that the letter of the law had been somewhat overlooked.

Another gentleman (an influential person) of my acquaintance desired to add to his factory; his builder copied what existed. The gentleman now proudly claims to have saved a heavy overhead charge in the architect's fee. He has saved a little, but I never hear of him proudly boasting of the result.

Now, I ask, why does the architect not tell his fellow men what he is and what he stands for, and that architecture is not necessarily big building or an overhead charge (it may be a considerable saving) for, at the moment, that is only obvious by reading the technical press, which the layman has not the time or inclination to do. I feel that architects are too far away from their fellow-men; they must get nearer to them, and the only means open as far as I can see is advertising. (Yes, there is protection, when architects would have to be consulted, but the great ideal of this is evidently now subservient to a detail.) It is but folly to sit still and plead æsthetics (admirable as they may be) as justification to an unheeding world.

I remember some time ago a gentleman writing in a contemporary technical journal that he abhorred the idea of, and the blatancy of, advertising; it was reducing art to commercialism. There is advertising and advertising, but the English Dictionary only contains one word for all degrees. It is one thing to tell your fellow-beings how your particular knowledge and capabilities will benefit them (and if you are possessed of such attributes it is, I consider, a moral duty to do so), and quite another to announce far and wide, from the hoarding, the papers, &c., that one's cure for bleak landscapes, ugly vistas, and the misuse of materials is the "real goods." But no architect would do that; rather let him be permitted to state simply that he is an architect, where he is to be found (few laymen possess directories, and fewer still know where to find them), and possibly with a list of his works, so that the layman may go, see and judge. This I would advocate only in selected and approved newspapers and periodicals.

In these controversies one is invariably met with the so-called parallel of the doctor. There is an affinity—both are professional—but there is no parallel. The doctor is protected, architects are not, and the doctor deals direct with his client. With the architect there is an intermediary—the contractor or craftsman, without whom the architect cannot function.

Capable men are turning away from dire necessity from the profession—it is overcrowded. But I firmly believe there would be no overcrowding if architects were consulted in only 50 per cent. of the building work undertaken and in which they ought, undoubtedly, to be consulted.

I agree with Mr. Overy that it is hard to read newspaper advertisements with "architect" tagged on to a host of other occupations and not to know that the gentleman so designated has but a scanty claim, if any at all, to the appellation. But—and this is serious—the gentleman of the multifarious service is probably the man consulted by the layman; the result, in the majority of cases, is deplorable and as a consequence derogatory to the profession as a whole.

Some of your readers will hold other views, and I hope this matter will be thoroughly ventilated—it seems to me to be of paramount importance—so that we may arrive at some standpoint as to where the majority of the profession feel they do stand.

HENDON URBAN DISTRICT COUNCIL HOUSING SCHEME.

THE Hendon District Council have carried out housing schemes in Central Hendon and also in the Child's Hill Ward, which adjoins the Hampstead boundary.

The Brent Hill scheme (consisting of 244 houses) has been carried out partly by the Improved Concrete Construction Co., Ltd., and partly by Messrs. J. E. Billings, of Oxford; Messrs. Perry & Co., of Ealing, W., being at present engaged on a further twenty houses. The greater number of the houses are of concrete construction, the walls having a cavity and rough-cast externally, with brick plinths, strings, chimneys and dressings; others being built of brickwork rough-casted. A considerable number of designs have been provided in order to avoid monotony, and further variety has been gained by the introduction of tile-hanging, varying the details of the chimneys, &c.

The Child's Hill scheme is a continuation of the former Council group of cottages carried out from the designs of the same architect in 1914–15, the construction throughout being brick, rough-cast; and the contractor for the whole group was Mr. Geo. Ramsbotham, of Hendon.

We understand that these Hendon houses have the distinction of being the only plans which were not cut down by the Ministry of Health. Winding steps are avoided in all but one of the many types, and bay windows are introduced; even porches in several instances were allowed to remain.

Mr. W. Hughes acted as clerk of works for both schemes, with Mr. F. Bush as assistant clerk of works. The architect for both lay-outs and for the whole of the houses was Mr. George Hornblower, F.R.I.B.A., of 2, Devonshire-terrace, Portland-place, W.





Hendon Urban District Council Housing Scheme: Brent Hill Site. MR. GEORGE HORNBLOWER, F.R.I.B.A., Architect.

THE BUILDING ART: THEORIES AND DISCUSSIONS.—XII.

By W. R. LETHABY.

WORDS OR REALITIES? AND POSITIVE ARCHITECTURE.

It is a matter of observation that the introduction of antique ornamental features goes with a decline in constructive power.—PROFESSOR J. STRZYGOWSKI.

THE quotation above, taken from a new book on the Origins of Christian Church Art, which I have been reading, is obviously true. The mind must be set on the things that are in front or on those behind. We must either be pressing on or slipping back—positive or negative.

I doubt if much can be done if it is merely left to our wills and intelligence, the powers of the "world" are so very strong; but it is our duty to try and every trying makes some difference. We must, in fact, in the larger measures of things, either develop or decay, but I know these larger considerations are rather remote, and there always seems a chance for us individually in some competition scramble. But if we could only divert our gaze from paper palaces and turn towards realities, following the way of experimental, economic, and manly building, in trying to work out reasonable schools, houses, and butchers' shops—the common problems of daily life—we should reach quite quickly a *Positive Architecture* not only fit and proper to our age, but one we could understand and discuss with others without the mystery voice. It would be good for us as well as for society. "Architecture" at least builds architects.

It is an absurd tragedy how we have been misled by the novelette view of "architecture" and other grand words, to which we won't take the trouble to fit meanings: Art, architect, design, originality, style, proportion. It does not matter a bit if we call *truth*, "verity"; or if we call *firmness*, "stability"; but it has mattered much that we have divided *work* from "art," and *building* from "architecture." Owing to our way of double-dealing with very slippery words it is now very difficult indeed to get a thought passed from mind to mind. Unless the wireless is properly tuned, we don't get the message, and we can only see things from our own window.



"Physical Energy."
By the late G. F. WATTS, R.A.

Our phrase, "a work of art," is an unfortunate duplication, but even as it is it should at least mean a work of workmanship. In any case, we have little reason to bother and confuse ourselves about architectural works of art. What works worthy of the name and proper meaning have been produced in England during the later centuries? St. Paul's, we may readily grant, is such a work; it is a monument of its age, the life work of a great Englishman, and in it are associated many fine forms of workmanship. Then there is Stevens's Wellington Monument, which, indeed, is throughout a work of workmanship. Thirdly, there is Watts's "Physical Energy," in Kensington Gardens. Further, there are a dozen or two productions, like Somerset House, the Oxford Rotunda, &c., which may be allowed to pass in a secondary class; but there is little else in the way of building or monumental art to worry ourselves over. I cannot think that any well-known building erected in England within the last hundred years should count as a work of art.

"Architecture" is a pretentious parasite word that has settled down on *building* and eaten the strength out of it. There is something so "grand like" in spelling over the word, a-r-c-h-i-t-e-c-t-u-r-e, explaining about its being the king and queen, master and mistress of the arts, and in reading æsthetic disquisitions, that it strongly appeals to our weakness—especially in youth—and turns our heads, so that thereafter it is difficult to see straight. When the New Testament was put into English the word architect was translated "Master-builder." "Design" has so separated itself from *doing*, of which it is properly an essential part, that a large sphere of *designing activity* has almost completely detached itself from *building experience*. Ateliers work with books of examples of periods, features, and styles. On this supervenes and flourishes draughtsmanship in composition of style-features, leading up to brilliant prize draughtsmanship in the re-composition of dead and decadent features (composition of decomposition). Then the system is rounded off in competitions of the double extra expert style draughtsmen, adjudicated according to professional racing rules. Last of all come the poor buildings. The beginning of building wisdom is the sense of weight and responsibility: paper designing necessarily runs to the light and flighty.

Again consider the word *style*, what we mean and what we might mean by it. Our rough first notion, I suppose, would be something like this—"the characteristic appearance of any thing or group." I look into Skeat and find that its probable derivation is from *stilus*, a writing instrument, and hence it comes to mean a manner of writing or doing other things. In a French dictionary the meaning as used in the arts is given as—"Manner, particular to an artist, to a kind, or to an epoch." That is admirably concise and clear for the descriptive meaning; but it does not touch the differences between good and bad style, and what we should aim at in our own efforts. Take an example from literature: there is the style of Wordsworth, in the technical and descriptive sense, and there is his style in the general, human and positive sense, his thought, his aim, temper and meaning. Now I want to suggest that we need to understand that building and any other form of art exhibits style—good or bad in this larger sense. Style of this kind we might define as *expression of the content*, for every thought and thing that goes into the production of a work of art will in some way tell in its expression just as faces come to paint minds. I won't speak of



"Physical Energy."
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deeper things, but only of commonplace: think, however, that the style of any time country is shown by reality and soundness, fairness and finish, by organic structure; by tawdry make-believe and sullen gloo The style problem to us is what may be put in our works of sense and serviceableness and th the expression will take care of itself. Se reality, not the "look" of expressing expressio It is reality which makes the style to all w can read it. I must not speak of nobilit intellect, courage, and other high aims; but may say that mere common sense followed f a year or two would make a common-sense styl The only style question that matters is: Wh is in a work?

A word good enough in itself has been qui spoilt in its recent use; this is *compositio* All planning and fitting together is compositio but the idea has been destructively presse that there are specially "art forms" of "co position" going beyond general ideas of ord efficiency and tidyness. It is not so, and such notions stand in the way of true a expressive composition. A ship or motor-c are wonderfully composed—everything is rig balanced, and in order; but preconceived ide of "art" composition would only have preve ted the finding of right solutions. Now th in New York the necessities of getting lig down into the street has resulted in the pushi back of the upper stories of their tall buildings a common sense structural arrangement—" are rushing to copy the look of it, at quart scale, as "style, composition, and massing"

Among the most betraying words "ornament" and "decoration"; being usel and generally worse than useless we concentr enormous attention on them. "Ornament" the main arises in three ways: primarily magic marks to ward off evil, secondly in luxu and lastly in workmanship. This last is t permanent and universal source. In all fu tions well fulfilled there is likely to be a lit extra thrown in for fun. If you take a dog a walk he does a bit in excess to show that likes it. Children give a skip and a jump. cook adds a few touches to the pie-crust. workman, free of his job, cannot help, especia near the end, giving a turn to his tool. C modern ornaments are like the smiles of childr who have been warned that they will be flogg if they don't skip. The "look" of joy workmanship imposed from above is an impo tion, indeed.

Mechanical structures have the interest a even the *mystery* of their reality and necessit they reveal the very nature of things. I mechanical ornament is a contradiction axioms and definitions; it is a gratuit addition of labour and sorrow—a sham anc shame.

Tradition is often used in our ambiguous a indeed, upside-down art language, as if might resume it at will at any point we for t moment like. I remember seeing in so "advice" to students on the way in wh

y might "treat their designs," it was gested that the "treatment" might be dern or traditional, as if *our* tradition could anything else than modern. In a notice in "*Revue des Deux Mondes*" (Nov., 1922) a new account of French art, by Louis Gillet, ng part of a general "History of France," noticed these admirable remarks: "His pose is to bring out the national tradition. s strangely abused word he uses in its itable sense. Tradition is not that which one epts from the past, it is a legacy which, in te of one's self, runs in the blood. It is edity which may not be denied or eluded, s the race, the temperament, the continuity ife itself." That is tradition, indeed; its very nce is that it is exercised spontaneously. Then there is a class of words like utility, struction, and building, which we are ays interpreting in a negative rather than positive sense, as if we said a *mere* utility, r construction, *mean* building. I have often d "mechanical" in that sense myself, this use of words may betray one. A fect loaf of bread, or ship, or roof (if we ld only find out how to make one), would be tility; but it would be absurd to prefix the d "mere" or "poor" to our thought . Mechanisms themselves, so far as they are and serviceable, are vehicles of spirit and oetry. The Forth Bridge has qualities of er and adventure which might well make it bject for a poem by Mr. Masefield. Compare styleful recent building which comes into r mind; could anyone write a poem on that, pt in the key of pathos? It is only by ity we can hope to get back the poetry in buildings, so that the mention of them may d like bridge, barn, sheaf, rick, plough, e, balance, loaf, cradle, mirror, anchor, , wagon, engine, crane, clock. Nothing is g with worthy mechanism.

here is a quite modern word which I should to consider: this is "standardisation." modest and distinguished architect of the building some time ago said that works more standardised in America than in and. Now here is that valuable thing, an ; what shall we make of it? It occurs to hat there may be two ways of thinking t it; to suppose straight off that it means ng out tens of thousands of buildings, ned in a Government office, all exactly alike, bad at that; or to understand it to mean development of types, the drawing away waste and anarchy in production, and the pt to reach real and rational solutions. e latter sense, I am all for standardisation. ping by types seems to be in the very nature ings. A dozen examples might be given, will mention only the old traditional art ip building. One might have thought that would be a steady gradation of change a small boat to the biggest ship, but and sails ruled that ships should be d into groups—the smack, brig, barque, &c.—and gradually in the search for per- n every detail became "standardised." ed something of the sort for our buildings; the grouping; and then the detailed opment of reasonable working parts, fireplaces, windows. How do we "de- a house now? Almost as if one had been built before; in any case, there is ge body of experience readily available; ecessary services, like heating, water and supply, are ever fresh surprises, and every ect feels that he must "design" any details," like doors, stairs, and chimney- , all over again, even to the "mouldings." asier, indeed, to draw new "profiles" on etail" for the hundredth time than to rdise office procedure.

re follow need and reason, there should be r of dreary monotony, differences of site, dual requirement, and development will and give all necessary variation. The idea of standardising suggests low level ; the right manner of seeking to stan- e—it is no paradox to say—brings about ing movement by experiments to make t. Without the standardising aim we are er subject to whims and casting back on our track; with it, we might hope to bring some order out of the present chaos of anarchy, whim, and vulgarity. These examples of "architecture" in the whim and seem-so styles, which we are so excited in getting designed and then executed—poor things—in days of stress have something portentous about them; there is invisble writing on their walls.

There is amazing ability amongst our architects, and that makes the present scattering and squandering of effort all the sadder. It must be said firmly that while they continue to "design architecture" according to "taste in the styles" they are building not only on sand, but with it. It cannot be done; the better it seems for a moment the worse it is in fact, for only reality counts in such arts as agriculture, building, navigation and the rest of the great human occupations. I visited the recent exhibition of photographs and models at Grosvenor House and wondered at the perfection to which certain kinds of *seeming so* had been brought. The show would have delighted me beyond estimate when I was about seventeen and thought as a child. There was just the right look of this and that—"Country Life"-ness, simple workmanship, poetry, innocence, accident, and age. All the "effects" were laid on with exquisite tact and cunning on these ancestral looking houses for the newest rich; but I felt in my heart that such confections were not natural and real enough to last.

While we aim at being in any style or manner the result must *necessarily* be a sham, or second-hand, thin and poor. Greek, Gothic, Renaissance, the picturesque, the grand manner, and the Beaux-Arts manner are only names and limitations. In place of these appearances and flavours, the smell of art, we must learn to see our projects and buildings through positive facts and stern conditions. We need to have education and thought founded on a positive method of design and appreciation—something of the kind which may be suggested by the classification which follows.

Structural mathematics, geometry, and mechanics; common needs and planning; materials and workmanship; living experience of the working and use of stone, wood, brick, iron, plaster, &c.; local building custom and recipes; constructive factors, walls, piers, floors, roofs, arches, domes, vaults, buttresses, windows, skylights, staircases, chimneys, &c.; organic arrangement and appreciation of weight; balance and stability in the arrangement of parts or cells, and efficiency in services; common conditions and circumstances, neighbourhood, site, sun, aspect, air, dryness, durability; lighting, warming, sanitation, economy; ease of access for repair and cleaning; labour-saving in maintenance (very important); types and species, public buildings, houses, shops, &c.; order, compactness, intelligibility; finishing and furniture, employment of contributory arts, painting, sculpture and other forms of free workmanship; combinations and lay-out; contact and agreement with builders, engineers and craftsmen; experiment, development, invention. Our aim in three words is nothing less than *perfection in building*, the development of a positive Architecture.

Having in mind the fact that we can neither go back nor stay where we are, I will put down in briefest manner what I suppose should be our immediate aims.

The individual student should make up his mind what sort of "architecture" he intends to pursue—realising, of course, that ordinary work is necessarily of an average kind and not all palaces in the air or casinos on a lake. Will he concentrate on the lively and really romantic art of building, or on the flash fashion-plate sort of "architectural design"? Every student must try to form some general thought of purpose as a "perch to his mind," and not be swept along unreflecting into the advertising demi-monde view of "architecture." The problem of architecture as it should be presented to the student's ambition is how to build rainproof, cold-proof, folly-proof shelters.

The schools should turn towards facts, common sense, common service, and structural science and drop the "æsthetic" rhetoric utterly. Such doctrines are hardly now tolerated even in schools of "Fine Art," save in the architectural departments. In such schools they try to teach how to paint and how to model and there is little style talk laid on. So in a school of "architecture" the students should be taught what is known of how to make good buildings and not how they are to slime them over with style "looks."

Best of all, I should like co-education with builders, engineers, and craftsmen up to a point, so that a youth would form contact with other workers in the same cause and have some choice as to which path would suit him best. It may be attempted to make up for lack of practical knowledge in the schools by adding classes to show what work is like. Such showing what things are "like" instead of what they *are* in the real world, is dangerous and only increases the area of the abstract and unapplied. It could not be in such facts as digging foundations and putting in concrete, but might be in the modelling of "swags" and carving of "eggs and tongues."

Architectural societies should develop in the direction of the guilds; and have the common average good in view rather than the flotation of eminence. They should make themselves centres of research, experiment and record, and work towards the bettering of the great wide-spread mass of common building. Above all, they should cease to recognise and adjudicate on competitions for buildings. The very first purpose of a guild is to protect the members from bidding against one another; that it should be accepted as a regular institution together with fees for adjudication seems to me intolerable. Apart from the waste, these competitions encourage the idea that design for building is the preparation of taking—or "taking in"—drawings; an idea that has deeply saturated the thought of employing people. The training of the schools in the prize draughtsmanship of styles works in with the system and piles up a vast burden of waste labour on waste paper. The typical modern institution seems to be the waste-paper basket!

With this part I end these discussions. My theory of "architecture," such as it is, has not hastily been formed in some eddy of reaction. Looking back, I see that I have always held such views since the first days of disappointment, when I discovered the difference between old building realities and modern whims in the draughtsman styles. I have not been complaining, I have been less concerned with what is than with what will be. It is the future that matters. Directly we transfer our interest from the vague superstitions about "architecture, styles, and proportions," to a developing art of building we shall begin to have a positive Architecture once more. The very centre of our art is construction, clear and clean, vigorous, close-knit, and high-strung. When it is organic it will also be harmonic. I end with six key words: service, structure, economy, experiment, development, invention. But even this is too long, and I reduce it to service and structure.

An Exhibition of Architecture.

The Royal Institute of British Architects have been invited to arrange an Exhibition of Architecture in the Palace of Arts at Wembley. The Exhibition of Architecture will open on May 19, and will close on June 28, 1924, and will consist of a representative selection of the recent work of living architects in the United Kingdom, India, the Dominions and Colonies. It is proposed that photographs and models only shall be exhibited. The Exhibition will be of a general nature, except that Town-Planning and Housing Schemes will be excluded in view of the fact that a Town-Planning Exhibition is to be held immediately before the Exhibition of Architecture. The arrangements are being carried out by the R.I.B.A. Exhibition Committee, with the assistance of the Architecture Club. Owing to the limited space at their disposal and to the necessity for the display of representative work from the whole Empire, the Committee propose that the Exhibition shall be arranged by invitation only.

BOOK REVIEW.

Economics of the Hour. By John St. Loe Strachey. (London: Hodder & Stoughton.) Price 7s. 6d. net.

We do not suppose Mr. Strachey would put forward a claim to be considered a professional political economist, and probably this is one reason (out of many) why we like his book so much. The many academic books which have been written since the war have thrown so little light upon our economic problems that Mr. Strachey's book—written, as we imagine it, from the layman's point of view—should appeal to a wide public. The outstanding features in this book, to us, are its common sense, breadth of view, and, generally speaking, the soundness of the conclusions arrived at, even though all are not likely to agree with it in various details. Mr. Strachey's writing is simple and direct; he advocates with force and sincerity, and hits hard and clean. There is nothing timid about this book, which states many things which badly need stating at a time when industrial depression is acute, when every form of half truth and paradox has been eagerly fostered. It is a wholesome tonic to read a work of this nature which contains an economic philosophy dealing with broad principles.

Among many excellent points we draw attention to the following: "The real worth of anything is just as much as it will bring; the disastrous policy of limiting supply in order to endow an object with value; the perverted reasoning which makes one man shout for a limitation of supply while the other voice is shouting for plenty and low prices; the fact that it is never true that a fixed quantity of anything and no more is wanted; directly the price is greatly reduced the demand and the consumption increase; the great increase in labour-saving machinery, which, instead of employing fewer men, employs more men; the fact that the use of labour-saving machinery never injures the workman, but, on the contrary, improves his conditions; that trade unions, if they did not exist, would have to be invented in order to increase the power and dignity of labour, but that they cannot in the long run increase the remuneration of labour, for that is governed by external conditions outside their field of action."

The author pours ridicule upon "the industrial paradise where everybody may live in a splendid repose upon the idleness of everybody else." He points out that a man may some day realise that if he is a consumer in a hundred things and a producer in only one thing, it may be better worth his while to look after the keeping down of prices in the hundred things than in trying to raise them in one particular instance. Unfortunately we find that the man tries to do both at the same time and being unable to see the economic fallacy (of what is really a Gilbertian situation) each producer tries to keep up his own wages and prices. We see the humour in the remark of the Italian professor of political economy mentioned by the author, who is said at the end of a long life to have doubted whether the consumer really existed. The author does not say definitely that wages must come down, but that is the inference we gather from the book. "If every one wants more cake," he says, "a larger cake will have to be made. It is useless to argue about the division of the cake, for that is settled in the main on immutable principles."

In the chapter, "To Strike or Not to Strike," the author puts the whole position in a nutshell in the following passage: "After all, the men are partners with the masters, and what they want is not to injure the trade, but merely to get a different division of the total profits. To increase, then, the cost of production and so kill the demand first for the thing produced, and secondly for the labour of the producers, must in every case be an injury to the workmen who form the trade unions."

The working out of this division of profits in the chapter on "Dividing the Cake," reveals a mathematical solution which we believe has the approval of many sound economists. One could make a shrewd guess that the reason this recommendation has never been applied to solve our present difficulties is because it would be found that labour is receiving a bigger share than industry can provide.

On the principle that a burden is none the less a burden because it is imaginary, it may come as a relief to many to learn that the burden of war taxation is not so heavy as is generally believed. A large proportion of the cost of the war was paid year by year as the war went on; we lent money to ourselves and we are now paying income tax to pay ourselves dividends on our loans. The crushing taxation to which Mr. Strachey refers obviously applies to the spending departments of the Government, and not to the cost of the interest on internal loans.

Mr. Strachey contends that the rate of wages for labour engaged on work provided for unemployment should be less than the standard rate for legitimate economic work. The reasons he gives appear to us to be quite sound, but the most important one to us—which he does not mention—is the probability (and it may be a certainty) that by helping to maintain a wage basis higher than economic conditions warrant, we may be employing at one end and creating an equivalent of unemployment at the other.

We cannot, in the space at our command, refer to more than a few of the suggestive chapters in this book. It deserves the attention of every thinking person, and the author will have done a great service if he has succeeded in drawing attention to doctrines which have gone out of fashion as we acquired the habit of sinking our individualism and learning to lean more and more upon the Government for help.

Books Received.

Who's Who in Architecture. By Frederick Chatterton. A record of practising architects and their addresses, and in many cases an appended list of their works. (London: The Architectural Press). Price, 25s. net.

Islamic Architecture. By Sattar Kheri. (London: John Tiranti & Co.). Correct price is 3s.

THE SOCIETY OF ARCHITECTS.

We take the following notes from the minutes of the Society of Architects:—

Registration.—On the invitation of the Council of the R.I.B.A., the Council of the Society has appointed representatives to resume negotiations with members of the Institute Council on the subject of Registration. Conferences between the parties are proceeding.

"*Architecture.*"—Developments are contemplated in this journal, which it is anticipated will still further increase its value and interest to all concerned. The Council has arranged to place the distribution and sales of the journal in the hands of a publisher.

Arbitration Tribunal.—The Council of the Society has appointed an Arbitration Committee available for reference to arbitration (*a*) by consent out of Court, and (*b*) by reference under an order of the Court, concerning matters in dispute affecting or connected with (1) the profession of architecture, and (2) the building and allied industries.

The Committee is constituted at present as follows: E. J. Partridge, P.S.A., F.S.I.; Major E. C. P. Monson, P.P.S.A., F.R.I.B.A., F.S.Arc.; E. J. Sadgrove, P.P.S.A., F.R.I.B.A., F.S.Arc.; A. J. Taylor, V.P.S.A., F.S.Arc. (Bath); and John Knight, M.S.A. (Manchester). The Registrar of the Committee is Major W. E. Watson, F.R.I.B.A., barrister-at-law.

Board of Professional Defence.—Major Ha Barnes, V.P.R.I.B.A., and Major W. E. Wats F.R.I.B.A., barrister-at-law, have accepted Council's invitation to serve on the Socie Board of Professional Defence.

Education.—As a result of reports and rec mendations received from various (C mittees dealing with educational matt the Council have made such revisions to Society's regulations relating to examinati scholarship competitions, and design cour as will increase their scope and privileges, remove restrictions other than those necess for their proper conduct, thus enabling then be carried on with greater benefit and adv tages to all concerned.

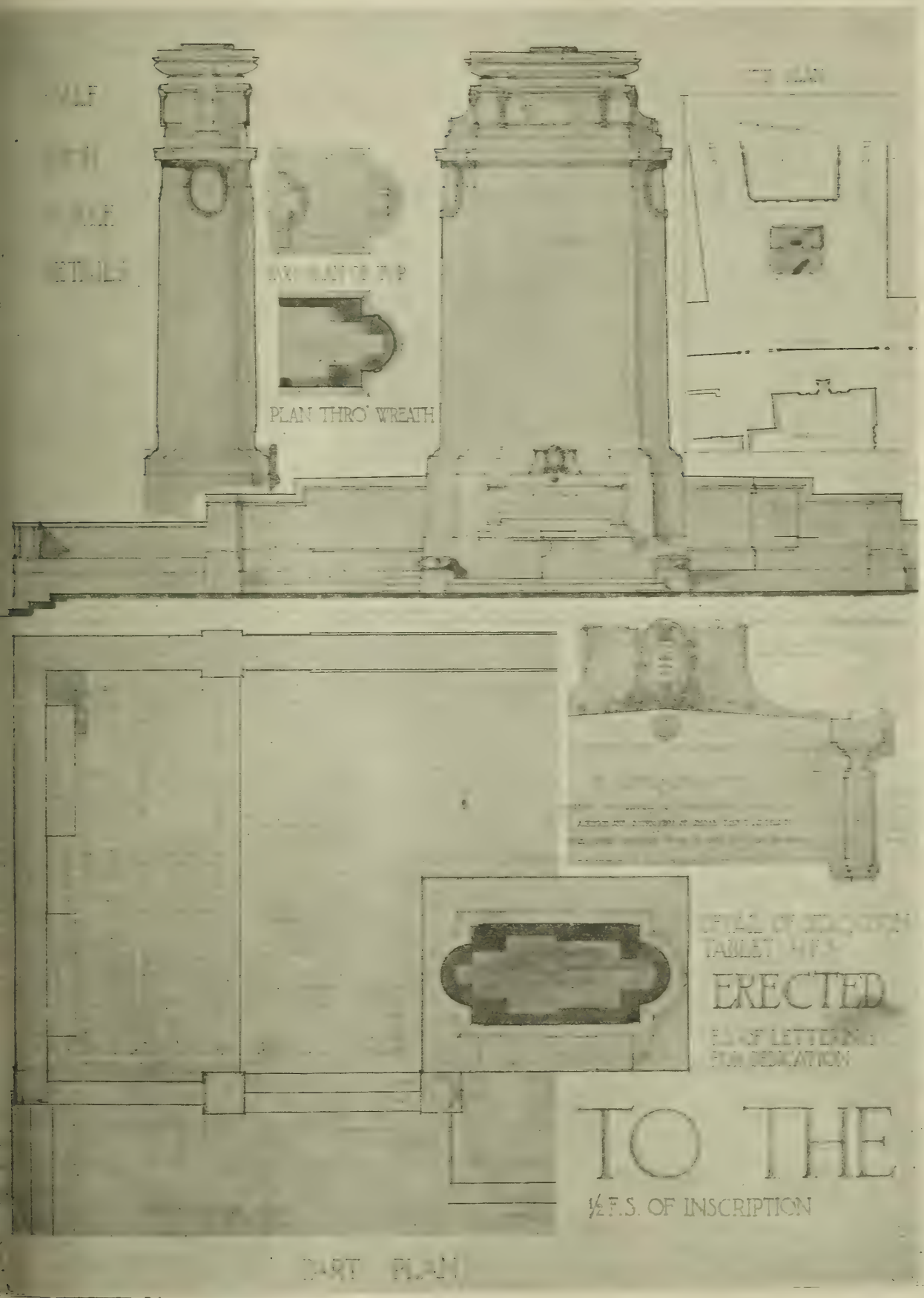
THE PRODUCTION O ART.

Though an important exhibition in its the occasion of the opening of the Aberd Artists' Society Exhibition was made usually so by the speech of Mr. Macgilliv LL.D., R.S.A. (His Majesty's Sculptor Scotland), who made a strong protest aga the usurpation of the "machine," and decla that the creative artist—the poet, pain sculptor and musician—was the last defende humanity against the ever-growing incubus machinery. He has much to say as to fostering of the art schools, from which quote the following:—

"What has happened since 1870? It wo take too long even to glance at anteceder Let us look at things as they are. Art is u the town—everybody knows her. Great su are spent by the nation on huge art school hot-house caravanserais, where all the arts crafts meet, and where emulation is und provoked by medals and money prizes; where, after a term of five years or so, diplom youngsters are turned out, who paint pict and model statues and busts almost by rec and often in a way so fair as to startle v likeness to the real thing; but, like the pluc poppy, they have only to be taken home fade for lack of that something of the Psy which holds indefinitely. Yes—art is upon town in an endless variety of manifestati from blatant posters to chocolate box It has become boring and, in some cases, nauseous as sugar would be if put into ev dish at mealtime. An eternal round of patiss as against sound bread and meat or plain ca and ale. I'm afraid I have little sympathy v the art school training for the arts we thinking of. In the days of the great on Pheidias and Apelles, Michael Angelo and Vinci, Rembrandt and Velasquez, Reynolds Raeburn, Turner and Constable, Rodin, Whis and Beardsley, there were no such caravanse as I have been tilting at.

"Art dealers—those immaculate expon of veracity—those money changers in vestibule of the temple, tell me that pict are as 'a drug in the market,' and that 'sc ture is an art without an audience!' and I obliged to believe them, because I know t must know, and because I believe, in the of pictures, anyhow, there cannot be in all wide world so many real artists as would all the exhibitions now in being, to say not of the tiresome thousands rejected by the w selecting committees, who, as the stream futilities pass, fasten upon a bit of the thing, as hungry men do on a morsel of f and, as I have seen, clap their hands with del over the finding.

"If it be true that works of art are to-d 'drug in the market,' the converse must that there is apathy among the people tow such manifestations, or that a flood of spurious has inundated the good, the true, the beautiful. 'In former times,' says Ra dranath Tagore, the Indian seer of the 'the intellectual and spiritual powers of earth upheld their dignity of independence were not giddily rocked on the tides of money market. But, as in the last fatal st of disease, this fatal influence of money has into our brain and affected our heart.'"



Hull Cenotaph Competition.

Second Premiated Design: By Messrs. H. G. Hall and R. G. Cox.

[The first premiated design in this competition, by Mr. F. H. Hughes, A.R.I.B.A., was given in our issue for August 31.]

TOWN PLANNING.

COLLABORATION BETWEEN ARCHITECT AND ENGINEER.

By T. W. MACALPINE.

In the leading countries of the world there is a steadily growing tendency to consider the welfare of the community as a whole rather than that of the individual citizen. One indication of this is to be seen in the increasing interest that is now shown in every branch of town planning, and even in small, as well as large, reconstructions and improvements in old towns. If this corporate effort is to develop all the possibilities in it, a closer collaboration between architect and engineer would appear to be a primary condition. A town is mainly the joint product of these two professions, and to obtain the highest results possible in the interests of the public they must work in practical sympathy.

All town developments can be comprehensively grouped under the following three heads:—

1. Small alterations and improvements within an existing town.
2. Extensive reconstruction in a section or sections of an existing town, or expansion in the suburbs.
3. The building of an entirely new and planned town on a selected rural area where the conditions are not appreciably hampered by older buildings.

As an example of the first, we may instance the changes that are continually taking place in, say, London, where old buildings occupying a relatively small area are demolished and the site covered by new buildings, or adapted to other purposes. In the case of the second, it is, perhaps, sufficient to point to the extensive reconstruction that has taken place in London on the area now covered by Kingsway and Aldwych and the adjoining streets, or to the recent growth of planned towns in the suburbs of London and in the Midlands.

The various town-planning schemes that have been engaging the attention of local authorities in this country provide an instance of the third.

But we can also consider the almost unlimited opportunities for both the selection and lay-out of new town sites that exist in the British Dominions and in several foreign countries. To-day, there are indications of a more rapid development of the great self-governing Dominions of the Empire, and this must furnish very many opportunities for almost ideal town planning during the next hundred years at least. The conditions under group (1) above are very circumscribed, and they provide at most a somewhat limited opening for collaboration between architect and engineer, and the same remark applies even to such extensive developments as those which have taken place in the Kingsway and Aldwych area. But when we consider the extensive expansion in the outer suburbs of towns and cities, and more especially, the conditions noted in (3), the opportunities for beneficial collaboration are practically unlimited.

In every town the street and road system is, of course, the groundwork of the whole plan, and the general convenience, amenities and picturesque appearance of the town depend, in the first place, on the system of roads and ground contours. While the planning of the street and road system, squares, public gardens, parks, houses, shops, offices, public buildings, etc., should be essentially the work of the architect, it is necessary to bear in mind that the engineer must carry out the actual construction of these streets and roads. Moreover, one or other branch of the engineering side will proceed to lay tramway rails and erect standards to carry the overhead trolley wire system, telephone and telegraph posts and wires, and street lamp standards.

It is clear that the tramway system, in so far as power costs for operation are concerned, can be much influenced by ground contours and street gradients and, hence, by the architect's town planning. The overhead trolley system has now been found to be superior to all other forms of electric traction on public roads, and it is practically certain to be installed in preponderating degree wherever street tramways are required. But there is not sufficient reason against running telephone and telegraph wires and cables underground in towns, especially when new roads are being constructed. It is true that the first cost of underground lines is somewhat greater than for overhead wires, but it has many advantages in practice, which, in the long run, go far to neutralise this greater outlay. If this practice could be followed generally, one of the unsightly features of our towns would be finally eliminated.

Again, the architect, enthusiastic for the æsthetics of his town plan, has surely a right to expect that he shall be consulted in regard to the design and location of those other street features—the street lamps and tramway standards. It also falls to the lot of the engineer to design and construct the bridges (steel, stone, brick or reinforced concrete) which carry railways, roads, canals, water and sewage conduit pipes, through towns.

While the engineer must design these structures to meet the required conditions, there is everything to be gained by entrusting to the architect the decorative treatment of the approaches, roads, parapets, and all exterior surfaces of the bridges. In accordance with present-day opinion the architect should be empowered, when preparing the town plan, to allocate the area or areas for public works (electric power stations, gas, water, and sewage works) and factories. But he should also be consulted in regard to the buildings and other structures comprised in these works, etc., so that the amenities of the district need not suffer as they have done in the cases of very many towns in this country.

It is generally possible to allot space adequate for the development for many years to come of the public works serving a town, but, in regard to factories, it is always difficult to forecast expansion with certainty, as it involves too many unforseeable trade factors; and this fact alone, apart from questions of district amenities, is of great influence in determining the locations of factories in the outer environs of new towns where congestion is unlikely to arise for very many years.

The economic importance of this question can hardly be over-estimated. In this country, for example, very many factories have become closely surrounded by property in the course of time, and, in consequence, it is difficult or impossible to enlarge the premises to meet growing business; work is thus carried on less efficiently. Sometimes a second factory is built elsewhere, or the whole concern is removed to a new site. But the economic wastage and loss arising from cases of this kind throughout the length and breadth of the land are incalculable, and it is to be hoped that town planning, with the opportunities that it provides for taking long views, will do much to improve these conditions. The capital sunk in public works and factories is considerable, and if they have been laid down haphazard at the beginning it is very difficult, owing to the great cost involved, to obtain powers to have them removed to more suitable locations at a later date. And the same remark applies to the routes for railway tracks in a town.

The electricity, gas, water and sewage systems all fall within the province of the engineer, and the most economical lay-out of mains to meet the present and probable future requirements of the town for a determined number of years must be left to him engineer should, of course, lay these under the street system planned architect.

In the case of electric supply, the e always desires to keep the quantity of in the mains as small as possible, appreciably influences capital outlay. mission loss is closely connected with tity of copper, and it is also necess keep this low, for it affects generating of electric supply. These mains mi course, follow the street system, and latter can be planned without prejud other factors, so that an electrical distr can be ensured which involves a mi outlay for copper, consistently with transmission losses, there will follow manently lower charges for electric su

Somewhat similar remarks apply influence of street plan on the sizes ar out of gas, water, and sewage mains, b matter is of much less importance.

If we take the trouble roughly to out two or three alternative street plans town of given population and area, bearing in mind that the distributing (electricity, gas, water) and sewage within the town have to be connected trunk mains which are led between the and the respective public works sit generally, in the outer environs or in remote districts, it will be evident th size of the mains will be appreciab fluenced by the street plan and the sha the town area. The ground contours street gradients have a very considerab fluence on economical water service sewage carriage, for the former is a pr system, and hence it is affected by diffe in altitude, while the latter is, of cou gravity flow system, and it follows that collaboration between architect and en is very desirable in these cases also.

The choice of site for a new town a development of an adjacent area may, and in g will, have a very important bearin economic water supply and sewage di Here, again, the architect's choice of si town plan, with its gradients and diffe of altitude on the one hand and the eng municipal works on the other, are related.

The arterial system of ' locality ways, roads, canals, river -must ha important influence on the choice of s a town, and also, to some extent, on th out of the town. Economic transport sengers and goods demands this. In as the roads within the town are con this bears directly on the architect's pl in its connection with ground contou street gradients.

Two cases may arise: (1) The a system of roads and railways may b first, for the purpose of developing a d or (2) it may be laid down after the the town has been chosen. The ameni very many towns have been spoiled chosen railway routes through the town all the embankments, cuttings, bridges in addition, the smoke, noise, and vib If a town is built on very irregular g then objectionable features, such as r cuttings, embankments, and bridges ca railways over streets and streets ove ways, will, in general, be multiplied. relation between choice of site for a and street plan on the one hand, and, other, the choice of routes for railwa canals, has thus a direct bearing, not c the locations of bridges, but also on the bers of these costly structures that h be built. A river, and in some cases a flowing through a town usually provid of the greatest opportunities for dec landscape treatment in respect of the er ments and boulevards which can be la along its sides. And, if for no other the railway tracks in a town should n by the sides of rivers. Engineers pros

railways always take particular note of rs, for a sluggish stream generally indi- s easy gradients in its proximity, hence reason for railway tracks being found so uently by the sides of rivers and canals. water supply, sewage disposal, and the l system are all largely dependent on terrain of the whole district; and the er has, in respect of these points, an im- ant bearing on town planning.

here are many materials employed by both ineers and architects—varieties of build- stones, timbers, cast-iron columns, rolled- l joists, concrete, reinforced concrete, etc. British Engineering Standards Associa- carries out research work and testing on e of these materials, for the purpose of aring specifications suitable for the most eral practical applications. But a large unt of research remains to be done, espe- y on building stones and timbers, and e seems to be no good reason why archi- s and engineers should not combine in work for their mutual benefit and to ent overlapping and waste of labour and nse.

he architectural and engineering institu- s could do very much to bring about a er working union between these two pro- ions. By means of joint meetings, at ch papers would be read and discussions w, it should be possible to show that, in r own interests and in that of the com- ity at large, co-operation is very neces- .

EXHIBITION NOTES.

THE FINE ART SOCIETY.

would be worth going to the Fine Art erics to see the "Clouds on the Hills— o," one of the most delightful of Arnold stman's drawings now on view; it is an irable study of tone and colour. Other ings which reach a very high level of evement are 38, 44, 48, 10, 20, 28, and 26. most impressive and completely satisfying rawings have a breadth of treatment which ome cases makes almost a monochrome. e Nos. 28 and 10 in this exhibition and it be seen that the prevailing colour is a quiet n modified by brown and yellow. They are fine drawings. We certainly do not like

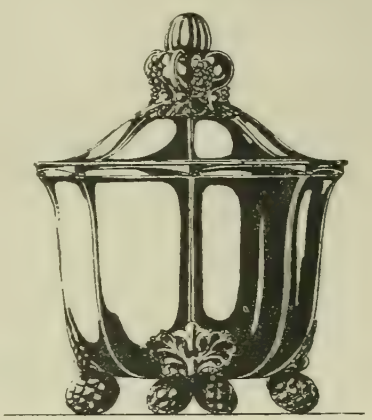


Silver Lamp Standard.
By GEORG JENSEN.

rest of the drawings so well as those we have ed, but this artist can be placid and broad ell as lively in his treatment, but at his best s in the front rank.

ne can hardly venture to say anything cal about the beautiful paintings by Fred ; one cannot even complain that they are otonously pleasing. On the contrary, there all sorts of effects of colour and light— nals, buildings, fields and sky may each in be the special charm. Where sky appears ll it is an integral and vital part of the ure; it may be a suffused glow of colour, or hung with grey clouds, or just a luminous kground for floating cumuli, or a grey veil with lingering wisps of cloud, but it is always an essential part of the picture. Altogether this is a very strong show.

At these galleries is also to be seen an exhibition of silversmiths' work by Georg Jensen. The



Silver Wine Cooler.
By GEORG JENSEN.

work of this celebrated craftsman has already been referred to in our pages. He knows the value of surfaces, of texture, and of how ornament may give distinction. Besides this, the general shapes of his pieces are such as strongly appeal to the architect. Silver is a beautiful metal, but nowhere has it been more vulgarised than in the ordinary commercial life of England.

OLD DUTCH TILES.

It is satisfactory to know that the Vis collection of old Dutch tiles, due to a generous benefactor, has been presented to the Victoria and Albert Museum. The collection is now arranged in Room 141 on the second floor of the Museum, and was opened to the public on December 1. Mr. Bernard Rackham has written a guide to the collection, which will shortly be available to the public. These tiles date from the seventeenth and eighteenth centuries, and are very representative of an art which has in the past conferred beauty on many an English home and is associated with English domestic work. We recall the now vanished but beautiful example of this use of the Dutch tiles in the Dairy of Ravenscourt Park, Hammersmith, now the Public Library, the walls lined throughout with beautiful tiles of this period, which we recall to have seen being removed at the time, by the pickaxes of the housebreakers when the dairy was unfortunately demolished. It is agreeable to think that such a vandalism is hardly possible to-day, and that we have a better sense of values than to destroy such historical and beautiful records. The history of this tile-making, often the work of local industries and forming an occupation for the winter in the countryside, may remind us of the value of an education which should fit the agriculturist and the country dweller to occupy his spare winter hours in craft work of perhaps a like kind, whereby the value of the hand and brain in a freedom from factory methods, could restore to us something of the quaint charm and treatment of work done in such a way. And the education required is as much that of the heart as the brain; in restoring to the individual the quietness of mind free from the need of unsatisfying excitement to express the best things in his own way.

INVENTIVE GREEK BUILDERS.

IN his third lecture on ancient Greek architecture, at the Central School of Arts and Crafts, recently, Sir Banister Fletcher said the origin and evolution of the Doric Order of Greek architecture was a tale in terms of architecture of the colonising activities of the Greeks in the sixth and fifth centuries B.C. Dorian to the west and Ionian to the east, they evolved both native and colonial types of architecture. The Dorian colonies in Italy and Sicily afforded remarkable examples of the character of a people expressed in its building, for the Doric temples, as could be seen to-day in the majesty of ruin, were grave, severe, and sturdy, like the Dorians themselves. Trading, colonising, building, inventing, they exhibited each successive phase of activity, and might be said to have invented the "orders of architecture," or systematised designs for the supporting column and supported entablature, which they used for the building of their temples. Lantern views of temple ruins at Faestum, Selinus, Corinth, and Athens, showed the use, dating back to 700 B.C., of the Doric or earliest and sturdiest order, which, like the other orders, had been used in all centuries down to the imposing entrance to the Euston Station of the present day. The lecturer discussed the probabilities as to the origin of the Doric order. Had it a lithic or a wooden prototype? Was it to be referred to the Egyptian rock-cut tombs of Beni Hasan or to the prodomos of the wooden hut? All we knew was that the builders found certain forms which suited their ideas and needs, and that they used them in combination and in one common material, the result being a perfection of form which was still recognised as a thing of beauty and a joy for ever.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Election of Members.

THE following new members were elected at a meeting of the Royal Institute of British Architects, held at No. 9, Conduit-street, W., on December 3:—

AS FELLOWS.

J. Allner, Poole.
A. R. Conder, Crouch End.
G. Drysdale, London.
E. C. Francis, Chepstow.
W. H. Godwin, Kidderminster.
F. H. Greenaway, London.
H.W. Hatchard-Smith, Epsom.
P. D. Hepworth, London.
O. Hill, London.
H. Hutt, Reading.
J. H. Markham, Harrow.
C. J. Marshall, Cheam.
A. R. Mayston, Finchley.
R. H. Morton, South Shields.
J. E. Newberry, Bedford Park.
W. G. Newton, London.
A. Sharp, Toronto.
L. S. Sullivan, Wimbledon.
G. Unsworth, Petersfield.
G. C. Wilson, Hendon.
D. Wood, Stanmore.

AS ASSOCIATES.

T.M. Alexander, Liverpool.
H. F. Billimoria, Colombo.
K. E. Black, Highgate.
S. N. Buchia, Bombay.
S. P. Bush, Rangoon.
R. J. B. Clark, Penzance.
H. A. Clist, London.
A. E. Davidson, Toronto.
C. C. Deuchar, Pretoria
W. Doddington, New Cross.
W. H. Eales, Victoria.
S. W. Fearn, Wellington.
L. R. Foreman, Brighton.
L. W. Hall, Watford.
F. L. Halliday, Manchester.
V. P. Haughton, Wellington.
S. D. Igglesden, Hampstead.
R. J. Masey, Anerley.
A. J. May, Bristol.
T. W. Milligan, Cape Town.
J. A. C. Moffat, Durban
S. G. Monk, London.
A. D. Parham, Colombo.
R. A. Riding, Earl's Court.
W. Ross, Glasgow.
J. E. Sterrett, Walthamstow.
S. Toy, London.
W. H. Trengrove, Christchurch.
H. A. H. Walker, Pretoria.
J. G. Wilson, Pretoria.

AS HON. FELLOW.

The Right Hon. Viscount Burnham.

AS HON. ASSOCIATE.

Sir Frederic George Kenyon (Director and Principal Librarian at the British Museum).

THE BUILDING TRADE.

THE COST OF BUILDING.

By T. P. BENNETT, F.R.I.B.A., Hon. F.I.O.B.

THE detailed examination of the result of *The Builder* Cost of Building Competition must begin with an examination of the designs.

The winning designs for Types "A" and "B" have been subjected to an analysis and compared with economical detached houses recently erected, with the following result:—

House No. 1. Lowest tender, less contingencies.	House No. 2. Lowest tender, less contingencies.	Cottage Type "A." Prize-winning tender, less contingencies.	Cottage Type "B." Prize-winning tender, less contingencies.
£1,590	£926	£1,187 16 8 per pair, say £593 18 4 each.	£1,555 10 7 per pair, say £777 15 3½ each.

All figures given below are for one house in each case.

	House No. 1.	House No. 2.	Cottage Type "A."	Cottage Type "B."
Floor areas inside main walls	1,653	1,244	1,051	1,364
Cost per ft. super of floor area	19/2¾d.	14/10½d.	11/4¾d.	11/5¾d.
Cubic contents outside main walls	25,623	17,258	12,250	17,893
Cost per cubic ft.	1/2·8d.	1/0·86d.	11·74d.	10·5d.
Per cent. cubic contents to floor areas	1,488	1,357	1,165·5	1,311·8
Area of hall and passages and stairs, measured twice	188	103	140	178
Per cent. area of hall, passages and stairs to floor area	11·37	8·3	13·32	13·05
Roof area measured flat, allowing 1 ft. projection to eaves	1,110	833	692	914
Per cent. roof area to floor area	67·15	67	65·84	67·01
Length of external wall, including half party wall	125	117	87	119
Per cent. length of wall to floor area	7·56	9·5	8·28	8·72
Area of external wall surface	2,896	2,172	1,232	1,672
Per cent. external wall surface to floor area	175·2	174	117·2	122·5

Note.—House No. 1 included central heating with radiators in all rooms.

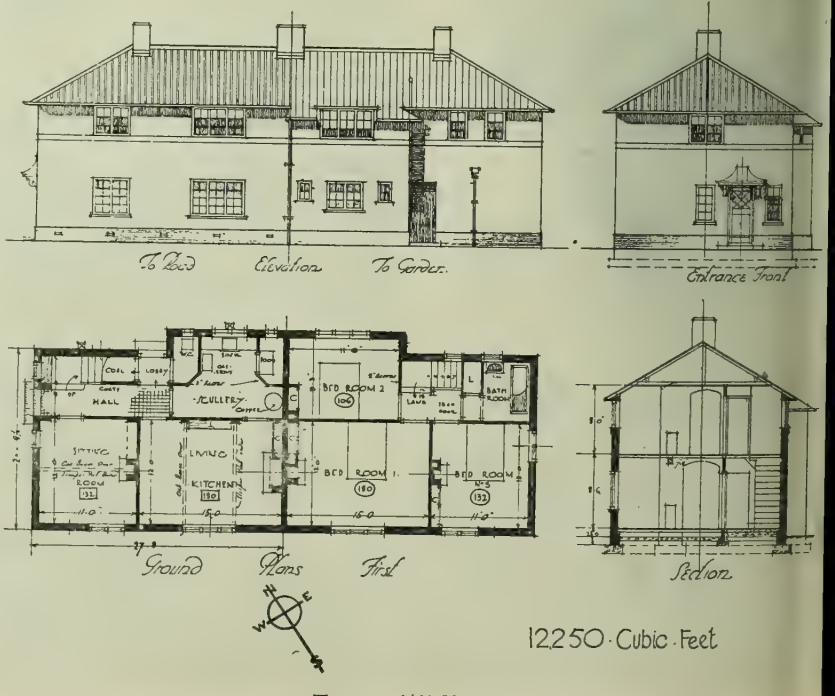
From this information it may safely be inferred that the designs in themselves are well and economically planned, and that the lowest tender is below rather than above the rates that are ruling. In other words, there is every evidence that an economical design has been awarded the prize in each case, and that the tenders have been cut to the lowest possible figure according to the demands of the design and specification.

As the ultimate purpose of the competition is to endeavour to indicate the way in which the cheapest possible houses can be obtained, the point is of great importance and immediately suggests an examination of the accommodation provided. The rooms in the winning design, Type "A," include a living room, scullery, sitting-room and three bedrooms, and the cost, according to the winning tender, amounts to £1,187 16s. 8d. per pair, or approximately £595 per house. This figure of £595 for a working man is high, and might, in the first instance, be substantially reduced if the scullery were omitted and the sink placed in the living room. With a corresponding reduction in the area of the bedrooms such an arrangement would represent a saving of about £60. Whether the working man tenant would be satisfied with such reduced accommodation or not is a matter for investigation in each district, but the possibility of such a reduction must be written down as of distinct importance, and one of the points which the competition emphasises. It is possible that a further amount of £10 to £20 might be effected by a cheese-paring process in connection with the size of the rooms, and this means of lowering cost would have to be considered in every instance.

Type "B" houses are not altogether in the same category as "A" because they represent an attempt to cater for a man who is able to pay for something that is above the minimum, and the question of how much the accommodation may be raised above the minimum is a difficult question. It may safely be said, however, that in this case the kitchen and scullery could be combined with less real loss to the amenities of the house than in the case of the omission of the scullery in Type "A." Such an amalgamation would probably mean a saving of approximately £30, while a reduction in the size of the sitting-room and cheese-paring elsewhere might save a further £18. This amount on the total cost of £777 is not great, and the four bedr house with its two sitting-rooms, kitchen scullery still costs about £730, which is q a substantial, although by no means ex sive, figure. The further investigation ceeds upon these lines the more it is sh that the prize-winning houses are planned, that they thoroughly deserve the tinction of their leading places, and that are houses such as might be reasonably manded in a normal district with an ordi clerical and working-class population o good type.

The specification embodied in the bills quantities issued for the second part of competition indicates a high grade of w In fact, it is a closer approximation to ideals of building than is usually poss when building takes place for commercial poses. Some of the items which call enumeration in this respect are reinfo concrete lintols, white-glazed ¾ channel p in the manholes, cement rendering to manholes, bitumen damp course, granoli hearths, boarded roofs covered with inodo felt, rebated floor boards, and lino covering cement floors. In the "Joiner" it must noted that all sashes have oak sills and doors oak thresholds, the pipes are suppo on pipe grounds, and there is a well-fi dresser. In the "Plasterer" rounded an to walls and to reveals and soffits of wind have a first coat gauged in cement. All fla ings in the "Plumber" are in lead; th are lead pipes for the water services un ground; there is a 5 ft. 6 in. bath and e a dust-bin. Finally, all outside woodwork painted. No one will deny the advisability the above work and it can hardly be ca extravagant, yet in a search for houses wh can be erected to meet the purchasing po of men with little if any capital, these are items which have to be seriously conside if economy in its strictest sense is of prim importance. In the "B" houses the s high standard of finish is demanded, and th are here and there items of a simple dec tive character which add to the cost.

These comments upon the specification r sound hypercritical, but there is no inten that they shall be construed as mere met lous statements. The cost of houses has r greatly, the standard of accommodation gone up so much that only by the exercis



Type "A" House.

strictest possible economy in small and in e items can the modern housing expert e to erect houses which, if built to sell, are in the means of possible purchasers, and uilt by housing societies, municipal autho-s, or other philanthropic institutions, can egarded as a serious and economic con-ution to the relief of the housing shortage. se prices of *The Builder* competition are, efore, for houses which, in themselves, are planned and designed with reasonable omy, the workmanship and finish accord-to the specification are to be of a high dard, and the price of £595 for Type "A" £777 for Type "B" must be accepted as lowest possible price at which houses of type can be built. To obtain a cheaper se (*a*) the accommodation must be re-d; (*b*) the standard of finish must be ered; (*c*) other and less satisfactory ems of construction must be employed.

he next point of importance is to ascer-whether there is any marked economy in ntry districts or in any specified area, or ther the cost of building is approximately same all over the country. It is safe to me that the average architect or builder gines that building is much more expen-in London and the large provincial towns elsewhere, but the result of the competi-does not at all bear out such an assump-. The twelve lowest tenders starting from bottom were submitted by builders work-in Swannington, Coventry, Witham, restoft, Exhall, Darlington, Wolverhamp-Willingham, Newcastle-on-Tyne (2), Ely London. The twelve highest starting the top were submitted from Boston. port Pagnall, Cowes, Llanelly, Brocken-t, Hampton-on-Thames, Chelsea, London Bristol, Newcastle-on-Tyne, Orpington. s the curious anomaly comes to light of inclusion of builders from the same town ngst the highest and lowest tenders, while highest tender of all comes from a com-atively small town in an agricultural dis-. As there are upwards of 175 competi-, the competition conclusively proves that, n equal conditions, it is no dearer to build large town than it is in a country dis-, and that the cost of building has reached air average for the whole of the country. is questionable whether this statement ld be true if cottages were built having ilar accommodation but constructed with l materials, and in order to ascertain the nt of local variations in cost and customs uestionnaire has been sent to 30 or more petitors. Competitors who do not receive pecial request are again asked to supply local information, as the point is un-btedly of great importance. The competi-next brought to light an extraordinary number of clerical errors in the tenders submitted. Even the best tenders were not free from this fault, while some of the others had extraordinary discrepancies. Taken at random, one tender had 28 clerical errors, increasing the total by £32. Another had 17 errors, making a difference of £9. In some cases the addition was at fault, and one competitor had sent in a tender with a mistake of £161 against himself, while others omitted sums of £35 and £30 respectively.

Carelessness in tendering is familiar to all, but the number of errors shown in these tenders seems to indicate so great a margin of error that, if it is carried into every-day practice, builders must constantly find that they lose work unnecessarily or are at times greatly inconvenienced or even faced with serious loss as a result of the slackness of office staff. Two competitors failed to price the bills of quantities, and sent in merely a lump sum, thus making detailed examination impossible. Next week a graph will be given showing the prices and tenders received, together with an analysis of the actual prices.

CHAPEL AND MEMORIAL SCHOOL AT REDHILL.

The Chapel.

THIS new building, which takes the place of the old prayer room—a temporary structure burnt down in 1922—is of plain design, in keeping with the surrounding buildings. It has been placed on the west side of the main buildings, and will form what is, in effect, the west side of a quadrangle.

The buildings, which are of substantial brick-work, tiled with hard Staffordshire tiles, are roughly oblong in plan, and comprise chapel, ante-room, cloak room, and lavatory. The main building, the chapel (34 ft. by 28 ft.), faces west, having on its south side a paved terrace from which the children can be watched at their sports, and on the north and east sides tiled verandahs (whose roofs are supported by massive posts and struts), which it is intended shall be used for convalescent children.

The external walls are covered with roughcast, the outside doors being of oak treated with oil, the oak posts of the verandah being stained and varnished. No elaborate decoration has been used on the interior; this being adapted for further decoration at any future date if desired. The interior wood-work is of oak; the wood block floors and dado being oiled; and the seating, which is of pleasing design, varnished. The windows are filled with steel casements containing leaded cathedral glass. The building is fitted throughout with electric light. A bronze tablet has been erected at one side of the platform to the memory of the "Old Boys" who gave their lives in the war.

The work has been carried out by the following firms: General contractors, Messrs. H. Bacon & Son, Coulsdon; constructional steel work, Mr. G. Banbury, Croydon; ironmongery and presentation keys, Messrs. J. Gibbons, Ltd., London; flooring, The Acme Flooring Co., Ltd., London; anthracite stove, The London Warming and Ventilating Co., Ltd., London; electric lighting, Messrs. Tamplin & Makovski, Reigate seating, Messrs. G. M. Hammer & Co., Ltd.; London; steel casements and leaded glass, The Morris Westminster Metal Works, London

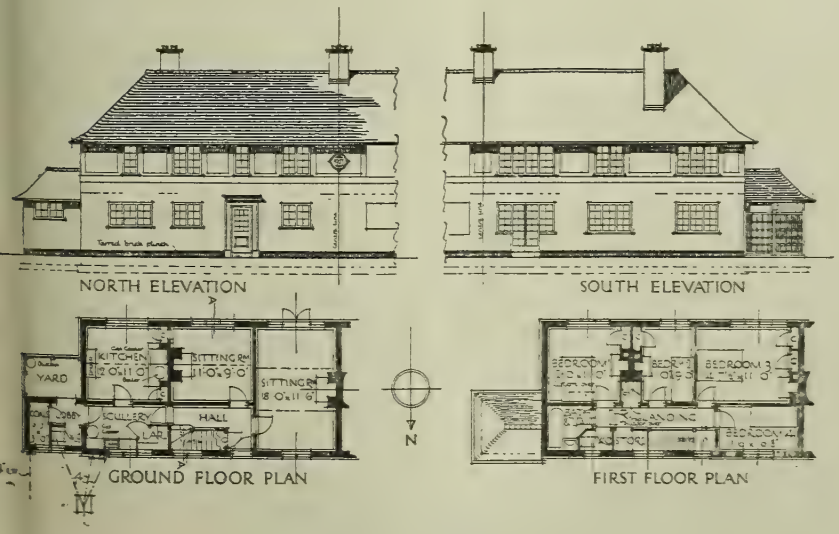
Victory Memorial School.

This building has been remodelled, the plans being first approved of by the Education Department.

The ground floor contains a large hall, from which access is obtained to five good class rooms, master's room, cloak room, &c. The basement floor contains a cooking instruction room, scullery, pantry, cellars, cloak rooms, &c. On the first floor there is the master's house; and on the second floor, sewing rooms and further class rooms. All the work has been carried out by Messrs. H. Bacon & Son, Coulsdon, with the exception of the electric lighting, which was carried out by Messrs. C. Cooper & Co., Ltd., London.

The chapel and the alterations to the Victory Memorial School have been designed and supervised by Mr. J. A. Souttar, architect, 15, Upper Wimpole-street, London, W. 1.

Presentation keys used by H.R.H. the Prince of Wales at the opening of the Victory Memorial School and new Provincial Police Orphanage Chapel, Redhill, were manufactured by James Gibbons, Ltd., Wolverhampton, under the direction of Mr. J. A. Souttar, architect.



"Type B" House.

MODERN STEAM HEATING.

MR. A. J. Assheton, at the meeting of the Institution of Heating and Ventilating Engineers, held at the Engineers' Club, W.C., appealed to his hearers to be fair in their reflections, and not to confuse the early faltering stages in steam heating with the much advanced methods of to-day. He remarked that it should not be classed as a cheap make-shift; it deserved the same engineering skill and study as was paid to other branches of the heating profession. The use of steam as a heating medium was frequently adversely criticised; it was said that the temperature of steam was too intense for direct heating purposes and affected the air. This was one of the minor defects of central heating, but the result would be the same irrespective of the heating medium used. In parts of America and al of Canada it would be impossible to exist without heating of some kind; but in Great Britain the climate was not so severe, and it would be possible to exist without heating engineers. However, the growth of the heating industry had proved that the many advantages of central heating more than compensated for any slight defects. Many critics held that low pressure steam radiators decomposed air impurities, and it was true that unless cleaned there was an odour. Ventilation, however, would soon remove the odours, and the blame was not on the heating system so much as on the person responsible for the cleaning of the radiators.

Paving Works at Plymouth.

Plymouth Corporation Works Committee on Tuesday received from the Unemployment Grants Committee a promise of a 65 per cent. grant in connection with its scheme for repaving fifteen of the streets of the town, at a cost of £22,870, in order to provide winter work for the unemployed. It was decided to put the work in hand immediately.

THE LAKE IN ST. JAMES'S PARK—PAST AND PRESENT.

THE lately-reported leakage in the new concrete bottom of the ornamental water in St. James's Park naturally attracted considerable attention. It now appears from the official statement published in the Press that no occasion exists for anxiety, as everything is made all right and the leakage has been stopped. The old concrete bottom served, we believe, for nearly a hundred years with an occasional patch or two or periodical repair. In connection with this 1827–9 work it will be remembered that Aspdin, the bricklayer, patented his invention of Portland cement in 1824.

St. James's Park was a bare, undrained and comparatively swampy field comprising about 87 acres when Henry VIII enclosed it. The name of "St. James's Park" appeared first in 1539. The property belonged to the Leper Hospital, which stood on the site of St. James's Palace. Some attempt was made during the days of the Tudors to give the property some befitting amenities by utilising the ponds and water-courses. Queen Elizabeth, for instance, kept a lot of waterfowl and replenished and improved their habitable conditions, though her enterprise fell far short of the "brave alterations" carried out by Charles II on his return to London, bringing from his exile enlightened views imbued with Dutch taste for gardening. He employed Le Notre, the architect of the groves and grottos at Versailles, and Dr. Morison became the monarch's chief adviser. The result is well known. The Park of St. James's was laid out with a long, straight canal, with regular avenues of elms and limes stretching away from the Horse Guards Parade, with Buckingham House in the distance. The water-colour by J. Maurer illustrates this accomplishment. Pepys tells, under date of September, 1660, how he extended his walk from "Pell-Mell" to "see how they had proceeded in making a river through St. James's Park which I had never seen since it was begun." The king had thrown several ponds into one. There were also many surface waters existing before then. The further evidence recorded by Pepys is important. He "observed with the greatest pleasure several engines at work to draw up water," and "above all the rest" he "liked best" the invention by which Ralph Greatorex carried up the water at the angle of 45 deg. with "a great deal of ease," showing the abundance of the underground supply at that time.

There has always been a superabundance of water in St. James's Park. "Spring Gardens," at the northern extremity, suggests this, and a fountain hard by was fed therefrom. "Rosamund Lake," pictured by Hogarth and mentioned by Pope, made a favourite feature in the south corner of this Royal estate near the Queen's Palace, then called "Buckingham House." This structure figures in many old paintings probably, but a well-known print by S. Miller shows in a reliable way the original front of what ultimately became incorporated with Buckingham Palace. The Rosamund pond was afterwards called "a lake," filled up in 1770. George IV showed a degenerate taste for art and transmogrified what the Stuarts had accomplished in St. James's Park when he modernised both the water and walks, though some remnants of the picturesque remained and were incorporated, according to current fashion in landscape gardening, which was further developed during the Victorian era. Paths were made "winding and twisting," ensuring cosy and convenient rural retreats or "dead ends," warranting the title of Wycherley's comedy, "Love in the Wood; or, St. James's Park."

Canova, the celebrated architectural artist, whose topographical drawings of the Thames and Westminster are so highly valued, was asked after he had been thus engaged in London some while, what struck him most in England. The artist replied, "that the trumpery Chinese bridge in St. James's Park should be the work of the Government officials and that Waterloo Bridge was the work of private enterprise." This contrast is seemingly ever recurring and the ugly iron bridge still extant over the lake, also the present hard, ugly-looking verge to the new lake bed afford further instances in point.

The immediate connection of these pertinent references about the historic condition of St. James's Park and its present ornamental water bed arise from the prevailing springs and consequent intermittent running water surcharging this district and specially the Park itself. The houses in Queen Anne's Gate (or at any rate, on the north side) are built on piles, judging from one with which the writer had to deal towards the end of the last century. About this date Victoria-street, commenced twenty-five years before that, was being completed, and at the corner of the Broadway a very tall building was erected and standing isolated as it did then, before the adjacent premises were built, it assumed the proportions of a high campanile. The owners of the site next adjoining complained that the structure had been erected out of the upright so that it intruded upon their property sufficiently to reduce appreciably the area of their plot up above. Representatives of the owners of both properties met to try the rightness or wrongness of this assertion. They used the plumb-line with differing results. Sometimes the wall was vertical and sometimes it was out of the upright. It varied so much that it was decided that the plumb-line was no use for so great a height in the open air subject to the wind. Subsequently, therefore, it was agreed to employ an independent surveyor, w should test the wall with a theodolite. Perm sion from the vicar of Christ Church in Victor street was obtained to allow a concrete platfo to be fixed in the churchyard in a suitable po tion to thus sight the wall. The result was indecisive and uncertain that the surve repeated his test over a considerable period, with no better conclusions. Being acquainted with Westminster, he bethou himself of some old maps which led to investigation of a well far off at Hampste where he noted that when this well was full building at Westminster heaved over, and wh the well water was low this same struct became upright and normal. A spring gradua assuming the character of a stream (once m or less open, but now entirely covered in) ma its way through the district near Camden To incidentally taking on its way farther south old fish ponds, once associated with the L Mayor's garden house at the rear of Stratfo place, while in front, along Oxford-street, Tyburn from thence turned down Bond-str and in its course became linked up with waters from which Conduit-street got named a so travelled thus augmented southward till James's Park was passed and so away by Bro way across Victoria-street, when, by a left t eastward, it reached the Thames south of Abbey farther down clear of the site of Houses of Parliament. Roughly, that was surveyor's discovery, which furnished the ex nation of what had happened. Consequen both the owners of the Broadway building a adjacent site cried "quits" and paid betwe them the fees of the surveyors as a finis to dispute. The other buildings, being afterwa completed and wedged together, probably sta firm and do not move on the water-logged p below, regardless of the water flow still going

When the already almost-forgotten Ro Aquarium was erected facing the Abbey (op

COMPARISON OF PRICES OF BUILDING MATERIAL BETWEEN AUGUST 4, 1914, AND NOVEMBER 30, 192

Material.	Aug. 4, 1914. £ s. d.	Nov. 11, 1918. £ s. d.	Oct. 31, 1923. £ s. d.	Nov. 30, 1923. £ s. d.	Rise or I durin Month (Per ce
Bricks—					
Best Stocks	1 16 6	3 3 6	4 2 0	4 2 0	—
Flettons	1 14 0	2 7 8	2 13 3	2 13 3	—
Glazed	13 0 0	17 17 6	22 0 0	22 0 0	—
Thames Ballast	5 9	17 0	10 6	10 6	—
Thames Sand	7 3	17 0	15 6	15 6	—
Shingle (¾ in.)	—	15 0	14 0	14 0	—
Portland Cement	1 17 0	3 8 0	2 18 0	2 18 0	—
Ground Blue Lias Lime	1 0 0	2 2 6	2 13 6	2 13 6	—
Grey Stone Lime	1 8 0	2 7 0	2 10 9	2 10 9	—
Bath Stone	1 7½	1 7	2 9½	2 9½	—
Portland Stone	2 4½	2 10½	4 4	4 4	—
Good Sound Building Timber—					
4 in. × 11 in.	16 10 0	53 0 0	34 0 0	34 0 0	—
3 in. × 7 in.	13 0 0	46 0 0	26 0 0	26 0 0	—
3 in. × 11 in.	15 0 0	50 0 0	34 0 0	34 0 0	—
2 in × 11 in.	—	51 0 0	34 0 0	34 0 0	—
2 in. × 7 in.	—	46 0 0	26 0 0	26 0 0	—
3 in. × 4 in.	—	—	24 0 0	24 0 0	—
Slates—					
24 in. × 12 in.	—	—	37 12 6	37 12 6	—
22 in. × 12 in.	—	—	34 0 0	34 0 0	—
R. S. Joists	9 10 0	—	13 10 0	13 10 0	—
Iron—					
Common Bars	9 0 0	16 10 0	14 0 0	13 10 0	—
Mild Steel Bars	9 5 0	21 0 0	13 10 0	12 10 0	—
Steel Bars	9 5 0	19 10 0	13 10 0	13 10 0	—
Cut Nails	11 10 0	29 0 0	21 10 0	21 10 0	—
Sheet Lead	22 15 0	40 0 0	40 10 0	40 10 0	+
Glass—					
15 oz. Sheet	2	7	3⅜	3⅜	—
21 oz. „	3	8	5	5	—
26 oz. „	3¾	9	6	6	—
Raw Linseed Oil	2 4	8 4	3 9	4 0	+
Turpentine	2 6	11 0	6 7	6 6	—
Ground English White Lead	30 5 0	60 10 0	56 5 0	56 5 0	—
White Lead Paint	—	83 10 0	77 0 0	79 10 0	+
Red Lead	28 10 0	47 0 0	42 0 0	43 0 0	+

site the Westminster Hospital on the site now occupied by the Wesleyan Memorial Hall) the enormous reservoir provided under the building to hold sea water soon went wrong. It was rendered inside throughout with asphalte to make it efficient as a container. The continuous soakage through the crown of the arch, however, caused the asphalte on its intrados to fall off from end to end above the normal top line of the sea water. This damage was due to the prevailing overplus of the land water. Below that level the weight of sea water kept the asphalte in position, though as the contents varied in bulk from day to day to supply the fish tank requirements, the asphalted surface towards the maximum line became correspondnglyu nreliable, and deteriorated by soakage and continued to blister off until the keeping of ish had to be abandoned. This happened years before the premises were demolished.

These incidents are important in regard to the ake bed in St. James's Park, and it may exercise ts influence upon the new work done by the Office of Works. When the water was taken ut of the Hanoverian basin on which the war-ime huts were built, the upward pressure of this and water probably disturbed the old concrete ed precisely as it heaved up " the tower " at the orner of Victoria-street as above described. When the lake was full the weight lessened the ater pressure from below and the water above lso solidified the old concrete bottom which the Government recently replaced.

WORKMEN'S COMPENSATION: SCOPE OF EMPLOYMENT.

The House of Lords has given a very important decision under the Workmen's Compensation Act in the case St. Helen's Colliery, Ltd., *v.* Hewitson. A good many of the colliery workers lived some five miles distant from the colliery, and the colliery company, recognising the importance of securing transport for their employees, had entered into a contract with a railway company providing special trains. By this contract the colliery company agreed to indemnify the railway company against any claims by these passengers in case of accident. Passes were issued to the workmen who desired to use the trains at a less fare than that agreed upon between the colliery company and the railway company, but the employees who used the railway had to sign an agreement with the railway company releasing the company from all claims in case of accident. On October 10, 1921, the respondent, a workman, whilst travelling by one of the trains, sustained injury by a railway accident, and the question raised in the case was, had he sustained an injury by accident " arising in the course of his employment " under the Workmen's Compensation Act, for otherwise by the above agreements he was deprived of any remedy.

The arbitrator had held that he was entitled to compensation, and the Court of Appeal had affirmed that award, but the House of Lords by a majority of four to one had decided otherwise, and this judgment may have considerable bearing on other decided cases under the Workmen's Compensation Acts.

All the judgments delivered are not yet reported, but Lord Buckmaster delivered the leading judgment, and that is reported in the *Times*, November 23.

It is important to observe that he agreed with the arbitrator in finding that it was an implied term of the contract of service that the train should be provided by the employers, and that it was an inseparable part of his contract of employment that the man should have the right to travel by the train, but it was held that it did not conclude the question in the man's favour, as he was not directed to travel by the train, and had he found it convenient, or desirable, he could have arrived at his work by other means, and the real question was, when he entered the train in the morning, was it " in the course of " his employment. The Court of Appeal had relied upon the case Cremins *v.* Guest, Keen and Nettlefolds (1908 1 K. B. 469; *The Builder*, July 4, 1908). That was a case very similar to the present, for by arrangement with the employers, a Colliery, the men were conveyed to and from their work in trains run by the Railway company in carriages owned by the Colliery company to a platform under the employers' control. Whilst standing on this platform an employee was knocked down by the train and killed, and the Court of Appeal held in that case that, as it was an implied term of the contract that the men should have the option of being conveyed to and from their work, the employment included the time of transit.

The House of Lords has now disapproved of this decision, and Lord Buckmaster, in the judgment now delivered, distinguishes between a case where a man has a right to use a means of conveyance and where he is under obligation to use it. Thus he pointed out that an employee entitled by his contract of service to a holiday with a free ticket would have a right to be in the train, but that it would be difficult to say, if an accident occurred to him, that it arose in the " course of his employment " when, as also in the present case, he was under no control nor bound in any way to use the train, and the case of Holmes *v.* Great Northern Railway Company (1900 2 K. B. 209) was distinguished, as the man in that case had been told to go to Hornsey, and a train was provided for him at King's Cross, and thus he was under orders at the time in question. Lord Shaw of Dunfermline dissented from the judgment of the rest of the House, and, moreover, indicated his opinion that the decision involved such hardship—these men being deprived by their contracts of any other remedy—that legislation would be required to alter the law as now laid down.

The important point in this dissentient judgment of Lord Shaw is that he considered that the present decision would overrule the cases Cremins *v.* Guest Keen, and Nettlefolds (" ubi sup "), Walton *v.* Tredegar Iron and Coal Company (B. W. C. C. 592), and Gane *v.* Norton Hill Colliery Company (1909 2 K. B. 539; *The Builder*, July 10, 1909). Walton *v.* Tredegar Iron and Coal Company was a case where a collier was allowed to travel to and from his work free of charge on a train provided by a railway company by arrangement with the employers, but under the contract of service with the employee he was to desist from using the train whenever required to do so by the employers. In attempting to join a train whilst in motion he was killed, and the Court of Appeal held that the arbitrator had been justified in holding that the man's conduct did not take him out of the sphere of employment, and that the accident arose out of and in the course of the employment, and in thus holding the Court of Appeal followed Cremins *v.* Guest, Keen and Nettlefolds. Gane *v.* Hill Norton Colliery appears rather different in character. There a man was returning from work, and he chose a short cut which involved crossing a line which was under the control of his employers when he sustained injury from some trucks which were being moved and the Court of Appeal held the accident arose out of and in the course of the employment: there were other ways the man could have used, but this was the shortest, and he used it with the knowledge of his employers. This case would have to be considered in the light of the decision in the House of Lords in Stewart & Son *v.* Longhurst (1917 A. C. 249: *The Builder*, April 6, 1917), a case in which it was held that, a point hitherto insisted upon, viz., that the place where the accident happened must be in the possession or control of the employers, was not essential, and as the place where the man was killed formed the only access to the place of work and was dangerous it was held that, as the man by his contract of service was compelled to be at that place when the accident occurred, he had sustained injury by accident in the course of his employment.

This fact that the man had to be at the place distinguishes Stewart *v.* Longhurst from the present decision and also from Thom *v.* Sinclair (1917 A. C. 127; *The Builder*, April 27, 1917), to which Lord Shaw referred in his judgment, and the present decision is supported by the case Davidson *v.* McRobb (1918 A. C. 304; *The Builder*, August 2, 1918), where the majority of the House held that a man was not killed in the course of his employment who had gone ashore from a ship for his own purposes and had met his death some sixty yards from the ship.

We have shown that this decision in the case we are considering in the House of Lords has thrown some doubt on some of the decided cases which have interpreted the expression " in the course of," but it remains to be seen what is the test to be applied now that decision has been given, and it appears that the test would be: was the man under his contract of service compelled to be at the place where the accident happened. In the case we are considering it will be seen, according to the finding of the House of Lords, there was no compulsion, as it was entirely optional, but we cannot but agree with the opinion expressed by Lord Shaw that the case is a hard one and some amendment in the law is desirable now such a narrow interpretation has been placed upon the expression " in the course of the employment." So long as this man was in fact proceeding to his work and taking the means provided by the employers to gain access to the place of work it would appear to the layman reasonable to consider he was in the course of his employment, even although he was free to select another means of arriving at his place of work, and it would seem beside the point to say that this cannot be so because if, under like conditions as to his ticket, when he was going on a holiday it would be argued he would also be in the course of his employment. The intention of the man and of his employers must surely be considered, and the distinction of whether a man is furthering his employers' business or only acting for his own pleasure seems the only simple test to apply. This decision is, however, now law unless legislative action is taken; and it will considerably complicate the law, for it throws doubt on the principle adopted in many decided cases. We may revert to the case when it is fully reported.

City Street Improvements.

It was decided by the Corporation of London on November 29 to postpone indefinitely the proposal of the Improvements and Finance Committee for the construction of a new street from St. Martin's-le-Grand to Gresham-street, across the old General Post Office site, and to proceed with the original scheme for the widening of St. Martin's-le-Grand to 80 ft. from Newgate-street to Gresham-street; the widening of Gresham-street from St. Martin's-le-Grand to Foster-lane, and the widening of Cheapside at Sweeting's corner to the junction with St. Martin's-le-Grand to about 95 ft.

Sewage Purification.

We have received from Messrs. Tuke & Bell Ltd., of 27, Lincoln's Inn Fields, W.C., a copy of a new booklet on country house sewage purification, which they have just issued. They are prepared to send this booklet post free to any architects, builders, or private persons who may be interested in the question of sewage purification.

Mr. George Robson.

The death occurred at the Grand Hotel, Newcastle, on December 1, of Mr. George Robson, aged 73 years, a well-known North of England master plumber and hot-water engineer.

THE SCOTTISH BUILDER

STONE DECAY: ITS CAUSES & TREATMENT.

DR. CARRICK ANDERSON lectured on November 30 to the Architectural Craftsmen's Association, Glasgow, on the subject of stone decay.

The lecturer said he proposed to confine what he was about to say to the wasting of the ordinary freestones used in Scottish cities, which was brought about by atmospheric influences.

It was important at the outset to remember that these freestones were sedimentary rocks, which meant that they were originally found as sediments or deposits in water. They had become consolidated into firm masses through the particles of sand having been cemented together by substances that were first of all dissolved in water. The commonest cements were carbonates and silicates of lime, and magnesia and iron, and also oxide of iron. None of these was soluble in pure water; each was introduced among the sand particles as a soluble bicarbonate through the instrumentality of water containing carbonic acid. As the water evaporated, the bicarbonates became broken up and insoluble carbonates were slowly deposited around the grains of sand, partly filling up the intervening spaces and uniting the grains to one another. By further changes the bicarbonate of iron became converted into red oxide, giving rise to the coloured sandstones, while bicarbonate of lime to some extent reacted with the small quantities of silica which were frequently present in natural waters to form silicate of lime. The sandstones so formed were still more or less permeable by water, and, if water introduced into them carried carbonic acid in it, the carbonates of lime and magnesia in particular would be liable to be redissolved as bicarbonates and so removed from their adhesion to the sand grains which would thus become detached. This dissolved carbonate was then ready to be transported whithersoever the movement of the water might carry it.

The purest country air contained nearly three parts of carbonic acid in 10,000, but in cities and towns this figure was increased as a result of the combustion of fuels and the respiration of men and animals in a limited area. In still weather and especially in fogs it might be doubled. Rain falling on a stone surface therefore, especially in a city, became charged with carbonic acid. In addition, it washed out of the air the sulphur acids formed from the combustion of the sulphur that was always present in coal, and gained a further supply of these active substances from the sooty particles that rest on every surface. Sulphuric acid thus became a constituent of the water that fell on any city building, and this when it penetrated the stonework changed the carbonate of lime into sulphate. It might be affirmed that as a result sulphates were present in all city decayed stones at one time or another in their history.

The progress of decay in the stonework of a building was marked by two stages which might be visible at one time on the same structure. It was matter of common observation that the earliest indications of decay generally took the form that individual stones began to crumble on the surface and to throw off particles or scales, and that it was often only a considerable time after that anything like a general disintegration of the surface set in. Both the localised and the more general form of wasting were brought about by the movements of water within the stonework, but they operated in different ways to produce the two results. When acid water penetrated the stones it dissolved some of the lime cement and then in drying out deposited this anew in positions different from those from which it had been removed. These new deposits would be formed in largest amount on and underneath the surface of those stones from which progressive evaporation took place most freely, either by reason of their porosity or their position, or from some other cause or combination of causes determining the ready escape of water from their surface. The sulphate of lime carried by this water was deposited in the surface layers when the water evaporated and by its expansion when crystallising burst off the outer particles of sand. It was this that appeared to produce the localised areas of wasted surface that were the early symptoms of decay. The material, however, that by its accumulation in these places produced such effects had been steadily withdrawn from other parts and the cement was consequently undergoing reduction elsewhere. By and by this depletion would reach a point at which a general softening of the surface became manifest to the eye. The building had a washed-out appearance and the general surface was soft and crumbling.

It was the same movement of soluble saline bodies, constituting the so-called "quarry sap," that by its manifestations afforded foundation for the builder's dislike of putting recently quarried stones into a building.

The remedies proposed might be grouped for the most part under one or other of two heads: (*a*) Those in which a vulnerable cement existing in the stone was intended to be replaced by one less open to attack by atmospheric agencies, this being effected by the use of an active chemical substance; (*b*) those in which attention was directed towards preventing or minimising the entrance of the destructive acid water into the stonework. In the former class were included water glass, the fluosilicates or fluates, and the sulphates of aluminium and of zinc. In the lecturer's experience such remedies had a very limited value. The substitution of a natural cement slowly formed over a long period by one theoretically more stable but quickly produced, and in any case of improved powers of adhesion, was a policy of doubtful expediency, and, in view of what had been said regarding the part played in stone decay by the internal movement of saline water, it appeared to leave untouched the chief agency in the destructive process. Of the class of waterproofing agents the commonest was, perhaps, paraffin oil either alone or along with raw linseed oil and with the latter sometimes an admixture of white lead. These were cheap, and for a time had the effect of excluding rain water. They were, however, not permanent, and either singly or together had the result of darkening the stone, producing a sorry effect that had generally to be counteracted after a few years by a larger addition of white lead or other paint, so that in time the stonework was entirely overlaid and buried out of sight.

Wax preparations formed a considerable class, and had the advantage over paraffin and linseed oils that they did not directly disfigure the building. The wax, however, remained always soft, and was apt thereby to cause increased adhesion of dust and soot particles to the surface of the stonework so that indirectly in time the wax covered surface was darkened as compared with an untreated surface of the same stone. A more serious disability, however, attended the use of these wax preparations, due to the fact that wax did not readily penetrate freestone and while the solvent might enter a considerable distance, the greater part of the wax remained on the surface and was gradually removed by rain and wind. The ideal preservative for use alike on new and on wasted stonework should combine, as far as possible, the qualities of ready penetration, pronounced waterproofing power, and adhesiveness to the extent of reinforcing the existing natural cements in the stone, and so hardening and consolidating its outer layers. It must at the same time be nearly colourless and transparent so as not to affect the natural shade and grain of the stone and finally it must have a high degree of permanence in resisting the influence of a moist and contaminated atmosphere.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Masons' Labourers.	Plasterers' Labourers.
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/–	
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/–	
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 901.

Dundee.—OFFICES.—New offices at Wallacetown Public School, Crescent-street, for Education Authority. All particulars from Mr. J. Williams, executive officer, Education Office, Dundee.

NEW BUILDINGS IN SCOTLAND.

isley.—The Dean of Guild Court has passed for seven houses.

rling.—The T.C. has passed plans for ions and alterations to property in Baker- t, for the Trustees of the Holy Trinity ch; a cottage at Randolph-road, for Mr. A. s.

lry.—The Northern District Committee of Ayrshire County Council has received the ion of the Board of Health to erect 12 es at Dalry.

atbridge.—The Dean of Guild Court has d plans for an extension to the new institute, hall, at an estimated cost of £380.

eghorn.—At the last meeting of the North- District Committee of the Ayrshire County cil, held at Kilwinning, it was stated that rt had been made on the erection of 10 es at Dreghorn, estimated to cost £4,295 ld.

ndee.—The Park Committee proposes to a bandstand in the Baxter Park, the nated cost of which is £1,610.

inburgh.—In connection with the proposed ision of a new hospital, the directors of Edinburgh Royal Maternity and Simpson orial Hospital have decided to appoint an ential committee to represent the various es interested, to consider and report on the ect generally, and especially as to future ions with the hospital and infirmary and o suitable sites.

asgow.—The Corporation propose to invite petitive designs for the erection of a new ic hall on a site in London-road and Charles- t.

evenston.—The Northern District Committee e Ayrshire County Council has received the d's approval to the erection of 36 houses tevenston.

ltcoats.—The Corporation Public Health mittee has been authorised to make investi- ns and report on the possibility of remodel- the buildings, formerly used as a creamery, ousing purposes.

rt William.—The T.C. has decided to apply he Scottish Board of Health for authority rry out a modified scheme for the improve- of the insanitary area on the north side High-street, between Fraser-square and Nevis Hotel-lane. This scheme will sitate the acquisition of a number of erties and the erection or reconstruction of uses.

ith.—The Northern District Committee of County of Ayr has been authorised to erect uses at Beith.

Land for School Purposes.

. Howard Martin, Official Arbitrator, has d his award in a claim by Mr. Arthur John nnell against the Kent County Council g as the Local Education Authority), con- ng the Council's compulsory acquisition of old land having a frontage of 138 ft. to r Holly Hill-road, Belvedere, and com- g 2 roods, 1 pole, 8¾ square yards or there- ts.

e award is as follows:—". . . it being d that a strip of land 12 ft. in width adjoin- he land subject to the notice to treat making al frontage of 150 ft. is to be included in the nase, I award that the Acquiring Authority pay the claimant the sum of £450 as com- ation, and I order the Acquiring Authority ay for the stamp on the award, and the ant to contribute £26 5s. towards the costs e Acquiring Authority."

Obituary.

e death has occurred of Mr. Richard an, one of the partners in the firm of rs. R. Morgan & Sons, builders, Kidwelly marthenshire). The deceased was 59 years e, and intimately connected with the public f the district.

e death has occurred, at Tynedale-terrace, nam, of Mr. Edward Snowball, aged 82, der and contractor, and one of the oldest and esteemed residents of the town.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick-layers.	C'p'ters. Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brentwood	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Colchester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
E. Glam. (Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Great Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Norwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Helens	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	0/11½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2

(For rates of wages in the Building Trade in Scotland, see page 900.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

DECEMBER 8.—**Ossett.**—HOUSES.—Erection of 47 houses on the Horbury-road Site, for the T.C. Mr. H. Holmes, Borough Engineer, Town Hall, Ossett.

DECEMBER 8.—**Weston-super-Mare.**—CONVENIENCE.—Erection of a public convenience with appurtenant works, for the U.D.C. Mr. Harold A. Brown, Surveyor, Town Hall, Weston-super-Mare.

DECEMBER 10.—**Bolton-upon-Dearne.**—DWELLING HOUSES.—Erection of 20 dwelling houses (4 parlour type, 16 non-parlour type) in Barmborough-lane, Goldthorpe, for the Bolton-upon-Dearne U.D.C. Mr. William Hy. Adams, M.S.A., Council Offices, Bolton-upon-Dearne. Deposit 10s. 6d.

DECEMBER 10.—**Bridport.**—RIFLE RANGE.—Erection of miniature rifle range, for the Dorset Territorial Army Association. Mr. F. T. Maltby, architect, Dorchester.

DECEMBER 10.—**Carlisle.**—PAINTING.—For painting to properties, 6 to 8, Castle-street, and repainting and relettering street name plates, for the T.C. Mr. H. C. Marks, City Engineer, 18, Fisher-street, Carlisle.

DECEMBER 10.—**Glamorganshire.**—REPAIRS AND PAINTING, &c.—For carrying out, for the Glamorgan Standing Joint Committee, the following works:—(*a*) Hirwain Police Station, internal and external painting and repairs; (*b*) Pontlottyn Police Station, internal and external painting and repairs; (*c*) Treorchy Police Station, internal and external painting and repairs; (*d*) Penarth Police Station and Court, installation of electric light. Wages and hours clauses in contract. The respective Police Stations or at County Hall, Cardiff, for all works.

DECEMBER 10.—**Grays.**—WELFARE CENTRE.—Erection of child welfare centre, for the U.D.C. Surveyor, Council Offices, Grays. Deposit £2 2s.

DECEMBER 10.—**Howdon.**—TIMBER JETTY.—Construction of timber jetty in Howdon Yard Bay, for the Tyne Improvement Commissioners. Mr. Albert Blacklock. Secretary, Tyne Improvement Commission Offices, Bewick-street, Newcastle-on-Tyne. Deposit £2 2s.

DECEMBER 10.—**Huddersfield.**—HOUSE.—Erection of detached house in Ashbrow-road. Messrs. J. H. Hall & Son, architects, Exchange Buildings, Market-street, Huddersfield.

DECEMBER 10.—**Leek.**—PAINTING.—For painting interior of houses on housing estate, for the U.D.C. Mr. W. E. Beacham, Surveyor, Town Hall, Leek.

DECEMBER 10.—**Morar.**—ARCHWAY.—For erection of archway, for the Committee of the North Morar War Memorial. Bank of Scotland, Mallaig.

DECEMBER 10.—**Newcastle-on-Tyne**—FLATS.—Erection of 208 dwellings in flats in two stories at Delaval-road, Benwell, for the T.C. Housing Architect, 18, Cloth Market, Newcastle. Deposit £2 2s.

DECEMBER 10.—**Scotland.**—MAINTENANCE WORKS.—For the execution of Maintenance Works during the period of three years as follows:—Edinburgh, Glasgow, Stirling, Aberdeen, Dundee, Paisley, Greenock, Perth, Inverness, for H.M. Commissioners of Works. Contracts Branch, H.M. Office of Works, Storey's Gate, S.W.1. Deposits: 10s. for carpenters' and joiners' and ironmongers' work, and plumbers' work; 2s. 6d. for glaziers' work, and 5s. for other trades.

DECEMBER 10.—**Sheffield.**—PAINTING.—For painting at (1) Hollow Meadows Buildings (late Industrial School), (2) Crooksmoor Vestry Hall, (3) City-road Cemetery, chapels, &c., for T.C. Mr. F. E. P. Edwards, architect, Town Hall, Sheffield.

✱DECEMBER 10.—**Tilbury.**—HOUSES.—Erection on reinforced concrete slab foundations, already laid, of about 500 houses in some special form of construction other than bricks, for which unskilled labour can be used. There is an abundance of cement and ballast available locally. Council's Engineer and Surveyor, Council Offices, Tilbury, Essex.

DECEMBER 11.—**Doncaster.**—SHELTER, &C.—Construction of an omnibus shelter and ladies' and gentlemen's lavatories in Waterdale, for the T.C. Mr. F. Oscar Kirby, Borough Engineer, 2, Priory-place, Doncaster. Deposit £2 2s.

DECEMBER 11.—**Edmonton, N.18.**—BUILDING ADDITIONS.—Erection of certain additional buildings at the Laundry, Edmonton House, Bridport-road, Edmonton, for the Guardians of the Edmonton Union. Mr. J. C. S. Mummery, A.R.I.B.A., 34, Bloomsbury-square, W.C.1. No quantities will be provided.

DECEMBER 11.—**Glasgow.**—HOUSES.—Erection of 34 tenements at Dumbarton-road, Balmoral, and Earl-streets, for the T.C. Mr. J. Lindsay, Town Clerk, City Chambers, Glasgow.

DECEMBER 11.—**Gloucester.**—TELEPHONE REPEATER STATION.—Erection of a telephone repeater station at Gloucester, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

DECEMBER 11.—**Hunslet.**—JOBBING WORKS.—For small bricklayer's, joiner's, plumber's, and ironmonger's work for three months, for the Board of Guardians. Mr. Fred W. Mee, Clerk, Union Offices, Glasshouse-street, Hunslet.

DECEMBER 11.—**Liverpool.**—REPAIRS, &C.—For painting and general repairs to Old Swan Police Station and residences in Derby-lane. Land Steward and Surveyor, Municipal Buildings, Liverpool.

DECEMBER 11.—**West Ham.**—ALTERATIONS.—For alterations to fire station and offices, Stratford, for the B.C. Borough Engineer, Town Hall, West Ham, E. Deposit £1.

DECEMBER 12.—**Blackpool.**—HOUSES.—Erection of 102 houses, for the T.C. Mr. E. D. Dennis, architect, 27, Clifton-street, Blackpool.

DECEMBER 12.—**Burton-upon-Trent.**—HOUSES.—Erection of 48 houses for the T.C. Mr. G. T. Lynam, Borough Engineer, Town Hall, Burton-upon-Trent.

DECEMBER 12.—**Cardiff.**—FIREMEN'S QUARTERS.—Erection of firemen's quarters, &c., at the Central Fire Station, Westgate-street, for the T.C. Mr. T. Peirson Frank, F.S.I., City Architect, City Hall, Cardiff. Deposit £2 2s.

DECEMBER 12.—**Edinburgh.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Newington, Edinburgh, for H.M. Commissioners of Works. Architect, H.M. Office of Works, 45, Drumsheugh-gardens, Edinburgh. Deposit £1 1s.

DECEMBER 12.—**Kirkhampton.**—PAINTING, &C.—Decorating, &c., inside Wesleyan Chapel. Alderman Booth, Kirkburton, Huddersfield.

✱DECEMBER 12.—**London, N.1.**—DEMOLITION.—Pulling down the upper portion of an old building in their depot, Liverpool-road, N.1. for the Metropolitan Borough Council of Islington. Borough Engineer's Office, Municipal Offices, Tyndale-place, N.1.

DECEMBER 12.—**Newton Abbot.**—LAVATORY.—For the erection of a gentlemen's lavatory in Market-street, for the U.D.C. Mr. C. D. White, Surveyor, Town Hall, Newton Abbot.

DECEMBER 12.—**Nottingham.**—PAINTING, &C.—For internal cleaning and painting at Dunkirk Council, High Pavement, Leen Side, Lenton Trust, St. Mary's R.C., and Sherwood Council Schools, for the T.C. Education Office, South-parade, Nottingham. Deposit £1 each contract.

DECEMBER 12.—**Rochdale.**—PAINTING.—For painting work at the Art Gallery, for the T.C. Borough Surveyor. Rochdale.

DECEMBER 12.—**Southend-on-Sea.**—CONCERT HALL, &C.—For the execution and completion of a concert hall and shelters on the Second Promenade, Pier Hill, for the Corporation. Mr. Robert H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £2.

DECEMBER 12.—**Southend-on-Sea.**—HOUSES.—For the erection and completion of 66 houses, for the Corporation. Mr. Robt. H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £2.

DECEMBER 13.—**Newcastle.**—NURSES' HOME.—The Hartlepool Guardians are inviting tenders for the erection of a nurses' home at Howbeck House.

DECEMBER 13.—**Penarth.**—HOUSES.—For erection for the U.D.C. of 22 houses at Coleridge-avenue and Comerswell-gardens' sites, Penarth. Council may accept tender for whole or part of the scheme. Surveyor, Council Offices, Penarth. Deposit £2 2s.

DECEMBER 13.—**Woolwich, S.E.**—HOUSES.—Erection of sixty houses, for the Metropolitan Borough Council of Woolwich, on their housing estate at Eltham. Council's Architect; Mr. John Sutcliffe, Borough Engineer, Town Hall, Woolwich. Deposit £3, 3s.

DECEMBER 14.—**Cork.**—LODGE, &C.—Erection of entrance lodge and gateway at the South Infirmary, for the Committee of Management. Mr. J. McCullen, architect, Cork.

✱DECEMBER 14.—**Harlesden.**—Erection of new Steward's quarters and alterations to the Working Men's Club and Institute, Harlesden, N.W. Harold Shaw, 60, Nicoll-road, Harlesden, N.W.10.

DECEMBER 14.—**Morecambe.**—HOUSE.—Erection of a detached residence at Heysham-road, Morecambe. Mr. W. H. Porter, York House, Franklin Mount, Harrogate. Deposit 10s. 6d.

DECEMBER 14.—**Rowley Regis.**—HOUSES.—For erecting 12 semi-detached houses and incidental works of house drainage, &c., for the U.D.C. Mr. Daniel Wright, Clerk, Rowley Regis.

DECEMBER 14.—**Wiggenhall St. Mary Magdalen.**—ADAPTATION.—For adapting and repairing the farm buildings at Orton's Farm, Wiggenhall St. Mary Magdalen, for the Norfolk C.C. Mr. Victor Playle, County Land Agent, Shirehouse, Norwich. Deposit £1 1s.

DECEMBER 15.—**Bradford-on-Avon.**—HOUSES.—For the construction of twelve houses, for the U.D.C. Surveyor, Westbury House, Bradford-on-Avon. Deposit £1 1s.

DECEMBER 15.—**Carshalton.**—HOUSES.—Erection of 28 cottages in twelve blocks and eight flats in two blocks, for the U.D.C. Mr. W. W. Gale, architect, Council Offices, Carshalton. Deposit £2.

✱DECEMBER 15.—**Edgware, Middlesex.**—RESIDENCE.—Erection of a residence with garage and chauffeur's accommodation over; to be completed by May 31, 1924, for the proprietor. Mr. R. Heath Mew, F.R.I.B.A., 119, Moorgate-street, E.C. Deposit £1 1s.

DECEMBER 15.—**Huddersfield.**—EXTENSIONS.—For extensions to West Riding Court House at Huddersfield, for the West Riding Standing Joint Committee. Mr. Percy O. Platts, County Architect, County Hall, Wakefield. Deposit £1.

DECEMBER 15.—**Markinch.**—HOUSES.—Erection of six houses and fencing, for T.C. Mr. W. K. O. Shephard, Town Clerk, Markinch.

DECEMBER 15.—**Prestonpans.**—PAINTING.—For painting of six houses, for T.C. Messrs. R. & A.K. Smith, surveyors, 44, Queen-street, Edinburgh.

DECEMBER 15.—**Wrotham.**—OFFICES.—For the erection of new Council Offices at Borough Green, for the U.D.C. Surveyor, Borough Green.

✱DECEMBER 17.—**Brighton.**—PAINTING.—Exte painting of the Race Stand buildings and sundry o work connected therewith, for the Race Lessees o County Borough of Brighton. Borough Surve Town Hall, Brighton. Deposit £2 2s.

DECEMBER 17.—**Croydon, Surrey.**—HOUSES.—E tion of 48 houses (comprising 80 tenements) at Pa more-road, Thornton Heath, in three sections, on eight houses and two of 20 each, or as one tender the whole, for the County Borough of Croydon. Borough Engineer, Town Hall, Croydon. Deposit for each section, or £6 for the whole of sections, wi will be returned on receipt of a bona-fide tender.

DECEMBER 17.—**Dublin.**—BUILDING WORKS, &c Building works and supplies for Commissioners of Pu Works for six months. Mr. J. J. Healy, Secret Office of Public Works, Dublin. Deposit £1.

DECEMBER 17.—**Poplar.**—TENEMENTS, &C.—E tion of 31 tenements with shops and showrooms o site at Bow-road, for the B.C. Mr. Harley Heckf Borough Surveyor, Council Offices, Poplar. Dep £3 3s.

DECEMBER 18.—**Cheltenham.**—ADAPTATION.—Ad tation of the Wolseley Hotel, Cheltenham, to for telephone exchange, for the Commissioners of Majesty's Office of Works. Contracts Bra H.M.O.W., King Charles-street, London, S.W Deposit £1 1s. (payable to the Secretary).

DECEMBER 18.—**Glasgow.**—HOUSES.—Erection 126 houses at Whitefield-road and Brand-street, for T.C. Mr. J. Lindsay, Town Clerk, City Chamb Glasgow.

DECEMBER 18.—**Hackney, E.8.**—BUILDING WOR —Building works, being extension and completion the electricity sub-station at Dalston-lane, Hackn for the Metropolitan Borough of Hackney. Boro Electrical Engineer, 306, Mare-street, Hackney, E on and after November 26. Deposit £1 1s.

DECEMBER 19.—**Birmingham.**—BUILDING.—Er tion of an employment exchange at Aston, Birmingh for the Commissioners of His Majesty's Office of Wor Contracts Branch, H.M.O.W., King Charles-str London, S.W.1. Deposit £1 1s. (payable to Secretary).

DECEMBER 19.—**Cowdenbeath.**—HOUSES.—Erec of six houses in Stenhouse-street, for the T.C. Mr A. Alexander, Burgh Surveyor, Town House, Cowd beath. Deposit £2 2s.

DECEMBER 19.—**Featherstone.**—HOUSES.—Er tion of 20 houses at Little-lane, Purston, near Por fract, for the Featherstone U.D.C. Mr. Sam Chesney, A.R.I.B.A., Council Offices, Featherstc near Pontefract. Deposit £2 2s.

DECEMBER 19.—**Hackney.**—ADDITIONS.—Erectio new front entrance, receiving wards, porter's lodge, at the Infirmary of the Board of Guardians. Mr. F Coles, Clerk, Offices, Sidney-road, Homerton, Deposit £5.

DECEMBER 19.—**Hawksworth.**—FARMHOUSE, &c (*a*) Farmhouse and buildings at Lane Side Fa Hawksworth; (*b*) alterations and repairs to exist farm buildings at Lane Side Farm, Hawksworth, for West Riding Small Holdings' Committee. Land Ag County Hall, Wakefield. Deposit £1.

✱DECEMBER 19.—**London, E.9.**—BUILDING A TIONS.—Erection and completion of new front entra receiving wards, porter's lodge, &c., at the Infirm High-street, Homerton, E.9, for the Guardians o Hackney Union. Mr. Frank R. Coles, Clerk to Guardians, Guardians' Offices, Sidney-road, Homer E.9. Deposit £5.

DECEMBER 19.—**West Riding.**—REPAIRS.—Ada tions and repairs to existing farmhouse and build on Loversall Estate and Carr Lodge Farm, for the W Riding Small Holdings Committee. County L Agent, County Hall, Wakefield.

DECEMBER 20.—**Leigh, Lancs.**—TELEPHONE CHANGE.—Erection of a telephone exchange at Le Lancs, for the Commissioners of His Majesty's O of Works. Contracts Branch, H.M.O.W., K Charles-street London, S.W.1. Deposit £1 1s. (p able to the Secretary).

✱DECEMBER 20.—**Middlesex.**—HOUSES.—Erectic 16 houses in Albany-road, Enfield Wash, Middle for the Enfield U.D.C. Council's Surveyor, Pu Offices, Enfield, Middlesex. Deposit £2 2s.

DECEMBER 20.—**Portsmouth.**—FLATS.—For w to be executed and materials to be provided for erection and completion of four blocks of flats in Vo street, Landport, and for maintenance thereo thorough repair for six calendar months from the c pletion thereof, for the Portsmouth T.C. Mr. Arthu Ward, Borough Engineer, Town Hall, Portsmouth

✱DECEMBER 20.—**Rochford, Essex.**—RESIDENC Erection of Medical Officer's residence at Rochford the Guardians of the Rochford Union. Mr. Nor Evans Lic. R.I.B.A., 27, County Chambers, Wes road, Southend-on-Sea. Deposit £1 1s.

DECEMBER 21.—**Kent.**—SCHOOL EXTENSIO Extension of the School of Art, Beckenham, for U.D.C. County Education Architect (Mr. W. Robinson, F.S.Arc.), Room 69, Sessions House, M stone. Deposit £2.

✱DECEMBER 28.—**London, N.**—TELEPHONE CHANGE.—Erection of a telephone exchange at Palm Green, London, N., for the Commissioners of Majesty's Office of Works. Contracts Bra H.M.O.W., King Charles-street, London, S. Deposit £1 1s. (payable to the Secretary).

✱DECEMBER 28.—**Manchester.**—SORTING OF AND TELEPHONE EXCHANGE.—Erection of a sor office and telephone exchange at Openshaw, Manche for the Commissioners of His Majesty's Office of Wo Contracts Branch, H.M.O.W., King Charles-st London, S.W.1. Deposit £1 1s. (payable to Secretary).

DECEMBER 28.—**Southampton.**—HOTEL, &C.—C tract No. 1: the erection of a hostel for 45 students posit £5 5s.); (2) For the construction of ferro-conc floors, stairs and flat roofs to the Hostel, "Coign system (deposit £2 2s.), for the County Borou Southampton. Mr. A. L. Roberts, County Archit The Castle, Winchester. Cheques to be made pay and crossed "Lloyds Bank, Ltd. (Capital and Cou Branch), Winchester."

DECEMBER 29.—**Salford.**—ADDITIONS.—For additions to Union Infirmary, Pendleton, for the Board of Guardians. Mr. E. H. Inchley, Clerk, Offices, Eccles New-road, Salford. Deposit £2 2s.

JANUARY 3, 1924.—**Omagh.**—HOUSES.—Erection of 16 pairs of semi-detached dwellings, for the U.D.C. Mr. J. P. McGrath, architect, Londonderry.

JANUARY 9. — **Tynemouth.**— SCHOOL. — The Education Committee are inviting tenders for the erection of a new elementary open-air school in Lovaine-gardens, North Shields, to accommodate 170 children; and also, by the same date, tenders for a new elementary school at Spring-gardens, North Shields, providing accommodation for 845 children.

NO DATE.—**Abergavenny (near).**—BUILDINGS.—For erection of a country residence with garage, stables, cottages, &c., near Abergavenny (Mon). Messrs. Rodger & Stevens, architects, 25, Stoke-lane, Westbury-on-Trym, near Bristol.

NO DATE.—**Dudley Hill.**—CLUB.—Erection of Working Men's Club and Institute at Shirley-road, Dudley Hill. Mr. A. T. Verity, architect, Moor Dene, Birkenshaw.

NO DATE.—**Leeds.**—HOUSE.—Erection of detached house at Stanks, near Leeds. Messrs. F. Mitchell & Sons, architects, 9, Upper Fountaine-street, Albion-street, Leeds.

NO DATE.—**Pontypridd and District.**—BUNGALOW AND SHOP.—For (*a*) construction at Treharris of shop-front and fitting shop with counters, &c., and (*b*) erection at Merthyr-road, Pontypridd, of stone-built bungalow. Mr. J. H. Davies, architect, 67, Taff-street, Pontypridd.

NO DATE. — **Ravensthorpe.** — CONCRETING. — For placing 1,000 super yards of concrete, 6 in. thick, on girders. Messrs. Henry Hamer & Sons, Ltd., Ravens Ing Mills, Ravensthorpe.

NO DATE.—**Rochdale.**—PAINTING.—For school painting during the Christmas holidays. Mr. J. E. Holden, Secretary, Education Office, Baillie-street, Rochdale.

NO DATE.—**St. Albans.**—COTTAGES.—Erection of 10 cottages at Leverstock Green, for R.D.C. Mr. H. F. Mence, 11, St. Peter's-street, St. Albans. Deposit £2 2s.

FURNITURE, MATERIALS, etc.

DECEMBER 10.—**Broadstairs.**—MATERIALS.—Supply of 400 tons of granite macadam to the U.D.C. Mr. H. Hurd, Surveyor, Broadstairs.

DECEMBER 10.—**Hull.**—MATERIALS.—For supply of stores to the Electricity Dept. of the T.C. Mr. H. Bell, City Electrical Engineer, Hull.

DECEMBER 10.—**Manchester.**—PITCH &C.—Supply of pitch and creosote oil for paving purposes. Mr. Henry Mattinson, General Manager, Corporation Tramways, 55, Piccadilly, Manchester.

DECEMBER 12. — **Manchester.** — MATERIALS. — Six months' supplies of lime (lump and small), gun metal, and phosphor bronze castings, paints, &c., and bolts and nuts, and the twelve months' supply of malleable iron castings. Mr. Robert Williamson, Superintendent of the Cleansing Department, Town Hall, Manchester.

DECEMBER 12.—**Manchester.**—PITCH, &C.—Supply to the Paving, Sewering, and Highways Committee of pitch and creosote oil. Paving, &c., Department, Town Hall, Manchester.

DECEMBER 13.—**Dublin.**—SLEEPERS.—Supply to the Great Northern Railway (Ireland) Co. of Baltic softwood sleepers, 9 ft. by 10 in. by 5 in. creosoted and uncreosoted. Mr. J. B. Stephens, Secretary, Amiens-street Station, Dublin.

DECEMBER 13.—**Dublin.**—STORES.—Supply of stores for one year to the Commissioners of Irish Lights. Mr. J. B. Phelps, Sec., Irish Lights Office, Dublin.

DECEMBER 13.—**Pontypridd.**—SUPPLIES.—For supply to the Pontypridd B.G. for use at Central Homes, Pontypridd, the Llwynipia Homes and Children's Homes, Church Village, as from January 1 next, of ironmongery, enamelled goods, drugs, crockery, brooms and brushes, paints and oils, wines and spirits, leather, electrical materials, disinfectants (soaps and liquids), haberdashery, drapery, uniforms, clothing, &c. Mr. William Spickett, Clerk to the Guardians, Union Offices, Pontypridd.

DECEMBER 13.—**Wallasey.**—OILS.—Supply of engine lubrication oil, cylinder oil, and Colza lamp oil, for a period of six or nine months to the T.C. Ferries General Manager, Ferries Office, Seacombe.

DECEMBER 17.—**Newport (Mon).**—SUPPLIES.—For supply to the Newport (Mon) Board of Guardians of boots and slippers, steam coal (washed nuts), paints, paint brushes, engineers' stores, electric light fittings, ironmongery and tinware, brushes, leather sundries, corn and meal, &c. Mr. William Dowler, Clerk to the Guardians, Union Offices, Queen's-hill, Newport (Mon).

DECEMBER 17. — **Warrington.**—OILS.—Supply of lubricating oils for six months to the T.C. Mr. R. Wilson, Sewage Manager, Longford Depot, Warrington.

DECEMBER 18.—**Bedwellty.**—BOOTS, &C.—For supply to Bedwellty Guardians for their out-relief recipients in Tredegar district of boots, shoes, &c. Mr. William Hall, Clerk, Union Offices, Tredegar.

DECEMBER 18. — **Warrington.**—MATERIALS.—Engineer's and plumber's goods, for the Board of Guardians. Clerk, Bewsey Chambers, Warrington.

JANUARY 23, 1924.—**Madras.**—PIPES.—Supply of stoneware pipes and specials, ranging from 4 in. to 18 in. diameter, and aggregating a total length of 400,000 lineal ft., for the T.C. Messrs. James Mansergh & Sons, agents, 5, Victoria-street, S.W. Charge 5s.

NO DATE.—**Salford.**—RETORTS, &C.—Supply of retorts, firebricks, &c., to the T.C. Gas Engineer, Gas Office, Bloom-street, Salford.

ENGINEERING, IRON AND STEEL.

DECEMBER 10.—**Carlisle.**—BRIDGE.—Construction of a steel lattice girder footbridge, 252 ft. long and 6 ft. wide, over the River Caldew, for the T.C. Mr. Henry C. Marks, City Engineer, 18, Fisher-street, Carlisle.

DECEMBER 10.—**Eccles.**—MATERIALS.—Supply of tramway rails, copper bonds, and tie bars, to the T.C. Mr. Thomas S. Picton, Borough Engineer, Town Hall, Eccles. Deposit £1 1s.

DECEMBER 10.—**Glasgow.**—ELECTRIC LIGHTING.—For electric lighting installation of the Kelvindale Housing Scheme. Mr. R. B. Mitchell, City Electrical Engineer, 75, Waterloo-street, Glasgow.

DECEMBER 10.—**Penarth.**—ELECTRIC LIGHTING.—For electric lighting installation at Penarth Police Station and Court, for the Glamorganshire C.C. Mr. W. E. R. Allen, Deputy Clerk, Glamorgan County Hall, Cardiff.

DECEMBER 10.—**Wallasey.**—CRANE.—Supply and erection of a 30-ton overhead electric travelling crane, for the T.C. Mr. B. T. Hawkins, Electricity Department, Sea View-road, Wallasey.

DECEMBER 11.—**Kinross.**—RESERVOIR.—Construction of a brick and concrete water storage reservoir of about 132,000 gallons capacity, and providing and laying 640 yds. of 6, 5 and 4 in. diam. fireclay pipes, for the Fife and Kinross Joint Sanatorium Board. Messrs. Bruce & Proudfoot, civil engineers, 83, Nicol-street, Kirkcaldy. Deposit £2.

DECEMBER 11.—**Liverpool.**—HEATING CHAMBERS.—For the construction of heating chambers and other work at Burlington-street, Gore-street, and Green-lane open-air baths, for the T.C. Chief Superintendent of Baths, 75, Dale-street, Liverpool.

DECEMBER 11.—**London.**—MATERIALS.—Supply to the Director-General, India Store Department, of copper and brass bolt, rod, tubing, plates and sheets, and Babbit's metal. Branch 12, Belvedere-road, S.E.

DECEMBER 11.—**Temple Cloud, near Bristol.**—HEATING (HOT-WATER).—Installing, for the Clutton B.G. in their Institution, a system of hot-water heating and hot-water service, together with sundry other improvements. The Engineer, Clutton Union, Temple Cloud, near Bristol.

DECEMBER 12.—**Bramley.**—ELECTRIC LIGHTING.—For installing electric light at the Institution of the Board of Guardians. Clerk, 1, Green Hill-road, Armley, Leeds.

DECEMBER 12.—**East Grinstead.**—ELECTRIC LIGHT.—For carrying out a scheme of electric lighting at the Institution of the B.G. Mr. Alan Huggett, Clerk, Union Offices, 36, High-street, East Grinstead. Deposit £1 1s.

DECEMBER 12.—**Warrington.**—FENCING.—For 900 lin. yds. of wrought-iron unclimbable fencing, and four sets of gates, for the T.C. Mr. A. M. Ker, Borough Engineer, Warrington.

DECEMBER 15.—**Erpingham.**—GROYNE.—Erection of a new groyne at Overstrand, for the R.D.C. Messrs. A. F. Scott & Sons, 24, Castle Meadow, Norwich.

DECEMBER 15.—**Hull.**—MATERIALS.—For brass, iron, and steel and wood materials, for the Tramways Department. Mr. E. S. Rayner, Manager, Hull.

DECEMBER 15.—**Leeds.**—GAS METERS.—Supply of ordinary and prepayment dry gas meters to the T.C. Mr. C. S. Shapley, Engineer, Gas Offices, Market Hall, Leeds.

DECEMBER 19. — **Edinburgh.** — ENLARGEMENT OF WATER TANK.—For the enlargement of tank at Fairmilehead, for the T.C. Messrs. J. & A. Leslie & Reid, C.E., 29, Waterloo-place, Edinburgh. Deposit £5.

DECEMBER 20.—**South Africa.**—MATERIALS, &C.—Supply to the municipality of Graaf-Reinet of (*a*) cast-iron water-pipes, valves and fittings; (*b*) crude oil engines, generators and street equipment. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

DECEMBER 21.—**Nottingham.**—FILTRATION PLANT.—Construction and erection of filters capable of dealing with three million gallons per 24 hours, at filter works, for the Eastwood T.C. Mr. F. W. Davies, Engineer, Water Dept., Castle Boulevard, Nottingham. Deposit £5 5s.

DECEMBER 26.—**Aberdeen.**—INTAKE, &C.—Construction of an intake and screening house, a 5 ft. diameter conduit and ancillary works alongside the River Dee at Cairnton, Invercannie, for the T.C. Mr. George Mitchell, Water Engineer, 41½, Union-street, Aberdeen. Deposit £5.

DECEMBER 31.—**Kempton Park.**—ENGINES, &C.—Supply and erection of two reciprocating engines and pumps at Kempton Park Pumping Station, for the Metropolitan Water Board. Chief Engineer's Department, 173, Rosebery-avenue, Clerkenwell, E.C. Deposit £3 3s.

DECEMBER 31.—**London.**—CRANES.—Supply of (*a*) 3-ton travelling crane, and (*b*) 30 cwt. workshop crane, for the Central Car Depot of the L.C.C. Tramway Manager, Victoria Embankment, W.C. Deposit £2.

JANUARY 1, 1924. — **Georgetown.** — WATERWORKS PLANT.—Supply and erection of a 250 h.p. crude oil engine and centrifugal pumping set, &c., for the T.C. of Georgetown, British Guiana. Messrs. H. H. Humphreys & Sons, 28, Victoria-street, S.W. Deposit £10 10s.

JANUARY 7.—**Bristol.**—DOCK.—For construction of Eastern Arm, Royal Edward Dock, Avonmouth, for Docks Committee. Mr. Thomas A. Peace, Chief Engineer, Port of Bristol. Deposit £15.

JANUARY 15.—**Toronto.**—SLUDGE PUMP.—Supply and erection at main sewage pumping station of centrifugal sludge pump, for the T.C. Dept. of Overseas Trade, 3B, Old Queen-street, S.W. Reference 12614/ED/EC/2.

JANUARY 16. — **Glasgow.** — REFUSE DISPOSAL WORKS.—Tenders and designs for proposed refuse disposal works at Govan, Glasgow. Mr. W. Greig, Superintendent of Cleansing, 20, Trongate, Glasgow.

JANUARY 17.—**New Zealand.**—PIPES, &C.—Supply of 10 in., 12 in., and 21 in. steel pipes and fittings, for the Orongorongo-Karori Water Main. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

FEBRUARY 5.—**New Zealand.**—GIRDER SPANS.—Supply of plate girder spans to the Public Works Tender Board, New Zealand, for the Stratford Main Trunk Railway. Department of Overseas Trade, 35, Old Queen-street, S.W. Reference 12569/ED/EC.

FEBRUARY 14.—**Argentine.**—POWER STATION.—For the construction of a central electric power station of 15,000 h.p., for the Argentine State Oilfields Administration. Department of Overseas Trade, 35, Old Queen-street, S.W.

MAY 1. — **China.** — BRIDGE. — The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W.1. Reference 11647/F.E./E.C./2.

NO DATE.—**Horbury.**—ELECTRIC LIGHT.—Installation of electric light in the Primitive Methodist Church and School. Horbury, Mr. G. W. Outhwaite, Horbury.

NO DATE.—**Hucknall.**—HEATING.—For low pressure hot-water heating installations, to be fixed at Rushcliffe Smallpox Hospital. Mr. E. W. Bostock, Surveyor, Council Offices, Hucknall.

NO DATE.—**Whitminster.**—BRIDGES.—For widening in ferro-concrete, on the Hennebique system, the bridge over the canal at Whitminster, and the Pike Bridge, Eastington, Stonehouse, for the Gloucestershire C.C. County Surveyor, Shire Hall, Gloucester. Deposit £2 2s.

ROAD, SANITARY, AND WATER WORKS.

DECEMBER 10.—**Birmingham.**—ROADS.—For the construction of reinforced concrete foundations to the carriageways and provision of granite kerb in Montgomery-street, South-road, and Henley-street, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham.

DECEMBER 10.—**Manchester.**—ROADS.—For making-up Clarence-street, Newton Heath; New-street, Newton Heath; and Coffee-street, Gorton, for the T.C. Paving, &c., Department (District Surveyors' Office), Town Hall, Manchester. Deposit £1 1s.

DECEMBER 10.—**Repton.**—SEWERS.—Construction of stoneware pipe sewers, &c., at Mickleover, for the R.D.C. Messrs. Willcox & Raikes, 63, Temple-row, Birmingham. Deposit £5 5s.

DECEMBER 10.—**Worsborough.**—SEWER.—Construction of a 9 in. pipe sewer along Yews-lane, Worsborough Dale, for the U.D.C. Mr. T. Shield, Surveyor, Saville House, Worsborough Bridge. Deposit £1 1s.

DECEMBER 11.—**Edmonton, N.18.**—ROAD ALTERATIONS.—Alteration and re-forming at a different gradient the entrance road at the Silver-street entrance of the North Middlesex Hospital, Edmonton, N.18, for the Guardians of the Edmonton Union. Mr. J. C. S. Mummery, A.R.I.B.A., 34, Bloomsbury-square, W.C.1. No quantities will be provided.

DECEMBER 11.—**Enfield.**—DRAINAGE.—Construction of 9 in. stoneware pipe surface water drain at Mandeville-road, for the U.D.C. Mr. H. R. Crabb, Surveyor, Public Offices, Enfield. Deposit £2 2s.

DECEMBER 11.—**Glasgow.**—ROADS, &C.—Construction of roads and sewers at Merryflatts Housing Scheme, for the T.C. Director of Housing, Govan Town Hall, Glasgow.

DECEMBER 11.—**Gosforth.**—SEWERS.—Laying new sewers and formation of roadway on housing site, for the U.D.C. Mr. Geo. Nelson, Surveyor, Council Chambers, High-street, Gosforth.

DECEMBER 11.—**Great Crosby.**—ROADS.—For the widening and reconstruction of College-road, Great Crosby, for the U.D.C. Mr. Joseph A. Wright, Surveyor, Council Offices, Great Crosby.

DECEMBER 11.—**Leeds**—ROADS.—Making-up of Allerton-avenue, Allerton-grove, back Barkly-grove, and the kerbing and paving of channels at Weetwood-lane Improvement, for the T.C. Highways and Permanent Way Dept., 1, Swinegate, Leeds. Deposit £1 1s.

DECEMBER 11.—**London.**—SEWER.—Construction of a 4 ft. internal diameter sewer in brick of a total length of about 7,290 feet, in Wandsworth and Lambeth, for the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £5.

DECEMBER 11.—**London.**—SEWER.—Construction of a brick sewer of varying sizes from 5 ft. to 9 ft. internal diameter, of a total length of about three miles, in Lewisham, for the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £10.

DECEMBER 11.—**Preston.**—WATER MAINS.—For the laying of 7 miles 196 yds. of 5 in., 4 in., and 3 in. cast-iron water mains, for the R.D.C. Mr. J. R. Taylor. Surveyor, 160, Walker-street, Preston. Deposit £2 2s.

DECEMBER 12.—**Birmingham.**—SEWERS.—Construction of (1) 649 yds. of brick and concrete circular sewers, and 1,034 yds. of stoneware pipe sewers, at Batchelor's Farm Estate; (2) 60 yds. of brick and concrete culverts, and 1,170 yds. of stoneware pipe sewers, between Pebble Mill-road and Edgbaston Park-road, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2 each.

DECEMBER 13.—**Cambuslang.**—ROADS.—For making up Colebrooke-street, Cambuslang, for the Lanark C.C. Mr. William A. Chapman, Road Surveyor, District Offices, Hamilton.

DECEMBER 13.—**Hastings.**—ROADS.—For construction of a road at Ore, for the T.C. Mr. P. H. Palmer, Borough Engineer, Hastings. Deposit £2.

DECEMBER 13.—**Rawtenstall.**—SEWERS.—For the sewering of Hollin-lane, for the T.C. Borough Surveyor's Office, Town Hall, Rawtenstall. Deposit £1.

DECEMBER 14.—**Nottingham.**—WATER MAINS.—For laying about 452 yards of 6in., 800 yds. of 16in., and 14,760 yds. of 18in. cast-iron pipes, for the T.C. Mr. F. W. Davies, Engineer, Water Dept., Castle Boulevard, Nottingham. Deposit £5 5s.

DECEMBER 15.—**Birmingham.**—SEWERS.—Construction of 1,137 yds. of stoneware pipe sewers in Leach Green-lane and Each Way-lane, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

DECEMBER 15.—**Chester.**—ROADS.—For the reconstruction with mastic asphalte on reinforced concrete foundations of Stocks-lane, Delamere-street, City Walls-road, and reconstruction with granite setts on reinforced concrete foundations of Canal-street, for the T.C. Mr. Charles Greenwood, City Engineer. Town Hall, Chester.

DECEMBER 15.—**East Riding of Yorkshire.**—ROADS.—For the strengthening and resurfacing of 16 miles of roads at Beverley (four sections), and 15¾ miles in Hull (three sections), for the C.C. County Surveyor, County Hall, Beverley. Deposit £2 2s.

DECEMBER 17.—**Market Bosworth.**—SEWAGE WORKS.—For sewerage and sewage disposal works at Ibstock, for the R.D.C. Messrs. Elliott & Brown, Burton Buildings, Parliament-street Nottingham. Deposit £3 3s.

DECEMBER 17.—**Mountain Ash.**—ROADS.—Construction of 350 lin. yds. of roadway with sewers and surface water drains, for the U.D.C. Mr. W. G. Thomas, Surveyor, Town Hall, Mountain Ash.

DECEMBER 17.—**Torpoint.**—WATER SUPPLY.—For the provision and laying of 6½ miles of 8 in. and 6 in. water mains, the construction of valves, chambers, storage reservoir, filter beds, service reservoir, and other works, for the U.D.C. Mr. F. Johns, Council Offices, Torpoint. Deposit £5 5s.

DECEMBER 18.—**Bingham.**—SEWERS.—Construction of 868 yds. of 9 in. stoneware pipe sewers, &c., in Shelford-road, Radcliffe-on-Trent, for the R.D.C. Mr. C. W. Kendrick, Sanitary Surveyor, Council Offices, Bingham. Deposit £1 1s.

DECEMBER 18.—**Salford.**—ROADS.—For paving passages, for the T.C. Borough Engineer, Salford.

DECEMBER 19.—**Hammersmith.**—ROADS.—For the repaving of Hammersmith-road (part of) and Askew-road (part of), for the B.C. Mr. H. H. Clucas, Borough Engineer, Town Hall, Hammersmith, W.

DECEMBER 19.—**Newcastle-on-Tyne.**—ROADS, &C.—Construction of roads and sewers required for the Rochester-street dwellings, Walker, for the T.C. Housing Architect, 18, Cloth Market, Newcastle. Deposit £1 1s.

DECEMBER 26.—**Mull.**—ROADS.—Construction of 2½ miles of road in the Island of Coll, for the Argyll C.C. Mr. Arthur MacNaughton, Mull District Surveyor, Tobermory.

DECEMBER 29.—**Fe therston**s.—SEWER.—For relaying of about 1¼ miles of 15 in. diameter outfall sewer (cast-iron and stoneware pipe), for the U.D.C. Mr. Samuel Chesney, Council Offices, Featherstone, near Pontefract. Deposit £2 2s.

Competitions.

(*See Competition News, page* 874).

Auction Sales, Tenders, etc.

DECEMBER 11. — **Guildford.** — Messrs. Joseph Hibbard & Sons will sell (by order of Messrs. Sutton & Co. (Guildford), Ltd., who are relinquishing business), in three lots (unless previously sold by private treaty), at the offices in Woodbridge-road, Guildford, very valuable main road modern freehold timber yard, store, and suite of offices, situated at 86A, Woodbridge-road, Guildford; also valuable freehold mill site, at Merrow. Auctioneers, as above.

DECEMBER 11. — **London, S.W.** — Messrs. Veryard & Yates will sell, without reserve, at 255, Clapham-road, S.W. (close to the "Swan," Stockwell), a stock of timber, fittings, and building materials from demolition of a commodious residence. Auctioneers, 365, Norwood-road, S.E.27.

✱DECEMBER 13.—**Barnet, Herts.**—Messrs. Harland & Son will sell, at Salisbury Hotel, Barnet, freehold well-established business premises and detached residence adjoining, known as "Stanhope," Arkley, Barnet, Herts, on main road from London to Watford. Auctioneers, 69, High-street, Barnet, Herts.

DECEMBER 13.—**London, E.C.**—Mr. Joseph Stower will sell, with vacant possession, freehold property containing the important area of about 75,000 ft., or nearly 1¾ acres, prominently and conveniently situated on the north side of and fronting the main Bow-road. Auctioneers, 43, Chancery-lane, London, W.C.2.

DECEMBER 13. — **London, S.E.** — Messrs. Veryard & Yates will sell without reserve, at 126, Norwood-road, S.E. (close to Tulse-hill and Herne-hill Stations), useful building materials, timber, &c., iron girders, York stone, paving, firewood, &c. Auctioneers, 365, Norwood-road, S.E.27.

✱DECEMBER 18.—**London, N.**—Messrs. Chas. R. Davis & Co. will sell, under a D/A, *re* W. E. Gann trading as R. J. Gann & Son), by order of the Trustee, at Monnery Works, 26, Monnery-road, Junction-road, N.19, the builders' and decorators' materials and plant. Auctioneers, 285, Borough High-street, S.E.1.

Public Appointments.

✱DECEMBER 18.—**York.**—Clerk of Works required in Architect's Department, L. & N.E. Rly. (N.E. Area), commencing January 1, 1924, six months' probation and permanency to suitable man. Apply, with copies of three testimonials, to Mr. Stephen Wilkinson, A.R.I.B.A., Architect, London & North Eastern Railway, York.

✱DECEMBER 19.—**London, S.W.19.**—Fully qualified Building Inspector required by the Merton and Morden Urban District Council. Applications, with three testimonials, to Mr. C. J. Mountifield, Clerk to the Council, Council Offices, Kingston-road, Merton, S.W.19.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council: R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ALTRINCHAM.—The local branch of the Young Women's Christian Association propose to provide new club room accommodation, and converting their present premises in Ashley-road into a women's hostel. The scheme is estimated to cost £8,000.

AMMANFORD.—The site of Public Hall will be ceded to Committee on December 24th, and work of erection will be immediately proceeded with. The local Miners' Welfare Committee has already received grant of £1,000 from Central Fund for project, and will receive additional £2,000 in March next.

ARDSLEY.—Plans passed by U.D.C.: Four houses at Bradford-road, Tingley, for Mr. Fred. Clough; 2 houses at Tingley, for Mr. H. Longden; house in Rein-road, W. Ardsley, for Mr. L. Carter; and a bungalow, Woodhouse-lane, E. Ardsley, for Mr. C. F. Lingwood.

AYR.—The Dean of Guild Court has passed plans for the erection of additional buildings to accommodate cattle and sheep at the Ayrshire Agricultural Association's showground at an estimated cost of £1,400. Plans were also passed for the erection of two houses under the Corporation's subsidy scheme—namely, house at Castlehill-road, for Mr. David Reid, 62, Grove-avenue, Hanwell, London, estimated cost, £800; and bungalow at Arran-terrace, for Mr. Robert Stewart, 122, George-street, Ayr, estimated cost, £925.

BARRY (GLAMORGAN).—The Ministry of Health has sanctioned the borrowing of £24,960 by the Barry U.D.C. for the purpose of proceeding with scheme for construction of a marine lake at Cold Knap; this sum represents only the initial work, the total estimated cost of completed scheme being £50,000.——Plans for new public reading rooms to be erected at Barry Island on site given by Plymouth Estate have been approved.

BATH.—The Housing Committee has decided to recommend the Council to invite tenders for the completion of the Englishcombe Park Housing Scheme by the erection of 86 more houses. The response to the scheme under which the Corporation arranged to grant subsidies has n t been very encouraging.——Plans approved by T.C.: Warehouse, Shaftesbury-road.——The T.C. propose to construct a sewer from Bear Hall to Second-avenue, at a cost of £2,000.——Sanction to a loan of £9,118 has been received for an extension of the water supply to Lansdown and Langridge.

BATLEY.—At the last meeting of the Batley and District Hospital Board it was decided to proceed with an extension scheme. Tenders have been invited, and, subject to the approval of the Ministry of Health, an early start is to be made. Mr. W. Hanstock, of Batley, is the architect.

BEDDINGTON.—Plans passed by U.D.C.: Bungalow, Link-lane, for Mr. E. M. Swaby; two houses, Ploughlane South, for Mr. P. Crowley; four houses, The Newlands, Sandy-lane South, for Messrs. Gailbraith Bros., Ltd.; two houses, Senga-road, for Messrs. G. & C. Langley; two houses, Senga-road, for Mr. F. W. Allen; five houses, Bute-road, for Mr. S. Smith.

BEDWELLTY.—The architect (Mr. D. Price) has submitted estimate for proposed new bridge between Fleur-de-Lis and Tiryberth of £6,500. It is hoped grant will amount to half cost, leaving remainder to be shared by Bedwellty and Gellygaer U.D.C.'s.——The Ministry of Health has sanctioned erection, under the new Act, of 30 houses by U.D.C.——The Ex-Service Men's Organisation has applied to U.D.C. for land at Cefn Forest on which to build a club.——The Board of Guardians is arranging removal of workhouse infirmary inmates in order that buildings may be re-erected according to engineer's plans, the present structure being in imminent danger of collapse through subsidence. The question of erecting a nurses' home will also be considered by the Board.

BELFAST.—Plans passed: Four villas, Newtownards-road, Upper and Castlehill-road, for Messrs. W. McMillan & Son, architect, Mr. James Scott; two villas, Deramore-drive, for Mr. W. Clarke, architect, Mr. T. R. Eagar; rebuilding of premises at rear of Royal-avenue, for trustees of the late Mr. James Johnston, architects, Messrs. Blackwood & Jury; badminton hall, Sans Souci Park, for the Belfast Badminton Hall Co., architect Mr. D. W. Boyd, builder Mr. John Rainey; villa and motor house, Martinez-avenue, for Mr. W. R. Ogle; depot for Anglo-American Oil Co., on Connswater-road; four villas in Luxor-gardens, for Mr. James Smart; 17 villas, Hay Park-avenue, for Messrs. H. & J. Martin; shop and house, Newtownards-road, for Mr. W. McNeilly, architect, Mr. James Scott; shop and house, Divis-street, for Mrs. A. Hadly, architect, Mr. W. J. Convery; shop and house, Abingdon-street, for Mr. J. H. Dowling, architect, Mr. Thomas Callender; bakery, stabling and store, Holywood-road, for Messrs. D. Hill & Co., architect and builder, Mr. Robert Barton; two houses in Vere-street, for the York-street Flax Spinning Co., builders, Messrs. McLoughlin & Harvey: shop and store, Victoria-street, for Mr. John Kilpatrick, architect, Mr. Robert Lynn; shop and house, Great Victoria-street, for Mrs. M. Brown, architect, Mr. Hugh Gault; villa, Kincora-avenue, for Messrs. W. & J. Robinson, architect, Mr. R. D. Graham; garage, &c., King's-road, for Mr. James Hill, architect, Mr. C. A. Aickin; shop and stores, Oldpark-road, for Mr. A. M. Dougan, architect, Mr. C. A. Aickin; garage in Malone Park, for Mr. James McGiffin, architect, Mr. Robert Lynn; shop and house, Ellen-street, for Mr. John F. McKenna, architects, Messrs. E. & J. Byrne; garage, Malone-road, for Mrs. Mary Conlon, architect, Mr. C. McAlister; two villas, Wandsworth-road, for the architect and builder, Mr. George Mercier; pavilion in Deramore Park S., for the Collegians Football Club, architect, Mr. D. W. Boyd; Scouts' Hall, for the committee of the Townsend-street Presbyterian Church, builders, Messrs. H. & J. McKibbin; four villas, Sandown-road, for Mr. Fred Carroll, architect, Mr. Jackson G. Smith; nine villas, Martinez-avenue, for Mr. Samuel Nelson, architect, Mr. Robert Lynn; stores to bakery premises, Byron-street, for Messrs. Parks & Co., architect, Mr. Hugh Gault; shop and house, Cliftonville-road, for Messrs. H. & W. Pollock, architect, Mr. A. B. Dobson; villa, Cliftonville-road, for Mr. W. H. Taggart, architect, Mr. W. J. Walsh.

BERWICK.—Northumberland C.C. have agreed to the erection of a new bridge to span the River Tweed between the Royal Border Bridge and the Berwick Bridge, north of Tweedmouth Station on the Great North-road. The bridge will cross from Knowe Head directly into Marygate, the main street of Berwick. The estimated cost of the bridge and approaches, together with acquisition of land and buildings, is £160,000, including £10,000 for contingencies. The Ministry of Transport has expressed its willingness to contribute 75 per cent. of the cost, and the County Council will find 15 per cent. or £24,000. Berwick will contribute £10,000, leaving £6,000 to be charged equally between the County Council and Berwick.

BILSTON.—As a result of a combined subsidy, amounting to £100, the local builders are about to commence upon the erection of 50 houses at Moseley-road and 100 at Lunt.

BINGLEY.—Plans passed by U.D.C.: Bungalow at Hill Top Farm, for Mr. F. C. Rich; two bungalows at Lee-lane, Cottingley, for Mrs. S. Priestley; power house at Stanley Mills, Bingley, for Messrs. Geo. Ackroyd, junr.; house at Bromley-road, Bingley, for Messrs. W. & S. Bradley; and four bungalows at Bradford-road, Bingley, for Mr. T. Turner; semi-detached villa at West Green Gate Estate, for Messrs. Hall, Tinsley & Co.; lay-out plan for Housing Site, Wilsden-road, Harden, for the Bingley Housing Co., Ltd.; 14 houses at Wilsden-road, Harden, for the Bingley Housing Co., Ltd. (subject to M.H. sanction), and two houses for the U.D.C. at Low Laithes, Dowley Gap (subject to M.H. sanction).—The E.C. have received sanction to carry out the erection of a new cubicle at the Cross Flatts Council School and at the Technical School at a cost of £160 and £190 respectively.

BLAENAVON.—The Ministry of Health has held a public inquiry into the application of the U.D.C. to borrow £6,000 for the purpose of ferro-concreting one of its reservoirs to prevent leakage. The Inspector intimated that sanction for a twenty years' loan would probably be forthcoming.

BOLTON.—The Chorley Old-road Wesleyan Church proposes to extend the Sunday school premises.—Plans have been approved for a new residence at Townley's Hospital for the Medical Officer. This is part of a general scheme of extensions being considered by the Institutions and Improvements Committee, which includes the electrification of all the Farnworth Institutions, the Hospital, Fishpool, the Cottage Homes, and extensive alterations to the Laundry.—The Salesian Society of the Roman Catholic Religious Order have acquired "Thurleigh," Sharples Park, for £4,000, which they propose to adapt for a secondary school.

BRADFORD.—The Mental Deficiency Committee has approved the expenditure of £2,750 on alterations, improvements, and extensions to the Westwood Institution for females, at Clayton Heights.

BROMLEY.—Plans passed by T.C.: Mr. F. C. Carter, conversion of three shops into one shop; Mr. W. de C. Hudson, classroom, Oaklands, Sundridge-avenue; Mr. E. W. Pither, house, Park-avenue; Mr. P. A. Coad, house, Pines-road; Mr. B. Angell, house, Highfield-road; Mr. J. Randall Vining, house, Park-avenue; Messrs. Walters & Co., two bungalows, Avondale-road.—The Council has authorised the Baths Committee to have estimates prepared for an open-air swimming bath.

BRYNMAWR.—The Surveyor has reported to U.D.C. that it is probable grant of 75 per cent. of cost of reconstruction of Blaenavon-road will be forthcoming. The estimate is £10,000. The Ministry of Transport has asked for details of the proposed work. The architect reports that considerable repairs are necessary to majority of Council's ninety houses.

BURNLEY.—The parishioners of St. James' Church have decided to restore the Stoneyholme Mission Hall. An outlay of £900 will be necessary to make the building fit for parochial use.

BURY.—The Surveyor, Mr. J. A. Settle, has been instructed to prepare plans and estimates of cost for a new bridge at Hampson Mill.—Plans have been approved for the erection of 13 houses in Woodley-street, 18 houses in Second-avenue, Jericho, pair of semi-detached houses in Littlewood-avenue, detached houses in Walmsley-road, and a block of eight houses in Walhaw-road.

CARLISLE.—The Health Committee of the Carlisle Corporation have passed plans for the erection of 47 new houses in different parts of the city, 43 of which are eligible for subsidy.

CARMARTHENSHIRE.—The Llanelly Guardians have requested Borough Council to construct accommodation for families boarded out by Guardians.——The Pembrey School Managers have recommended the County Education Committee to acquire land on Newfoundland site for erection of central school.——The Ammanford U.D.C. has purchased land for lay-out as a public cemetery.

CHELMSFORD.—The T.C. has approved of plans for 24 houses, in blocks of eight, in Henry-road, for Messrs.

* See also our List of Contracts, Competitions, etc.

Hawkes & Son: 136 flats on the estate proposed laid out off Coval-lane, for Messrs. Gibbons & 12 houses at Galleywood, for Mr. John er; and other single buildings, totalling 176. se were approved for the purposes of subsidy.

PSTOW.—The Severn Tunnel Utility Building y has applied for a £45 per house subsidy for n of thirty houses, to be immediately com- l upon, from the Chepstow R.D.C. The Council ed to aid scheme. The building site is acquired reasonable terms from G.W.R., and will permit r house building.

STERFIELD.—At the last meeting of the R.D.C. were approved for 100 houses in Robin-lane, on, for the Sheffield Coal Co., Ltd., and it was d to apply for a loan to lay a water main to 200 houses which the Staveley Coal & Iron Co., intend to erect at Sutton-cum-Duckmanton. out plan of a building site at Millthorpe, in the of Holmesfield, submitted by Messrs. Lancashire surveyors, Sheffield, was approved, subject to r road which will connect with the existing road 36 ft. wide, and to the other roads on the site 30 ft. wide.

STERFIELD.—Messrs. Markham & Co., Ltd., are ld 16 houses at Piccadilly.

RLEY.—Subject to certain conditions the ry of Health has agreed to sanction the borrowing T.C. of £50,000 for sewage extensions, &c.

KERMOUTH.—The R.D.C. has had plans and tes prepared for a sewerage scheme for Crosby ide, and is to apply for a loan of £2,055.——The ry of Health has approved of the erection of ises.

NTRY.—The Ministry of Health has approved proposals of the Board of Guardians for improve- at the Institution.

XFORD.—Six cottages at Waltham Chase, for A. Short.

BAR.—At the last meeting of the Governors of strict Hospital the Surveyor was instructed to e plans and estimates for the erection of a new e Hospital.

LIN.—Plans passed: Rebuilding 23–24, West- nd-street, for Messrs. Isaacs; four houses, rook-road, Clontarf, for the City Building Co., extension of printing works, 55, Bolton-street, essrs. Mahon; 84 cottages, Clonliffe-road lly's Orchard), for the Corporation of Dublin; emises, 59, Phibsboro', for Mr. M. Dunne.

RY.—Plans passed by R.D.C.: C. Marshall, , at Ash; alterations to block of houses, Wood- ough-lane, Eastry, for Mr. E. May; new house, e Crispin public-house, Worth, for Messrs. & Watts; drainage system at Stone Cross, for Mr. C. J. Britton.

BURGH.—Dean of Guild Court sanctioned the n of the first 32 houses at Marionville-road, d, by the Corporation of Edinburgh. The will be in blocks of four, and each dwelling s three rooms and a scullery. Thirty-two cases fore the Court, and 20 full warrants were granted ng the following:—Niddrie and Benhar Coal Co.: ses at Niddrie. The houses will be of three ents and a scullery each; Mr. Alexander w, four double and three single bungalows, at rphine and Drumbrae-roads; Mr. W. C. Hedge, ow at Craiglockhart-avenue; Mr. Victor H. , bungalow at Drumbrae-road, Corstorphine; Villiam Niven, bungalow at Drumbrae-road, rt in ; Mr. Robert King, villa at Cluny-gardens, gside; Murrayfield Real Estate Co., Ltd., two tached villas at Murrayfield-drive; Mrs. J. , four flatted houses at Muirend-avenue, r Green; Mr. William Roberts, house at -terrace, Corstorphine; Mr. Andrew Bremner, at Davidson's Mains; Newcraighall Work- Institute Trustees, Workmen's Institute; Mr. Baird, convert self-contained house at ith-gardens into three shops.——At the Dean ld Court 14 full petitions were presented, and ere granted, including bungalow at Barony- , Corstorphine; bungalow at Dovecot-road, rphine; bungalow at Allermuir-road, Colinton; ttages at Longstone-road.

TER.—The Housing Committee is reporting to C. at its next meeting that tenders for building ses on the Puddle-lane site have been received, view of the high amount of the building tenders tter has been referred to Messrs. Hooper & Lee to er the specifications with the City Architect, and recommendations with a view to reduction of . Tenders for building eight houses on the Isca- te were also received, and the Committee recom- d acceptance of the tender of Messrs. Stephens n, Ltd., for the erection, within nine months, sum of £4,000.

SGOW.—The Committee on Building Regulations llowed plans for 33 houses at Muirhead, for . John Emery & Sons, which do not strictly with the regulations.

FIELD.—By the opening up of Brookman's Park , on the Great North-road, 2 miles from Potter's nd 3 from Hatfield, considerable building develop- are expected. It is estimated that there will s for 3,000 private houses.

SHLEY.—Plans passed by T.C.: Four houses in street and Ivy-street, for G. Shephard & Co.: in Damens-road, for Mr. Oliver Smith; in Craig-street, for Mr. Thos. Rushworth; in Aireville-street, for Mr. Joseph Neville; ons to Lund-street, for Mr. Ernest Lund; con- n of one house into two houses, for Mr. H. Jeffrey waites Brow; two houses at Raglan-street, for Dewhirst; two houses at Braithwaite-road, for . J. Nicholson and Norriss Judson: additions to Gardens-lane, for Mr. Wignell Green, and ons to Beal-street and Beech-street, for Mr. rt Roberts.—Plans passed by R.D.C.: Two es at East Morton, for Mr. O. Craven. The l have made application for sanction to erect ises to the Ministry of Health. The T.C. have ade application to the Ministry of Health for on to erect five houses on the Broomhill Estate of the scullery type in order to fully utilise a section of the estate.

KIDDERMINSTER.—Plans passed by R.D.C.: Alterations to Wolverley Vicarage; and for the reconstruction of a building to form a cottage and garage, at the Vicarage, Wolverley.——Applications for the subsidy for the building of houses by private individuals have been received from Messrs. W. Hunt, Bewdley; J. Wheatley, Blakedown; and Mr. T. Ife, of Lancaster House, Wribbenhall.

LAMPETER.—A deputation of the promoters, and interested local authorities, of the Lampeter-Llandilo Light Railway scheme has waited on the Ministry of Transport, requesting grant towards the £160,000 estimated cost of construction. The result will be made known in due course.

LANCASTER.—Plans passed by T.C.: Conversion of a coach-house, &c., "Longlands," Sunnyside-lane, into cottage and garage, for Mr. James Morton.

LANCHESTER.—The Ministry of Health have sanctioned the erection of 100 houses by the R.D.C., in addition to a number which it is proposed to build by private enterprise. The houses will be of the two-story type, and not bungalows, the cost working out at £40 per house less.

LICHFIELD.—Mr. F. R. Phipps has conducted an inquiry on behalf of the Ministry of Health, into the application of the T.C. for sanction to borrow £2,900 for the purchase of land in connection with the proposed construction of new roads through the Friary Estate.

LLANDYSSUL.—The Ministry of Health has notified Council that an inspector of the Ministry will investigate the question of area water supply, in which a scheme has been formulated.

LONDON (POPLAR).—The L.C.C. has sanctioned the borrowing of £33,730 by the B.C. for housing purposes.

MERTHYR TYDFIL.—The Taf Fechan Water Board has given formal statutory notice of application for authority to construct aqueducts and pipe lines in Vaynor and Penderyn, waste water channel at Merthyr, several aqueducts and pipe lines at Merthyr, Pontypridd and Mountain Ash, and large scale extension and diversion schemes in the supply area of the Board. The Borough Education Committee has instructed preparation of estimates for considerable repairs necessary to Caldraw School.

MIDDLESBROUGH.—The Corporation has decided to purchase outlying portions of the Marton Hall Estate at a cost of £35,000. It was announced that, subject to this purchase, an anonymous donor had undertaken to buy the park and hall with a view to presenting them to the town. The park, which belongs to the famous Bolckow family, is more than 134 acres in extent.——The Corporation Plans Committee have approved of 40 sets of plans, including 31 houses, 17 of which are eligible for subsidy, and one for a Spiritualist Church in Grange-road West.——The London & North Eastern Railway Co. are advocating a scheme in Middlesbrough whereby workmen can build their own houses. The company are lending the necessary capital at 4 per cent., and have forwarded full details of the scheme to the Middlesbrough Corporation Housing Committee with a view to the development of the proposals.

MIDDLESEX.—The C.C. has received the consent of the Ministry of Health to borrow £566,513 for a period of five years in order to continue the arterial road works in the county and provide for the relief of unemployment.

MONMOUTHSHIRE.—The Nantyglo and Blaina U.D.C. has decided to ask the Ministry of Health to send a representative to confer with the Council on extensive re-flooring alleged to be necessary at certain Council houses at Frosmaen.——The Crickhowell R.D.C. has received estimates (£1,850) for town water supply scheme, which is under consideration.

MONTROSE.—The Montrose T.C. and the Forfar County Road Society at a recent conference decided to submit plans for the strengthening of the Suspension Bridge at Montrose over the river South Esk, at an estimated cost of £50,000. An alternative scheme for the construction of a new steel girder bridge, at an estimated cost of £80,000, has also been submitted to the Ministry of Transport for their consideration.

NEWBURGH.—Plans for a further eight houses have been submitted by the Tayside Floorcloth Co.

NORTHWICH.—The Ministry of Health has sanctioned a loan of £45,000 as a first instalment towards the carrying out of the D.C.'s water scheme, the work to be immediately commenced to absorb local unemployed.

OGMORE.—The Ogmore and Garw Council has decided to ask the Rhondda Colliery Co. to make up the roads at Lewistown.

OVENDEN.—The Halifax Corporation have acquired a site at Beechwood-road upon which to commence a new housing scheme. The Corporation propose to erect 73 houses on this site, 31 parlour type and 42 non-parlour type, built in blocks of four, each house to have a bathroom upstairs.

PEMBROKESHIRE.—The Narbeth Council has directed its Finance Committee to consider advisability of inviting tenders for supply of stone for its £28,000 road scheme to be commenced upon. The Haverfordwest T.C. is seeking assistance in purchase of motor fire engine and equipment to value of £2,000, estimate. The Council has received a communication from Ministry of Transport stating that grant for make-up of Bridge-street is in consideration. The County Education Committee has forwarded the following building programme to the Board of Education for approval: Haverfordwest Grammar School, new physics laboratories, £2,500; Fishguard County School, new boundary and retaining walls, £250; Neyland Council School, extension of corridor system, £700; Milford Council School, new school for 450 scholars, £13,500; Ambleston Council School, new school (a deferred 1914 scheme), £3,000; Prendergast Council School, fireplaces, £200; St. David's Council School, new closets, £450; Milford Church of England School, repairs, £300.

PONTYPRIDD.—The U.D.C. is considering the laying of single tram track through the town and Taff-street, instead of present double line.

PORT TALBOT.—The Gas Manager has reported to the Borough Council that in order to double supply of gas the Council would be well advised to: (*a*) extend retort house at Aberavon to provide four beds of retorts with all necessary ironwork, furnace construction, &c., estimate £9,000, and (*b*) extend the building of retort house to twice its present length, at estimated cost £9,300. He estimated reinforcement of condenser plant, &c., at £2,500 to £3,000. A special committee will report.——The T.C. is endeavouring to procure site for erection of a public abattoir. The Council is considering the proceeding with a scheme for refuse destruction. The question of erection of a public hall at Aberavon is being investigated by a Council sub-committee. The estimate for building on site of Westgate House is £9,000. The Surveyor has been instructed to submit plans and estimates for bridge at Maesycwrt.

PRESTON.—Plans passed by T.C.: H. Heaton, for Lord Ardee, alterations to streets, Kilruddery-road: H. Heaton, for W. Beetham, 18 houses, Maresfield-road, Winckley-road, Kilruddery-road; J. W. Lee, for Messrs. Pike & Pottie, 2 bungalows, Powis-road; J. Eccles, 4 houses, Frenchwood-avenue; R. H. Muncaster, for G. A. Wootton, house and shop, Manchester-road; H. Heaton, for Messrs. Spencer & Abbott, 28 houses, Halsbury-street and Herschell-street: H. Heaton, for Messrs. Spencer & Abbott, 11 houses, Wadham-road and Oxford-street; H. Heaton, for Messrs. Spencer & Abbott, 8 houses, Tiber-street: M. Myres, for J. Pomfret, house, Woodplumpton-road; H. Heaton, for Mrs. F. M. Gray, house, Addison-road; W. G. Crossthwaite, for Messrs. Barnes and Ditchfield, 2 houses, Lambert-road: J. I. Blezard, house, Windsor-avenue; Messrs. Swarbrick & Gaunt, for Messrs. Rider & Yates, 2 bungalows, Inkerman-street; Messrs. Swarbrick & Gaunt, 2 bungalows, Lytham-road; T. W. Archer, for Thomas Archer, house, West Cliff: W. D. T. Munford, for Mrs. M. Rigby, bungalow, Brockholes-brow; W. Radcliffe, house and shop, Selborne-street; W. W. Dickinson, 4 houses, Cadley-street; H. Hutchinson, for Mr. Hall, house, Deepdale-road; W. Smirk, 2 houses, Winmarleigh-road; E. J. Andrew, for Mrs. M. E. Lightfoot, bungalow, Fishwick-view; J. H. & W. C. Mangan, for G. Mooreroft, 4 houses, Woodside-avenue; H. Heaton, for J. E. Roscoe, house, Mulgrave-avenue; H. Heaton, for H. Higginson, house, Lytham-road; J. H. & W. C. Mangan, for J. Brown, 3 houses, Brook-street; J. Masheter, new street, Ashworth-grove, River Side, 6 bungalows, Ashworth-grove, 5 bungalows, Mellings Fold: F. Howorth, for T. N. Livesey, 2 houses, Hastings-road; E. J. Andrew, for R. Breakell, house, Maitland-street; J. Miller, for Ashton Building Co., Ltd., alterations to lay-out, The Crescent; J. W. Taylor, for the Ashton Building Co., Ltd., 6 houses Type "A," 6 houses Type "B," The Crescent, and 6 houses, Type "C," First-avenue; J. W. Grange, 8 bungalows, Lytham-road; F. Howorth, for W. Collinson, six houses, Windsor-avenue; F. Howorth, for J. Pomfret, 36 houses, Windsor-avenue; F. Howorth, for Messrs. Hodgson & Crompton, 4 houses, Windsor-avenue; H. Hutchinson, for W. Wareing, house, St. Thomas-road; F. Howorth, for W. Titterington, new street, Woodlands-drive; J. H. & W. C. Mangan, for J. Sykes, house, Ribbleton-avenue; J. Davies, for Messrs. Davies & Quinn, two bungalows, Lytham-road; T. H. Shelley, house, Beech-street.——Funds are being raised by the parishioners of Heaketh Bank to defray the cost of the erection of a new church, about £3,000 is in hand. The Ribble Committee have resolved to extend the sidings at the Dock, at an estimated cost of £6,000; and to divert a road on the south side at a cost of £600. The Street and Buildings Committee have approved plans for the erection of 173 houses and 29 bungalows.

REDCAR.—The Corporation are inviting tenders for the erection of 42 cottages of dimensions to comply with the requirements of the Housing Act, 1923.

RHONDDA.—The U.D.C. has instructed the Clerk to proceed with arrangements for construction of arterial road from Rhigos to Treherbert, one of the Ministry of Transport schemes for connecting the North and South of Glamorgan and give relief to unemployment. The U.D.C. has forwarded the revised plans of model welfare centre to be erected at Mid-Rhondda to Ministry of Health for approval. This scheme is expected to cost over £30,000. The Surveyor has been instructed to proceed with laying of new main for water supply to Caroline-street, Blaenrhondda, estimate £300, and to prepare plans for erection of fifty new houses by the Council at Penygraig. Further to take steps for lay-out of Ynyshir allotments as a children's park under the Ynyshir Welfare Scheme.

RICCALL.—The R.D.C. has received plans from the East Riding County Council for the erection of a new infant school at the Selby end of New Barlby, and adopted them. The contract has been let to Messrs. J. H. Carr & Sons, of Selby.

RISHTON.—The Area No. 9 Education Committee have passed a resolution recommending that the arrangements for the establishment of a new Central School for Church and Oswaldtwistle should be proceeded with.

ROCHDALE.—The County Education Authorities are to erect a new school at Hallford. Plans have been approved by the Licensing Justices for structural alterations to the "Windmill" Inn, Sudden, for Messrs. Chadwicks (Walmersley) Brewery Co., Ltd., of Bury.

SEATON DELAVAL.—Mr. Benson Greenall, of the Ministry of Health, held an inquiry at the Miners' Hall into the application of the Seaton Delaval U.D.C. for approval of a preliminary statement of proposals for developments in connection with the town planning of the district. The result will be announced in due course.

SEDGEFIELD.—Plans passed by R.D.C.: Eighteen aged miners' homes at Dean Bank, Ferryhill, for the Aged Miners' Homes Committee; eight houses, Sedgefield-road, Fishburn, Mr. J. W. Lodge; house and shop, Cornforth-lane, Mr. Partridge; house and garage, Chilton, Mr. Coulson.

SHAW.—The plans for a new Central School have been approved by the Board of Education, estimated to cost £16,354, exclusive of furniture and fittings, for which separate estimates are to be submitted. The

(*Continued on p.* 907.)

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Fletton, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	£ 15 3	Do. Bullnose	10 1 6
Do. Bullnose	3 8 3	Blue Wire Cuts	7 11 6
Best Stourbridge Fire brick 2½ in.	11 3 0	3 in.	13 2 0
GLAZED BRICKS—			
Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
Quoins. Bullnose and 4½ in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 9
2½ in. ,,	2 5	4 in. ,,	3 7

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	,, ,,
Thames Sand	15 6	,, ,,
Best Washed Sand	15 6	,, ,,
½ in. Shingle for Ferro-Concrete	14 0	,, ,,
¼ in. ,, ,,	15 0	,, ,,
⅜ in. Broken Brick	10 6	,, ,,
Pan Breeze	5 6	,, ,,

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

	£ s. d.
Best Portland Cement, British Standard Specification Test £2 18 0 to 51/- alongside at Vauxhall in 80-ton lots.	£3 3 6
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 5 0
,, ,, Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
,, ,, White	3 12 6
,, Fine	5 12 0
Sirapite, Coarse	3 9 6
,, Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube — s. 2, d. 9½

Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube — s. 2, d. 11½

PORTLAND STONE—

Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube — s. 4, d. 4

Do. do. delivered on road wagons at above stations, per ft. cube — s. 4, d. 5

White basebed, 3d. per ft. cube extra.

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

	s. d.
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over ,,	17/-
Sawn two sides ,,	27/-
Sawn three or four sides ,,	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.). Per Ft. Super	5 3
6 in. rubbed two sides, ditto ,,	5 9
3 in. sawn two sides slabs (random sizes) ,,	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) ,,	1 5½
1½ in. to 2 in. ditto, ditto ,,	1 3

HARD YORK—

Delivered at any Goods Station London.

	s. d.
Scappled random blocks. Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.). Per Ft. Super	5 4½
6 in. rubbed two sides ditto ,,	6 0½
4 in. sawn two sides slabs (random sizes) ,,	2 10
3 in. ditto. ditto ,,	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

	s. d.
Delivered in London Area in full van loads.	
Plain per ft. cube	6 6
Moulded ,, ,,	7 9
Cills ,, ,,	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10
1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅞	21/-	1¼	33/6
1	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	29/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	22/-
1	26/-

BATTENS

Inches	s. d.
¾ × 2	2 4 per 100 ft.

SAWN LATHS.

	s. d.
Per bundle	0 2 10

Dry Wainscot Oak, per ft. super, as inch	0 2 0	to	0 2 6
½ in. do. do.	0 1 6	to	0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9	to	0 2 6
Cuba Mahogany	0 3 0	to	0 3 6
Teak (Rangoon, Moulmein or Java), per load	45 0 0	to	50 0 0
American Whitewood planks, per ft. cube	0 14 0	to	0 16 0
Best Scotch Glue, per cwt.	4 10 0	to	—
Liquid Glue, per cwt.	4 7 0	to	5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Hip and valley tiles (per dozen) Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
,, Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discount, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. ,,	1/9½	1/4	2/0½
3 in. ,,	2/1½	1/8	2/5½
3½ in. ,,	2/6½	1/11½	2/10½
4 in. ,,	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. ,,	3 6½	2 5½	3 3⅜
3 in. ,,	4 2½	2 8	4 0½
3½ in. ,,	4 7	3 3⅜	4 8½
4 in. ,,	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. ,, ,,	6 3	6 8	11 4
5 in. ,, ,,	7 6	11 6	18 2
6 in. ,, ,,	8 10	14 4	23 3

	Per ton in London £ s. d.		£ s. d.
IRON—			
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14
Hoop iron, basis price	16 10 0	..	17 1
Galvanised	31 0 0	..	32
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	15 0 0	..	16
,, ,, ,, 24 g.	16 0 0	..	17
,, ,, ,, 26 g.	18 0 0	..	19
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	22 0

METAL WINDOWS—Standard sizes suitable for c plete houses, including all fittings, painting coats, and delivery to job, average price about to 1/7 per foot super.

LEAD, &c.

	£ s.
(Delivered in London.)	
LEAD—Sheet, English, 4 lb. and up	41 1
Pipe in coils	42 0
Soil Pipe	45 0
Compo pipe	47 10

NOTE—Country delivery, 30s. per ton extra: lots u 3 cwt., 2s. per cwt. extra and over 3cwt. and und cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. ex

Old lead, ex London area, at Mills per ton	27 0 0	.. —
Do., ex country, carriage forward per ton	28 0 0	.. —

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/-	76/-	153/-	246/-	510/- per d

NEW RIVER PATTERN SCREW DOWN STOP COCKS UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per d

NEW RIVER PATTERN SCREW DOWN MAIN FERRU

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
35/-	56/-	98/-	162/-	228/- per d

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEAN SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per
8 lbs. S. traps	35/-	45/-	66/	126/

	£ s. d.	
COPPER—		
Strong Sheet per lb.	0 3	.. —
Thin ,, ,,	0 2 4	.. —
Copper nails ,,	0 2 3	.. —
Copper wire ,,	0 2 4	.. —
TIN—English Ingots ,,	0 2 3	.. —
SOLDER—Plumbers' ,,	0 1 1	.. —
Tinmen's ,,	0 1 3	.. —
Blowpipe ,,	0 1 5	.. —

PAINTS, &c.

	£ s.
Raw Linseed Oil, in pipes per gallon	0 3
,, ,, ,, in barrels ,,	0 4
,, ,, ,, in drums ,,	0 4
Boiled ,, ,, in barrels ,,	0 4
,, ,, ,, in drums ,,	0 4
Turpentine in barrels ,,	0 6
,, in drums (10 gall.) ,,	0 6
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	56 5
GENUINE WHITE LEAD PAINT—"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	70 10
Red Lead, Dry (packages extra) per ton	43 0
Best Linseed Oil Putty per cwt.	0 16
Filocot per cwt.	0 15
Size, XD Quality per fkn.	0

[*Concluded on next page.*]

* The information given on this page has be specially compiled for THE BUILDER and is copyrig Our aim in this list is to give, as far as possible, *average* prices of materials, not necessarily the hig or lowest. Quality and quantity obviously af prices—a fact which should be remembered by th who make use of this information.

ES CURRENT OF MATERIALS (*contd.*)

GLASS.

ISH SHEET GLASS IN CRATES OF STOCK AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
fourths....	3½d.	32 oz. fourths	8½d.
thirds	4½d.	32 ,, thirds	10½d.
fourths....	5d.	Obscured Sheet, 15 oz.	4d.
thirds	6½d.	21 ,,	5½d.
fourths....	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
thirds	7½d.	En'lled 15 ,, 5½d., 21 ,,	7½d.

price according to size and substance for squares m stock.

ISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
led plate	4½d.
gh rolled	5½d.
gh rolled	½d.
ured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
ditto, tinted	9d.
led Sheet	6½.
te Rolled Cathedral	5½d.
ted do.	7½d.

at Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £	s.	d.
rnish	Outside	0	14	0
tto	ditto	0	16	0
pal	ditto	0	18	0
pal	ditto	1	0	0
pal Carriage	ditto	1	4	0
tto	ditto	1	12	0
arnish	Inside	0	18	0
le Paper	ditto	0	18	0
pal Cabinet	ditto	1	2	6
pal flatting	ditto	1	0	6
ying Oak	ditto	0	18	0
rd drying Oak	ditto	0	19	0
pal Varnish	ditto	1	0	0
ditto	ditto	1	2	0
ditto	ditto	1	12	0
pan Gold Size		0	12	0
ack Japan		0	12	0
d Mahogany Stain (water)		0	12	0
ick Black		0	9	0
Black		0	14	0
g (patent)		1	5	0
and Brush Polish		0	17	6
Dryers in Terebine		0	9	0
Black Enamel		0	7	0

OPOSED NEW BUILDINGS.

(*Continued from page* 905.)

Architect, Mr. Littler, 16, Ribblesdate-street, , will carry out the work.

NESS.—Arising out of the proposal of the re Committee that the local authority should a loan of £10,000 for the development of the e and front, the surveyor has prepared an mate estimate of cost of a scheme totalling £15,200, for the consideration of the Council. ns include a shelter arcade (100 ft. frontage, at ft.), £1,000; boating lake, pump house, ravine, ornamental bridge, £7,630; boat- shelter, and refreshment saloon, £1,500: " £2,130; and terrace gardens (including lters), £2,950. In the event of the scheme nctioned, it is proposed to apply to the Unem- t Grants Committee for assistance.

SHIELDS.—Plans passed by T.C.: Messrs. age & Sons, for Messrs. A. J. Wares, Ltd., ng of premises corner of King-street and Salem- Messrs. T. A. Page & Son, for Messrs. Jos. (Durham), Ltd., alteration to Westoe Brewery, -street; Messrs. J. H. Morton & Son, for The l Unionist Workmen's Club, alterations to Frederick-street; Messrs. T. A. Page & Son, rs. George Thornton & Co., 30 semi-detached in Dulverton-avenue, Newbury-street and -road; Mr. F. W. Newby, for Messrs. Hen- Bros., 36 semi-detached houses, West-avenue, Mr. F. W. Newby, for Mr. George Allan, loore-avenue, Harton; Mr. F. W. Newby, for Carruthers & Salt, two bungalows, West-avenue,

RBY.—Mr. W. H. Collin, Inspector for the of Health, has concluded an inquiry respecting ion of the U.D.C. for sanction to carry out two ment schemes. It is seeking to clear Stansfield- d district, also Old Causeway and district, of houses, on the ground that they are unhealthy It also seeks power to erect 40 new houses, the heme to cost £20,000.

AND.—Plans have been approved by the g Justices for structural alterations to the Lion Hotel," for Messrs. Chadwicks (Wal- Brewery Co., Ltd., of Bury.

ES.—Mr. C. G. Mitchell, an inspector of the of Transport, has held an inquiry into the application to borrow £12,000 for the recon- n of footpaths in the district.

FORTH.—Extensive building developments are lace at Stainforth in South Yorkshire's newly- d coalfield. Within the next twelve months it pated that several hundred more houses will en erected. There is also a prospect of new r several new churches being launched.

ON (YORKS).—The U.D.C. has received sanc- m the Ministry of Health for permission to 50,000 for the purposes of erecting 50 houses. bined subsidy of £100 is available for any local taking advantage of the Council's scheme.

.—The T.C. has passed plans and approved idy grant for house, for Mr. John Thomas, l; new bungalow, for Mr. Lewis Kingdom, at North Cliff; six houses, at John Croft Street, for Mr. W. H. Phillips. Plan has also been passed for shop in Warren-street, for Mr. Alfred Francis. The G.W.R. Co. has arranged to confer with Council on the proposal to construct footpaths to the golf links.

TREDEGAR.—The Council has adopted and forwarded to Miners' Welfare Committee, for grants and approval, estimates as follows for conversion of Swan Pond in public park to an open-air swimming bath: concrete inside and glazed sides and floor, £2,240; filter beds, £527; water mains, £75; extras, £1,182; total, £4,034. —£890 being in hand for Tredegar War Memorial, the Committee has decided to erect monument in Bedwellty Park, and arrangements for work are to be at once made.

TYNEMOUTH.—The T.C. are making application to the Ministry of Health for sanction to borrow money for the following purposes: £20,620 for erection of new Council School at Spring Gardens, and £5,651 for permanent open-air school at Loraine Gardens, North Shields.

WALLASEY.—Plans passed by T.C.: Twenty houses in Cliff-road, for Mr. R. Jones; conversion of 22, Fort-street into two flats, for Mr. F. Westby; five houses, Sedbergh-road, for Mr. J. H. Lindley; garage in Marlborough-road, for Mr. G. Davies; dressing rooms at Wallasey Lodge Farm, Breck-road, for Messrs. Paul Bros.; two houses, Nelson-street, for Mr. W. H. Owens; shop and house in Albion-street, for Mr. D. J. Hughes; nine houses, Thirlmere-street, for Messrs. T. A. & E. A. Burrows; 12 houses in Comely-avenue, Messrs. T. A. & E. A. Burrows; two houses in Neville-road and Rullerton-road, for Mr. R. Jones; two houses in Marlowe-road, for Mr. W. Stocks; house in Lymington-road, for Mr. W. J. B. Bellis; 46 houses in Monmouth-road, for Mr. A. Macdonald; house at the corner of Cliff-road and Station-road for Mr. R. Jones; 12 houses, Station-road, Willoughby-road and Dawlish-road, for Mr. G. Peers; two houses in Lymington-road and Monmouth-road, for Mr. J. H. Lindley; conversion of 37, Seaview-road, into shop and dwelling house, for Mr. W. D. Burrows; two house, Pendennis-road, for Messrs. E. J. & W. H. Jones; eight houses in Willoughby-road, for Mr. J. Henshaw; two garages at the rear of 38, Manor-road, for Mr. G. J. A. Burrows; house, Palmerston-road and Willoughby-road, for Messrs. J. McKee & Son.

WALTHAMSTOW.—Plans passed by U.D.C.: House, Falmouth-avenue, for A. Stapley; two houses, Malvern-avenue, for A. G. Barton; building for stalls and lock-up shops, extending from Willow-walk to Linden-road, for F. J. Mortimer; three cottages, junction of Hatherley-road and Campbell-road, for H. Hawthorn.

WEARDALE.—At the annual meeting of the Steel, Coal & Coke Co., held in Newcastle, it was stated that the directors had, in response to application from employees, decided to erect 200 houses, and that the number might be increased in the future.

WEMBLEY.—Mrs. Hyde-Thomson and Mr. R. H. Hyde-Thomson are presenting a sports pavilion to Harrow School Mission at North Wembley, in memory of the late Mr. C. H. Hyde-Thomson.

WILLESDEN.—Plans passed by U.D.C.: Houses, Donnington-road, Willesden, for Mr. A. L. Tolcher; lock-up shop, Percy-road, Kilburn, for Mr. R. G. Booth; house and garage, Harlesden-gardens, by Mr. J. Rowden, for Mr. S. S. Brealy; two houses and garages, Anson-road. Cricklewood, by and for Mr. H. Potter; electricity transformer house, Waxlow-road, Willesden, by Mr. T. W. Willard, for Messrs. McVitie & Price; nine houses, Brondesbury Park, by Mr. Stanley Allen, for Messrs. Western & Arnell; 12 houses, North Way, Neasden, for Mr. J. M. Goodwin: house, North Way, Neasden, by Mr. James Denton, for Mr. D. Smith: house, 2, Donnington-road, Willesden, by Mr. A. L. Tolcher, for Mr. J. Jones: institute and school-room, Acton-lane, Harlesden, by the Rev. E. F. Sutton, for the Harlesden Baptist Church; St. Mark's Vicarage at junction of Furness-road and Holland-road, Harlesden, by Messrs. Alder & Turrill, for the Rev. E. R. Whalley; two houses, Dollis Hill-lane, Cricklewood, by Mr. H. E. Beckett, for Broadway Properties, Ltd.: three shops, Normansmead, Brentfield Estate, by Mr. A. Franklin, for Messrs. Blincow, Shacklady & White.

YORK.—The London & North Eastern Railway Co. are going to enlarge the existing hotel motor garage at York to accommodate 100 cars. The scheme embraces several lock-ups for cars, waiting rooms for drivers, and vulcanising room, &c. A cottage at Nether-lane, Nafferton, is to be built by the London & North Eastern Railway Co. Plans passed by T.C.: City Picture Palace Co., dancing hall, &c., Fishergate; W. Johnson, house, 189, Bishopthorpe-road; Sir R. Newbald Kay, two houses, Beech-avenue; G. H. Pegg & Son, house, St. Clement's-grove; G. H. Pegg & Son, house and shop, Bishopthorpe-road; E. Relton, two houses, Carrington-avenue; Atkin Bros., three houses, Poppleton-road; G. H. Pegg & Son, 15 houses, Aldreth-grove, Cameron-grove, and Bishopthorpe-road; Sir R. N. Kay, two houses, Bishopthorpe-road; R. J. Parker, house, Moorgate.

FIRES.

ABERDEEN.—A destructive fire has occurred at the engineering works of Messrs. John Lewis & Sons, Pointlaw.

BRADFORD.—The four upper stories of a seven-story building at the junction of Nelson-street and Clarence-street, occupied by Messrs. Thomas W. Sowden & Co., wool merchants, and by Messrs. Henry Longbottom & Co., wool merchants, have been destroyed by fire. The premises were the property of Mr. Henry Cullingworth.

NEAR PONTYPRIDD.—Fire, on November 30, at the residence of Sir Rhys Williams, Bart., D.S.O., K.C., Miskin Manor, near Pontypridd, destroyed completely one wing of the building. Damage is estimated at £10,000. All art treasures were saved.

NEW INVENTION.

Fire Alarm.

THE Gravity Auto-mechanical Fire Alarm, a clever contrivance, is being demonstrated at the Institute of Patentees, 44, Great Russell-street, W.C. 1. It consists essentially of a flexible metallic cord, anchored at one end, traversing the building near the ceilings and having a weight suspended from its distant end. The weight is always pulling, keeping the cord taut. The cord is guided by small pulleys in the directions required to cover the area to be protected. A separate length of cord is used for each floor or each section of the building which is to be made fireproof, and the ends of the cords are brought to some central point where their weights are enclosed in a case. Into these cords are looped at intervals of about 20 ft. small flanged rings built up of brass stampings, held together by a fusible metallic alloy. Ten inches of cord are looped round each ring.

When a dangerous temperature is reached a ring or rings collapse, the looped cord is drawn out and the weight drops through a corresponding distance. The dropped weight shows a red band through an aperture in the case, so the locality of the fire is seen at the central indicating point. On falling, the weight trips a trigger which sets a large bell in continuous action—the bell being also weight-driven. This bell beats out a continuous alarm, which can be heard at a considerable distance from the building, and summons local aid. The weight also closes the ordinary telephone circuit, just as the lifting of the receiver does, and calls up the Exchange. Near the bell is a telephone transmitter, and this transmitter, so to speak, "hears" every blow of the bell, but by a contact disc on the bell movement is rendered "dumb" except at predetermined intervals, so turning the continuous sequence of blows into an intermittent code. The Exchange is therefore called, and the operator hears a number clanged out by the transmitted blows of the bell. This is recognised as a fire call, and connection is at once made with the fire station, where the same code number is heard many times repeated.

The General Post Office have, we understand, investigated the system, and have agreed to operate it in any part of the country, and the Chief Officer of the London Fire Brigade and other leading Fire Chief Officers have examined the system and expressed their approval.

The inventor is Mr. Chas. Smith, of Electra House, Moorgate, E.C.

Quantities.

In reference to the letter which appeared in our issue of November 23 under the pseudonym "Quantities," Messrs. Chapman & Hall, Ltd., inform us that they have just published a book, entitled "Quantity Surveying for Builders," by Mr. Wilfred W. Evershed, in which the methods of measuring explained throughout the volume have been brought into agreement, where necessary, with the "Standard Method of Measuring of Building Works."

National Registration of Plumbers.

A conference under the auspices of the General Council for the National Registration of Plumbers was held at the Newcastle Town Hall, on November 30. Mr. H. D. Searle-Wood, F.R.I.B.A., of London, occupied the chair.

At the evening session, in the course of a paper prepared by Mr. W. D. Caroe, M.A., F.S.A., the lecturer said he wanted their craftsmen to claim their privileges; to get architects and public authorities to employ registered plumbers by preference; to ventilate the system of marking to distinguish their work; to improve funds in order to employ an organiser; to press for the proper teaching of technical and practical instruction in harmony with the registered system; and to encourage a scheme of apprenticeship.

In the discussion that followed, the speakers generally advocated that registration should be adopted by the trade.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square.	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup	1/8	1/9	2/
Deal shelves and bearers	"	1/5	1/7	1/
Add if cross tongued	"	2d.	2d	2

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	1
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	
Mahogany handrail; average 3 in. × 3 in.	" "	6	
Add if ramped	" "	11	
Add if wreathed	" "	23	

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/
Sash fasteners	11½d.	Mortice locks	5/
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	
Plain compound girders	"	20	
Do. stanchions	"	23	
In roof work	"	28	

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/
Ogee Do. Do.	"	2/4½	3/1	3/10	4/
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/
Do. nozzles for inlets	"	2/2	2/7	3/10	4/

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt	54	
Do. Do. in flats	"	52	
Extra labour and solder in coated cesspools	each	6	
Welt joint	per ft run.	0	
Soldered seam	" "	1	
Copper nailing	" "	0	

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	11d.	1/8	1/11	3/5	4/2	
Do. service	"	1/7	2/1	2/6	3/10		
Do. soil	"						6/
Bends in lead pipe	each					3/3	8/
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.
Render, float and set in lime and hair	per yard sup.	2
Do. Do. Sirapite	" "	2
Do. Do. Keen's	" "	3
Add sawn lathing	" "	1
Add metal lathing	" "	2
Portland cement screed	" "	1
Do. plain face	" "	3
Mouldings in plaster	per 1 girth	9
One-and-a-half granolithic pavings	per yard sup.	5

GLAZIER.

21 oz. sheet plain	per foot sup.	0	
26 oz. Do.	" "	1	
Obscured sheet	" "	1	
⅛ in. rolled plate	" "	0	
¼ in. rough rolled or cast plate	" "	0	
¼ in. wired cast plate	" "	1	

PAINTER.

Preparing and distempering. 2 coats	per yard sup.	0	
Knotting and priming	" "	0	
Plain painting 1 coat	" "	0	
Do. 2 coats	" "	1	
Do. 3 coats	" "	1	
Do. 4 coats	" "	2	
Graining	" "	2	
Varnishing twice	" "	1	
Sizing	" "	0	
Flatting	" "	0	
Enamel	" "	1	
Wax polishing	per foot sup	0	
French polishing	" "	1	
Preparing for and hanging paper	per piece	2/- to 4	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS.

unications for insertion under this heading should ressed to "The Editor," and must reach him not han Tuesday evening.

otes accepted. † Denotes provisionally accepted.
otes recommended for acceptance.
otes accepted subject to modifications.

ERTILLERY.—For supply to the Abertillery istrict Water Board of 4 miles of 6 in. main ipes :—
ewarts & Lloyds, Birmingham £3,720

TH.—For road widening at Brougham Hayes, e T.C. :—
oles Bros. £2,540

TH.—For supply and fixing of 144 yds. of iron g round Weston Reservoir, for the T.C. :—
B. Bowler & Son..... per yd. 14s.

TLEY.—Alterations and additions to Zion Chapel, t-place, Batley, for the Trustees :—
rman Booth, Bradford-road, Batley.

LFAST.—Erection of 146 cottages, for the
& W. R. Taggart, Belfast.

AENGARW.—For laying out the Blaengarw ion ground in connection with local welfare e, for the Ogmore & Garw U.D.C. :—
aze, Ltd. Kingston-on-Thames £2,152 13 9

URNEMOUTH.—For supply of 120 street ns and wrought scroll irons, for the T.C. :—
Pontifex & Co..... £235 10

ERLEY HILL.—For laying about 9,800 sup. sett paving, together with reinforced concrete tions, kerbing, &c., for the U.D.C. Mr. John Surveyor, Town Hall, Brierley Hill :—
. H. Rogers, Willenhall..... £19,590

STOL.—For erection of 40 houses on Fishponds g Site, for the T.C. City Engineer, Housing ment, 51, Prince-street, Bristol :—
four type and 6 non-parlour houses—
Bailey, Bristol..... £5,700
four type houses—
Knox, Bristol 5,600
ur type, and 2 non-parlour houses—
R. Dyke, Bristol..... 4,000

RPHILLY.—For erection of Caerphilly Work-Library and Institute, comprising hall to seat 750 reading rooms, library, billiard room, games and ttee rooms, and caretaker's quarters, for the te Committee :—
H. Herbert & Co. £10,130

LMSFORD.—For wood paving, 773 sq. yds:, -street, for the T.C. :—
. Griffiths & Co..... per yd. 16s. 6d.

LMSFORD.—For alterations to Rainsford for the T.C. :—
J. French..... £235

STERFIELD.—Erection of 16 houses in Picca-or Messrs. Arthur Markham & Co., Ltd. :—
Markham& Co., Ltd.

CASTER.—For construction of 12 in. sewer, 700 yds. long, Warmsworth, and about 640 yds. l adjoining the Colliery Co.'s sidings, for the Mr. W. R. Crabtree, Surveyor, Nether Hall, ter :—

Sprakes & Sons, Doncaster..	£4,217	17	6
Storey, Doncaster.....	3,045	17	9
Graham & Sons, Doncaster	2,857	14	9
ovincial Construction Co., Sunderland	2,239	2	6
th & Whittington, Ltd., Doncaster	2,060	0	0

FRIES.—For extensions to electricity works, T.C. :—
Halliday & Sons, Dumfries..... £2,168

FRIES.—For erection of reinforced concrete tower at electricity works for the T.C. :—
emier Cooling & Engineering Co. £386

TBOURNE.—For road work, for the T.C. :—
Bodle, Ltd..... £852 18s. and £398

TBOURNE.—For the erection of convenience ds-road, for the T.C. :—
Slade & Co..... £701

IELD.—For construction of sewage disposal at Cuckoo Hall-lane, for the U.D.C. Mr. H. R. Surveyor, Public Offices, Enfield :—
. & C. French, Buckhurst Hill.

SBURN.—Lay-out of public park in Lothers-ad, Cross Hills, for the Glusburn P.C. :—
s work—

. Kershaw, Ltd., Keighley ..	£883	3	5
r and Painter—			
. Riddiough, Cross Hills.....	82	18	6
. Laycock, Cross Hills	67	0	0
A. Garnett, Sutton Mill.....	37	7	6
er—			
. Davy, Cross Hills	22	17	4
ltural work—			
. Kershaw, Ltd., Keighley ..	262	5	8

HAYES.—For making-up various streets, for the U.D.C. Mr. D. C. Fidler, Surveyor, Council Offices, Hayes, Middlesex :—

Ballard & Newby, Ramsgate..	£6,935	2	4
Campbell Kenyon & Co., Ltd., Acton, W.3	6,358	10	3
Sir Wm. Prescott & Sons, Ltd., London Wall, E.C.2	6,357	1	6
J. Cronk & Sons, Brixton, S.W.2	5,821	3	4
P. Shepherd & Co., Ltd., Acton, W.3	5,666	7	11
Parr-Head & Clements Knowling, Ltd., Ealing, W.5....	5,537	0	0
Wm. Walkerdine, Ltd., Kensington	5,491	18	9
W. Shepherd & Sons, Ltd., Rochdale	5,221	16	1
*J. Mowlem & Co., London, S.W.1	5,178	6	7
Black Rock Quarries, Ltd., Bristol	5,092	6	4
Surveyor's Estimate	5,829	4	6

HAYES.—For making-up Station-road, for the U.D.C. Mr. D. C. Fidler, Surveyor, Council Offices, Hayes, Middlesex :—

Campbell, Kenyon & Co., Ltd., Acton, W.3	£4,995	13	7
Sir Wm. Prescott & Sons, Ltd., London Wall, E.C.2.....	4,948	14	4
Wm. Walkerdine, Ltd., Kensington	4,869	16	3
J. Mowlem & Co., London, S.W.1	4,677	8	0
*J. Cronk & Sons, Brixton, S.W.3	4,640	0	0
Surveyor's Estimate	5,056	9	11

HORNSEY.—For the extension of the Cottage Hospital, for the Hospital Council :—

Trollope & Colls.....	£12,544
McCormick & Sons	12,345
Chas. K. Price	12,050
C. W. Scott	12,048
F. Cottrell, Ltd.....	11,896
Patman & Fotheringham	11,361
A. E. Porter	11,238
Dove Bros.	11,225
Albert Monk	10,876
H. Knight & Sons	10,841
G. E. Everett & Sons	10,795
*Mattock & Parsons	10,733

HULL.—For erection of first portion Dairycoates School, Hessle-road, for the T.C. Mr. J. H. Hirst, City Architect, Guildhall, Hull :—
*A. J. Darnley & Son, Hull..... £9,455 18

INVERKEITHING.—For erection of 10 houses at Spenderfield site, for the T.C. Mr. Peter Reid, architect, Park House, Inverkeithing :—
Mason and brickwork—
R. Durie & Sons, Inverkeithing.
Joiner work—
Anderson & Walker, Dunfermline.
Slater and Harling—
J. Robertson & Son, Dunfermline.
Plumber work—
D. Stewart, Inverkeithing.
Plaster and cement work—
Wm. Lambert, Inverkeithing.

KEIGHLEY.—For laying of concrete pipe drain in Banks-lane, for the R.D.C. :—
*T. Moore, Keighley £229

LEEDS.—Erection of an imbecile block at the Beckett-street Union Infirmary, for the Leeds Board of Guardians :—
*J. H. Wood & Co., St. Columba-street, Leeds.

LEEDS.—Extensions to nurses' dining rooms at the Beckett-street Institution, for the Leeds Board of Guardians :—
*Wm. Thompson & Sons, Stoney Rock-lane, Leeds.

LEEDS.—Erection of a telephone exchange at Headingley, for the Commissioners of H.M.O.W., King Charles-street, London :—
*Wm. Irwin & Co., Ltd., Burley-road, Leeds.

LINTHWAITE.—Erection of 10 concrete houses, for the U.D.C. :—
‡J. Winpenny & Co., Linthwaite £3,965 4 4

LLANELLY.—For erection of vagrants' ward at the Workhouse, for the Llanelly Board of Guardians :—

Gathen Co.	£2,750
G. Mercer	2,648
B. Howells & Son	2,513
Hughes Bros.	2,500
Isaac Jones, Llanelly	2,248
Architect's Estimate	2,150

‖Accepted subject to Ministry of Health sanction.

LONDON.—For repairs to 203, Lavender-hill, S.W., for the Metropolitan Water Board :—

Somerford & Sons	£149
*Sidney & Harvey	139

LONDON.—Provision of 4 in. Deacon waste meters, for the Metropolitan Water Board :—
*Palatine Engineering Co. £600

LONDON.—For laying hard mastic asphalte in Baildon-street, for the Deptford B.C. :—
*Val de Travers Asphalte Paving Co... 5s. 3d. per yd. super and five years' maintenance.

LONDON.—For renewal of 14 in. pipes of North Woolwich rising main, for the L.C.C. :—

Crawford Bros.	£17,652	2	3
Daniel T. Jackson	16,932	0	6
Whittaker-Ellis, Ltd.	15,395	2	7
*Howard Farrow, N.W.	15,374	10	8

LONDON.—For supply of flaps required in connection with the construction of south-western storm relief sewer, for the L.C.C. :—

J. Blakeborough & Sons.....	£1,482
G. Waller & Son	1,450
Ham, Baker & Co.	1,170
John Cochrane (Barrhead), Ltd.	1,103
Clayton, Goodfellow & Co.....	1,050
*Lilleshall Co., Oakengates	1,020

LONDON.—For the supply of five pairs of 10 cub. ft. gas holders, with the necessary testing tables and fittings, for the new Finsbury gas meter testing office, for the L.C.C. :—

George Glover & Co., Ltd.	£1,435
The Gas Meter Co., Ltd.	1,410
*Parkinson & W. & B. Cowan, Ltd., E.C.	1,350
Thomas Glover & Co., Ltd...Not to specification.	

LUDDENDENFOOT.—Erection of four houses of the parlour type, for the U.D.C. :—
‡*Mason*—T. Wold.
‡*Joiner*—S. Senior.
‡*Plumber*—J. H. Boocock.
‡*Plasterer*—Lumb Bros.
‡*Slater*—W. Royle & Co.
‡*Painter*—H. Harriss.
£526 9s. per house.

NEWENT.—For adaptation of premises of Poor Law Institution, for use as secondary school, for the Gloucestershire E.C. :—
*F. J. Simonds, Gloucester.... £4,327 14 9

NUNEATON.—For the improvement of part of Coventry-Nuneaton main road known as Griff Hollow, for the T.C. :—
*W. H. Green £4,922 8 9

PENYBONT.—For improvement of Aberkenfig Park-road, for R.D.C. :—
*E. C. Parker, Neath..... £148 12 6

PONTEFRACT.—For erection of Infirmary Block at Poor Law Institution, for the B.G. Messrs. Tennant & Smith, architects, Ropergate, Pontefract :—
*Fred Tree, Ferrybridge £17,166 15 10

PONTEFRACT.—Erection of new hotel on the Airedale Housing Site, for Messrs. John Smith's Tadcaster Brewery Co., Ltd. Messrs. Garside & Pennington, architects, Pontefract :—
*R. Groves, Goldthorpe, near Doncaster.

PRESTON.—For supply and fixing hot-water service at lavatories of the Town Hall, for the T.C. :—
*J. Pilkington, Preston..... £148 15

SALFORD.—For heating and hot-water services at Ladywell Sanatorium, for the T.C. :—
*Saunders & Taylor, Manchester.... £5,777 10

SALFORD.—For reconstruction of Littleton-road, for the T.C. :—
*J. H. Bradshaw, Ltd., Manchester £6,628 4 1

SALFORD.—For making-up Upper Park-road, for the T.C. :—
*W. H. Worthington, Ltd., Manchester £7,147 10

SKEGNESS.—For erection of cafe, restaurant, shops, &c. Messrs. Sheppard & Lockton, architects, 24, Castle-street, Newark-on-Trent :—

W. Greetham & Co., Skegness..	£8,882	0	0
E. Lill, Skegness	8,855	10	0
J. G. Holmes & Son, Skegness..	8,093	0	0
J. Turner & Son, Wainfleet ..	8,000	0	0
E. Pumfrey, Ltd., Gainsborough	7,904	0	0
*J. Crawshaw, Skegness	7,899	8	11

STAIRFOOT (NEAR BARNSLEY).—For the erection of 16 houses at Stairfoot, near Barnsley :—
*W. Storrs..... per house £350 18 9
Total..... 5,935 0 0

SOUTH SHIELDS.—For construction of extension of engine room at Electricity Works, for the T.C. :—
*J. G. Thompson South Shields £5,375 14

SOUTH SHIELDS.—Construction of second portion of relief culvert from Stanhope-road to River Tyne, for the T.C. :—
*J. G. Thompson & Co..... £42,954 18 1

STOCKTON-ON-TEES.—For interior painting at the hospital, for the B.G. :—
*F. Atkin & Co..... £156

TROWBRIDGE.—For construction of 90 yds. of salt-glazed pipe sewer, &c., for the U.D.C. The Surveyor, Council Offices, Trowbridge :—

A. J. Dore & Co., Bristol.....	£428	1	0
W. R. Moody, Chippenham....	390	0	0
E. Ireland, Bath.....	349	7	6
*Ed. Linzey & Son, Trowbridge..	326	9	0

WAKEFIELD.—Extensions to Albion Mills, Ings-road, for Messrs. M. P. Stonehouse & Co., Ltd. :—
Asphalter's work to roofs and gutters—*The Limmer and Trinidad Lake Asphalte Co., Ltd., Manchester.

WAKEFIELD.—Conversion of Thornes House into Secondary School, for the Governors. Mr. W. H. Watson, architect :—
Mason—A. C. Green.
Painting—C. Turner & Sons.
Joiner—M. Mountain.
Steelwork—Syd. Raynes.
Slater—F. Sedgwick & Son.
Asphalter—Tunstall's Rock Asphalte Co., Ltd.
Plumbing—H. Ellis.
Plasterer—T. E. Senior.
*£4,274 13 5d.

WALLASEY.—Supply of steel pontoon for Seacombe Ferry landing stage, for the T.C. :—
*A. Rutherford & Co., Birkenhead.... £1,150

WALLASEY.—For supply and fixing of railings at St. George's Park, for the T.C. :—
*T. Blackburn & Sons, Preston..... £196

WANTAGE.—For connecting houses at Harwell to sewerage system, for the R.D.C. :—
*E. & H. J. Gregory..... £264

WICKFORD.—Erection of footbridge over Neverdon-road, for the Essex C.C. :—
*W. & C. French £126

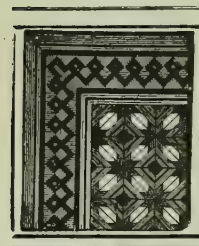
WITHINGTON.—For alterations to branch bank of the Union Bank of Manchester, Ltd., Wilmslow-road, Withington :—
W. D. Scott & Co., Cheetham.

TRADE NEWS.

A new waterproofing material has been brought to our notice called "Sika," and the special points the makers claim with regard to it are that it makes Portland cement or concrete set in less than a minute, and the time of setting can be regulated. Also it is claimed that it stops leakage immediately without relieving the water pressure. "Sika" is prepared in the form of liquid, and we are iuformed that when it was applied outside a sewage tank it stopped leakage against considerable pressure of water. The agent for London is Mr. G. H. Smith, of 25, Stratford Place, N.W.

Messrs. Hartley & Sugden, Ltd., of Halifax, are placing on the market two new and improved models of "Thermostoves." The two new models embody the following improvements :—Increased size of oven, which is now 16 in. wide by 14 in. high by 15 in. deep, and an entirely new feature applied to ovens is the sliding oven doors—these doors slide as if on ball-bearings—obviating the necessity of removing pans from the hot plate when attending to the oven. The hot-plate surface has been considerably enlarged. The grate is now fitted with a foot pedal for shaking purposes, and two nickel-plated towel rails are fitted.

We have received from Messrs. Cafferata & Co., Ltd., a copy of their "Murite" booklet, in which they say "that in all operations involving the use of plaster the question of time invariably presents something of a problem. The relatively low cost of lime plaster has determined the general adoption of this medium for everyday work. Highly alkaline properties render lime plaster unsuitable for many kinds of decorative treatment. In certain cases lime plastering tends to destroy the colour of wall paper and some distempers entirely fail to get a 'hold' on its surface and can be rubbed off as soon as dry. The introduction of a plaster, therefore, which overcomes all these defects at a practical price introduces a new epoch in the history of plastering. Prolonged research has finally produced in 'Murite,' a gypsum plaster whose results are equal, if not superior, to the best hitherto obtainable, and whose first cost brings it within the scope of every estimate."


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JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXV.—No. 4219. DECEMBER 14, 1923.

CRITICISM PERMANENT AND PASSING.

CRITICISM, when applied to any of the arts, is of two kinds; it is either such as will be true at any time, as much in any future generation as now; or it is such that when the passing fashion of thought has gone its way it will be found to reflect not so h actual truth as the circumscribed vision of a mode-ridden d Those who feel called upon to express opinions on the k of brother artists must, if they wish to be conscientious, the secret of the difference between the one style of criticism h is good and the other which is both bad and superfluous. Every generation has its passing vogue, which often runs ugh the veins of artistic life like a fever. When the ie is, as it sometimes is, based on sound conceptions of ty the most scholarly and deliberate of critics are in ger of being warped by the seductions of their favourite style, heir criticism will be lessened in value just so much as that icular weakness of theirs has forced them over the true balance ne and meticulous judgment; and when it is bad, as we sometimes seen it, it will irritate those same scholarly and we shall be in danger not only of losing the power erceive any poor struggling flowers of good that may exist ng the tangled weeds of evil, but criticisms will again in value exactly what they have allowed themselves to in truth.

t would seem, then, that criticism which is to be of value come from those who, as a correspondent expresses it, "an admixture of encyclopedia and saint"; and also those who conceive and execute the works of art will be e whose criticism will be most valuable. But we know this is very far from the truth, for the greatest critics in have not been themselves the greatest or even great utants, possibly because their critical faculties were so t that they killed their own creative faculty by introtive cruelty. We have also to bear in mind that although y may be called upon to exercise their critical faculties, such ey are, for the benefit of their fellows, it is given to few e critical geniuses, for we can count the great critics ny sphere of life in their generation upon the fingers of own hands. How then should critics approach that h they have to criticise? Certainly they must approach ith as near to a perfect lacking of bias and preconception ossible. In so far as they go to their work with their own s of what they should see, their work will be bad. But they t also go forth properly equipped with knowledge or they it rate the designer of a façade of prison cells, for instance, ot having provided large and uninterrupted window spaces, illory a poor designer of a conservatory for using too much .

t appears to be reasonable to suppose that bias will be less y to be present when we are dealing with mundane facts in the frenzy occasioned in every man's heart (that is if as the heart of an artist) by the more delicate work of gn which is really lineal poetry; but to be successful the gn to be criticised must conform to the mundane before it can rise to the sublime. It should therefore be possible to appreciate a design working upwards from the practical to the æsthetic, and it will very often be found, if not indeed most often, that a design comprising the one will contain the other, so much is beauty linked with fitness. A critic can say without heat whether a design is *par exemple* so arranged that a good system of traffic circulation and inter-communication is obtained; he can express without anger his opinion as to the economy or otherwise of collecting and dispatching raw materials and the completed article from a vast factory; he will know and be able to say without any quickening of the pulse whether the problem was one which called for generous lighting or whether it was better served with the more dimly religious atmosphere of shadow; but when he comes to the vexed and vital matter of façade and section every competent judge feels that itch which is the inherited affliction of the man of strong convictions, and then he is in danger of railing or raving and so proving himself prejudiced and incapable, it may be, of doing justice to the building he wished to appreciate, for its merits and demerits will remain what they are, see he them or not; and he may also do what is much worse, which is that if his criticisms are read by the younger men he may set them in a state of mind as unhealthy as his own. The critic, then, must find some medium for approaching the artistic side at least as calmly as he has done the mundane, and it should be possible by some simple mental discipline and the formulation of a rough scale of what the elevation should attain. It will probably be found that the façades will permit of some rough test of merits from the practical side—of stability, light, colour and fitness.

Then, last of all, the critic comes to the best of all—the sincere effort of the designer to clothe the gaunt bones of his harsh problem with the flesh of beauty; and here he must forget his personal partiality for the imposing column or delicate lacework and ask himself, before he lets his judgment fall, if the style fulfils its practical requirements, if it conveys its purpose by its design—for every building should do that or it is not good—and if the style chosen is the most suitable to its needs and ornament. When he has piece by piece worked through all those hard and set restrictions he will find that his criticism has been appreciative rather than egoistic, and finally his own bias towards styles will be largely lost, for the building has made its own style, and he has only to say if the style has been well or ill limned and let himself have some freedom if possible in the happiness of praise or the sorrow of censure. What would seem to prove that fashions in architecture are dangers to the critic is that as one generation gives place to another there are always outstanding buildings, marking the years they filled; and however the styles fluctuate, these are recalled as good and will ever remain good to us all; and these buildings are good because of their own merit over and above their relation to the fashion of their time. They are the headstones of those who condemned them and the monuments of those who praised them.

NOTES.

All Hallow's Church. This well-known City church, the work of Wren, has been closed for several weeks for repair and redecoration carried out under the supervision of the architect to the Society for the Protection of Ancient Buildings, Mr. A. R. Powys. We were glad to notice, in an account of the celebration of the completion of the work, when the Lord Mayor and Sheriffs attended in State, that the Bishop of Croydon, who preached on the occasion, in the course of his remarks, said: "The work has been done partly as a demonstration of the pain which the very thought of the demolition of these churches gave to many. Many of them," he said, "were the work of England's greatest architect, as that church was, and, as such, must have priceless value"; and added, "between 11 and 4 o'clock in the day the church would rarely be found unoccupied." It is hardly necessary to labour here the deep hostility felt for the proposals of the Bishop of London by so many people, or how badly it reacts on the Church's influence, which should be directed to preserving the evidence of the religious life of the country in the monuments which enshrine it.

The Advertisement of Architecture. In his useful contribution to the advertisement of architecture, in a weekly paper, Lord Riddell says: "Probably most of us would find it hard to name the twelve most important British architects—dead or living. Wren (St. Paul's), Scott (the Houses of Parliament), and Lutyens (the Cenotaph) would probably exhaust most rolls of architectural saints." The worst of it is such rolls would be wrong, for it is almost as certain as anything can be that the Houses of Parliament buildings were produced by Barry and Pugin.

Repair of Historical Buildings. The repairs of historical buildings have a more varied appeal than is afforded by history alone. To the antiquary the preservation of the genuine evidences of the past unobscured by modern additions would seem to be of the greatest importance. Artists, tourists and sight-seers will be inclined to approve modern repairs if they are carried out in such a manner as will preserve the harmonies of the building as a whole; if unpleasant blots of new material have been avoided, and especially if the conservator has found it in his heart to leave some flowers and foliage around the building to contrast with its masses of masonry. The constructor may be interested in one or other of these aspects of repairs to ancient buildings, or in both or neither, yet find something worth his consideration in the manner in which the repairs themselves have been designed and executed.

Jedburgh Abbey Conservation. On page 923 we publish an account of the repairs at Jedburgh Abbey recently completed by H.M. Office of Works. These works have been carried out in such a manner that little evidence of their presence can be discerned except when purposely searched for and must be admitted to be satisfactory from several points of view. Historic evidences have been preserved with the most scrupulous care and, for the artist, the sensible arrangement of concentrating flowers and foliage in the neighbourhood of the Abbey instead of upon its walls has helped to maintain beauty in the general appearance. This unity of effect is only slightly interrupted by the retention of some former rather unsympathetic works of repair that happened to be structurally sound. But time will doubtless soften their harshness. Constructionally considered, the recoring of the two defective Norman piers of the tower was an unique operation at the time, and though similar work has been carried out more recently at Rievaulx Abbey by the Historic Buildings Branch of H.M. Office of Works, the repetition of a daring *tour de force* of building only adds to its interest.

Experiments in Construction. These experiments in special forms of building construction have been applied to ruinous and uninhabited buildings, but the knowledge gained by experience should be available for use in places of present-day activity. The defective central piers of St. Paul's Cathedral now showing signs of disintegration under the eccentrically applied load of the dome will one day require the application of some adequate scheme of repair. Frequenters of the building have seen a network of steel centering placed in position and removed again without being able to learn what service it had performed, and it is to be hoped that whenever active works are recommenced those in charge of

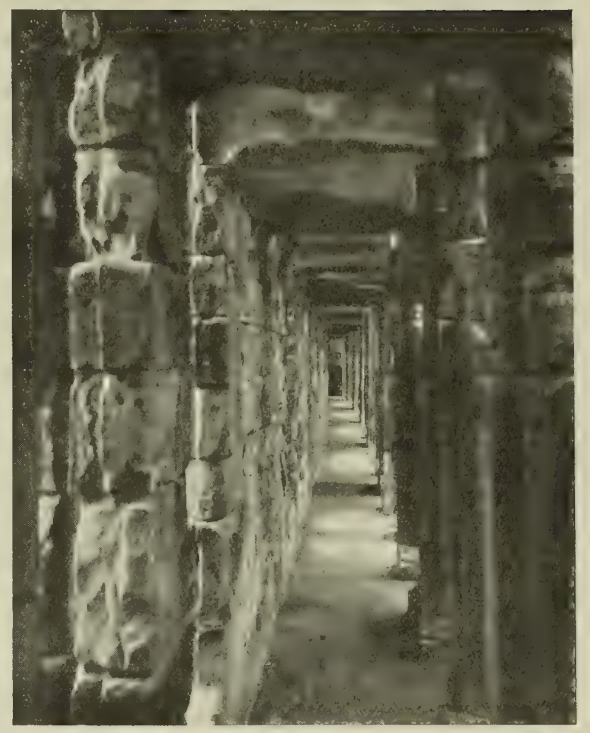


From *The American Architect.*

William L. Clements Library, Ann Arbor, Mich., U.S.A. Mr. Albert Kahn and Associates, Architects.



Piers of Tower Recored and Exposed to View. Encumbering Buttress Masses were Removed During the Repairs.



Weather-Worn Stones in Clerestory Passage. Further Deflection in the Wall has been Resisted by a Reinforced Beam concealed in the Wall Top.

Repairs to Jedburgh Abbey Church. (*See p.* 928.)

n will have learned the lesson of burgh and will proceed with the assur- e that comes of undivided counsels and tionally developed plan.

The ogress of Vomen.

The advancement of women in various fields of work continues satisfactorily. The position of four women in prize lists for sculpture at the Academy ools this year is worthy of note, be- se one feels that generally speaking the ial point of view which produces good pture, whilst rare enough amongst , has seemed rarer still amongst nen. Now, an opportune plea, by M. Upcott, for the employment of nen in the control and management house property has just appeared, aced by good introductory notes n Lady Astor and Mrs. Wintringham. re can be few matters about which so t benefit can be conferred on the mmunity as the improved conditions ouse property, both for the well-to-do the poor. It may not follow that will always coincide with money- ing. Just as in the case of doctors, y of whom make a comparatively r living, though they confer lasting efits on thousands of lives.

Crosby Hall.

The appeal now being made for funds to buy this beauti- ful fifteenth-century Gothic banqueting hall, which stood Bishopsgate for 400 years, has two t aims, viz.: the utilisation of the hall and the establishment of an inter- national club-house for university women under its roof. Since its removal to Chelsea in 1909 the building has not been put to any permanent use, and the British Federation of University Women has now come forward with a scheme to purchase the hall and land, and build on a residential wing to accommodate forty women graduates, a club-house and lib- rary, for which £30,000 is needed; while it is intended that the banqueting hall shall be available for inspection by the public. Mrs. Stirling, who has brought together a very fine collection of the pottery and pictures of William and Evelyn de Morgan, intends to give it, together with an endowment fund, to some corporate body in Chelsea which will throw the collection open to the public, and, if sufficient funds are forthcoming under the Crosby Hall endowment scheme, there is a likelihood that a gallery for this collection will also be included in the project.

Unqualified Ex-Soldiers and Building Craft.

Probably no more con- vincing confirmation of Mr. Arthur Keen's timely letter in *The Times* of last Friday could be produced than this communication received on the same day by a well-known Fellow of the R.I.B.A., who, being personally unable to find a job for the applicant, has forwarded us a copy of his application. In the course of his letter, the applicant says: "I arrived from Canada on Saturday, having been out harvesting, and am now looking for a job. Before the war I attended the Regent-street Polytechnic and took a technical course there in building construction, mechanical drawing, and architecture, but, of course, on leaving the Army, having served from 1914–1919, had lost five years' work, and had to take various jobs to get some money together again. As I intend to settle in London, would it be possible for you to place me in your office as a junior, perhaps as a tracer or general help? I would require no salary for the first month; perhaps after I may be worth a little to your firm. If you had no vacancy in the office, perhaps there might be a job as foreman or time-keeper on one of your buildings? I am not afraid of work, and I assure you, Sir, if given a start, you would be quite satisfied as to my ability." As the Hon. Secretary of the R.I.B.A. says, "it is a very serious matter that, among the young fellows who came out of the army, there are great numbers who are not equipped for earning their own living. Those who have had a superficial training in some trade have not sufficient skill to ensure regular employment." Here is a case seemingly of a perfectly genuine sort in which such an one is seeking an engagement as "foreman," who has no real expert knowledge for such a post. As an example, as it appears, of a worthy, willing young ex-soldier, it is distressful enough, but being typical of vast numbers in a similar plight, it is appalling.

GENERAL NEWS.

Professional Announcements.

Messrs. J. Hatchard-Smith & Son, FF.R.I.B.A., architects, 11, Haymarket, S.W.1, have opened a branch office at Budleigh Salterton, South Devon.

Mr. John P. Blake, P.A.S.I., has relinquished his appointment of Resident Architect to the Heston and Isleworth Urban District Council, and taken up private practice at "Norvic," Hibernia-road, Hounslow.

Royal Institute of British Architects.

Mr. Alfred C. Bossom, of New York, has been elected a Fellow of the Royal Institute of British Architects by the vote of the Council. Mr. Bossom, who has practised in New York for some 20 years, has retained his British citizenship and is keenly interested in the welfare of British architecture and has recently founded, under the control of the R.I.B.A., a valuable travelling studentship to enable young British architects to travel in the United States and study the methods of American commercial architecture.

Memorial to the late Bishop of Chelmsford.

It has been decided that the memorial to the late Bishop of Chelmsford should take the form of an extension eastwards of the chancel of the present Cathedral at Chelmsford, with a personal memorial to the late Bishop. It is proposed to take down the east wall of the Cathedral and to extend it outwards to enable canons' stalls to be placed in the chancel. The question of whether the proposed extension should consist of two bays or three bays is deferred for further consideration.

Light from the Ancient to the Modern.

Mr. Frederic H. Taylor recently lectured at Stoke Newington on the various aspects of light. In the first half of his discourse he dealt with its early history, its religious significance, and the various forms of ancient lighting. In the second half he dealt with modern developments represented by oil lamps and gas and electric lighting; and finally the lighting of London, ancient and modern. The lecture was illustrated by a number of slides.

Waterloo Bridge.

The subsidence of the piers of Waterloo Bridge has necessitated an inspection by the London County Council. From the Embankment can be seen the scaffolding from which examination is being made of the piers and structure generally.

Old London Demolitions.

"A certain amount of antagonism will be aroused," says a contemporary, "by the decision of the Freemasons to clear the site in Gt. Queen-street upon which their headquarters stand, and erect new Grand Lodgebuildings as a Masonic Peace Memorial. In vain did learned bodies and private persons plead that the beautiful Inigo Jones house in which Boswell was said to have lived, and which stood on the western extremity of the site in question, should be saved for posterity. Now the building which took its place is to go also."

MEETINGS.

FRIDAY, *December* 14.

Town-Planning Institute.—Mr. E. R. Abbott on "Streets." At 92, Victoria-street, S.W.1. 6 p.m.

London Society.—Mr. A. Trystan Edwards on "Good and Bad Manners in London Architecture." At 18, John-street, W.C.2. 5 p.m.

MONDAY, *December* 17.

Royal Institute of British Architects.—Mr Raymond Unwin on "Higher Buildings in Relation to Town Planning." At 1, Wimpole-street, W.1. 8 p.m.

WEDNESDAY, *December* 19.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Theatres, Tomb, Town-Planning and Public Buildings." At Southampton-row, W.C.1. 6 p.m.

COMPETITION NEWS

University Pavilion, Glasgow.

In this competition the assessor, Mr. Alexander N. Paterson, A.R.S.A., of Glasgow, has made the following awards:—1, Mr. James M. Honeyman, 194, West Regent-street, Glasgow; 2, Mr. Will J. B. Wright, 170, Hope-street, Glasgow; 3, Messrs. John Burnet, Son, & Dick, 239, St. Vincent-street, Glasgow. The design placed first is given in this issue.

Swansea Masonic Temple.

Designs submitted in open competition by Messrs. Willmott & Smith, of Cardiff for a new masonic temple at Swansea, have been placed first by the assessor, Mr. Arthur Ke F.R.I.B.A., of London.

Monument to Sir Wilfrid Laurier.

The Canadian Government has inaugura an open competition for a full-length statue the late Sir Wilfrid Laurier to be erected in grounds of the Parliament Buildings, Otta Designs are to be in the form of sketch-mo in plaster. The author of the selected des will be given the commission to carry out work, and the author of the design pla second will be awarded a premium of 1, dollars. The cost of the memorial and pede is not to cost more than 25,000 dollars. Sendi in day April 3, 1924. Further particulars fr the Secretary, Public Works Departm Room 784, Hunter Building, Ottawa. conditions, photographs and site plan may seen at the office of *The Builder*.)

Holmside Cottage Hospital.

The Holmside and South Moor Collieries in designs for a proposed cottage hospital, c taining one ten-bed ward, two six-bed wa one four-bed ward, and two single-bed wa with operating room, dispensary, offices, acc modation for nurses, &c. The cost is not exceed £12,500. The author of the selec design will be appointed architect for building and awarded a premium of £75; second premium is £50, and the third The assessor is Mr. T. R. Milburn, F.R.I.B Further particulars may be obtained from Joint Secretaries, Welfare Scheme Committ South Moor Colliery Co., Ltd., Stanley, Durham. Sending-in day February 14, 19 (The conditions and site plan may be seen at office of *The Builder*.)

Design for National Theatre.

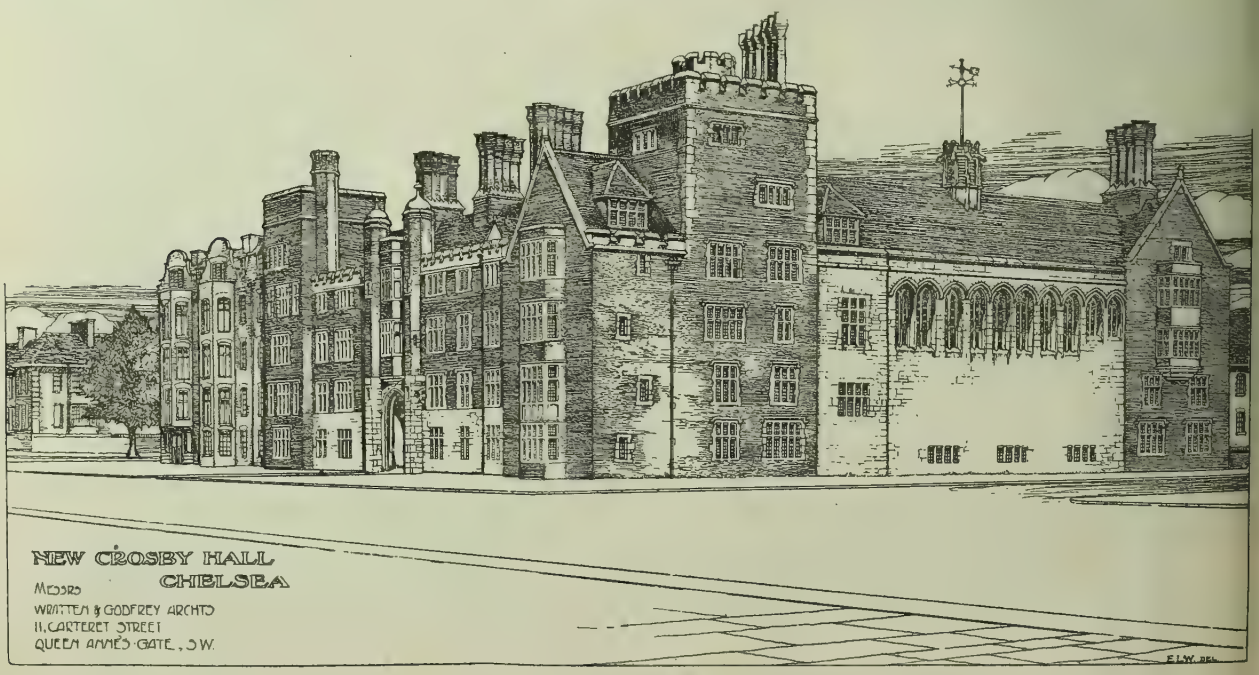
The proposal for a competition in archit tural designs for a National Theatre will welcomed by people who are interested in su a scheme. An active party in this matter is t Drama League, among whose theatrical exhib at the Wembley Exhibition the winning mo will be placed. The competing architects w have prizes to the value of £400 as their rewa

Formby and Southampton.

Members of the R.I.B.A. are advised to t no part in the Formby Housing and Southa Offices competitions until the conditions h been revised.

Other Competitions.

For competitions open, see our issue November 30.



(*See p.* 913.)

HE ROYAL ACADEMY STUDENTS' WORK

ways one wonders what is behind the s of students and how much or little they o wise guidance and encouragement, so it enter into one's speculations whether the ng qualities of students' work in different is owing more or less to the value of ing and guidance or to the fresh oncoming w talent. But one can hardly fail to e that the special success of this year in tectural work at the Royal Academy must something to the quality of that training which it has been produced. We feel the present year at the R.A. Schools is encouraging from the architect's point of The subject of A Railway Terminus set for the R.A. Gold Medal and Edward Travelling Studentship (£200). Only designs are exhibited. That by John Gladstone Knight obtains the award, and te creditable design it is, the plan being well ut and expressed in a broad, simple manner, h perhaps might have been better without anking pavilions. The entrance front shows sed terrace with inclined roads up on either and, outside these, ascending steps. This ies a certain given condition as to levels. way out is under arches between the two ned entrance roads. The front elevation central pavilion porch having three arched with wide pilasters between : the booking rises as a square outlined mass behind. The lank entrance is for suburban traffic and the flank for Continental. The ascending nce roads arrive on the station level site the end pavilion, so that traffic has to either way at the top and a double turn is ved into the covered ways. There are 11 orms. There is no lettering on the plan ative of the ticket windows. No. 135 is re interesting looking design, but is lacking iietness and breadth. It is illustrated by eful set of drawings but a very poor per- ive. The plan is a clever one and the many t office windows are clearly shown. No. 136 promising design, nicely presented, and some s of it would come very well. The plan ests inadequacy of convenience for so large ation. An admirable detail drawing is m.

e Landseer Prize (£20 and Silver Medal) to Richard George Cox, whose subject is sign for an art college. The plan shows ont block with back buildings arranged d a semi-circular court—rather a costly e of work. The plan is developed in a sing treatment in English Renaissance in k and stone. Eight designs are exhibited this prize. No. 142, a collegiate school collections of fine art, attached to private land, seems a costly scheme, but it is irably illustrated and for its intrinsic t was worthy of some award. The idea tudents' bedrooms with studios over and ens between is good, but if the bedrooms lower and the gardens wider the gardens t be worth having. For mere quality of portion and a pleasing simplicity No. 145 s well in a design for an art college in a ate park. The Second Prize, a Bronze al, goes to Alan George McFarlane. Here flanking corridors, with students' quarters one story only, with gardens between, e a good feature. The whole treatment his design is good and not extravagantly y. If the feeling which inspired it is ine and lasting the student should go far. 141, design for entrance to a public park, ood and the student who has done this is y one of promise. Nos. 140, 143, 144, and have also distinct merit.

r drawings of an architectural design the first e (£10 and Silver Medal) is won by Basil riott, who has an agreeable, well-proportioned aissance design with flat-pitched roofs. The nd place (£5 and Bronze Medal) is by Herbert Horsley Williams, whose sub- is a cloister to a monastery showing nice ing and good proportion. Also shown are . 160, 161, 159, 158, 156, 155, 154, 153, 152, 151, 150, 149, 148, 147. The latter, (though it is Gothic !) deserves note, for its author knows something about proportion, mass and distinction ; we confess we should like to build it. No. 151 really deserves some special mention for it exhibits knowledge and feeling both in design and drawing. It is rather difficult to realise such good work emanating from a lower school.

Perspective drawing in outline of St. James's Church, Piccadilly, is represented by one exhibit —that of the pendrawing by Alan George McFarlane—the best in this subject we have seen for a long time. The centre of vision is not in the centre of the subject, which, as a rule, is preferable. A note on the well-drawn outline perspective points out that the tower and spire are actually 3 ft. 6 in. out of plumb, but are shown as though actually plumb in the drawing.

The Set of Architectural Drawings Prize goes to Ronald Owen Vine. His drawings of the Church of St. Giles-in-the-Fields are neatly drawn on nine sheets.

The Bronze Medal is won by Alan George McFarlane. His illustrations of St. Leonard's Church, Shoreditch, are very delicately drawn.

The competition for the Landseer prize for a draped figure cartoon is rather disappointing. The selected drawings are vigorous, but when one thinks of the beauty which has been got out of drapery they seem to fall short.

In sculpture we find four prizes secured by women. The £200 Scholarship is won by a quite admirable piece of modelling by Daphne Mayo. No. 131 is a charming figure and very excellently draped. No. 133 is very good work.

The subject of pottery in decorative treatment has met with a poor response. As to most of the other subjects—landscape, historical painting, &c.—it is certainly a poor year. It is rather sad to see so much effort devoted to painting with such poor results. One would think it wiser to discourage if it is impossible to guide.

Annual Prize Distribution.

The annual distribution of prizes to the students of the Royal Academy of Arts took place on Monday evening. Sir Aston Webb, President, presented the awards as follows :—

Historical Painting (A Festival), R.A. Gold Medal and Edward Stott Travelling Studentship (£200) : David Shillingford Paynter.

Composition in Sculpture ("The Prodigal Son Received by His Father"), R.A. Gold Medal and Edward Stott Travelling Studentship (£200) : Daphne Mayo.

Design in Monochrome for a Figure Picture ("St. Michael Overcoming Satan"), Armitage Prizes, 1st (£30) and Silver Medal : Olive Grace Bourne. Other prize not awarded.

Design for the decoration of a portion of a public building (Pottery), 1st Landseer Prize (£30) and Silver Medal : Thomas Douglas England ; 2nd Landseer Prize (£10) and Bronze Medal : Cicely Honor Howard Mercer.

Design in Architecture ("A Railway Terminus"), R.A. Gold Medal and Edward Stott Travelling Studentship (£200) : John Cyril Gladstone Knight.

Set of architectural drawings (An Eighteenth Century Building), 1st Prize (£10) and Silver Medal : Ronald Owen Vine.

An architectural design, 1st Prize (£10) and Silver Medal : Basil Marriott ; 2nd Prize (£5) and Bronze Medal : Edwin Herbert Horsley Williams.

An architectural design, Landseer Prize (£20), and Silver Medal : Richard George Cox.

There was no competition for the prizes for Model of a Design, Model from the Antique, and Design in Relief. The prizes for Landscape Painting (Turner Gold Medal), Two Paintings of a Figure from the Life, and Portrait Study of a Lady in Evening Dress, were not awarded.

In the course of his address to the students, Sir Aston Webb said he would speak of drawing first because it was the primary requirement of every artist. In reference to the drawings he had seen he would say that perhaps too much attention had been given to fragments of the figure rather than treating it as a whole.

In regard to the competition for a design in architecture, although they had been given a fine modern subject (A Railway Terminus), he could not say that the designs exhibited came up to what was expected for a design of a terminal railway station. It should, surely, be severe, dignified, and impressive. It was a modern subject, and asked for modern treatment, but that was no reason why it should not be founded and developed on an English tradition. However, the school work, under the care of the Visitors and Mr. De Gruchy, was in many cases excellent, and based on a thoroughly sound English manner. Generally it appeared that the work of the School had recovered from the disturbance of the war, and would soon be normal again. He would impress upon them the necessity of doing their bit, whether in painting, sculpture, or architecture. It had been said that art was at a low ebb at the present day. If so, all the more chance for the students. All art must express itself in a great and natural way, but that was not enough : it must also express itself as their ideal of what was noble and beautiful.

In conclusion he wished them a happy holiday, and hoped that when they returned they would keep high the standard of art, so that they could stand before the world and not be ashamed.

BRITISH MUSEUM LECTURES.

A very interesting account, further revealing the characteristics of Cretan civilisation, founded on the discoveries mainly of Sir Arthur Evans at Knossos, was given by Miss Clare Gaudet at her last lecture. They were a trading and commercial people, in communication with the other civilisations of the time. 1900 B.C., with a fully developed script, but unfortunately undecipherable, no key having been found for it. Their goddess Rhea, the native goddess, was Ishti in Mesopotamia, and is the same goddess under other names in different places, such as Egypt. The Neolithic Cretan walls were of wattle and mud ; later they used stone, strengthened with timber, the inside walls being brick, the surface of the stone covered with a cement composed of a fine-powdered gypsum. The roofs were composed of mud and reeds, and smooth stone was used to strengthen the angles of the walls, and later the whole building was faced with stone. When the windows of the houses did not face on to a square interior court they used wells for lighting them. The windows were glazed with skins dyed red, and the houses contained from six to eight rooms, with internal water supply and drainage up to the second floor. So narrow were the streets they could only be used by pedestrians, no beast of burden being able to pass along them. There was probably a market inside the city, but the beasts appear to have been unladened outside. King Minos, who is the famous Cretan by tradition, gave them their laws, like Khummuabi and Moses, direct from God. The royal tombs have unfortunately been used as quarries even down to recent times, as in Egypt. The palace of Knossos is dated about 1800 B.C., and was built on an earlier structure dating from 2001 B.C. The workmanship of the Cretans is considered to exceed that of Egypt, from whence it came, and photographs were shown by the lecturer of a beautiful ivory goddess equal to Greek or Gothic work.

Architectural Students' Pantomime.

On December 20, at 8 p.m., the students of the Architectural Association will perform at King George's Hall, Tottenham Court-road, a pantomime entitled "So This is Architecture." Seats, 7s. 6d., 5s., and 2s. 6d., to be obtained from the A.A., 34, Bedford-square, W.C.1. All profits will go to the Architects' Benevolent Society.

CORRESPONDENCE.

Architects and Advertising.

SIR,—Some years ago I intervened in a debate at the R.I.B.A. to express the view that architects do not enter the profession for their health but in order to make a living. The Chairman, a distinguished professor of architecture, agreed with me, but deprecated such a statement being made in public. I remain of that opinion and am pleased to find that Mr. Robson is of the same mind on that point. I am known personally to hold some advanced views on the question of professional publicity, but I am hopelessly out of date compared with Mr. Robson, who advocates the professional card system of advertising for architects, a method of publicity long ago adopted by some architects and other professional men in America, Canada, New Zealand and other countries, apparently with the knowledge and consent of the professional bodies concerned. I am not expressing any opinion as to the desirability or otherwise of this form of professional publicity, but it is apparent to me that for some years past, and particularly since the Armistice, there has been a feeling among many architects—noticeably those seeking to establish or re-establish themselves in practice—that modern conditions are such that some better means of getting into touch with potential clients than those at present recognised as customary are essential. Does it not seem that the time has arrived when the whole question of professional ethics in the architectural profession should be reviewed in the light of the present conditions and future prospects, and that some effort should be made to standardise the regulations of the various architectural bodies not only at home but also abroad on this matter. If this is thought too ambitious at present, we might set our own house in order as a beginning so far as professional publicity is concerned, and I would throw it out as a suggestion that the architectural educational conference to be held in 1924 might provide a suitable opportunity for further ventilating this question. I know from personal experience exactly the difficulties which both Mr. Overy and Mr. Robson as country practitioners have to contend with. These exist also in the larger centres, even if they are not quite so apparent, and while they do not seriously affect the leaders of the profession, they present a real and serious difficulty to the average architect, who forms the bulk of the profession. It is a matter which is the concern of all the architectural bodies, and one which can only effectively be dealt with, in my opinion, by co-operation.

C. MCARTHUR BUTLER,
Secretary, Society of Architects.

Camberwell, Past and Present.

SIR,—Strolling down Peckham-road on a dull and misty afternoon recently I noticed on one side of the road the Church of St. Giles, one of Sir Gilbert Scott's early works, and, opposite, the vicarage he designed about the same time; then, near the church, the buildings of Wilson's Grammar School. Returning to the north side of the road there is the Town Hall, designed by the late Edward Power, and then the Passmore Edwards Art School, &c., designed by Mr. Maurice B. Adams; adjoining, on the east side, is the useful building designed by Messrs. George and Peto. This building has just been occupied by nearly six hundred most interesting oil paintings, water-colours, prints and drawings of all kinds relating to Camberwell, Past and Present. A very large number of drawings, &c., illustrate the Church of St. Giles from 1750. It is supposed that a church existed in the seventh century. There are a number of works of the greatest interest, showing portions of Camberwell and Dulwich in the olden time, and to those who have known Camberwell, as I have, for over half a century, the examination was a most pleasant study.

In the "Old House on the Green" it is stated that Sir Christopher Wren lived while St. Paul's was in course of erection; later a murder and suicide took place here. The house was taken down in 1850, and a Congregational Church in late Gothic was erected by Messrs. Habershon Bros.

There were a number of photographs of the Mayors of Camberwell and other worthies, with a few oil paintings of some, one of Dr. Matthew Wallis, for long prominent, and another of the late Alderman Sir W. R. Treloar, Bart., who lived many years in the parish.

It seems a pity that this exhibition was not well advertised, as many a man of antiquarian tastes would have been delighted, as I was, to spend a time in these very interesting surroundings.

HENRY LOVEGROVE.

[*** See Note on p. 918. ED.]

"Frozen Music."

SIR,—It may interest you to know, with reference to the article by Mr. Robertson on "Frozen Music" in your issue of December 7, that in 1921 I submitted a sketch design to the authorities concerned for a new programme and syllabus cover for the series of concerts referred to in the article.

After months of silence I called in to see what was being done. Apparently my design and letter had just been unearthed from office debris the day before my visit, and I was told as politely as possible that the present designs were considered quite satisfactory, and no alteration, therefore, was intended. The programme design is even worse, I think, than that on the syllabus, which I discovered is meant to represent the façade of the building in which the concerts are given. A base was originally in the design, but this was "removed" to make room for some printing.

It is time something was done to educate public opinion on such matters. That the so-called "art lovers" who go to the concerts should tolerate such monstrosities makes one wonder whether English people are really interested in art at all.

ARCHITECT.

Charlatans and Pests.

SIR,—It is because the medical professio registered that it has a monopoly of med work and can dictate the terms on which members can accept public appointments. architectural bodies can exercise control their members within the limits of their pow but there is no machinery by which the pro sion as a whole can take action, nor is there architectural body endowed with authority regulate it. When architects have a Regis tion Act, or when the members of the sepa architectural bodies become absorbed into society armed with statutory powers, then profession can act and can practically secure monopoly of architectural practice for members.

I suggest that the Society of Architects moving in the direction indicated by Mr. Ov by endeavouring to bring about Registration. to holding its own with other professional bod I have not heard it suggested that the Soci is backward in this respect, but there is a rum that the Society is regarded in some quarters a leader rather than as a follower in the field architectural activities.

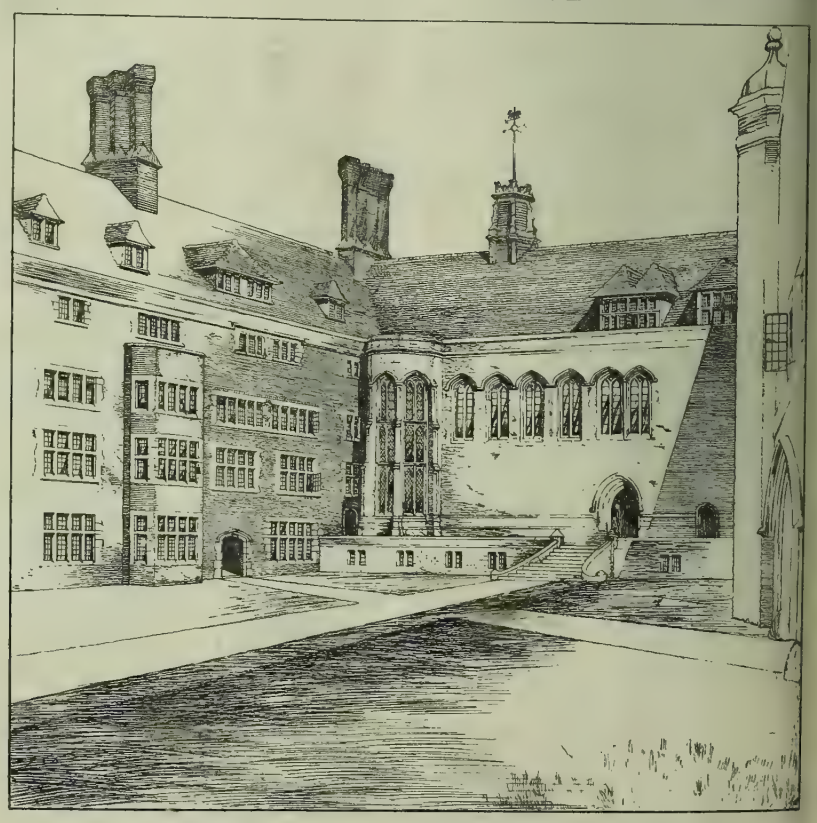
C. MCARTHUR BUTLER

Can Tarnishing be Prevented?

A CORRESPONDENT writes:—

"SIR,—A building recently erected in t town is being used as a workshop and sto and it is found that silver articles, altho wrapped in cotton wool, tissue paper, a placed in cardboard boxes, in a very short ti tarnish rather seriously. There seems to no apparent reason for this. The articles question are stored away from the walls on t first floor.

"The following is a brief description of t building. It consists of four floors. The grou is of concrete finished in cement; the oth floors are timber, lathed and plastered on t underside. The outer walls are hollow bric work. The walls internally have struck joi and are distempered. The stairs and landin are cast concrete. The windows are ste There are no flues, but the heating is effect by gas radiators. The electric lighting h lead covered wires run on surface and stapl to the brickwork."



Crosby Hall. (*See p.* 913.)

CHISWICK.*

In this scholarly and fascinating "essay in historical narrative," Mr. Warwick Draper has embodied the accumulated local knowledge of years of discriminating and sympathetic research, as he prefers to say, the work has been composed "in the margins of days given to following a profession which in great part consists of collecting and sifting evidence for discovering Truth." The book, however, is not, as the above remark would imply, a merely careful record of historical and significant events and facts, but is a continuous history, full of life and colour, of "the pleasant village of Chiswick," as it was described in 1705 by its first historian, John Bowack, invested moreover with a singularly human and kindly charm. The author is no mere picker-up and compiler of dry-as-dust trifles. As he remarks, "It has taken just three centuries to get away from the type of antiquary portrayed in good Dr. John Earle's 'Mico-cosmographie' of 1628 as one who loves all things (as Dutchmen doe cheese) the better for being mouldy and worme-eaten—a great admirer of the rust of old monuments, and reades only those Characters where time hath eaten out the letters—and loves no Library but where there are more Spiders volums than Authors, and lookes with great admiration upon the Antique work of Cob-webs.'"

Although this unprofitable type of antiquarianism may not be wholly extinct there is, happily, a growing tendency to regard the works and history of past times from the broader and healthier standpoint of the sociologist. In this thoughtful modern spirit the author has approached and completed his task and has, moreover, added to it a rare appreciation of the varying significance of the events chronicled and of the relative importance of the interesting and, in many cases, brilliant personalities who pass before us as the tale unfolds. Their characters and qualities are sketched slightly but so brilliantly and with such kindly understanding that they become very real and seem to live and move again in the glamour of their respective periods, with the river they knew so well how to use as a setting background.

The value of such books in enhancing civic pride and securing a fuller and juster appreciation of the things that really matter in our more complex and possibly less attractive social order cannot well be over estimated. Following a suggestive sketch of Chiswick from prehistoric to Roman times, supported by such abundant evidence of early occupation as is afforded by the Layton collection of early relics in Brentford Public Library, definite history begins in 1103 and the narrative, enriched with vivid pictures and incidents illustrating the life and manners of the times, is continued through the Middle Ages, the Tudor period, the great Elizabethan age—with its splendour of life and pageantry—the Stuart and Restoration periods—the great building times in Chiswick—the Georgian era—with "the lustrous artificiality of the Burlington time"—down to our more prosaic and less busy day.

Perhaps the most tender and charming chapter is that devoted to the Plantagenet period. Herein, for the first time in local history, the young King Henry VI is recorded as holding Court at Chiswick for a few years from 1441. Later Prince Henry (James the First's eldest son), who, in 1604, occupied the Palace at Richmond, is referred to as a familiar and admired figure at Chiswick.

The author is obviously a well-informed and appreciative writer upon architectural and town-planning matters, and the illustrations even include many plans and views of fine old houses, most of them long since demolished. The book, therefore, should be of interest to architects to whom the section devoted to a very complete and competent description of the Earl of Burlington's great Palladian Villa, referred to as "one of the most beautiful things in the London area," should specially appeal. The villa and its wonderful gardens are very fully illustrated by plans and views, including some hitherto unpublished drawings by an unknown French artist of 1745, now at Chatsworth. In the chapter on "Modern Chiswick" a very interesting account is given of the creation of the residential quarter of Bedford Park, which was founded in 1875 by Jonathan Thomas Carr, as "a timely protest against the ugly and tasteless housing of the time." With the help of Norman Shaw, E. W. Godwin and E. J. May, several hundred houses were built, together with a club house, the "Tabard Inn," and stores. Now that so much is heard of garden suburbs and housing schemes it is as well to be reminded of this pioneer work of nearly fifty years ago.

A chapter is given to Strand-on-the-Green, which has lately received considerable attention, and of which more may possibly be heard; it is described as having still "a real beauty of its own, the result, on an attractive river bank, of one hundred and fifty years of building and life of which its residents and a wider public are properly jealous."

The activity of the Chiswick Civic Association or their forerunners in averting the destruction of the Duke's Meadows by the erection thereon of gas works and other disfigurements is referred to, and, in outlining the proposals for laying-out this great area for public purposes, the author expresses the hope that "a scheme so large and permanent may be made as worthy in design as the best available skill can ensure." How far this is likely to be achieved as a result of the recent competition for designs architects may judge for themselves. The book itself is admirably produced, very fully illustrated, well printed on good paper and its pages enlivened by the imaginative and highly decorative chapter-head and tail-pieces designed and drawn in line by the author's son, Mr. Christopher Draper, who is also responsible for the coloured frontispiece.

* *Chiswick*. By Warwick Draper, M.A. (Philip Allan & Co., 1923.) Price 25s.



Window for Holy Trinity Church, Woodford.

Designed by Mr. E. Liddall Armitage.

THE PARTHENON, ATHENS.

Sir Banister Fletcher, in a recent lecture on the Parthenon, Athens, at the Central School of Arts and Crafts, reviewed the historical events and the final victories of the Greeks over the Persians, 480 B.C., which led to the building of this temple. Pericles, the great administrator, then determined to give material expression to the national exultation by erecting a votive temple to the champion goddess, Athena, who had given them the victory, and architecture and sculpture were called to the service of the State. The Acropolis rock at Athens, no longer wanted as a military fortress, became the enclosure sacred to the gods.

The lecturer referred to the crystal marble, from which it was possible to call forth the delicate and exact forms so specially characteristic of this Doric temple. Thus could architects and sculptors create the harmony and symmetry of design in column and architrave, roof and pediment, moulding and ornament, frieze and metope, colour and sculpture, which went to the making of the Parthenon. By the aid of lantern views the lecturer described the details of the Panathenaic frieze of the procession, which vibrates with Athenian life. Knights and musicians, priests and youths, matrons and maids, cavalry and chariots, magistrates and gods—all took part in presenting the new "peplos," or robe, to the maiden goddess, guardian of their city.

Bartholomew-the-Great: Limits of the North Transept.

The authorities of St. Bartholomew's Church attempted, during the work now being carried out at Cloth Fair, to discover remains of the north transept of St. Bartholomew-the-Great, which served as the Parish Chapel. In his grant to Rich three years after the suppression, Henry VIII said that the Parish Chapel had been "utterly taken away," and that the headstones and timber were being turned to his own use, and sold. This royal assertion is no doubt true, but shafts sunk from the road level have enabled the authorities to fix the limits of the chalk foundations of the transept to the north. The first shaft, sunk to a depth of from 7 to 8 ft., revealed the chalk foundations of the north-west angle of the transept, and a second shaft, at the entrance to Sun Court, disclosed the limits of the transept. At a depth of 4 ft. from the surface a large double capital of a column, dating from about 1145, was also found in a good state of preservation. This is now on view in the church.

EXHIBITION OF DRAWINGS, MANCHESTER MASONIC HALL AND D.I.C. BUILDING.

WE found on visiting this exhibition that contrary to the formerly expressed intentions of the promoters of the Masonic Hall competition, the drawings sent in in this competition were exhibited, and we commend this as a most wise proceeding for it at once removes any dissatisfaction which might have been engendered by the withholding of the designs from the profession at large.

After a careful consideration of the drawings submitted, there is no doubt that the selected design, by Messrs. Thomas Worthington & Sons, is not only the finest solution of the problem but it is so far in advance of any of its rivals that it is almost difficult to make a comparison, and except in draughtsmanship, where Mr. Fairhurst's drawings are outstanding, there is very little possibility of any comparison that is not distinctly favourable.

The first thought that occurs in a quick glance at the designs is that with the exception of the scheme submitted by Mr. J. H. Sellers no design embodies the semi-religious effect in exterior which is called for in a Masonic Hall of the importance of this one. In fact, Mr. Sellers' elevation is the only one of the other designs which can be said fully to portray the purpose of the building. Mr. Sellers' façade has a sense of restraint, scholarship and dignity, and conveys what it is intended to convey, and is only surpassed because the design of the winners has these qualities in a more marked degree.

When the interior principle and planning is considered the superiority of the winning design is still more marked. The impressive character of the approach when one has entered as conceived by the selected design is unequalled. The fine long crush hall, flanked by orders, with the impressive portal at the end of the vista, has no parallel in its rivals. Mr. Sellers again has attempted to gain a proper solemnity in this feature, but is crippled because he enters his hall at an odd point on one side which means that the dignity of his design is not brought home to the entrant until he has reached the centre of the hall and turned to the right or the left. And although we remain of the opinion that the ante room accommodation in the winning design is inadequate this same fault is apparent in all the designs. Taking the designs individually, they all have interest, although strangely the remaining designs reflect a commercial spirit which is inconsistent with the purpose of the building.

One must notice the set of drawings submitted by Mr. Harry Fairhurst by the beauty of their finish. The draughtsmanship and colouring of this set of drawings, as we have remarked, is outstanding, but from a practical point of view the plan fails from lack of realisation of the needs involved (perhaps Mr. Fairhurst is not a Mason) and in design, because the elevation suggested is more fitting for some dignified civic or government building for which it would be suitable and distinguished.

Messrs. J. W. Beaumont & Sons contribute an interesting design, but the treatment again is somewhat commercial.

The same remarks apply to the design of Messrs. Barker & Hoyland, who have emphasised their banqueting hall.

The D.I.C. Building.

The assessing of this competition must have been much more difficult than the last; there are at least three designs all of which have great merit, and a fourth which calls for attention imperatively.

The winning design, by Messrs. J. C. Prestwich & Sons, is an excellent one, and it gains much by the excellence of the drawings. The large elevation and perspective are delightful examples of conscientious draughtsmanship. From the practical point of view the scheme certainly seems to combine both excellence of plan and suitability of conception, both to the purpose of the building and appreciation of its surroundings.

Mr. Harry Fairhurst (commended) submits, as usual, a delightful set of drawings, and it was must interesting to consider his design in view of the fact that the D.I.C. building is to be next to his own well-known Manchester Liners building. Mr. Fairhurst may always be relied on to give an indication of the trend of the best thought in current architectural problems as relative to commerce, and his treatment of the shops at the base of the building is well worthy of note, where he has contrived to get ample light and window space without neglecting the æsthetic need of a suggestion of solidity in a building of the great weight of the one in question.

The design of Messrs. G. H. Willoughby and Messrs. Rees & Holt (commended) also give a most interesting solution; and Messrs. Halliday, Patterson & Agate offer an elevation at once suitable and elegant.

After an examination of the drawings one can only wish that such exhibitions were more frequent. From the comments of the public who were present on the occasion of our visit we feel sure that a great deal more interest, and furthermore a better informed interest, would be cultivated in the public if they had the advantage of seeing more of the architects' not at all unimportant work in the modern world.

CAMBERWELL, PAST AND PRESENT.

THIS was the title of an exhibition held at the South London Art Gallery, Peckham-road, S.E. In the foreword to the catalogue it says: "A century ago Camberwell was the dwelling-place of men of letters; nightingales sang in its copses; and coaches rumbled from town to peace and quiet and to leaf-hidden homes." David Cox, the famous water-colourist, resided at Dulwich, and here he made many drawings. A wooded walk still remains which is known as Cox's Walk, and it will probably come as a surprise to many to know that in College-road a turnpike is still in existence levying charges on vehicles using the thoroughfare. In this district—within four or five miles of Charing Cross—farming is still carried on. Dulwich Village still retains much of its old-world beauty; many old Georgian houses are still surviving, and some fine old wrought-iron gates. The locality teems with places of interest, and it is remarkable that so much remains in these days of ceaseless demolition. Numerous celebrated persons resided in the district. The prints, drawings, and water-colours are a fine representative collection, and help one to realise the charm and beauty of Camberwell and district in days long gone by.

GLASGOW SPORTS PAVILION COMPETITION

"MENS sana in corpore sano" is the slogan of the Student Welfare Committee of Glasgow University, and in deciding to erect a new sports pavilion on the Athletic Ground at Anniesland they hope to provide an incentive for the students to improve their bodily health and be the better able to meet the mental strain demanded by their studies.

Designs were invited from architects having an office in and practising within the municipal boundaries of Glasgow. Mr. Alexander N. Paterson was appointed assessor in the competition. In all 16 designs were received, and the assessor has now issued his award as follows:—1, Mr. James M. Honeyman, 194, West Regent-street; 2, Mr. Will J. B. Wright, 170, Hope-street; 3, Messrs. John Burnet, Son & Dick, 239, St. Vincent-street.

Mr. Honeyman's design, which we publish this week, is carefully planned on simple, broad lines and provides direct lighting to each apartment, a feature which showed a marked improvement on other designs where rooflights had to be used. Another feature is the tea room of 1,180 sq. ft., with partly covered balcony giving a direct view of the principal playing pitch. The general finish will be of the simplest nature. The elevations are kept on straightforward, simple lines. The main entrance is accentuated by a flight of steps to covered portico and dominated by a prominent gable. The roofs are tiled with a mixed combination of red. The construction to be fire-resisting throughout. A flat breeze concrete roof finished with asphalte is placed over two dressing-room wings.

The heating is to be on the low-pressure hot-water system with rapid circulation and is divided into sub-circulations, each under control. Radiators are placed in the window breasts in the secretary's room, entrance hall, lounge and tea toom. The dressing-rooms are to have a 2 in. malleable iron coil pipe with galvanised iron clothes rack surrounding. The drying rooms to have powerful pipe coils on the wall, and under separate control. Two ventilation flues have been provided with fans and duct leading to same as shown on plans. Ducts are also provided in ablution rooms in basement to accelerate the removal of vapour during humid weather. The lounge ventilates over a false ceiling in the passage behind. The hot-water source will be centrally controlled by an independent boiler and large circulator, to ensure an ample supply of hot water. The hot-water will be fitted with a return and work done in the usual approved manner.

The building will be lit with electricity throughout. Allowance is made for 85 lighting points and switches.

The total cost of the work including roads and paths, architect's and measurer's fees, is estimated at £10.000.



Farm Buildings at Dulwich: Shortly to be Demolished.

LIVERPOOL ARCHITECTURAL SOCIETY.

"OUR CLIENTS AND OURSELVES."

On December 11, at an ordinary meeting of the Liverpool Architectural Society, Mr. Herbert A. Welch, A.R.I.B.A., read a paper on this subject, in the course of which he said that there never had been a time in the history of their art when better facilities for art and constructional training had been available to the student. This had already resulted in a great advance in the general level of modern architecture. That this general level would attain to even greater heights he had not the slightest doubt. By this, however, he did not mean that he was entirely satisfied that the present method was quite the best which could be evolved. He looked forward to the time when the system at present adopted in the schools would be supplemented by, or dovetailed into, fairly lengthy periods spent by students in the offices of practising architects, whereby they would be enabled to get more closely into touch with matters of practice during the more impressionable period of their training. In his opinion they had yet fully to realise that their profession called not only for a high level of artistic and scientific attainment, but—what he thought to be equally important—a fair measure of business ability.

Side by side with this advance in training the public was at last taking a more enlightened interest in their art. The reason was not far to seek. They had become more worthy of their interest. Their work, in fact, began to arrest. Even so the average citizen did not fully realise the range of beneficial advice and help that was available to him or her from the properly qualified members of their profession. The ethics of their profession precluded them from making use of public advertisement in order to enlighten and instruct the public. This he considered in the main to be a good thing, as it left their clients as the only medium for the circulation of such information. Such a medium must of necessity be slow, but he was inclined to think it had the advantage of being sure. It therefore behoved them to render to their clients the best service in their power.

He considered it manifest that by far the greatest difficulty was at the start, and when he said that their first clients were amongst their most cherished recollections he thought he expressed the feelings of all those architects who had stopped for a moment in their busy lives to take a retrospect of their careers. The courage of those who trusted them and placed themselves in their hands before they were able to point to any practical accomplishments, was something for which they should be grateful, and of which they had a right to be modestly proud.

Good architecture being uppermost in their minds, they had to apply themselves to finding the best architectural expression of their client's desires. They must not be nervous of discussing with them this aspect of the problem. All clients appreciated a building of real distinction, even if they did not technically understand the true relation of the component parts which go to the making of such a building. From the first their efforts should be designed to get a full understanding of their clients, to which end they should be frank and confidential. It would generally be found that these qualities were appreciated and readily reciprocated. They must remember that their clients placed in them great confidence, in addition to a heavy responsibility in spending to the best possible purpose large sums of money. It was for them to justify that confidence by producing a building in every respect suited to its practical purpose—economical (but not mean), dignified, and possessed of such distinction that it arrested attention. This accomplishment would be a source of satisfaction alike to the owner, to the public and to the architect.

When first consulting an architect clients frequently exhibited a tendency to understate the amount they were prepared to spend upon the proposed work, feeling that they might produce a more costly scheme; and, as business men, they considered it wise to reserve to themselves a margin for safety. They should always frankly request clients not to do this, for two special reasons. First, it was an indication that they were not sure of them, and second, such a method was liable to result in the production of a design less satisfactory for its purpose than might otherwise have been the case. If, however, their clients stated a sum which was inadequate for the purpose, it was wise tactfully but frankly to say so; it secured both themselves and their clients against subsequent disappointment and possibly bad feeling. Having then persuaded their clients to accept what they thought to be the likely cost of the proposed building, it might shake their confidence if ultimately this sum was largely exceeded. They must, therefore, do their utmost to guard against such an event.

In drawing up the contract they should be at pains to explain to their clients the meaning of its salient clauses, never forgetting to make it clear that it was in the best interests of all parties concerned—client, architect and contractor—that all orders for work should be given not by the client but on his behalf by the architect. Any departure from this established custom was likely to cause discontent and unhappy relations at the settlement of accounts. If such matters were stated tactfully—and not in a high-handed manner—their clients would readily understand that it was their interests alone which they were safeguarding. They should be careful to explain that in the administration of the terms of the contract their main duty was to promote fair play and to hold the scales evenly between the parties. It was desirable, also, to make clear the meaning of their certificates for payments to be made by them to the contractor at various stages during the execution of the work; and on issuing certificates it would be found helpful to notify clients at the same time. Incidentally, on issuing the first certificate they should mention that the contract stipulated for payment of the amount stated within a week or ten days—whichever was the case this helped to guard against a matter of importance being overlooked.

During the execution of the work it was usual, for a variety of reasons, to make variations which frequently involved additional cost. They should notify their clients of these variations and, wherever practicable, give them an approximate idea of the additional cost. Where a quantity surveyor was engaged his help in such matters should be invited.

It was in their clients' interest that their relations with the contractor and sub-contractors should be of a helpful and friendly nature; no good purpose would be served by using their authority in an overbearing and high-handed manner. They should keep clearly in mind that the successful accomplishment of their task depended upon the closest co-operation of all parties concerned. Soundness of judgment, coolness of head and conciliation of manner would generally overcome most of the differences that arose.

Again, in dealing with local authorities, district surveyors, adjoining owners and others, it would generally be found that their requirements and interests could best be met by tactful handling and sweet reasonableness, to the satisfaction of all concerned. By this he did not mean that the architect should pursue a weak policy of giving all and receiving nothing, but rather that when negotiating he should be moderate in his demands, frank and open in manner and transparently honest of purpose.

He would now like to point out where their knowledge and experience might be expected to be put to the test in various other directions. For instance, in acting as assessor in an architectural competition the ability of an architect was very fully extended. Here, again, their clients must take them fully into their confidence. The assessor must fully discuss with them the proposed scheme and clearly ascertain their various requirements as to accommodation and cost. Having proceeded thus far, a wise assessor would as the next step work out in sketch form those requirements in order to satisfy himself (*a*) that the site was suitable for such accommodation—an omission to do this would probably result in the competitors being invited to spend much time and thought upon an impossible project; (*b*) that there was a reasonable prospect of the proposed accommodation being obtained for the intended cost. If these fundamental conditions were not met, the assessor would frankly state so to his clients, and suggest an adjustment of these two factors, in order that they bore a proper relation to each other. In close consultation with his clients the assessor would then proceed to draw up, without ambiguity, the conditions for the competition, making abundantly clear to competitors the essential requirements as distinct from suggestions. If all this preliminary work were thoroughly done their clients would be happy to find the number of questions received from competitors reduced to a minimum, and what was equally important, the competitors would be able to proceed with the preparation of their designs without a long delay for the replies to questions, none of which were likely to be of a fundamental nature. The drawings having been received the assessor would very carefully and deliberately scrutinise each set. In his determination to do justice alike to his clients and to the competitors he would rule out all designs which violated in essential particulars the conditions of the competition. Having arrived at his decision regarding the premiated designs he would present his award. Whether this should be done orally or otherwise was a personal matter, but the award should finally be published for the help and guidance of competitors and, wherever practicable, the whole of the drawings sent in should be publicly exhibited. Such an exhibition created an interest in the locality and was instructive to the competitors.

In addition to the services already mentioned they would probably be called upon to advise upon disputes which had reached an acute stage, and were likely to be settled in the Court or to proceed to arbitration. Regarding cases which appeared likely to be settled in Court, it should be considered as the duty of every architect so consulted to use his utmost endeavours to arrive at a fair and equitable settlement out of Court. By so doing both parties to the action were saved heavy bills of costs and the parties concerned were spared the ill-feeling and recrimination which usually resulted from such actions. Here again a full, frank and open discussion, without prejudice, between the professional experts would generally be productive of a satisfactory result.

When acting as arbitrator they must first study closely the terms of reference and be quite sure that they were clearly set forth in the Form of Appointment. They now had no client, their position being somewhat similar to that of a judge. It was their duty fully to investigate the matter in dispute by calling together the parties concerned, including their witnesses, hear all evidence and examine in detail all correspondence and documents which in their opinion were essential to the case. In order fully to get to grips with the matter it would generally be helpful for them to make at least one early visit to the site, and to arrange for at least one expert on each side to meet them there. It occasionally happened during the hearing that by consent of the parties the terms of reference were varied somewhat or that the time for the making of the award was extended. In either case it was desirable that a solicitor be consulted in order to make such variation accord with legal procedure.

Having arrived at their decision they should be at pains very carefully to make their report and then instruct a solicitor to draw it up and notify the parties in the usual legal manner.

In a profession demanding so wide and varied a knowledge as theirs it was but natural that however much advice they received and however much learning they acquired, mistakes would nevertheless occur.

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ILLUSTRATIONS.

Jedburgh Abbey.

An article on the conservation of Jedburgh Abbey is given on p. 928.

Eastbourne College War Memorial.

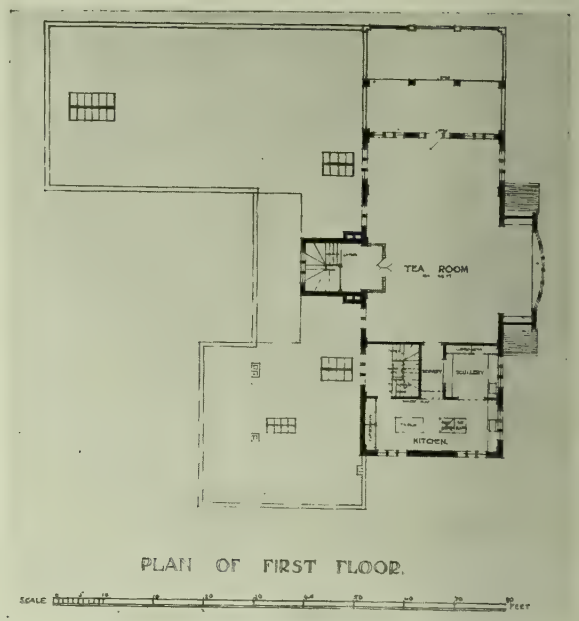
Further illustrations and description of the Eastbourne College War Memorial Tower and other additions, by Messrs. Bourchier, Tatchell & Galsworthy, FF.R.I.B.A., were given in our issue for September 1, 1922.

House at Hawton.

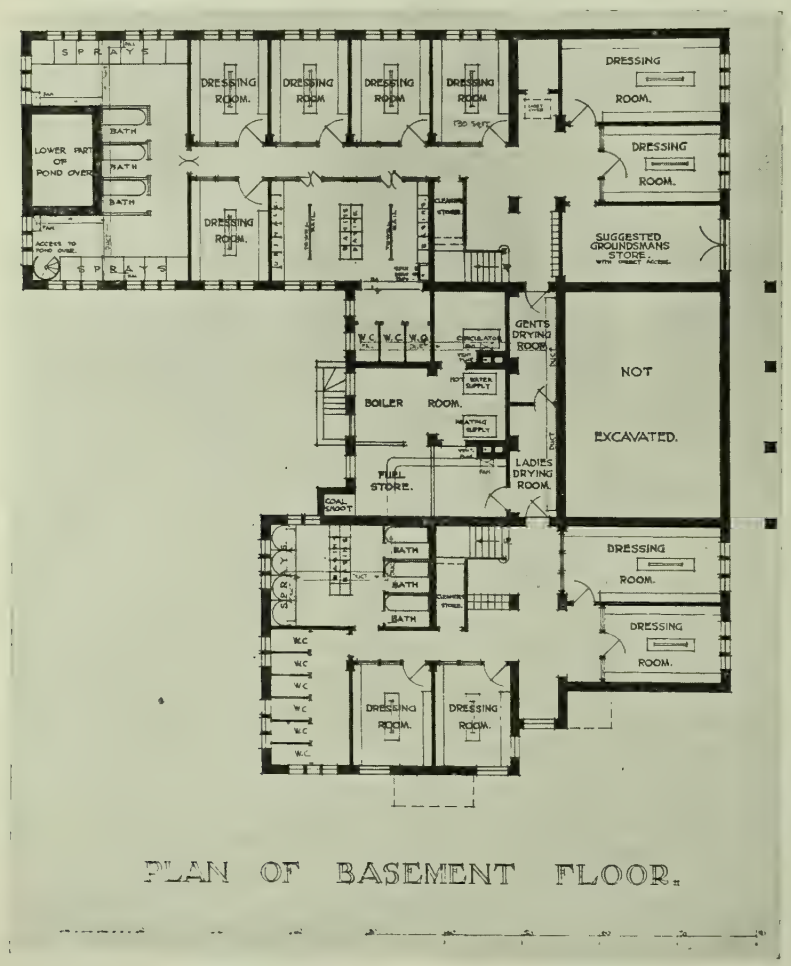
This house has been designed for a country site bordering a river and with the main views looking south across the river and surrounding meadows. The outer walls are built of stock bricks with darker facing bricks for the dressings to front door and windows. Rustic hand-made sand-faced tiles were used for the roof. The whole of the woodwork to the living room has been done in oak with special hand-made wrot-iron door furniture. The cooking, a little central heating and the hot-water supply are all worked from a "Thermostove."

The general contractor is Mr. Roland Hill; the electric lighting plant has been installed by Mr. Suter; the central heating and plumbing by Messrs. Thos. Knapp & Sons; the tiling by Mr. A. Wright; the wrot-iron furniture by the Jordans Village Industries, Ltd.; and the steel casements and leaded lights were supplied by Messrs. Geo. Wragge, Ltd.

The architect is Mr. A. Percival Starkey, Harrow.



Glasgow University Pavilion Competition.



Glasgow University Pavilion Competition.
Design Placed First: By MR. J. M. HONEYMAN, A.R.I.B.A..

"Appleshaw," Purley.

Our illustration shows the entrance front of this house. The building was designed in order that the central portion might be constructed immediately, and that the wings could be added at a later date, each addition leaving a satisfactory building. The materials used have been Sussex stocks with red sand faced quoins, plinth and string courses, and red sand faced tiled roof. Messrs. Ernest G. Allen & Partners, of 11, Arundel-street, Strand, W.C. 2, are the architects.

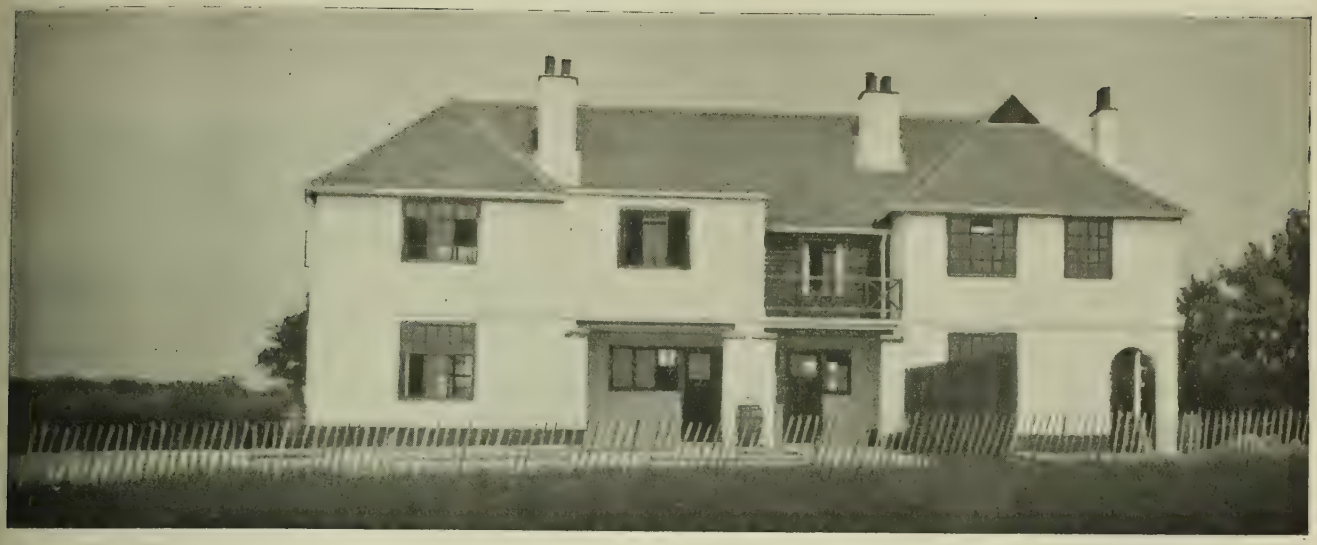
Tedavenet Church, Monaghan.

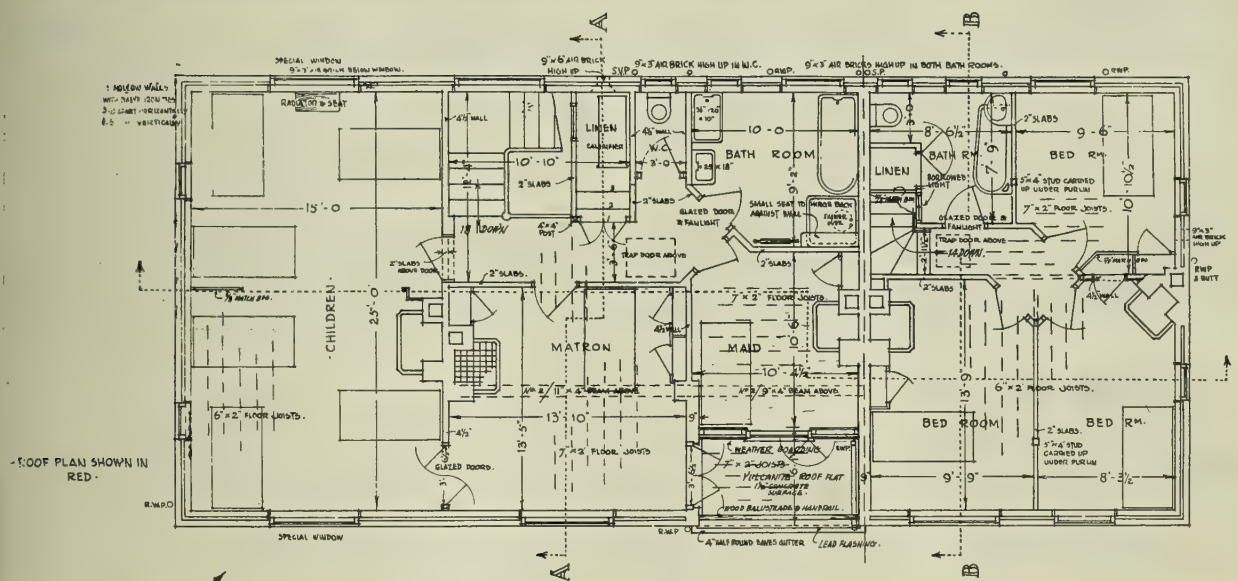
Funds being insufficient to build a new church, it was decided to convert the old early nineteenth century church into transepts, and to build across it a new nave and aisles and chancel. A new vestry is also provided. The roof of the old church will be removed, and replaced by a new open-timbered roof, covered with grey-green rustic slates. The aisles will have flat roofs and parapets to economise height.

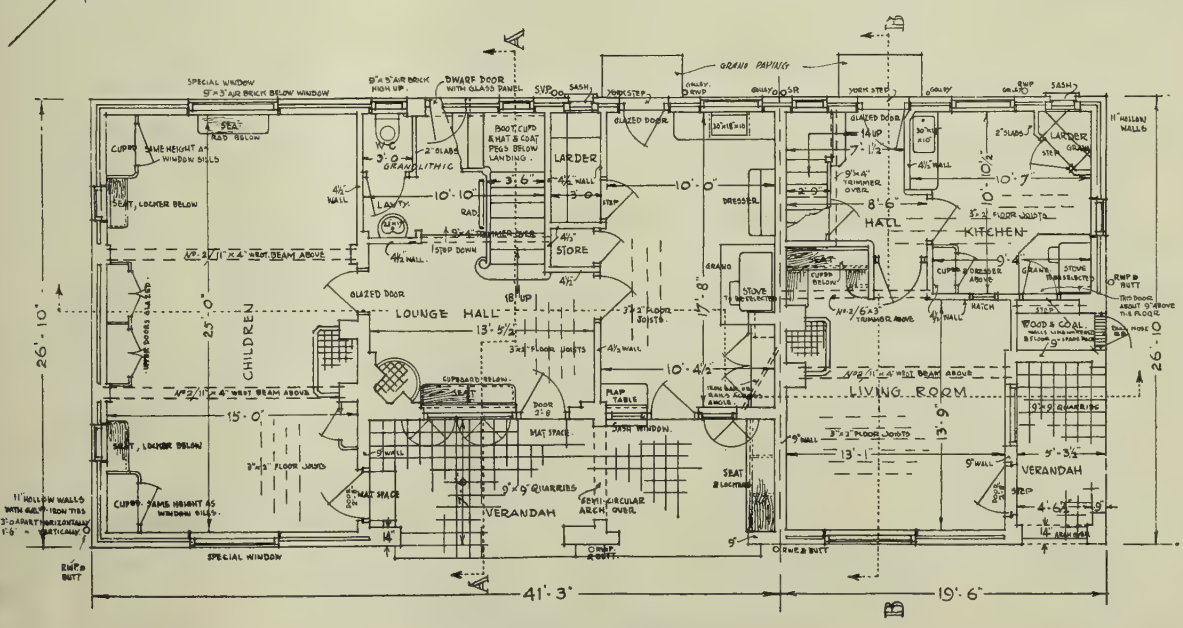
An attempt has been made to adapt the old Irish Romanesque in the treatment of the problem. Unlike most other Romanesque styles, the Irish round-arched work was usually marked by rather high-pitched roofs, and a characteristic feature was the inclined jambs of roods and windows. Square-headed doorways, with deep lintels occasionally sculptured, were also frequently found in early work. The architect for the new work is Mr. R. M. Butler.

Children's Home and Cottage, Tandridge.

This building was completed in May this year. It comprises one small cottage at the east end, which is let by the owner, while the western and larger portion is intended for and used as a country home for sick children, and is run entirely philanthropically by the owner. It faces due south in an open position with good views. The walls are 11 in. hollow of local stocks painted with the Indestructible Paint Co.'s white "Wallene." The roof is of local sandfaced red tiles. All windows are "Standard" metal casements in wood frames, supplied by Messrs. Hope & Co. A No. 2 "Cookanheat" range is installed in the Home, and does the cooking and hot water supply, and in addition heats three radiators and a towel rail in the bathroom. This installation was carried out by Messrs. J. & F. May. The general contractors were Messrs. Head Bros., of Lingfield, Surrey, who carried out the work under the supervision of the architects, Messrs. Hayward & Maynard, 14, John-street, Adelphi, W.C.2.



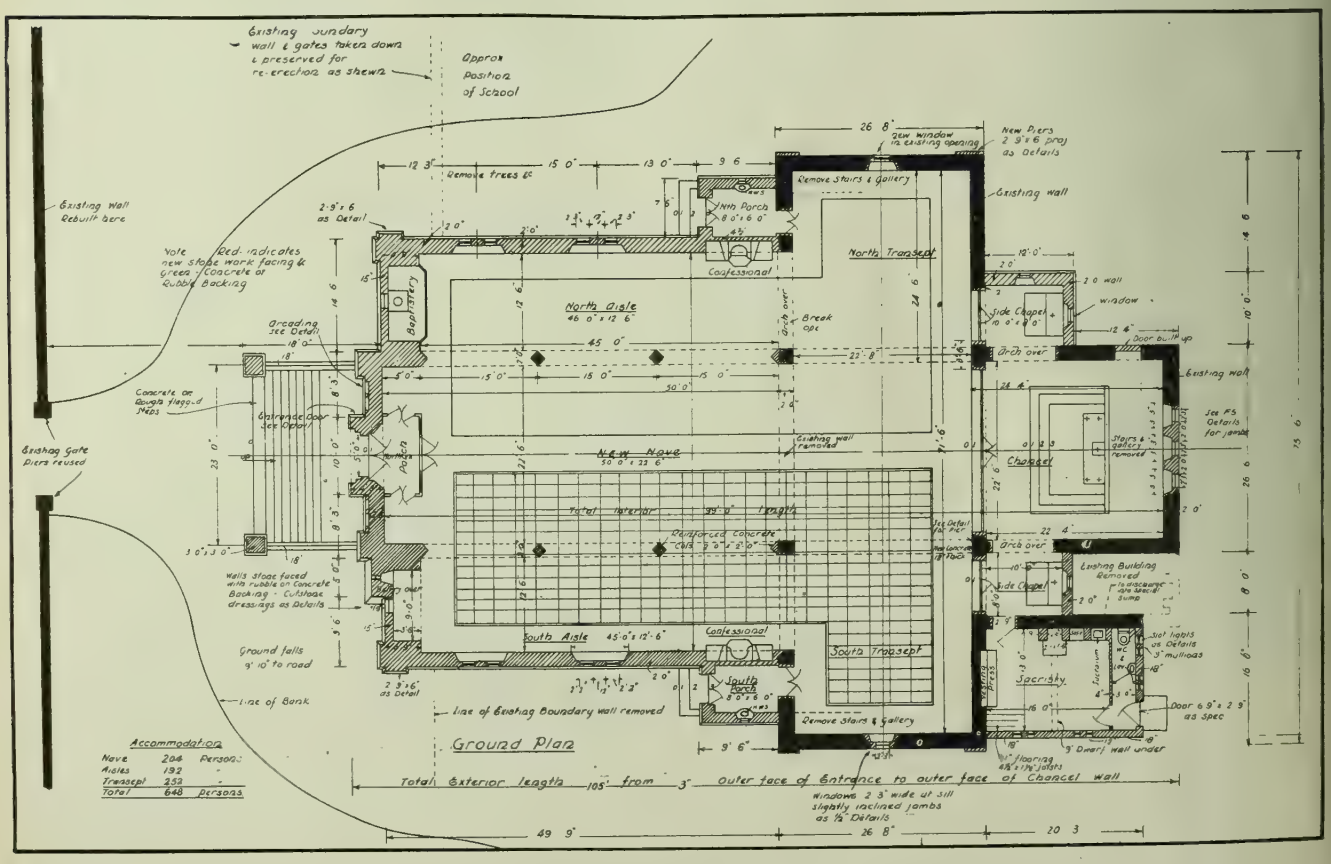




Children's Home and Cottage, Tandridge, Surrey.

MESSRS. HAYWARD & MAYNARD, Architects. (*See p.* 920.)

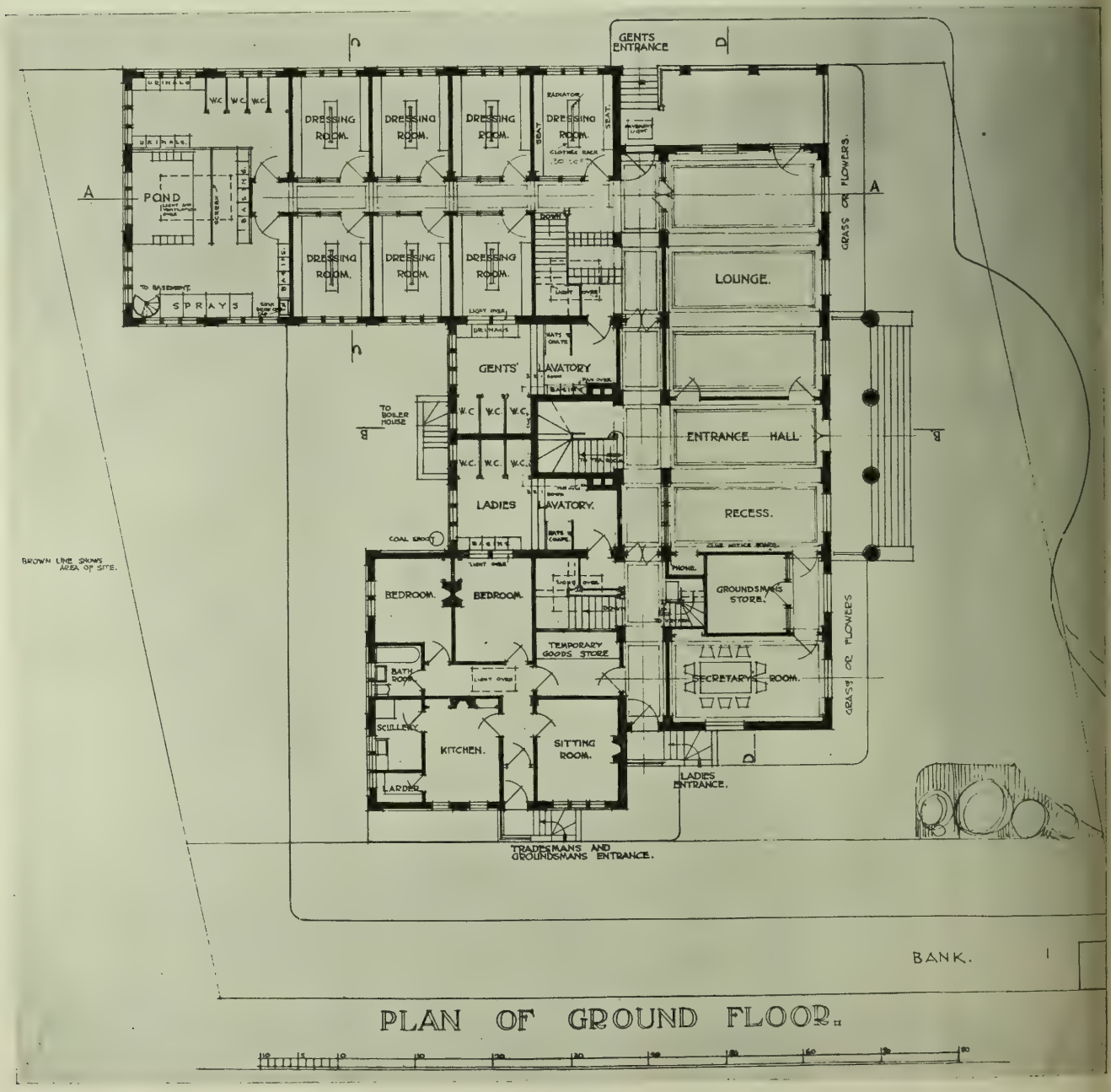




Tedavenet Church, Monaghan.

MR. R. M. BUTLER, Architect. (*See p.* 920)



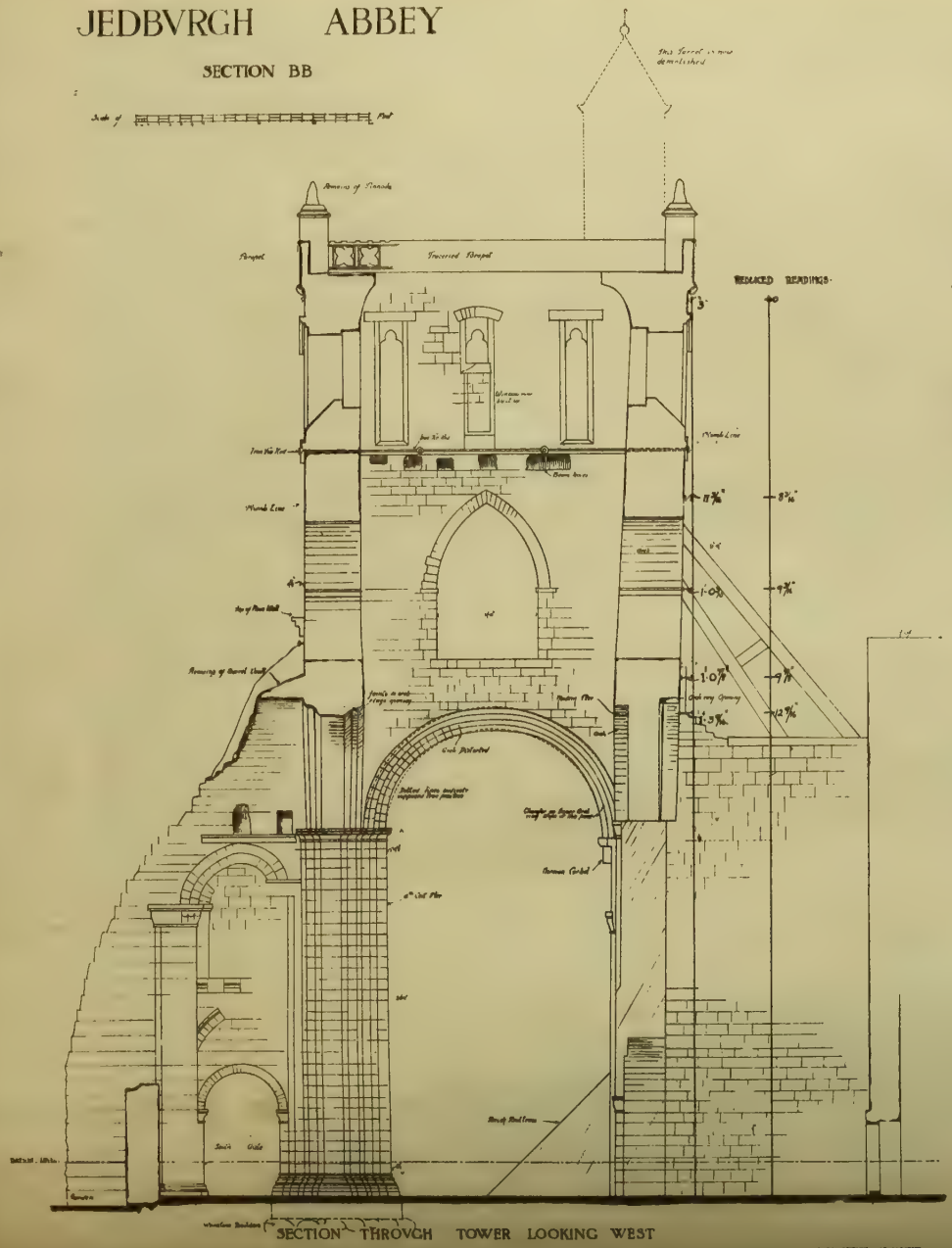


Glasgow University Pavilion Competition.

Design placed first: By Mr. J. M. Honeyman, A.R.I.B.A.

JEDBVRGH ABBEY

SECTION BB

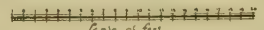


SECTION THROVGH TOWER LOOKING WEST

H.M. OFFICE OF WORKS
WESTMINSTER

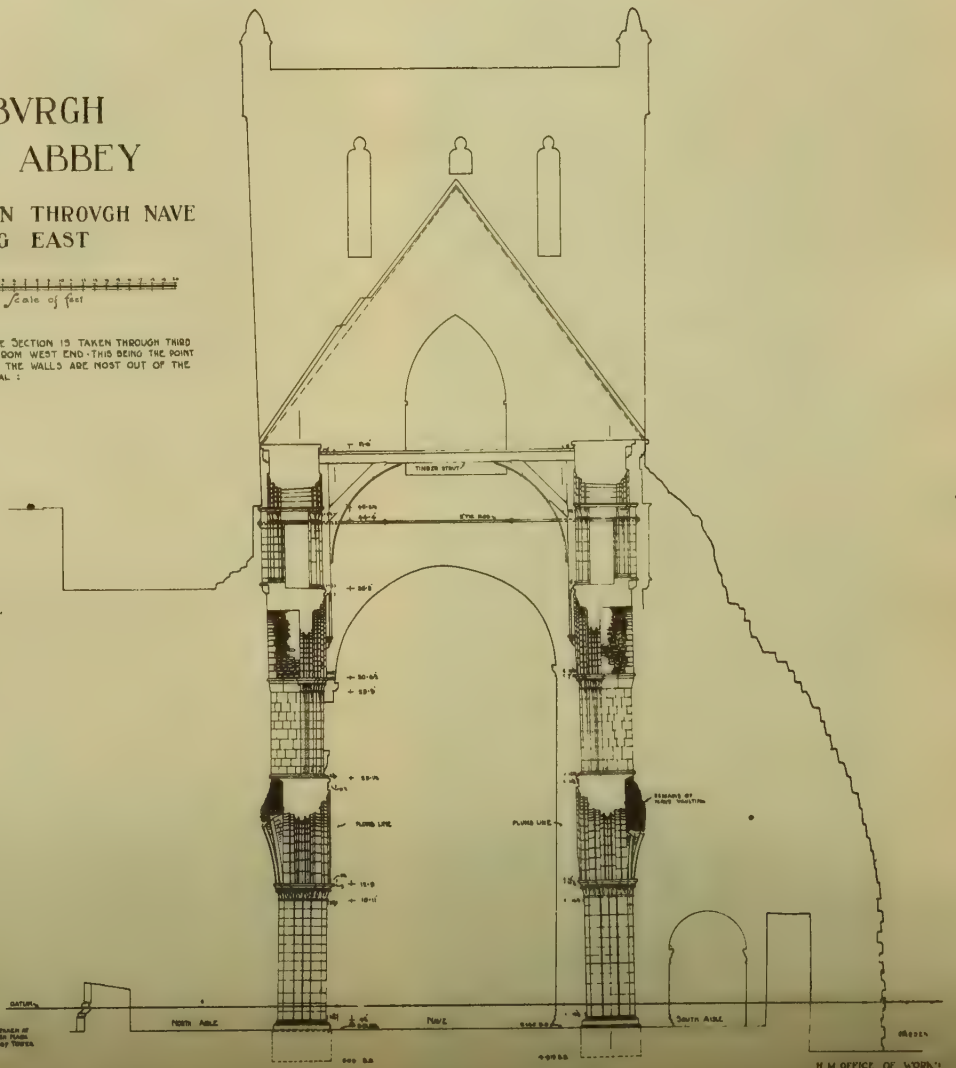
JEDBVRGH ABBEY

SECTION THROVGH NAVE LOOKING EAST



Scale of feet

NOTE: THE SECTION IS TAKEN THROUGH THIRD PIER FROM WEST END - THIS BEING THE POINT WHERE THE WALLS ARE MOST OUT OF THE VERTICAL :

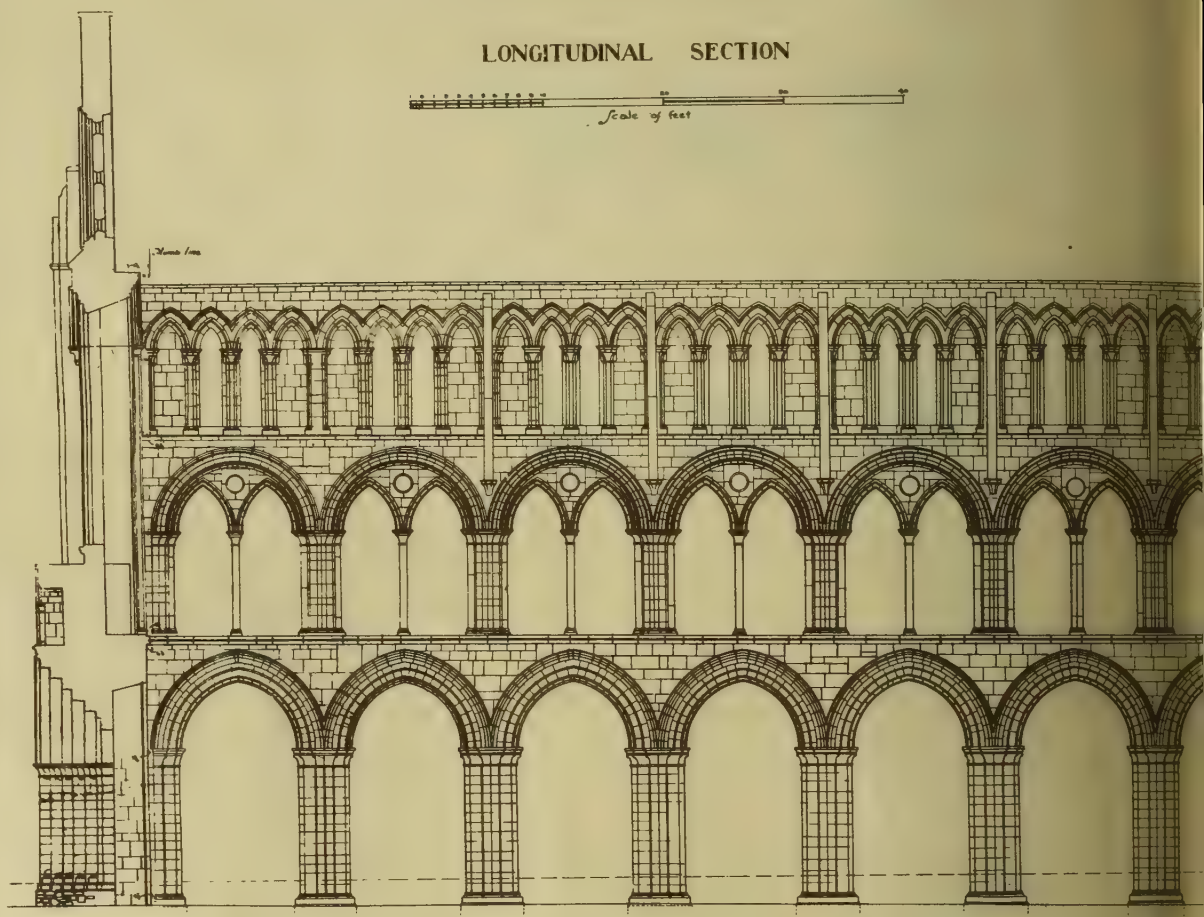


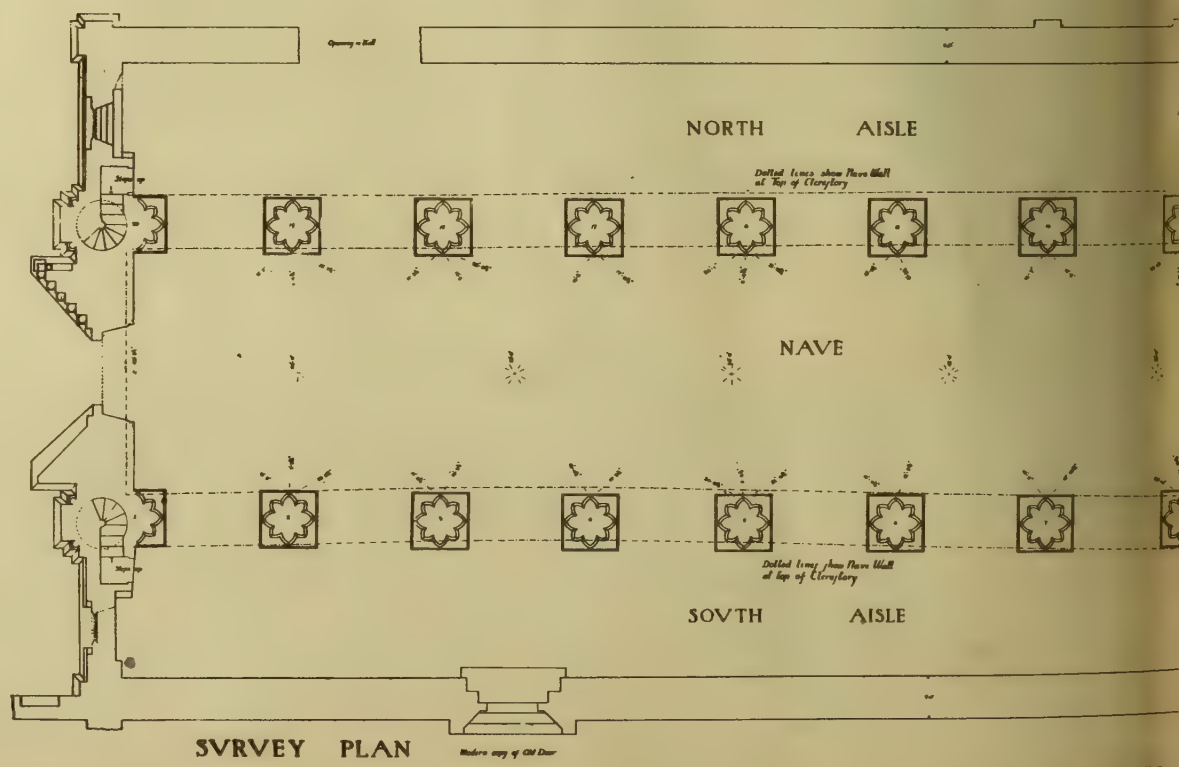
H.M. OFFICE OF WORKS
WESTMINSTER

THE BUILDER, DECEMBER 14, 1923.

JEDBVRGH ABBEY

LONGITUDINAL SECTION





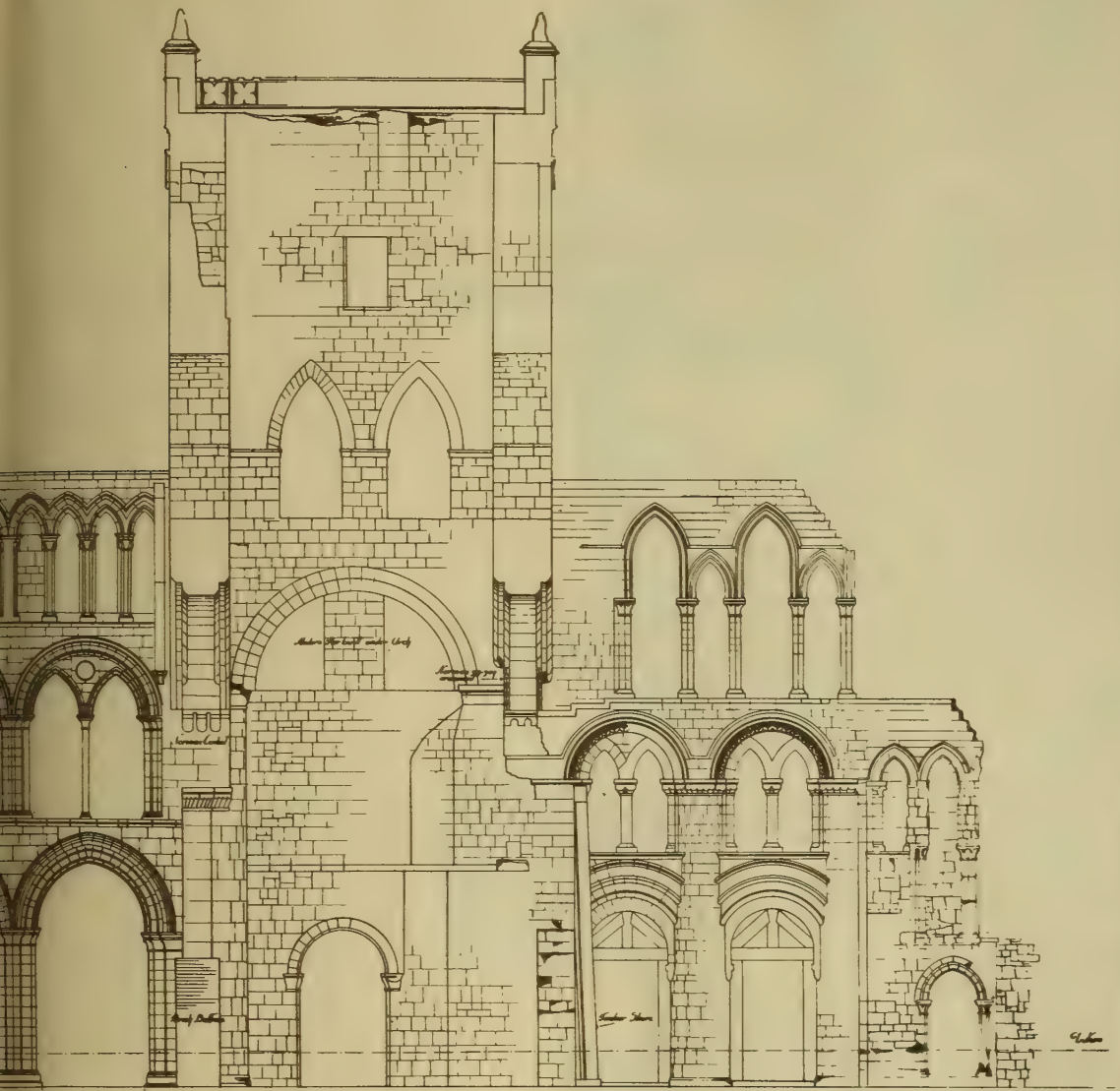
SVRVEY PLAN

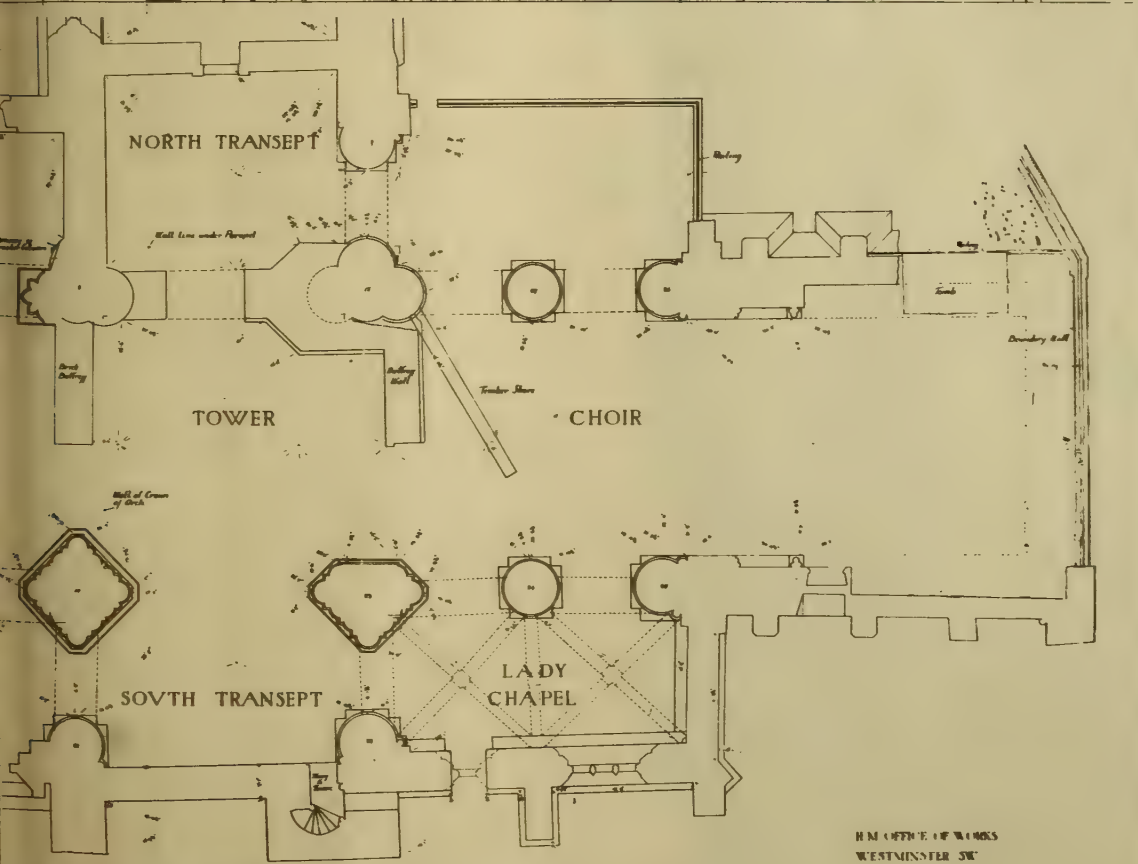
CLOISTERS

PLAN AND SECTION OF JEDBURGH AB

THE STRUTS AND TIE BARS ACROSS THE NA

THE TOWER PIERS ON THE NORTH SIDE HAVE





H.M. OFFICE OF WORKS
WESTMINSTER S.W.

PAIRS WERE PUT IN HAND.

THE WALL TOPS REINFORCED.

ING BUTTRESSES AND RECORED.



THE COLLEGE, EASTBOURNE: WAR MEMORIAL TOWER AND OTHER ADDITIONS.

MESSRS. BOURCHIER, TATCHELL & GALSWORTHY, FF.R.I.B.A., ARCHITECTS.



EAST ELEVATION



WEST ELEVATION



NORTH ELEVATION



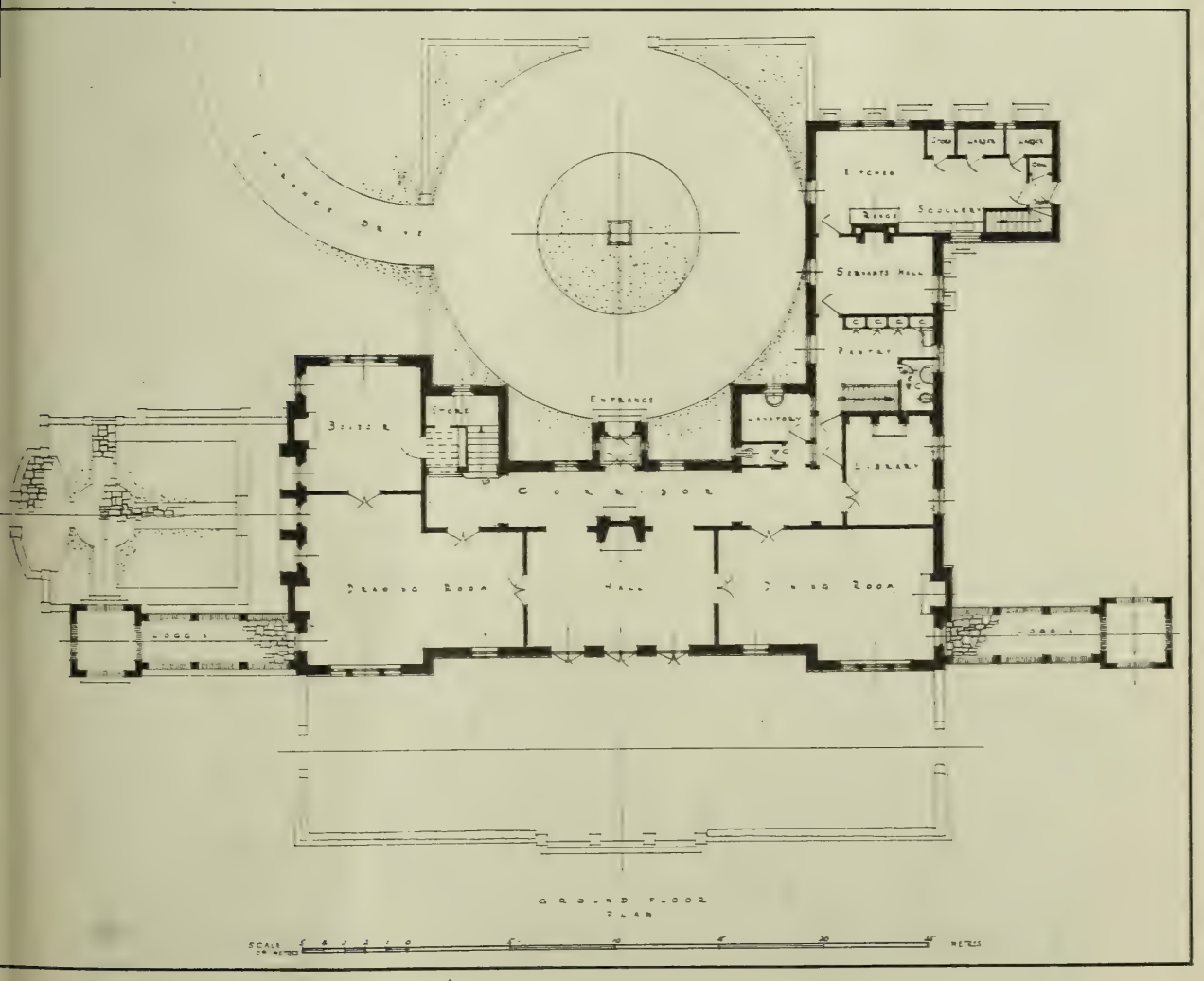
SOUTH ELEVATION

SCALE

Glasgow University Pavilion Competition.

Design placed first: By Mr. J. M. Honeyman, A.R.I.B.A.



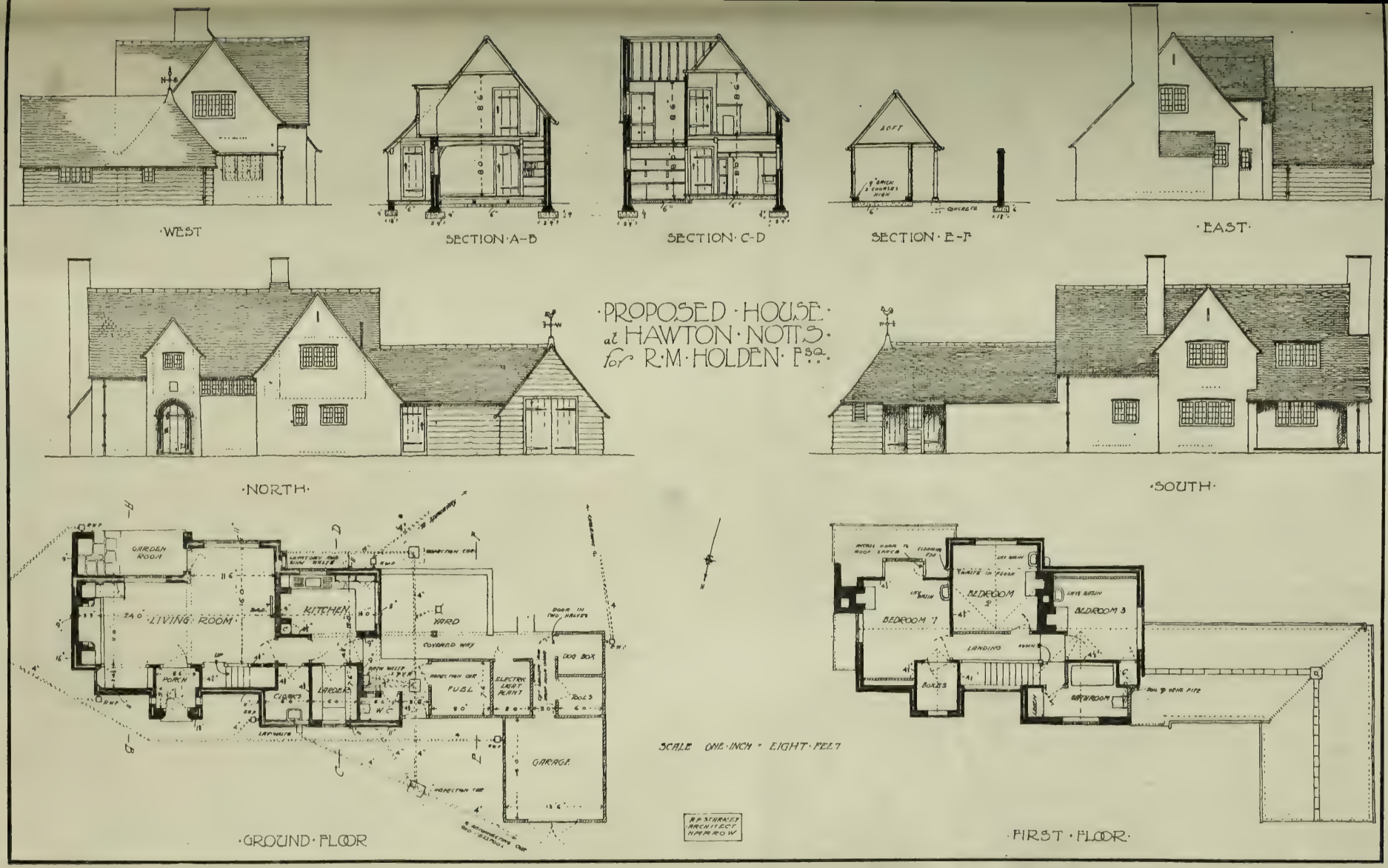


Proposed Chateau at Elvadinghe.

Mr. Stanley Hamp, F.R.I.B.A., Architect.

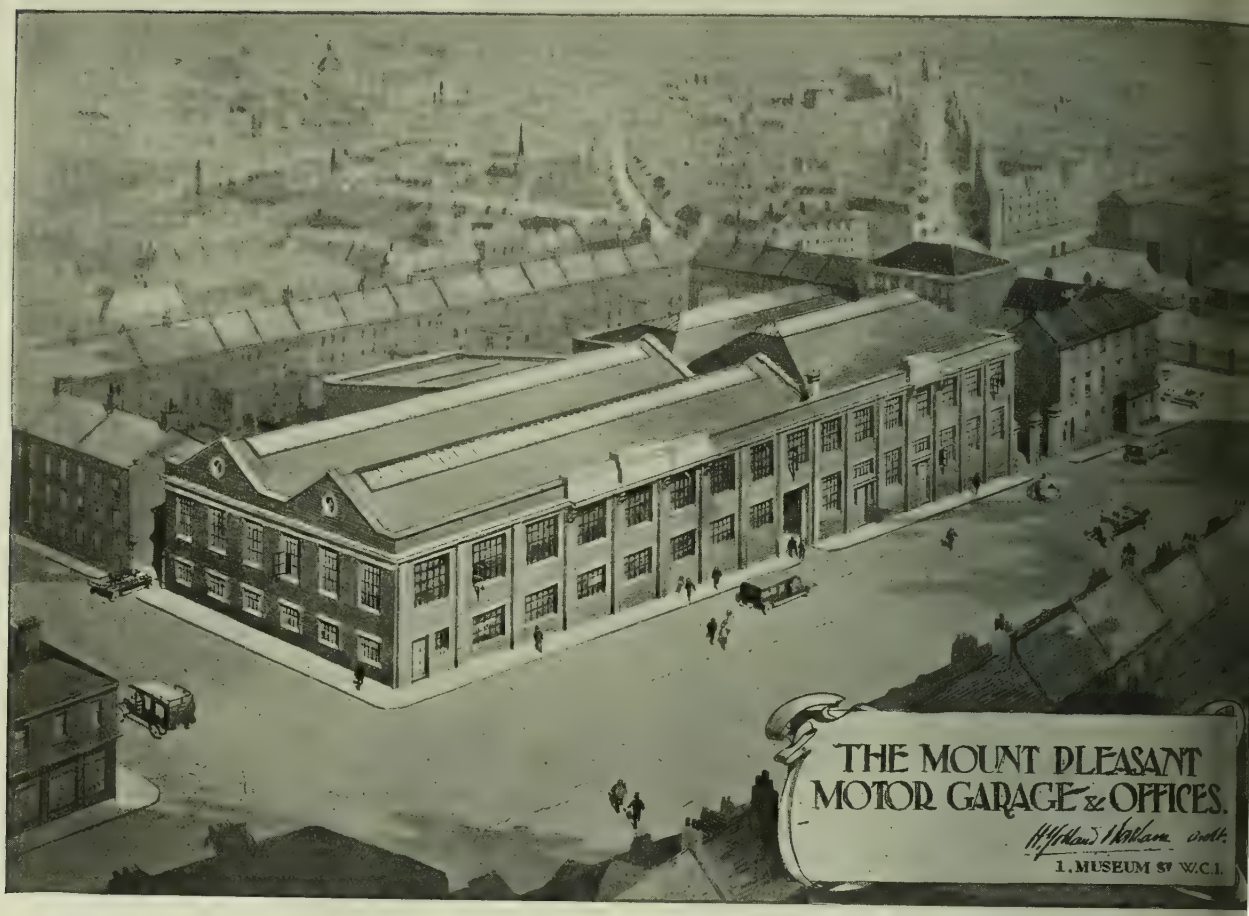


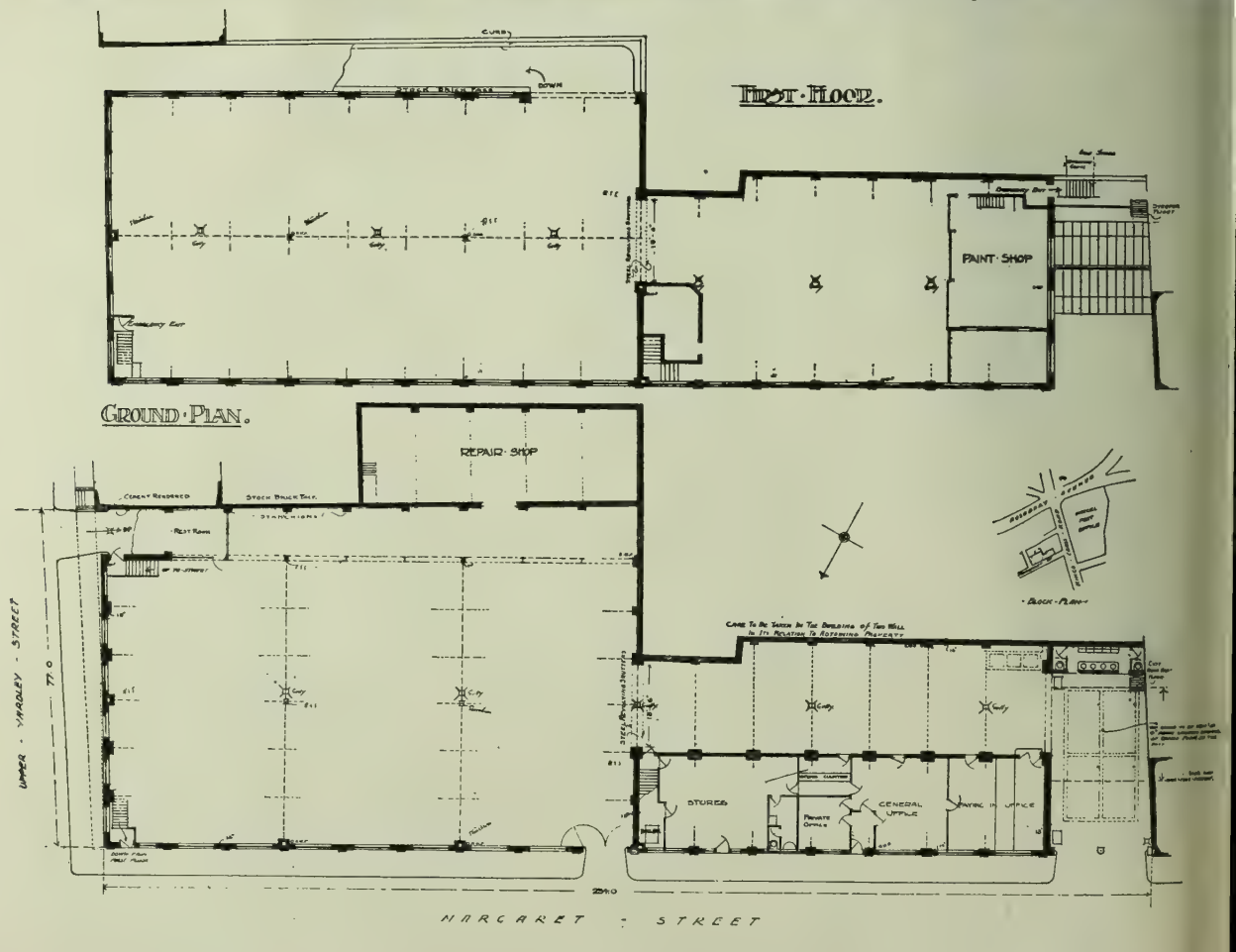
"Appleshaw," Purley. MESSRS. ERNEST G. ALLEN & PARTNERS, Architects.



House at Hawton, near Newark-on-Trent.

Mr. A. P. Starkey, Architect. (*See p.* 920.)





Mount Pleasant Motor Garage and Offices.

MR. H. YOLLAND BOREHAM, Architect. (*See p.* 927.)

SOCIETY OF THE HEMICAL INDUSTRY.

r a meeting of this Society, held in their is at Burlington House, Piccadilly, re- y, Mr. J. Allen Howe (Geological Survey reat Britain) read a paper on "The Use Preservation of Building-stone." Mr. . Fox followed with a paper on "The nical Aspects of Building-stone Decay." r. Howe said that trouble with building-stone been going on for the last hundred years, and two questions that had to be considered : (1) What could be done with building- e to prevent premature decay? (2) What l be done with decayed stone in old and rical buildings in order to put it right? series of lantern slides, which illustrated arious types of limestone, followed; and lecturer then proceeded to show actual nples of decayed stone. Two pieces from rch at Hyde Park Corner were shown. In case, where the stone had laid flat to the grave trouble had arisen; but in the other, result of protection from the rain, little had been done. Water clung, he said, it was with cornices they had difficulties. tone could be made waterproof, these les would not arise. In towns generally, nisms had very little chance against the ur in the air, therefore their effect was gible.

e of the difficulties, the lecturer said, they always up against was the question of right ion; although one could always get a r stone if one paid sufficiently for it. He mentioned the case of one of the piers at Brompton-square—two excellent pieces of Portland stone at the base, but two execrable pieces at the top. Further, there were the sad cases of the Victoria and Albert Museum, Devonshire House, the archway at the bottom of the Green Park, and Buckingham Palace.

Mr. Fox followed and dealt with the effects of weathering. The question of organisms had recently been revived, but he thought that, so far as London was concerned, they need not worry themselves about bacteria; even if they were destructive the action was very slow. It was, he said, questionable whether even the presence of NO_3 meant the presence of bacteria. The main damage in London was due to the action of SO_2 or SO_3.

The question of preservatives for stone came under two main headings: (1) They must prevent penetration of moisture, and yet allow moisture to escape; (2) they must not seal in the face of the stone and cause an impenetrable surface.

If stone were treated with preservatives it would be a good plan to place it under observation for a number of years. If so treated, however, it was desirable that the face of the stone should not be entirely altered (the use of paraffin wax, for example), otherwise they might just as well use artificial stone.

The lecturer concluded with the importance of the economic and æsthetic aspect.

In the discussion that followed Mr. Noel Heaton suggested that possibly lichen was the result (decomposition having taken place in the stone) and not the cause of decay.

Mr. A. E. Munby mentioned that the cost of stone varied very considerably, and thanked the chemists for coming to the assistance of the architects.

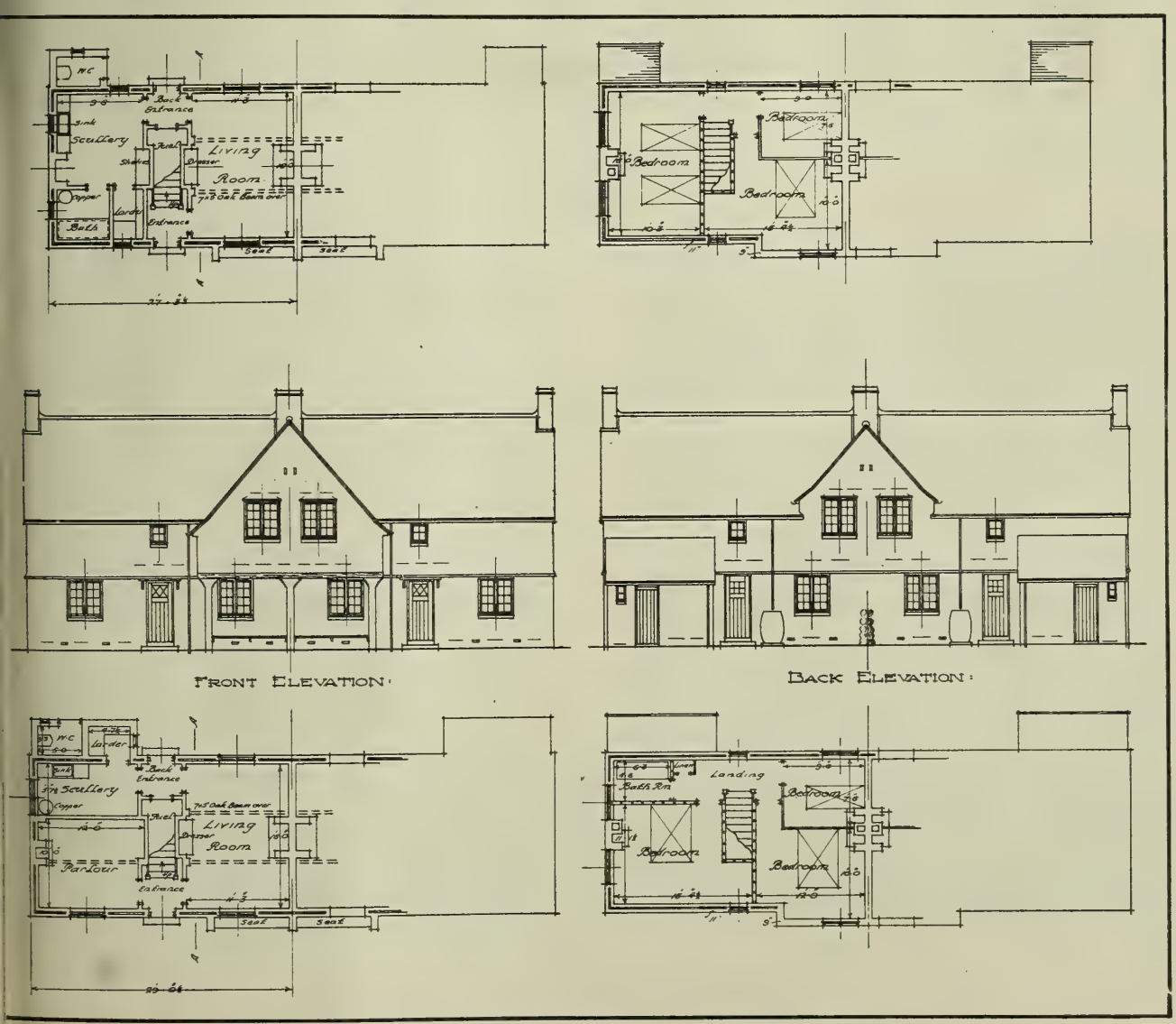
At the conclusion a vote of thanks was passed to the lecturers.

MOUNT PLEASANT MOTOR GARAGE AND OFFICES.

This building (see p. 926) has been erected and completed for the Mount Pleasant Motor Co. on a corner site in Margaret-street, Clerkenwell, on the Marquess of Northampton's estate. Apart from the offices, repair and paint shops and stores, there is accommodation for about 140 cabs or cars. Advantage is taken of the fall in the ground by providing from Upper Yardley-street a sloping roadway of easy gradient to the first floor. The cost of the work was about £20,000. The contractors were Messrs. Levy & Lester, of King's Cross; the architect was Mr. H. Yolland Boreham, 1, Museum-street, W.C.1.

Royal Institute of British Architects.

On December 17, at 8 p.m., Mr. Raymond Unwin, F.R.I.B.A., will deliver, at the Royal Society of Medicine, 1, Wimpole-street, a lecture on "Higher Buildings in Relation to Town Planning."



Plans for Government Subsidy Houses. By MR. REGINALD PRICE.

[These plans have been prepared by Mr. Reginald Price, L.S.A., Bridgnorth, Salop.]

JEDBURGH ABBEY.

By WILLIAM HARVEY.

THE art of conserving ruined buildings is admittedly a specialised branch of architecture demanding exceptional training, and, perhaps, something like exceptional temperament in those who undertake the work if it is to be carried out in a thoroughly satisfactory manner, yet it resembles creative architecture more closely than might appear at first sight. In maintaining a ruin the same three considerations have to be faced which confront the designer of a new building. Convenience, construction, and appearance must receive attention together, and, in the case of the ruin, the convenience of the modern students and sightseers who use the building must be thought of in intimate connection with the preservation of all evidences of the original purpose for which it was erected in other times by people possessed of a form of civilisation differing from ours but no less complete in its own fashion. The fact that the building undergoing treatment is a ruin does not in any way remove, or even materially lighten, the necessity for the weighing of alternatives and the exercise of discretion, both as to ways and means to be employed and the effects towards which those ways and means shall be directed. What effect the conservator hopes to create is indeed a vital matter. The ambition of the Revivalist to add new works in the style of the old is no longer looked upon with favour, and conservation is confined within the humbler path indicated by Ruskin, who insisted that any necessary works should be so designed as to be subordinated to the legibility of the history and artistic beauty of the old design. Small, unobtrusive repairs, executed when they were required, were advocated by Ruskin as likely to stave off the necessity of major works, and he accused the French architects of his time with neglecting purposely their ancient buildings in order to bring about their ruin, and so occasion a demand for new works of a nature calculated to bring fame or profit to modern architects and builders.

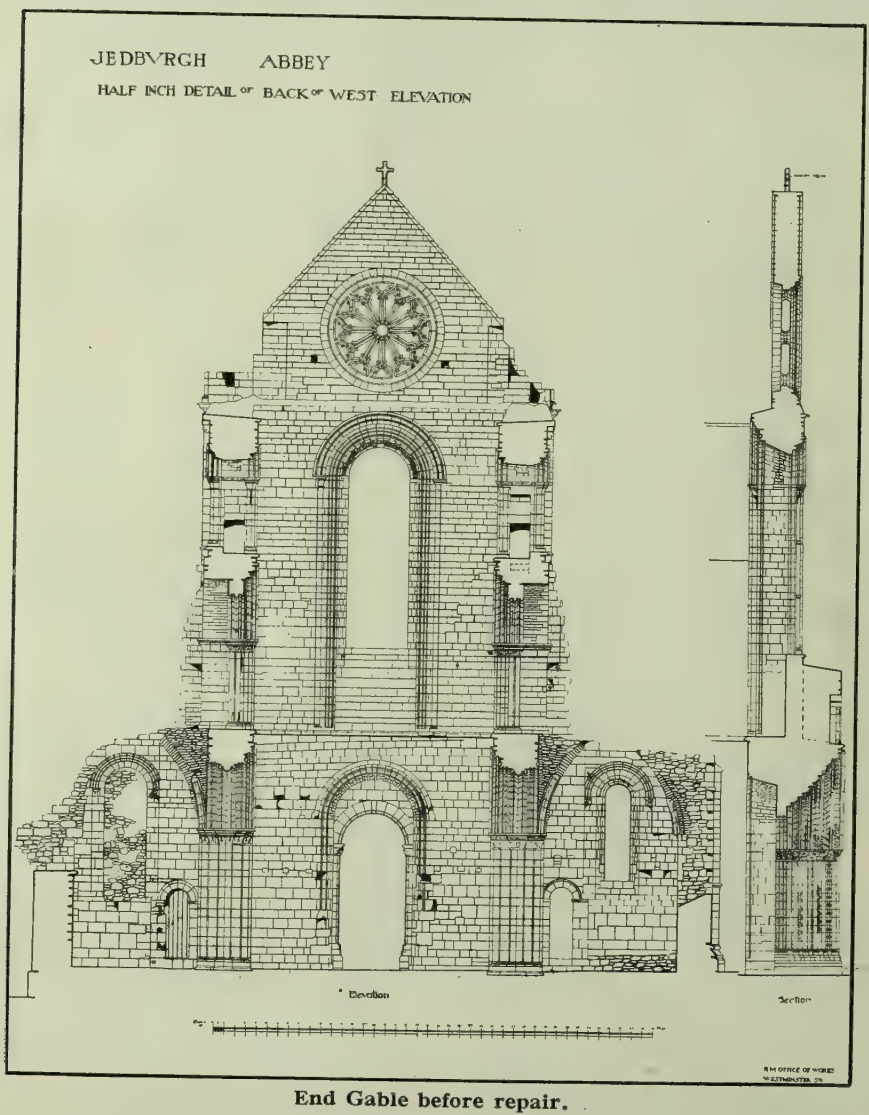
Over-elaborate restoration, whether brought about by the crafty self-seeking described by Ruskin or by ill-directed generosity, as at St. Alban's Abbey, is contrary to the best ideas of our time upon the subject; the range of effect that the conscientious conservator feels entitled to produce is limited to the various methods of executing the minimum of necessary repair in the least obtrusive fashion.

Entering fully into the spirit of Ruskin's appeal, the Historic Buildings Branch of H.M. Office of Works has created a tradition of repair which permits the beauty of the old work to be appreciated whilst conserving its stability in the most scientific manner. Prior to the formation of this Branch, repairs to ancient monuments, even when developed upon a sound general idea of conservation, were often crude and artless, and inserted in the first manner that came to mind, without any attempt to achieve a general harmony of effect throughout the monuments as a whole. Broken and overhanging masses of stonework were bound about with old iron bars bolted into position, and for this purpose old rail metals had even been used on occa Irregular broken portions of masonry smeared over with cement, obliterating history and their artistic value at a str tie bars and straining beams were inserte connect walls, and incongruous buttresses masses of underpinning were erected to up portions of the building that threatene fall. Even where appearances were sidered, the revulsion from the method Revivalist restoration sometimes led to affectation of honest roughness in the rep and the necessary new work was purp given a character at variance with anyt in the old building in order to avoid deception of anyone who might look at it hurry. While the intention underlying method of repair was sound enough, patches of new work were certain to obt themselves as inharmonious blots, whose ferent colour and texture advertised them threw them into quite unnecessary pro ence, to the detriment of the ensemble.

Jedburgh Abbey, which was handed ove the Historic Buildings Branch on Decembe 1913, had already suffered from rep executed at various times, for which it be claimed that they were all executed styles calculated to produce discord, at s considerable expense of money. The rep certainly had the merit of honesty, since one could doubt that they were modern in tions, but, unfortunately, though evident were far from being efficient. Wall t wall passages, and broken portions of building had been covered with a coat cement rendering which had already bec broken and leaky. The walls of the n were propped apart and stitched together v struts and tie bars whose uselessness mi have been apparent on reflection, since t walls overhang towards the north and w therefore incapable of assisting one anothe any considerable degree. Against the cr bling piers of the tower in the centre of church rude masses of masonry and an congruous buttress arch of brick had b erected, disfiguring their outline and encu bering the space without doing any mate service in relieving them of the excessive l applied to them by the weight of the tov In the light of what has been since achie it is easy to recognise that the former rep were ill-advised, though it is only fair admit that they were executed in a fash that compared favourably with much work a similar character that had been carried on other historical ruins within a short tance of Jedburgh. But, although the sightliness of these repairs may have b relative and subject to personal opinion, th strength was obviously too slight to contir to uphold the monument.

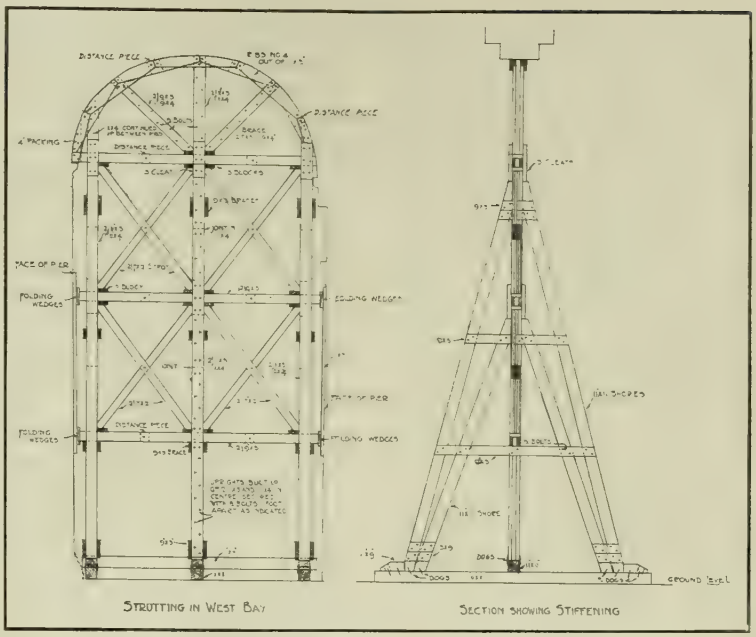
The stonework of the overhanging n walls was wearing away in sandy dust un the action of wind and weather, and the c tral tower was recognisably unsafe, and been condemned to demolition to prevent accidental fall. The Historic Buildings Bra had to face a very serious state of affa By any known method of repair the build could only be upheld by the insertion further props and buttresses, or else molished and rebuilt with the sacrifice of historical interest which constitutes nine-ten of its appeal. If neither of these two cour were chosen there remained the fatal alter tive of allowing the building to crumble its fall, an alternative which, even if it mi be considered permissible in the hands o private owner, could not be seriously c sidered by a body whose duty was the c servation of historical buildings. It beca necessary to go outside the accepted rout of repair and devise a new method that wo satisfy the conditions of stability and artistic suitability while conserving the ve able shape and material of the ancient bu ing.

The application of cement grout to the terior of old walls had been recommended



End Gable before repair.

her cases, and it was hoped at first that by e use of the grouting machine the demoli- n of the tower could be avoided. Rumour edited the grouting machine with almost pernatural powers of forcing strengthening ment into the interstices of old core and in rtain cases, where the core is formed of an dry stone and where adequate pressure n be applied, the machine is of great value. here is always the risk, however, that ough cement may be forced into the body the work it may fail to adhere to the exist- material and so add weight without in- asing the strength. In loose, dusty rubble e adhesive power of the cement is found to reduced to a minimum, the flow of grout broken up into small globules, which occupy e cavities in the old work without ade- ately filling or bridging them. On the ex- riment being made the dusty rubble core the piers at Jedburgh Abbey was found be unsuitable for treatment by cement out which oozed through its interstices thout adhering to the stone. The condi- n of the piers, which were already bulged d bursting under the load of the tower, de it utterly impossible to apply grout at rthing like the necessary pressure, and a w plan of operations had to be prepared. The hazardous and, at that time, novel thod of extracting the core and replacing with masses of concrete was put forward a possible solution of the problem, and was entually put in hand, the Principal Archi- t. H.M. Office of Works, taking direct ntrol of the work. In recognition of the nger of the experiment, precautions were ken to ascertain the conditions under which would be carried out, and a minute inspec- n was made of all sources of weakness roughout the building. Tests were made the nature of the subsoil and foundations, d of the strength of specimens of the ing stones. A set of survey drawings was epared with the overhang of the tower and ll tops beyond the line of their bases care- ly figured. This survey permitted of cal- culation being made of the effect of the unbalanced pressures in different parts of the ruin, and a fair idea of the nature and magnitude of the problem was obtained in this way. Several causes were found to be acting in combination to produce the very unsatisfactory and unstable condition of the ruin. The subsoil, which might have sustained some three tons to the foot, was seriously overburdened by the weights actually put upon it, particularly by the north-east and north-west piers of the central tower. The footings of the piers and walls were of insufficient depth and lateral extent to spread the pressures on the loose sandy subsoil, and consisted of rough boulders carelessly flung together. The pressure from the tower piers was estimated at from eight to twelve tons to the square foot, and its excess over what the ground could bear was demonstrated by the depth to which its northern piers had sunk. These important parts of the structure had descended bodily ten inches at least since they are now out of level by this amount



Repairs to Jedburgh Abbey Church.

PRELIMINARY CENTERING OF ARCHES OF TOWER BEFORE SHORING COULD BE PUT IN HAND.



Repairs to Jedburgh Abbey Church.

CENTERING DEAD SHORE AND NEEDLES IN POSITION BEFORE RECORING OPERATIONS COULD BE UNDERTAKEN.



TOP OF DEAD SHORE AND NEEDLES. THE CROSS BAULKS REQUIRED WETTING IN DRY WEATHER TO AVOID SHRINKAGE ACROSS THE GRAIN OF THE WOOD.

when compared point by point with the less heavily loaded west gable wall.

Beside the very severe distortion occasioned by this subsidence which tended to create fractures between the tower and the surrounding work on all sides, the building suffers from the manner of its construction and from the historical events in which it has taken part. The two most decrepit piers of the tower remain from a Norman building of 1147 and are composed of a thin shell of squared masonry surrounding a rubble core. The southerly pair of piers were erected much later and put into their final shape during the progress of extensive repairs in the fifteenth century, when the Norman arches of the tower were retained and underpinned by the new work. The unequal strength of the piers and their unequal subsidence had thrown the whole tower out of the vertical, and had shaken its masonry into a seriously dilapidated state. Conflagrations in 1523, 1544, and 1545 weakened the fabric, but the chief cause of decay and disintegration was undoubtedly the interaction between movements in the structural masses and in the two imperfectly bonded Norman piers of the tower. These were found to be deflected by the pressures of the tower arches, and were affecting the whole building, even the distant gable at the west end being pushed out to the west some 7 in. in a height of 50 ft.

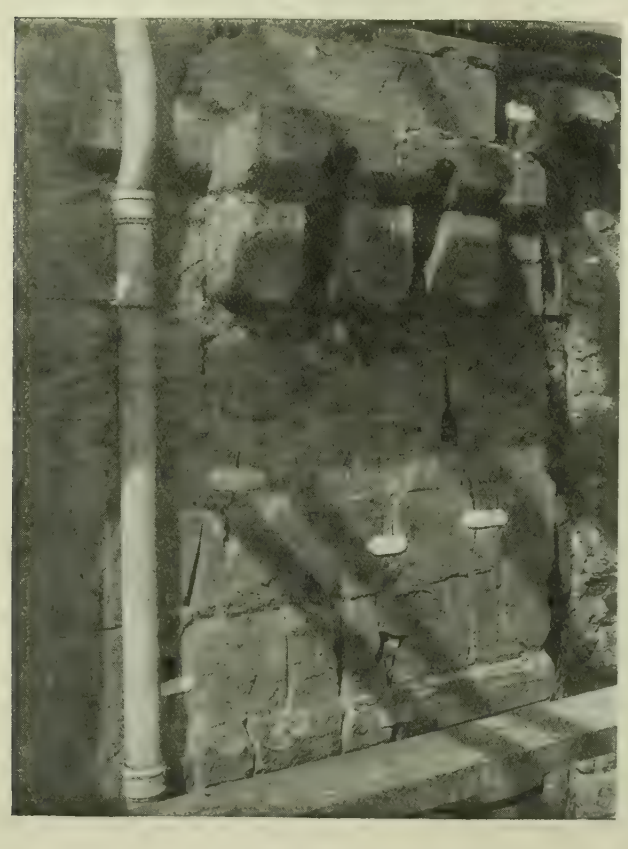
The mechanical causes of deflections of this kind, which are common to practically all aisled churches erected about a central tower, formed the subject of one of Sir Christopher Wren's tracts on construction, and such movements must be expected from the nature of the original design. They aggravate other defects in the building, however, and have contributed to the dislocation of stonework both in the tower above and in the piers below. The most alarming symptom of decay showed itself in the state of the piers themselves. The facing stones, originally small in their dimensions, had been fractured by the excessive pressure of the tower, the subsidence of the piers bodily into the soil, and the spread of the arches. Vertical cracks had opened in the slight outer skin of ashlar masonry of the piers from base to capital, and continued throughout the soffits of the great arches, revealing the miserably inadequate nature of the powdery rubble core within.

The proposed repairs could not all be undertaken simultaneously; they included the consolidation of the upper part of the tower, the recoring of the two northern piers, and the underpinning of these piers with reinforced concrete foundations. Great care had to be exercised in arranging the order of the work. All parts involved were so perilously shattered that underpinning, though obviously necessary, could not be undertaken in the first place, and it was ultimately decided to undertake a partial repair of the upper part of the tower in order to consolidate it sufficiently to allow of the insertion of temporary needles to support its weight during the further operations. The summit of the tower overhung the base towards the north to the extent of 2 ft. 4 in. in a height of 84 ft., and the northern face was itself bowed out on plan. In addition to these defects, the Norman arches had become depressed and were separated from the masonry of the upper parts of the tower by long raking fissures, the upper portion being kept precariously in position by the accidental corbelling action of the masonry. Notwithstanding the fact that the arches had escaped from under a great part of their load the movement from the semicircle down to a crudely elliptical form had shattered several of the voussoirs until, by the successive nipping off of their tail ends, some had been reduced to a thickness of only 2 in. and 3 in., and remained as a sort of veneer upon the loose rubble core as was afterwards discovered during the actual works of repair.

Preliminary to further operations the arches were supported upon centres, and the outward-leaning upper part of the tower steadied against further overturning mo ments by strong timber raking shores erec upon the summits of the north transept wa These had been prepared by cement grout tamping, and pointing to receive the wei and thrust. Steel rails let into the mase were employed at both ends of these rai to apply their pressure to the best advant

The main gantry, which was to support whole weight of the north wall of the to and half the weight of its eastern and west walls, was next constructed. The great of the masses to be supported and the c plex and difficult nature of the prop operations made the design of this gantr work of great interest, and consider originality and ingenuity was expended u it. To avoid the danger of breaking tower into portions which might sub separately, the adjacent sides were suppor not only on needles penetrating the walls pendicularly to their faces, but also by stronger needles threaded through masonry diagonally across the angles of tower. Three 15 in. by 6 in. by 59 lb. ro steel joists were used for each needle pas through the walls perpendicularly to t faces. The diagonal needles were compo of three 24 in. by 7½ in. by 100 lb. ro steel joists in each case.

The pairs of smaller needles were arran at slightly different levels so that the in ends of each pair could be accommodated above the other on top of the same d shore. The longer and heavier diago needles were supported on top of the o ends of the smaller needles with specially designed packing piece to m up the difference of level between higher and lower needle of each sma pair. The dead shores were six in numb arranged in two groups of three to supp each of the two sets of needles. E dead shore was built up of four 13 in. 13 in. pitch pine baulks bolted together rising to a height of 42 ft. above ground le The main dead shores were connected w



PART OF NORTH-WEST PIER OF TOWER BEFORE REPAIR. NOTE EXCESSIVELY FRACTURED STATE OF THE STONEWORK.



WORK OF DIFFERENT PERIODS AND CHARACTERISTIC FISSURES IN THE MASONRY. NOTE CRACKS IN FORMER CEMENT RENDERING ON TOP.

Repairs to Jedburgh Abbey Church.

ontal ledgers and diagonal braces to n them against deflection, and were pro- l with 9 in. by 9 in. raking shores to d the area of their base and provide st racking of the whole structure. Be- n the dead shores the common practice of wooden sole pieces was followed and ately involved a certain amount of extra and anxiety since, to avoid movements to shrinkage across the grain, the tim- had to be kept wet during hot weather. ter shoring operations, both at Tintern Rievaulx Abbeys, this cause of anxiety avoided by cutting the shores to the full h and bedding their lower ends hard st a concrete foundation, and their tops a concrete pad pressing directly against masonry to be supported or against a sand box introduced between the tops of dead shores and the underside of the les. At Jedburgh Abbey, in the absence sandbox for gently lowering the needles they had served their turn, a special ce had to be invented at a later stage of proceedings by which this operation could performed. Foundations for the dead es were provided by the insertion of large ses of concrete below ground level.

he remainder of this article will be given week.

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HEAT TRANSMISSION THROUGH WALLS.*

rs is a useful report of thirty-two pages, with trations and tabular data. In an introduc- chapter, upon the ways in which heat is Mr. Weller gives a practical instance of the ortance of the subject by contrasting the es from walls of Fletton and of sand-lime ks, and shows that a six-roomed house built the latter kind of bricks would take an itional ton of fuel per season to keep it as m as a Fletton built house, other conditions g similar. It would seem that heat in- ting powers decrease with increasing density naterials, and also very markedly with in- sed moisture content. The author's method xperiment was based on tests of thermal luctivity of walls of various materials of ut 9 sq. ft. heat being supplied by a large plate, protected by a guard ring, heated rically, and thus readily controlled.

s showing the decreased insulating powers to moisture a test is cited in which a 9 in. k brick in cement wall which thoroughly showed a conductivity of 15·8, decreased in luctivity in fourteen days to 6. Out of en kinds of walling tested, among which a number of cavity wall structures of slabs atent materials, the timber framed structure herboarding studs and lath and plaster— y won first place as a non-conductor, while tons in lime mortar 8½ in. thick proved h superior to various cavity slab or hollow k walls 6 to 7 in. thick. An exception must nade in the case of diatomacious bricks. e tested with concretes and plasters of rent compositions show a remarkably low conductivity. Those interested in building find the short illustrated appendices upon of actual isolated rooms 6 to 7 ft. cube very uctive. Twenty-four such huts were erected the data obtained is concisely given. It ten difficult for an architect to decide upon most suitable form of construction among nany varieties of walling now available, and rches of this character should be studied, will be found a great aid in promoting sound ions.

* "Heat Transmission through Walls, Concretes and ers." Department of Scientific and Industrial arch, Building Board Special Report, No. 7. By riffiths, D.Sc. (H.M. Stationery Office. 1923; d. net.

SOUTH WALES INSTITUTE OF ARCHITECTS.

On November 30 Mr. Percy Thomas, F.R.I.B.A., President, presented the prizes to the students of this Institute, and referred to the improvement in the standard of work shown and the keenness with which the students had competed.

Mr. W. S. Purchon, A.R.I.B.A., head of the department of architecture and civic design at the technical college, Cardiff, gave an address on the work of the school of architecture. He spoke of the close association between the school and the South Wales Institute of Architects, and expressed the thanks of the staff and students to those whose generosity had made the prize distribution possible. He explained that the School, while comparatively young, was steadily growing and that much of its success was due to the ability and zeal of his assistants, Mr. R. H. Winder, A.R.I.B.A., and Mr. Eric Page, A.R.I.B.A.

After dealing with the exhibition of designs and measured drawings, he spoke of work which could not be shown but which was no less important, and instanced the value of study of the history of architecture and the theory of design and construction.

Principal Coles spoke of the part played by students of the department of architecture in the various social and athletic activities of the college and of the undoubted importance of this aspect of college life.

Councillor A. J. Howell, J.P., chairman of the technical college committee, presided over an enthusiastic meeting.

A hearty vote of thanks was passed to the chairman and speakers, and to the members of the Students' Club.

THE R.I.B.A. AND SKILLED LABOUR.

In *The Times* of December 7, Mr. Arthur Keen, F.R.I.B.A., Hon. Sec. R.I.B.A., writes as follows:—"In the building construction industry 112,000 men are stated to be out of employment, but as far as one can hear from architects in all parts of the country there is actually a general and very serious shortage of skilled building men. Bricklayers, carpenters, and masons are scarce; plasterers are a constant difficulty, and I have just heard of a large contract in the London area for which plasterers are actually being picked up here and there in Scotland and brought to London. The unemployment must, therefore, be mainly among the labourers, although some of it is explained by lack of skill in the mechanics. Builders are constantly complaining that out of a dozen men taken on only three or four really know their trade and can be retained after the first few days.

"It is a very serious matter that among the young fellows who came out of the Army there are great numbers who are not equipped for earning their living. Those who have had a superficial training in some trade have not sufficient skill to ensure regular employment, and many of those who seek work as labourers have not the physical strength that it requires, to say nothing of the very considerable amount of rough skill in digging or concrete mixing and scores of other things which the regular builders' labourer possesses. This shortage of skilled mechanics is no question of tariffs or free trade, and it affects the public closely, because it means that building involves far more time and cost than should be necessary; it means, further, that the unskilled men must stand idle.

"The Council of this Institute is so convinced of the fact of the dearth of skilled labour in the building trade that it has set up a committee to study the matter. In many instances might not the Board of Education do more to supply the place of the old-fashioned apprenticeship which has become so rare?"

THE ROYAL ARCHÆOLOGICAL INSTITUTE.

At a meeting of the Royal Archæological Institute, held in the apartments of the Society of Antiquaries, Burlington House, Piccadilly, W., on Wednesday last week, Mr. W. H. Godfrey, F.S.A., gave a lecture on "Old Chelsea," in which he recalled some of the residents of the past who had lent it real significance. It was Sir Thomas More, he said, who "discovered" Chelsea and drew fame to her during the fourteen years spent there before his tragic end in 1535. Sir Thomas's property lay in the western portion of the parish, and his house looked immediately southwards on to that part of the river now crossed by Battersea Bridge. The house was approached by a drive from the waterside on the site of which Beaufort-street now ran. Westward was Lindsey House, the solitary survivor to-day of Chelsea's ancient palaces; it represented the original farmhouse purchased by Sir Thomas More and rebuilt by the Earls of Lindsey. Behind it still stood Gorges House, a many-gabled Jacobean building erected by the Earl of Lincoln. Further back was More's stable yard, to-day the Moravian burial ground, with part of the Tudor walls and buttresses of the stable buildings incorporated in the structure of the Moravian Chapel, which had recently been converted into a studio. Eastward was the large enclosed garden, formerly Dovecote Close, now occupied by Paulton's-square, south of which was a favourite bit of More's estate, whereon he built a summer library connected with his house by the long raised terrace, which remained until Kip's time. That portion of the estate later became the site of the little house and garden built by Sir John Danvers, which won the praises of Aubrey and Pepys. The house of Sir Thomas More had been altered since his time for a string of noblemen of diverse character and ambition, from Henry VIII's Paulet, Marquis of Winchester, to James I's Villiers, Duke of Buckingham, who lived there and worked their will. The principal alterations were made by Sir Robert Cecil, the builder of Hatfield.

East of More's estate stood Arch House, in Queen Elizabeth's time the mansion of Thomas Hungerford. His tomb was in the old church, which still remained much as it was in the early days; the fabric and monuments together represented very completely the history and past life of the village. The chancel, containing on the south wall the tomb of Sir Thomas Lawrence, was the earliest part of the building, and dated back to the thirteenth or early fourteenth century, the original timber roof being still preserved. Lady Dacre's monument (1595) in the south aisle was the finest in the church, and a splendid example of Elizabethan design. In the north aisle was the tomb of Lady Jane Cheyne, who purchased Henry VIII's manor, and to whom Cheyne Walk, which passed the house, owed its name.

Amongst the many notable inhabitants of Church-row, built by Sir Thomas Lawrence in 1689, were Holman Hunt, who here painted "The Light of the World," and James Salter, the barber, collector and coffee-house proprietor. Writing in 1705, Bowack said of the village: "The place is noted for good conversation, and for many honourable worthy inhabitants . . . living in perfect amity amongst themselves, and having a general meeting every day at a coffee house near the church, well known for the pretty collection of varieties in nature and art, some of which are very curious."

A vote of thanks was passed to Mr. Godfrey for his lecture, which was illustrated by many interesting slides, some of which illustrations appeared in *The Builder*, June 29, 1917.

THE BUILDING TRADE.

THE COST OF BUILDING.

BY T. P. BENNETT, F.R.I.B.A., Hon. F.I.O.B.

IN continuation of the analysis of *The Builder* Cost of Building Competition, the graph reproduced herewith shows the cost of the items billed under each trade heading for the whole of the tenders for the "A" houses. Each of the tenders has been marked on vertical lines and every fifth line drawn, while each horizontal line in height represents £100.

The actual totals and percentages for each trade for the winning and highest tenders are as shown in the table given below :—

PERCENTAGES (TRADES TO TOTALS).

	No. 47 Lowest accepted Amount.	Per cent.	No. 92 Highest Amount.	Per cent.
	£ s. d.		£ s. d.	
Tenders	1,197 16 8		2,158 15 5	
Preliminaries	2 10 0	·209	11 0 0	·50
Excavator, Concrete and Drains	94 8 5	7·88	229 12 9	10·63
Bricklayer	353 1 8	29·97	570 5 7	26·41
Tiler	67 13 4	5·64	113 14 5	5·17
Carpenter, Joiner and Ironmonger	337 4 10	28·15	666 3 4	30·85
Plasterer	108 4 10	9·03	162 2 5	7·51
Plumber, Glazier and Painter	183 3 9	15·29	353 16 11	6·39
Insurance	16 3 4	1·34	17 0 0	·78
Contingencies	10 0 0	·83	10 0 0	·46
Gates and Paths	25 0 0	2·08	25 0 0	1·15
	£1,197 16 8	100·50	£2,158 15 5	99·85

The price per foot cube of the winning tender is 11.74d., made up as follows :—

Preliminaries .02d. ; Excavator, drains, &c., .92d. ; Bricklayer, 3.51d. ; Tiler, 0.66d. ; Carpenter, Joiner and Ironmonger, 3.30d. ; Plasterer, 1.06d. ; Plumber, Glazier and Painter, 1.79d. ; Insurance, 0.15d. ; Contingencies, 0.09d. ; Gates and Paths, 0.24d.

From the graph and from these tables it will be seen that the bricklayer and carpenter and joiner absorb proportionately the largest amounts of the total cost, and that the plumber, painter and glazier are next with the plasterer following. A further reference to the graph shows that, broadly speaking, this ratio is followed in the rising tenders but that some trades vary considerably more than others. It is noteworthy that even with only so small an amount of the work priced as the preliminaries and the excavator there is a difference between the lowest and the highest tendering for these two trades of about £130—a very substantial amount. In the bricklayer the variation is very much more marked. The total of work up to and including this trade in tender No. 44, from Cambridge, is £300. In tender No. 97, from Llanelly, it is £1,090, or very nearly as much as the complete lowest tender. Some of the tenders, of which the total is comparatively high, show relatively low figures for the work up to and including this trade, notably No. 38, from Belper; No. 158, from London; No. 48, from London; No. 5, from Southport. A notable feature is the way in which some of the prices are levelled up, as, for example, No. 48, which, with preliminaries and excavator, is abnormally high, while the addition of the bricklayer brings the figure well below the average for the position which its total cost occupies.

The principal comment on the "Tiler" is the fact that its variations in cost follow in a remarkably regular manner the variation of the bricklayer, thus suggesting that the cost of tiling all over the country is well known and subject to few variations either as regards the supply or labour of laying.

The "Carpenter and Joiner," although showing a fair amount of variation in itself, yet has a great steadying effect upon the amount of the tender. It is obviously the trade upon which the builder relies to help him out with his cost. It may, of course, be influenced by the possession or otherwise of well-equipped machine or other shops, or the possibility of the purchase of ready-made joinery, but whatever the cause, its influence is great.

This influence is most marked in the case of No. 144, from Waltham Abbey; No. 38, from Belper; No. 71, from New Barnet; No. 48, from London; No. 65, from Birkenhead; No. 158, from London; No. 169, from Newcastle. The peak, which appears in No. 141, from Bedford, is due to the contractor deducting 10 per cent. after his total had been arrived at. This reduction has not been shown on the graph.

The plasterer like the tiler, shows a very steady addition to cost. There is obviously very little to be saved or gained in this trade. Its graph suggests that the price of materials is constant, the amount used is well known, and that the output of the plasterer is subject to but small variation.

The plumber, painter and glazier, unlike the plasterer, is a trade or group of trades, which again shows considerable variation in cost. It may be that in this trade, as in the carpenter and joiner, there is considerable variation in the standard of the work, and, consequently, of the cost of that work, and that, therefore, it would be reasonable to expect quite a different amount of finish from the firms who have given high prices from that given by the firms with low prices. Upon the other hand it may be merely that the work is more speculative and that this accounts for the variation; or, again, it may be that timber, lead and paint are subject to greater fluctuations than other materials in the market, and that the price of the executed work varies in accordance with advantageous or unsatisfactory buying. Certain tenders again cause comment, such as No. 114, Bridport; No. 72, Hampton-on-Thames; No. 5, Southport; and No. 69, Birmingham. The recurrence of the numbers of one or two competitors in these comments suggests erratic and, therefore, not very competent tendering. Finally, the sudden rise of the total cost of the last nine tenders is curious, as is also the sudden drop of the first five, but both are, of course, in accordance with everyday experience. The steadiness of the increase of the remaining tenders is, however, extremely interesting. The soundness of the prices for each trade in many of the tenders is a matter upon which the authors may justly receive hearty congratulations.

The next matter which calls for examination is the way in which the individual items make up the total tender, for which purpose the winni tender for "A" houses has been used.

If a list is made of absolutely essential ite ignoring their contingent labours, it is fou that quite an extraordinary proportion of money is absorbed. In the following l therefore, the item for "drains" is for pipe-runs alone, without any bends, connectio manholes, gulleys, or traps. "Brick wall include only the actual walling with no all ance for rough cutting, holes, chimney-pots, bricks, or any other accessories. Other it have been similarly treated :—

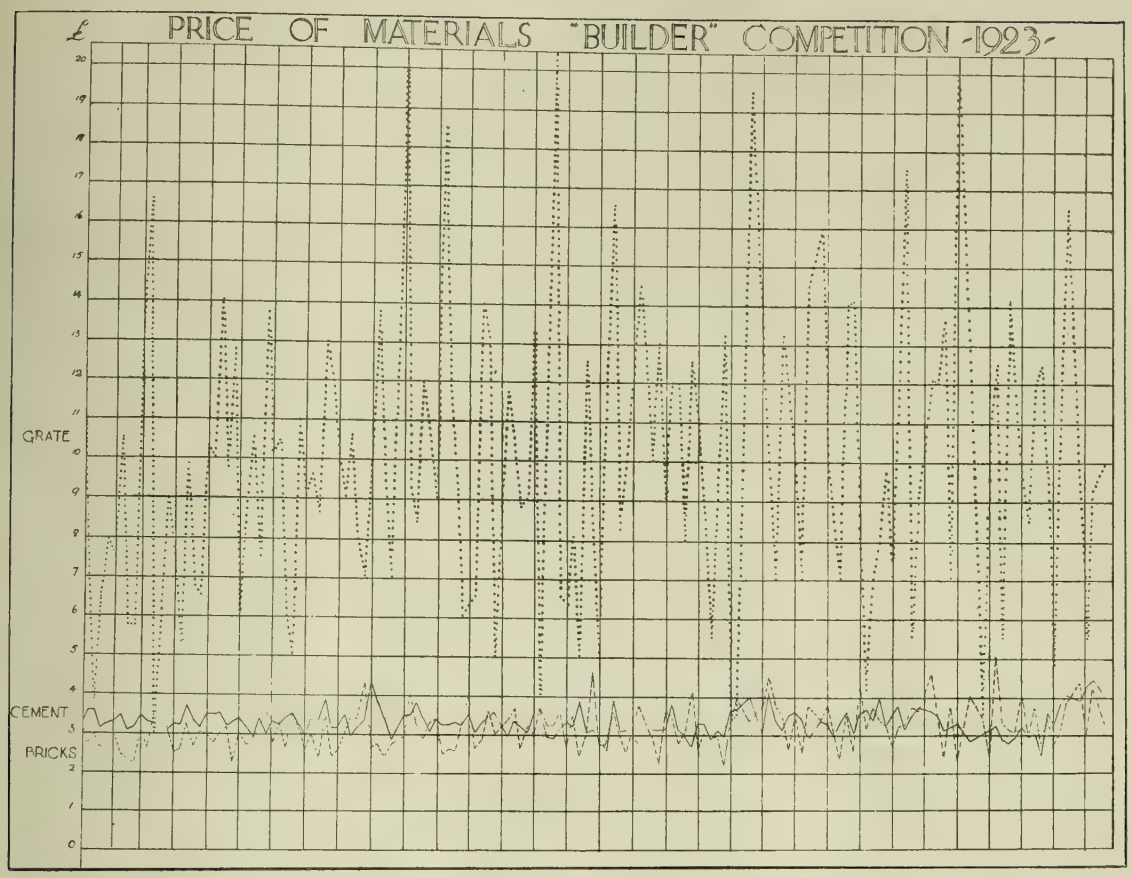
Concrete in foundations	£25 13
3 in. do., under floors	7 5
4 in. do., under pavings	6 18
4 in. do., under lino.	4 0
Drains—shallow excavation	4 8
Excavation average 3 ft.	4 1
Walls	203 0
	37 10
	1 11
Air bricks	2 17
Red quarries	7 18
Damp course	6 4
Fireplaces and stoves	47 4
Copper	4 8
Roof tiles	51 16 1
Constructional timber	47 0
Wood floors	25 4
Staircase	18 17
Windows, doors and panels	99 17
Plaster ceiling	31 18
,, walls	46 6
,, reveals and soffits	10 4
Rendering lintols	2 5
2 in. breeze partitions	2 2
3 in. breeze partitions	5 10
Gutter	4 3
Down pipe	4 5
Soil pipe	3 6
Lead service	8 3
Sinks	4 4
W.C., &c.	7 8
Lavatory basins	5 12
Baths, &c.	16 0
Glass	9 13
Painting	19 17
Solignum	6 12 11
Whiten ceilings and distemper	15 15
Gas or electric light	20 15
	£829 16 3

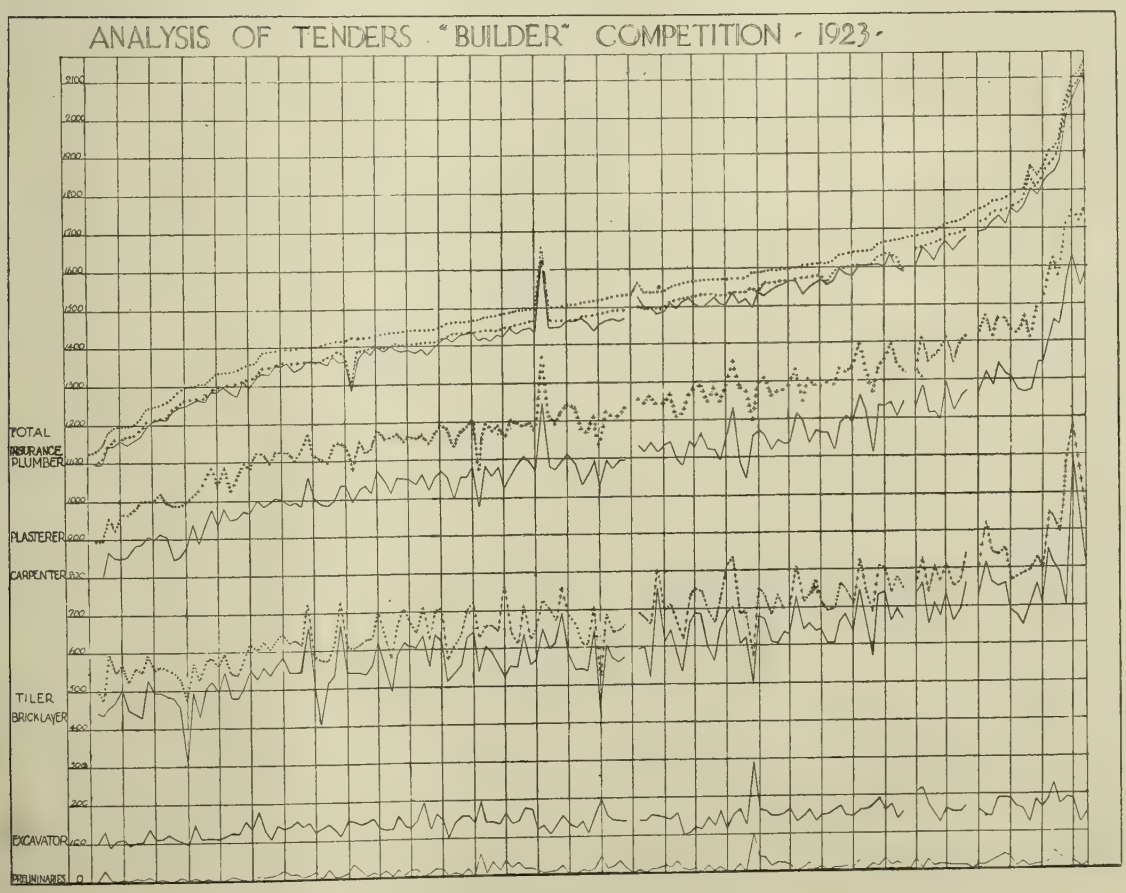
This constitutes the bare structure with ju its bulk items included, and already it amoun to over two-thirds of the total amount. Iten which might be executed by a less efficient b cheaper method are :—

Concrete lintols	£13 6 3
Roof boarding	22 0 0
Ironmongery	25 14 11
Lead flashings	12 10 0
	£73 11 2

While items which might be called "luxurie include :—

Plinth offset	£0 17 8
Cavity wall	7 0 8
Facings	5 7 6
Tile creasing	1 12 0
,, necking	1 11 0
Oak beams	7 0 0
Roofing felt	9 15 0
Skirting and picture rail	13 5 0
Lino	6 11 8
Hood to door	5 16 6
Window boards	11 10 0
Shelves, cupboards and drawers	8 3 6
Pipe grounds	2 17 0
Draining board	0 17 6
Dresser	11 16 10
Rounded angle in plaster	3 9 0
Dustbin	1 6 0
	£98 16 10





The Cost of Building. (*See p.* 932.)

The relative percentages of these amounts are :

Bare carcasing	69.86
Alternative constructional features	6.19
" Luxuries " or decoration ..	8.31

The remaining 15.64 per cent. is entirely absorbed by the accessory services, which, as before mentioned, have not been included in the items listed. This analysis is well worth careful study because it shows quite conclusively that almost the entire cost of house construction is rigid. That if solid houses are required their cost can be reduced only by a very small margin, and that even the margin of 8.31 per cent. indicated here would not actually occur in practise because the accommodation provided by shelves and cupboards, a dresser and a dustbin must appear in some form or other, and if not provided in the contract for the house must be bought as furniture. Lino is in a similar category, while the amount spent upon architectural treatment is so small that it barely suffices for the most meagre relief from monotony in house building. Reference will again be made to this matter in the concluding article which will contain a summary of the information gained by the running of what has proved a very valuable competition.

It may be of interest to quote from the assessor's report, which states that the following was the range of the tenders :

London tenders								
	from	£1,249	18	11—	£1,898	19	6
" A " towns	„	1,160	11	5—	2,030	7	8
" A 3 "	„	„	1,298	19	7—	1,600	0	0
B1 & 2	„	„	1,357	7	1—	1,776	19	9
C	„	„	1,144	12	7—	2,114	10	7

From this list appears the somewhat remarkable fact that the tenders are in many cases lowest from towns paying the highest rates of wages, an indication probably of the fact that the best and quickest craftsmen tend to migrate to the better paid centres. But no doubt there are other reasons due to commercial conditions of town life which enable the contractor to economise in other directions. It may be of interest also to compare the actual prices of certain items in the best tenders which are given by the assessor as follows :

A comparison of the priced Schedules of the best tenders received shows :—

	s.	d.		s.	d.
Excavating in trenches, wheel and deposit	1	4	to	2	3
Concrete	24	9	to	37	6
4 in. Drain shallow excavation	1	0	to	1	0
9 in. Brickwork in mortar ..	9	3	to	11	4½
Extra for facing with picked bricks	–	5	to	1	3
Granolithic paving 1 in. thick	3	0	to	5	10
Roofing with Roman tiles ..	50	0	to	64	0
Roofing with Staffordshire tiles	60	0	to	95	0
Fir in floor joists	3	0	to	4	3
1 in. Wrot deal floor ..	30	0	to	38	0
1¼ in. rebated and moulded casements	–	9	to	1	3
1½ in. square-framed four-panel doors	1	0	to	1	5
Lath and plaster, two coats on ceilings	2	5	to	3	0
2 in. concrete partitions ..	2	6	to	3	10
Sheet lead in flushing ..	40	0	to	50	0
4 in eaves gutter	–	6	to	1	0
4 in. L.C.C. soil pipe ..	1	5	to	2	0
40 gall. 12 gauge galvanised wrot iron rain-water tank drilled for connections ..	30	0	ro	60	0
Glazed fireclay 27 × 18 × 10in.	30	0	to	52	6
W.C. suites	60	0	to	114	0
5 ft. 6 in. long overall white porcelain baths 3 in. roll..	140	0	to	160	0
15 oz. sheet glass	–	4	to	–	7½
Knot prime stop and three-paint on all joiner's work..	1	0	to	2	0
Prepare and once stain on woodwork	–	3	to	–	6

THE TRADES TRAINING SCHOOLS.

THE annual prize distribution of the Trades' Training Schools, conducted by the following City Guilds—The Armourers and Brasiers, Carpenters, Glaziers, Joiners, Paint-Stainers, Pewterers, Plaisterers, Tylers and Bricklayers and Wheelwrights, Great Tichfield-street—was held at Carpenters' Hall, London Wall, on Thursday, last week, presided over by the Master of the Carpenters' Company, Mr. W. H. Evans.

Mr. Frederick Sutton, J.P., Past Master of the Carpenters' Company and Chairman of the Schools' Committee, read the annual report, which stated that there were 363 students in attendance, an increase of 39 on the previous year. Since last session the plumbers' class had been taken over by the Pewterers' Company, and the members had increased to such an extent that they overflowed the workrooms into the corridor. Good work was being done there, and in April last the members of that class executed a lead casket, designed in the office of Sir Banister Fletcher, for the Zeebrugge memorial, in which were placed the records of the Navy on that memorable day of St. George, 1918.

Sir Banister Fletcher, F.R.I.B.A., Director of the Schools, gave the thirtieth annual report of the work carried on during the Session, 1922-3. In the course of his report, he said that the attendance had reached a total of 12,892, with an average of 86.52 per evening, which, considering the causes that had operated against sustained attendance, was extremely satisfactory.

The judging of the exhibits of students' work took place on May 10, the judges being :—Mr. Frederick Sutton, J.P. (Past Master of the Carpenters' Company and Chairman of the Schools), Mr. G. C. Barnes (of the Joiners' Company), Mr. E. Guy Dawber, F.R.I.B.A., Mr. F. G. Dear (of the Painters' Company), Mr. Charles Denny (Master of the Carpenters' Company), Mr. W. J. Englefield (of the Pewterers' Company), Sir George Frampton, R.A., Commander T. Free (Master of the Joiners' Company), Mr. F. T. W. Goldsmith, F.R.I.B.A. (Past Master of the Plaisterers' Company), Mr. W. Stewart Greene (of the Painters' Company), Mr. W. Grellier, F.R.I.B.A. (Past Master of the Tylers' and Bricklayers' Company), Mr. C. F. Hewlett (of the Glaziers' Company), Mr. Alexander L. Howard, J.P., Sir W. Goscombe John, R.A., Mr. L. J. Johns (of the Plaisterers' Company), Mr. Arthur Keen, F.R.I.B.A. (Hon. Sec. R.I.B.A.), Mr. Ellis Marsland (of the Tylers' and Bricklayers' Company), Mr. W. G. Minn (Past Master of the Painters' Company), Mr. G. S. Pinchin (of the Pewterers' Company), Mr. Percy Preston (Past Master of the Carpenters' Company), Mr. Frank W. Robson (Master of the Wheelwrights' Company), Mr. S. G. Castle-Russell, M.I.E.E., Mr. H. D. Searles-Wood, V.P.R.I.B.A., Mr. N. P. Shepherd (of the Wheelwrights' Company), Mr. A. R. Upjohn (of the Glaziers' Company), and Mr. G. Hutton Freeman (Clerk to the Carpenters' Company).

The following trades and crafts met, during the Session, under the tuition of the undernoted :—The Carpenters, Mr. Henry S. Playshead, assisted by Mr. Archbold ; the joiners, Mr. Charles E. Dunking, assisted by Mr. Howe ; the Masons, Mr. H. G. Bush ; the Glaziers, Mr. J. Dudley Forsyth; the Painters, Mr. H. J. Fowler ; the Plaisterers, Mr. W. H. Pearson ; the Plumbers, Mr. Tom Gooding, assisted by Mr. Pardoe ; the Metal Workers, Messrs. R. N. Caldwell and H. Collins; the Stone-Carvers, Mr. Alfred J. Oakley ; the Life Class, Mr. Charles L. Hantwell; the Tylers and Bricklayers, Mr. F. A. Billinghurst ; the Wheelwrights, Mr. W. E. Cox ; the Wood Carvers, Mr. F. A. Markham ; the Electricians, Mr. S. Nicholes.

A course of 36 demonstrations was given to the architectural students of University College by the instructors in brickwork, masonry, carpentry, joinery, external and sanitary plumbing, slating and tiling, plastering, smithing an painting.

Sir Banister Fletcher said that on those engaged in the various crafts were taug in the workshops. They were passing throu an era of difficulty in the building industr and were suffering from a lack of skilled craft men, largely because during the war t training of craftsmen in the building indust practically ceased. In reference to the questic of the number of apprentices allowed in pr portion to the skilled craftsmen in the vario shops, the R.I.B.A. was joining in a conferen with the Building Employers' and the Oper tives' Federations to see if the difficulty cou be surmounted. They would also have t consider why large numbers of skilled me were leaving this country for America and t British Dominions, and whether this exod was due to the Trade Union regulations of th country as to output and working hours. I regard to apprenticeship the present state national finances and taxation made it impossib for the State to do anything. If two rece benefactors had only left their bequests, whic amounted to £32,000, to the company for hel ing apprentices to exist during their five years hard training, how much better would it hav been for the welfare of the community. I was skilled craftsmen they wanted, and unles stringent steps were taken England would b in a deplorable condition in this respect. Finall any young man would find his prospect increase if he supplemented his day work by evenin attendance at the Trades Training School maintained by the Worshipful Company c Carpenters and the Associated City Companie where the highest traditions of the crafts ha always been maintained.

The prizes were then distributed by Si Edward Marshall-Hall, K.C., who, in addressin the students, said he always took the greates possible interest in what he called work, and favourite motto of his was " Whatever thy han findeth to do that do with all thy might." I they stuck to that through life and carried i out conscientiously they would find it was th secret of success. He begged them to cultivat the gift of concentration, and never to b ashamed of laughing, but when they had worl to do it with all their mind. He felt that ther was a deplorable lack of concentration at th present time, and they should get into such condition of mind when working that the would be conscious of nothing going on aroun them except their job. Before handling thei tools they should take their measurements make up their minds what they were going to do and know how to make use of their material in order to get the maximum of quality wit the minimum of quantity, which would mea so much more added to their wages. Quality was the first ambition of a good workman, and quantity was subsidiary to quality. Great Britain had built up a reputation in the manufactures of the world, and she owed her commercial superiority to her reputation for quality and honesty. He did not think there ever was a more disastrous Act passed than the Merchandise Marks Act, because people in other countries got to know where they could buy things which they thought just as good, but which were in reality not so, and dishonest traders abroad stamped their goods " Made in England." The quality of things made abroad had improved, and we must, therefore, maintain our quality and have it said that because our goods were English their quality was impeachable. Technical education, he said, was the backbone of the country's success, and it was the work of bodies like the City Companies which was building up a great assurance for the future by teaching the students how to learn, how to work in the best way, and by that means to stimulate the alliance between employer and employed.

Cordial votes of thanks were passed to Sir Edward Marshall-Hall, the Companies, the Chairman, and others.

IRON CORROSION.

Sir Robert Hadfield, Bart., D.Sc., F.R.S., ., at the recent opening of the new research boratory and lecture room of the Municipal chnical School, Birmingham, made some teresting remarks concerning the corrosion of on. He estimates that there is a loss to the rld by corrosion of at least £500,000,000 nually; hence the importance of a serious vestigation into this complex problem. uoting from a paper by Dr. Friend, he pointed t "that iron does not rust in dry air; in pure uid water in the absence of air; in moist air constant temperature; in steam at tempera- res not much above 100 deg. C." He also entioned two important theories, namely, the id theory, in which ordinary water is supposed contain a little CO_2, forming an acid which tacks the iron; and the electrolytic theory, in hich a little iron goes into solution in the Ionic" form, liberating hydrogen which is tacked by oxygen from the air to form water. ore iron then ionises, and so on until ferrous ide separates, and is more or less oxidised to rric oxide, that is rust.

But Heyn and Bauer found that when the ater is moving, the rate of corrosion at first creases and afterwards declines with the rate flow. Dr. Friend's experiments show that ith a high rate of flow no corrosion takes place nd no rust is formed, any small losses in weight eing due solely to erosion. It has further been own that with moving acid solutions, the ster the motion the greater the corrosion. ence corrosion in water is fundamentally ifferent from corrosion in acid.

The discovery of an iron or steel alloy that ould resist corrosion and would at the same me be available for building in sufficient quanti- es, and at a reasonable price, would revolu- ionise building, and the importance of such ork as is being undertaken by the research aboratories, such as that at Birmingham, cannot e over-estimated.

NORTHAMPTON POLY-TECHNIC INSTITUTE.

On December 7, Dr. R. Mullineux Walmsley, Principal, delivered the twenty-sixth annual report of the Institute. The hair was taken by Mr. L. B. Sebastian, hairman of the Governing Body, and Sir W. Martin Conway presented the prizes.

In the course of the report, Dr. Walmsley aid that owing to causes reported a year ago, nd which were still in operation, the enrol- nents showed a falling off on those of the receding session, the number of individual nembers and students being 2,888 against 3,209 in 1921-2.

Dealing first with the Engineering Day College, the most important section of the day work, the number of enrolments, which was 286 in October, 1921, fell to 257 in October, 1922. The decrease, though not very substan- tial, was mainly due to the loss of ex-service men, whose courses had either been com- pleted or otherwise terminated.

During the session under consideration there were 150,722 enrolments, as against 166,147 in the preceding session. The average hour per student for the session was main- tained at 81, which was the same as the figure reached in 1921-2; both figures com- pared favourably with 63, which was the num- ber of average student-hours in the session 1920-1. It was sincerely to be desired that, as soon as the present financial stringency had passed away, additional accommodation, pro- mised long ago, would materialise. When it did materialise schemes were already drafted for extensive developments without altering the general character of the important work now carried on at the Northampton Polytechnic Institute.

In the prize list it would be found that twenty-one students had been awarded the B.Sc. degree in Engineering at the University of London. In this connection it might be said that the main aim of the Engineering Day College and of the engineering work in the evening was to train engineers, but it was claimed that the training as modern engineers was so thorough at the "Northamp- ton" that the University requirements for a degree could be easily satisfied by those who qualified for the four-year certificate of the Institute's day college, and by those who took a thorough five-year course of training in the evening classes.

The various clubs had well maintained their positions in competitions with similar outside clubs, with the exception of the members' Gymnastic Club, which had the misfortune to lose the "Adams" Shield, which it had successfully held for five consecutive years.

After the conclusion of the Principal's report, Sir W. Martin Conway, prior to the distribution of the prizes and certificates, gave a short address to the students, in the course of which he said that, as an explorer, he knew that the determination to succeed and the right equipment were essential for the work that had to be done in life. He would impress upon them that determination must be persistently cultivated, not on great occa- sions only, but day after day, hour after hour. Success would be all the sweeter as the labour of attainment had been great.

At the conclusion of the distribution of prizes a vote of thanks was passed by Sir Thomas Holland.

LAW REPORT.

In the Chancery Division, before Mr. Justice Lawrence, Mr. P. L. Townsend brought an action to recover damages against the defen- dants, Messrs. Garritt & Co., Ltd., of 34, Dean- street, Soho, London, in respect of the alleged obstruction to the access of light to the rear rooms on the ground floor and the first and second floors of his premises, 33A, Dean-street, by the increase in height of the defendants' building. The plaintiff originally claimed a mandatory injunction, but that claim was abandoned during the trial, and the only question left to be decided was whether the light which the plaintiff's tenants now enjoyed was such as to render the rooms lighted by the windows in question uncomfortable and unsuitable for the ordinary purposes of living, or business, having regard to the ordinary notions of mankind and the locality in which the property was situated.

Mr. R. H. Kerr, architect and surveyor, Mr. C. Nicholas, F.R.I.B.A., and Mr. Harrison Martin, surveyor, gave evidence for the plaintiff; and Mr. G. G. Stanham, architect and surveyor, Sir Banister Fletcher, F.R.I.B.A., and Mr. W. S. Mercer, architect and surveyor, gave evidence on behalf of the defendants.

Mr. Justice Lawrence visited the property before giving judgment, when his lordship held that with regard to the ground floor the back room was merely a dark cupboard, with respect to which it would be impossible to maintain a claim for diminution of light. As to the first and second floors, the windows, he said, were exceptionally large for such small rooms which, in his opinion, had all the light which could be expected in London in these days for rooms in that locality. It was amply sufficient for occupancy and business in that district. Part of the light was due to the white glazed bricks used by the defendants, but it was impossible for him to say what deterioration, if any, might happen in the future. Even if he was wrong in holding that the rooms were sufficiently well lighted, he was convinced on the evidence that there was no damage at all to the site value. The building was old, un- suitable and practically worn-out, and was not a building that would be allowed to be erected at the present time. In all the circumstances he dismissed the action with costs.

Judgment was entered accordingly.

POOR LAW UNIONS AND THE RATING BILL.

At a recent meeting of the Association of Poor Law Unions, an Association which repre- sents, it was stated, a population of about 35,000,000, as 589 Boards out of the 640 Boards of Guardians in England and Wales are repre- sented, the proposals contained in the new rating and valuation Bill were considered, and a report prepared by the Council of the Associa- tion was approved by a large majority. The report, as given in *The Times*, stated that the Council were of opinion that there was no necessity for the great constitutional changes proposed in the Bill, and it was contended that the Poor Law Union areas should be retained in any measure amending the Union Assessment Acts, for it was believed that the establishment of a central valuation authority and the general transfer thereto of the valuation of special properties would serve no useful purpose. The special case of railways and canals could best be met by giving statutory power to an associa- tion of assessment committees to set up machinery for their valuation as complete units. The objects of the draft Bill, so far as valuation was concerned, could be secured by strengthening and reinforcing the existing machinery of valuation by empowering the overseers and assessment committees to obtain returns from owners and occupiers; by provid- ing for new valuation lists not less frequently than once in five years; by providing for the co-operation of the Inspector of Taxes, as in the Metropolis; and by the addition of a General Commissioner of Inland Revenue and repre- sentatives of spending authorities to each union assessment committee. The Council added that the Association would give its support to a Bill embodying these reforms, but would strenuously oppose any measure making great constitutional changes which would unnecessarily interfere with the working of the old and well-established system used in connection with local rating. It will be observed that this report accepts, although somewhat tacitly, the principle of one common assessment for rates and taxes, but this is a question of more interest possibly to the ratepayers than to the bodies responsible for making the valuation lists. From the rate- payers' point of view, there seems something in the contention of Sir H. Trustram Eve that the valuation for this double purpose is incom- patible, and he again stated his reasons very clearly in a letter published in *The Times* (November 19).

So far as we have seen, insufficient evidence has been laid before the public at present on this important question, and it is one to which those bodies who represent the ratepayers should especially address themselves. Those in favour of the innovation have a precedent to cite in the adoption of the principle in the Metropolitan area, but conditions in the Metropolis may vary in important respects from conditions in the country generally, and in the extended period now allowed for the impartial consideration of this Bill, we cannot but hope that evidence will be laid before the public from the rate- payers' point of view. Sir H. Trustram Eve contends that the single assessment is but an ideal, and an ideal which can only be attained to the disadvantage of the ratepayer, as it is not possible in practice (especially in these days of extraordinary post-war values), to make a valuation list containing assessments which are fair for rates and yet conform to the practice of the Inspector of Taxes or Revenue Officer for taxes, and in the letter above referred to he indicates his reasons.

Obituary.

The death occurred on December 8 of Mr. John Coldwell, aged 74, architect, of Carlton- terrace, Spennymoor. A native of Bamborough, Northumberland, he was surveyor to the Spennymoor U.D.C. for 16 years prior to retiring in order to commence a practice on his own behalf. He was a member of the local authority for 23 years, and an ex-chairman.

RUBBER ROAD SURFACING BLOCKS.

A NEW rubber road system, invented by Mr. C. W. Read, which has just been placed on the market, consists of a covering of rubber, vulcanised to stand hard wear, moulded in channel or U-shape, and in such lengths as may be required. The rubber is ¾ in. thick on tread and the sides ⅜ in. thick; the width varies according to circumstances, but for general road covering 9 in. has been found the most suitable. For indoor work (halls, vestibules, &c.) and fairly large indoor areas, 6 in. would be a suitable width, while for stair treads, &c., 2 in. to 3 in. is found a good average width. For laying roads a foundation of concrete is used, in which slots are formed 2 in. deep at intervals of 9 in.; these slots receive the side walls of rubber channel and form the anchorage for the rubber surfacing. A thin coating of bitumen is brushed on to the concrete before the rubber is laid, but this is used as an undercoating and is not necessary as a binding medium, the side walls of rubber channel having, we are informed, such a grip on each other that it is impossible for the rubber to move in any direction.

For indoor work a lighter form of block is used, and the slots for fixing can be formed by laying strips of wood the width of block. As it is proposed to make the rubber surfacing in various colours for indoor work, it will be possible to get any combination of colours for tiling effects.

It is claimed that this system works out at less than half the cost of other rubber surfacing, and will cost very little more than other forms of road covering already in use, while the cost of maintenance would be a very small item. The manufacturers are Messrs. F. & E. Stanton, Ltd., of Harders-road, London, S.E.15.

NEW BUILDINGS IN LONDON.

Regent-street.—NEW BUILDING.—Messrs. Walter Lawrence & Son, of 19, Finsbury-square are erecting a new building at 176, Regent-street, for the Gopher Diamond Co. The architects for the work are Messrs. Yates, Cook & Darbyshire, of 43, Great Marlborough-street, W.1.

Euston.—INSURANCE BUILDING.—Additions are being made to the main insurance offices of the National Amalgamated Approved Society by Messrs. Foster & Dicksee, Ltd., at a cost of £16,000. The front elevation is of Portland-stone and is in Melton-street, adjoining the main building on the west side of Euston-square erected in 1915-7 by the same firm. The constructional steelwork is by Mr. H. Young & Co. Ltd., of Nine Elms. The architect is Professor Beresford Pite, of 101, Great Russell-street, W.C.

Rent Restrictions Acts.

Mr. Graham Mould, Barrister-at-Law, gave the first of a series of two lectures on the Rent Restrictions Acts at the College of Estate Management on November 27. He showed that the main purpose of the Act was to give tenants of various classes of small property a security of tenure, and then explained the definition of a dwelling-house under the Act, and showed how it included ordinary houses, sets of rooms, flats, and houses and shops combined. He then dealt with the limits of value as applied to the different parts of the Kingdom, and pointed out that it was not necessary for both rent and rateable value to come within the limit, but that if one came within the limit, the property was considered to be within the scope of the Act. Finally, he dealt with the various exceptions under the Act, and also the question of what constituted tenants, furniture, &c., the rights of subject tenants, and the benefits given to the landlord by the 1923 Act in the matter of possession, and illustrated the various parts of the Acts by cases which had recently come before the courts.

RATES OF WAGES IN THE BUILDING TRADE

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brentwood	1/	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Colchester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
E. Glam. (Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Great Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Norwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Helens	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	0/11½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2

(For rates of wages in the Building Trade in Scotland, see page 937.)

THE RENT ACTS.

Apportionment.

An important decision appears to have been given in the recent case, Kimm *v.* Kohen (*The Times*, November 22). In March, 1921, the plaintiff had let to the defendant three rooms in a house, including the use of the bathroom, cellar and garden; the rent was £1 a week, and it appears the landlord paid the rates. In October, 1922, a reduction in the rates of the district had taken place, and the tenant considered that some reduction should be made in the rent in respect of this, and he refused to pay rent until this request had been granted. Some correspondence ensued between the solicitors of the parties, and inquiry was made on behalf of the tenant as to what the standard rent of the premises was. In January, 1923, the landlord issued a summons for £11 unpaid rent, and a counterclaim was put in by the tenant in which it was stated that the standard rent of the premises was £52, and claiming the apportionment for the three rooms. There appear to have been several hearings, but eventually the Judge of the County Court held that was for the landlord to prove the standard rent, and this was proved at £52. An apportionment summons was then taken out, and the registrar apportioned the rent for these rooms at 11s. 7d. a week, a figure that was accepted as correct by the parties. The hearing of the case was resumed on May 20, and at this hearing, on behalf of the tenant, a claim was made for £36 3s. 10d. as rent overpaid by him, being the difference between 11s. 7d. and the rent of £1 paid by him for eighty-six weeks. The landlord's counsel contended that the apportionment could not be retrospective and the Judge appears to have accepted this view, for he held that there could be no over-payment until the apportionment had been made, and gave judgment for the landlord for the £11 claimed and dismissed the counterclaim. On appeal, a Divisional Court held that there was nothing in the Rent Act to prevent the apportionment being retrospective, and the tenant was entitled to recover overpayments, and judgment was given for the tenant for £29 16s. 5d. There is nothing in the report to show why the sum awarded differed from the amount counterclaimed for. This is, of course, not the same question as the one we recently noted as decided in the case, Bourne *v.* Litton, as to apportioning the amount of increase in rent in cases where the landlord is responsible for only a part of the repairs. There, the apportionment, it was held, must be made, or a sum agreed before the increase can be claimed; but this case also raises a somewhat similar difficulty for landlords, for it appears that the only safe course for a landlord to adopt is to get the standard rent determined before he names a rent for any part of the house. For a time at least under the old Act of 1920, it was held that this could not be done unless a dispute arose, see Broomhall *v.* Property Agents and Owners, Ltd. (*The Builder*, November 16, 1921), but now this difficulty has been overcome by Section 11 of the new Act of 1923, but even then the landlord is put to the trouble of applying to the Court to have the standard rent determined, and some expense must be incurred.

Institution of Apprenticeship.

The Countess of Portsmouth was present on December 6, at a meeting of the National Institution of Apprenticeship, held, by permission of the Master, in the Grocers' Company's Hall, and presented indentures and certificates of merit to boys and girls who have completed their apprenticeship.

Colonel Francis W. Pixley, the chairman of the institution, who presided, mentioned that since May, 1905, till December, 1922, 3,205 apprentices had been bound to masters in various trades, and 42 on the latter date were on probation, prior to being apprenticed.

THE SCOTTISH BUILDER

NEW BUILDINGS IN SCOTLAND.

Govan.—The Dean of Guild Court, Glasgow, has passed plans for public halls to be erected in Langlands-road, Govan, at an estimated cost of £25,748.

Muirend.—Messrs. John Emery & Sons have submitted plans to the Glasgow Corporation for the erection of 33 terrace houses at Muirend.

Dundee.—At the last meeting of the Corporation the question of new baths for Broughty Ferry was discussed, and it was agreed that the city engineer should be asked to report on the various sites already suggested, and also regarding the possibility of erecting the baths on the sands.

Edinburgh.—At the last meeting of the Corporation Housing and Town-Planning Committee, at Edinburgh, a letter was read from Mr. R. F. Steele in regard to the proposed erection of 64 houses at Bangholm, and the Committee agreed to grant the ground.—The Dean of Guild Court has passed the following plans: Henry Wade, conversion of two houses in Drumsheugh-gardens; D. M. Bain, four cottages, Longstone-road.

Ailoa.—The Dean of Guild Court has passed plans which were submitted by Mr. James Wightman, Dunfermline, for a case-making factory and sawmill at Caledonian-road. Plans submitted by Patons & Baldwins, Ltd., for 10 houses at Balfour-street, are still under consideration.

Whiteinch.—The Dean of Guild Court, held at Glasgow, has approved of plans for a library at Park-drive, Whiteinch, the cost of which is estimated at £16,365.

Aberdeen. — The Corporation Plans and Sewerage Committee has passed the following plans:—Two houses at Queen's-road West, for Mr. J. B. Craigen and Mrs. T. Wilson, respectively; a bungalow, Pitfodels, for Miss Morrison, Edinburgh; two bungalows, Renfield-avenue, for Messrs. George Taylor, and Robert J. Watt, respectively; two houses in Spur-road, between St. Machar-drive and Tillydrone-road, for Mr. Hay, of Seaton; alterations to premises at 91, Union-street, for the North British & Mercantile Insurance Co. The plans passed for the erection and alterations of buildings, including the above, amount to £13,862 in all.

Selkirk.—The T.C. has received the Board of Health's sanction to the erection of three blocks of four houses each. Estimates are to be obtained for their erection.

Tithe Rent Charges.

On December 6, Mr. Harry Ambler lectured before the members of the Auctioneers and Estate Agents' Institute on "Tithes and Tithe Rent Charges." In the course of his remarks he traced the history of the origin and development of tithes from the period with which the Book of Genesis was concerned down to the first Tithe Act passed in 1836. In all countries, he said, civilised and uncivilised, and throughout all ages, tithes had been paid. The most barbarous nations and the heathen Greeks and Romans, out of a principle of religion common to all men, had often dedicated tithes to their gods. Some had made it a standing obligation. Others had offered them on particular occasions. Tithe as a tax on land was well known in Greece and Rome, and the payment to temples on special occasions was not uncommon. He considered it probable that tithes in this country were contemporary with the advent of St. Augustine. In England legislation on the subject appeared to date from the latter part of the eighth century, when Pope Adrian in 785 enjoined payment of tithe on the Anglo-Saxon Church. This was confirmed in later Ecclesiastical Councils and Synods, sometimes by Royal orders. Before that, however, Offa, King of Mercia, made a law whereby he gave to the Church the tithes of all his kingdom. It was said this was done in expiation for the death of Ethelbert, the sainted King of East Anglia, whom he had caused to be murdered. The effect of this law was to give the Church a civil right in tithes by way of property and inheritance and to enable the clergy to gather and recover them as their legal due by the coercion of the civil power.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Plasterers' Labourers.
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/-	
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2	
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 936.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

★DECEMBER 17.—**Brighton.**—PAINTING.—External painting of the Race Stand buildings and sundry other work connected therewith, for the Race Lessees of the County Borough of Brighton. Borough Surveyor, Town Hall, Brighton. Deposit £2 2s.

DECEMBER 17.—**Carlisle.**—PAINTING.—For painting to railings, pens, palisading, &c., at Sands Cattle Market, for the T.C. Mr. H. C. Marks, City Engineer, 18, Fisher Gate, Carlisle.

DECEMBER 17.—**Colchester.**—HOUSES.—Erection of five blocks of six houses (non-parlour), and six pairs of semi-detached houses, for the T.C. Mr. H. Collins, Borough Surveyor, Colchester.

DECEMBER 17.—**Croydon, Surrey.**—HOUSES.—Erection of 48 houses (comprising 80 tenements) at Parchmore-road, Thornton Heath, in three sections, one of eight houses and two of 20 each, or as one tender for the whole, for the County Borough of Croydon. The Borough Engineer, Town Hall, Croydon. Deposit £2 for each section, or £6 for the whole of sections, which will be returned on receipt of a bona-fide tender.

DECEMBER 17.—**Dublin.**—BUILDING WORKS, &C.—Building works and supplies for Commissioners of Public Works for six months. Mr. J. J. Healy, Secretary, Office of Public Works, Dublin. Deposit £1.

DECEMBER 17.—**Halifax.**—CONVERSION.—For the conversion of Craven Lodge into a secondary school, for the T.C. Messrs. Walsh & Maddock, architects, 10, Harrison-road, Halifax.

DECEMBER 17.—**Manchester.**—ROOF COVERING, &C.—For covering of roof flats and corridor floors at the annexe of the Crumpsall Institution, Crumpsall, in rock asphalte, for the Board of Guardians. Mr. E. Hargreaves, Superintendent of Works, Union Offices, All Saints', Manchester.

DECEMBER 17.—**Milton of Balgonie.**—INSTITUTE.—Erection of Miners' Welfare Institute for District Welfare Committee. Mr. G. C. Campbell, architect, Methil.

DECEMBER 17.—**Plymouth.**—REPAIRS.—For the repairs to certain premises at Stonehouse, for the T.C. Medical Officer of Health's (Housing) Dept., Town Hall, Stonehouse, Plymouth.

DECEMBER 17.—**Poplar.**—TENEMENTS, &C.—Erection of 31 tenements with shops and showrooms on a site at Bow-road, for the B.C. Mr. Harley Heckford, Borough Surveyor, Council Offices, Poplar. Deposit £3 3s.

DECEMBER 17.—**Winslow.**—ALTERATIONS.—For alterations and repairs at Manor Farm, Mursley, near Winslow, for the Bucks Agricultural Committee. Mr. G. M. Odam, County Land Agent, 21, Walton-street, Aylesbury.

DECEMBER 18.—**Cheltenham.**—ADAPTATION.—Adaptation of the Wolseley Hotel, Cheltenham, to form a telephone exchange, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

DECEMBER 18.—**East Retford.**—COTTAGES.—Erection of two cottages in New-street, for the T.C. Mr. R. E. Wilson, Borough Surveyor, East Retford.

DECEMBER 18.—**Edmonton.**—ADDITIONS.—For the erection of an additional room at the Maternity Centre, Brookfield House, Fore-street, for the U.D.C. Mr. Cuthbert Brown, Engineer, Town Hall, Edmonton, N.9.

DECEMBER 18.—**Glasgow.**—HOUSES.—Erection of 126 houses at Whitefield-road and Brand-street, for the T.C. Mr. J. Lindsay, Town Clerk, City Chambers, Glasgow.

DECEMBER 18.—**Hackney, E.8.**—BUILDING WORKS.—Building works, being extension and completion of the electricity sub-station at Dalston-lane, Hackney, for the Metropolitan Borough of Hackney. Borough Electrical Engineer, 306, Mare-street, Hackney, E.8, on and after November 26. Deposit £1 1s.

DECEMBER 18.—**Manchester.**—ALTERATIONS.—For alterations at the Chorlton and Ardwick Branch Library, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

DECEMBER 18.—**Minworth.**—HOUSES.—Erection of 10 pairs of non-parlour houses, Park-lane and Water Orton-lane, Minworth, for the Birmingham Tame and Rea District Drainage Board. Mr. John D. Watson, M.Inst.C.E., Engineer, The Rookery, Erdington Park, Birmingham.

DECEMBER 18.—**Whitstable.**—HOUSES.—Erection of eight houses in Reservoir-road, for the U.D.C. Mr. J. Dunn, Surveyor, Council Offices, Whitstable. Deposit £1.

DECEMBER 19.—**Birmingham.**—BUILDING.—Erection of an employment exchange at Aston, Birmingham, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

DECEMBER 19.—**Cowdenbeath.**—HOUSES.—Erection of six houses in Stenhouse-street, for the T.C. Mr. C. A. Alexander, Burgh Surveyor, Town House, Cowdenbeath. Deposit £2 2s.

DECEMBER 19.—**Dewsbury.**—HOUSE.—Erection of detached house off Wakefield-road. Messrs. Firth, Son & Blackburn, architects, 22, Wellington-road, Dewsbury.

DECEMBER 19.—**Doncaster.**—HOUSES.—For the erection of 50 houses on the Warmsworth-road site, for the T.C. Mr. R. E. Ford, Housing Surveyor, 3, Priory-place, Doncaster. Deposit £2 2s.

DECEMBER 19.—**Ely.**—HOUSES.—Erection of 46 workmen's dwellings, for the R.D.C., as follows:—Littleport, 12; Downham, 8; Haddenham, 8; Sutton, 8; Wilburton, 4; Mepal, 2; Thetford, 2; Coveney; 2, Mr. F. W. Green, Clerk, Council Offices, 11, Lynn-road, Ely. Deposit £2 2s.

DECEMBER 19.—**Featherstone.**—HOUSES.—Erection of 20 houses at Little-lane, Purston, near Pontefract, for the Featherstone U.D.C. Mr. Samuel Chesney, A.R.I.B.A., Council Offices, Featherstone, near Pontefract. Deposit £2 2s.

DECEMBER 19.—**Hackney.**—ADDITIONS.—Erection of new front entrance, receiving wards, porter's lodge, &c., at the Infirmary for the Board of Guardians. Mr. F. R. Coles, Clerk, Offices, Sidney-road, Homerton, E. Deposit £5.

DECEMBER 19.—**Hammersmith.**—PAINTING, &C.—For painting and cleaning public baths and washhouses in Lime-grove, Shepherd's Bush, for B.C. Mr. R. H. Clucas, Borough Surveyor, Town Hall, Hammersmith.

DECEMBER 19.—**Hawksworth.**—FARMHOUSE, &C.—(*a*) Farmhouse and buildings at Lane Side Farm, Hawksworth; (*b*) alterations and repairs to existing farm buildings at Lane Side Farm, Hawksworth, for the West Riding Small Holdings' Committee. Land Agent, County Hall, Wakefield. Deposit £1.

DECEMBER 19.—**London, E.9.**—BUILDING ADDITIONS.—Erection and completion of new front entrance, receiving wards, porter's lodge, &c., at the Infirmary, High-street, Homerton, E.9, for the Guardians of the Hackney Union. Mr. Frank R. Coles, Clerk to the Guardians, Guardians' Offices, Sidney-road, Homerton, E.9. Deposit £5.

★DECEMBER 19.—**London, S.E.**—FLOORING, PLASTERING, &C.—Alterations and additions, new maple and deal flooring, wall and ceiling plastering, wall tiling, new sanitary fittings and internal decorations, at the Newington Institution, Westmoreland-road, Walworth, S.E., for the Guardians of the Southwark Union. Messrs. A. Saxon Snell & Phillips, architects, 9, Bentinck-street, Manchester-square, W.1. Deposit £5.

★DECEMBER 19.—**London, N.**—FLATS.—Erection of a block of flats on the Fire Station site, Bounds Green-road, N.22, for the U.D.C. of Wood Green. Mr. C. Eric Staddon, Clerk to the Council, Town Hall, Wood Green, N.22. Deposit £1 1s.

DECEMBER 19.—**Manchester.**—SCHOOL.—Erection of Peacock-street Municipal School, West Gorton, for the T.C. Education Offices, Deansgate, Manchester. Deposit £1 1s.

★DECEMBER 19.—**Mitcham.**—COTTAGES.—Erection of 34 cottages at Mitcham, Surrey, for the Mitcham U.D.C. Messrs. Chart, Son & Reading, Union Bank Chambers, Croydon. Deposit £5.

DECEMBER 19.—**Sheffield.**—HOUSES.—For erection of 146 houses on the Manor Estate, City-road, Intake, for T.C. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield. Deposit £2.

DECEMBER 19.—**West Riding.**—REPAIRS.—Adaptations and repairs to existing farmhouse and buildings on Loversall Estate and Carr Lodge Farm, for the West Riding Small Holdings Committee. County Land Agent, County Hall, Wakefield.

DECEMBER 20.—**Hull.**—ALTERATIONS.—For alterations to housekeeper's apartments, Guildhall, for the T.C. City Architect, Guildhall, Hull. Deposit £2 2s.

DECEMBER 20.—**Leigh, Lancs.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Leigh, Lancs, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

DECEMBER 20.—**Middlesex.**—HOUSES.—Erection of 16 houses in Albany-road, Enfield Wash, Middlesex, for the Enfield U.D.C. Council's Surveyor, Public Offices, Enfield, Middlesex. Deposit £2 2s.

DECEMBER 20.—**Portsmouth.**—FLATS.—For works to be executed and materials to be provided for the erection and completion of four blocks of flats in Vollerstreet, Landport, and for maintenance thereof in thorough repair for six calendar months from the completion thereof, for the Portsmouth T.C. Mr. Arthur W. Ward, Borough Engineer, Town Hall, Portsmouth.

DECEMBER 20.—**Rochford, Essex.**—RESIDENCE.—Erection of Medical Officer's residence at Rochford, for the Guardians of the Rochford Union. Mr. Norman Evans Lic. R.I.B.A., 27, County Chambers, Westonroad, Southend-on-Sea. Deposit £1 1s.

DECEMBER 20.—**Salisbury.**—HOUSES.—Erection of 50 houses on Wain-a-long-road Housing Site, for the T.C. Mr. W. J. Goodwin, City Engineer, Municipal Offices, Salisbury. Deposit £2 2s.

DECEMBER 20.—**Witham.**—HOUSES.—For the erection of 12 semi-detached houses on the Cocks Farm site, for the U.D.C. Mr. W. P. Perkins, Collingwood-road, Witham.

★DECEMBER 20.—**Worthing.**—CONCRETE HOUSES.—Erection in brick and concrete slabs of three, six and nine blocks of four houses each, of one type, on the South Farm-road Site, for the Corporation of the Borough of Worthing. Mr. P. E. Harvey, Borough Surveyor and Architect, Municipal Offices, Worthing. Deposit £1 1s.

DECEMBER 21.—**Alloa.**—HOUSES.—Erection of four blocks of four houses, for the T.C. Messrs. J. Melvin & Son and Mr. G. A. Kerr, architects, Mar-street, Alloa.

DECEMBER 21.—**Cork.**—REBUILDING.—For the rebuilding of premises, Patrick-street, Cork, for Messrs. Alexander Grant & Co. (Messrs. T. Lyons & Co., Ltd.). Mr. James F. McMullen, F.R.I.A.I., 30, South Mall, Cork. Deposit £5 5s.

DECEMBER 21.—**Hull.**—ADDITIONS.—Erection of retiring room and lavatory at the Workhouse, Beverley-road, Hull, for the Sculcoates Board of Guardians. Mr. J. H. Wild, Clerk, 12, Harley-street, Hull.

DECEMBER 21.—**Kent.**—SCHOOL EXTENSION.—Extension of the School of Art, Beckenham, for the U.D.C. County Education Architect (Mr. W. ... Robinson, F.S.Arc.), Room 69, Sessions House, Maidstone. Deposit £2.

DECEMBER 21.—**Little Lever.**—HOUSES.—Erection of 12 houses on Marsh Farm Estate, for the U.D.C. Surveyor, High-street, Little Lever. Deposit £2 2s.

DECEMBER 21.—**Wainfleet.**—COTTAGE.—Erection of a cottage at the White House Farm, Wainfleet, for the Lindsey C.C. Mr. H. C. Tong, County Land Agent, Newland House, Lincoln. Deposit £1.

DECEMBER 21.—**Walton.**—BUILDING WORK.—For the building contract No. 4 at Walton Institution, for the West Derby Board of Guardians. Mr. Ernest B. Bailey, F.S.I., 9, Cook-street, Liverpool. Deposit £2 2s.

DECEMBER 21.—**York.**—GARAGE.—Extension of York Station Hotel garage, for London & North Eastern Railway Co. Mr. S. Wilkinson, architect, North-Eastern Area, York.

DECEMBER 22.—**Bradford.**—PAINTING, &C.—For work at the Cartwright Memorial Hall, viz.:—(1) Internal cleaning, colouring, &c.; (2) French polishing. City Architect, Town Hall, Bradford.

DECEMBER 22.—**Cadoxton.**—RENOVATION.—For the renovation of the shop premises; 100, Main-street, Cadoxton, for the Trustees of the property. Mr. J. Gabe Jones, architect, Bank Chambers, Hengoed.

★DECEMBER 22.—**Folkestone.**—COTTAGES.—Erection of 20 cottages adjacent to Penny-Pot Farm, Dyrn church-road, and a further 30 to 40 on Tanner's-hill. Mr. J. L. Seaton Dahl, F.R.I.B.A., Radnor Chambers, Folkestone. Tenders will be based on plans and specification (not quantities). Deposit £2 2s.

DECEMBER 22.—**Moira (County Down).**—COTTAGES.—Erection of 13 cottages in Moira (County Down), for the Government of Northern Ireland. Secretary, Ministry of Finance, 15, Donegall-square West, Belfast. Deposit £1.

DECEMBER 24.—**Abergavenny.**—HOUSE, &C.—Erection of house, with stables, garage, and two cottages at Great Trilay Farm. Messrs. Rodger & Stevens, architects, 25, Stoke-lane, Westbury-on-Trym, Bristol.

DECEMBER 24.—**Edinburgh.**—TELEPHONE EXCHANGE.—For erection of telephone exchange at Murrayfield. Architect, H.M. Office of Works, 4-5, Drumsheugh gardens, Edinburgh. Deposit £1 1s.

DECEMBER 24.—**Rochdale.**—HOUSES.—Erection of 50 houses on the Turf-hill Estate, for the T.C. Mr. S. H. Morgan, Borough Surveyor, Town Hall, Rochdale. Deposit £2 2s.

DECEMBER 27.—**Battle.**—ALTERATIONS.—For alterations and additions to the Institution of the Board of Guardians. Mr. A. J. Jenner, surveyor, Linton House, Battle.

★DECEMBER 28.—**Eastbourne.**—CHIMNEY.—Erection of a brick chimney (60 ft. high) at the Eastbourne Union, 123, Church-street, Eastbourne, for the Guardians. Mr. Fredk. G. Cooke, Assoc.M.Inst.C.E., M.S.A., architect, 2, Hyde Gardens, Eastbourne. Deposit £1 1s.

DECEMBER 28.—**London, N.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Palmer's Green, London, N., for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

DECEMBER 28.—**Manchester.**—SORTING OFFICE AND TELEPHONE EXCHANGE.—Erection of a sorting office and telephone exchange at Openshaw, Manchester, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

DECEMBER 28.—**Southampton.**—HOSTEL, &C.—Contract No. 1: the erection of a hostel for 45 students (deposit £5 5s.); (2) For the construction of ferro-concrete floors, stairs and flat roofs to the Hostel, "Coignet" system (deposit £2 2s.), for the County Borough of Southampton. Mr. A. L. Roberts, County Architect, The Castle, Winchester. Cheques to be made payable and crossed "Lloyds Bank, Ltd. (Capital and Counties Branch), Winchester."

★DECEMBER 29.—**Bradford.**—HOUSES.—Housing Scheme No. 12, Lower Grange, Thornton-road, erection of 20 houses, Class "A"; two houses, Class "B." (1) Contractors may tender for separate trades, or for the whole of the works in all trades complete. (2) the tenders shall be based upon fixed prices for labour and materials for the City of Bradford. Office of the City Architect, Town Hall, Bradford.

DECEMBER 29.—**Ennis.**—REBUILDING.—For the partial restoration of Ennis Civic Guard Barrack, co. Clare. Mr. J. J. Healy, Secretary, Office of Public Works, Dublin. Deposit £1.

DECEMBER 29.—**Salford.**—ADDITIONS.—For additions to Union Infirmary, Pendleton, for the Board of Guardians. Mr. E. H. Inchley, Clerk, Offices, Eccles New-road, Salford. Deposit £2 2s.

DECEMBER 31.—**Pontefract.**—HOUSES.—Erection of 24 houses at Willow Park and 10 at Wakefield-road, for the T.C. Mr. J. E. Pickard, Borough Surveyor, Pontefract. Deposit £2 2s.

★JANUARY 1.—**Barnet.**—HOUSES.—Erection of 2 houses at a net inclusive cost of £350 or thereabouts for the Barnet U.D.C. Contractors can submit their own designs and specifications, or they can quote on the scheme prepared by the Council. Engineer and Surveyor, Council Offices, Wood-street, Barnet.

★JANUARY 2.—**London E. and Essex.**—STEEL-FRAMED BALCONY AND REPAIRS AND PAINTING.—(1) Erection of steel-framed balcony and verandah at High Wood Hospital for Children, Ongar-road, Brentwood, Essex. (2) Repairs and painting to the Laundry at the Eastern Fever Hospital, The Grove, Homerton, E.9, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

JANUARY 3.—**Omagh.**—HOUSES.— Erection of 16 pairs of semi-detached dwellings, for the U.D.C. Mr. J. P. McGrath, architect, Londonderry.

✱JANUARY 5.—**Ripley, Derbyshire.**—ALMSHOUSES. —Erection and completion of six almshouses, at Greenwich, Ripley, for the Ripley U.D.C. Mr. G. W. Bird, Town Hall, Ripley, Derbyshire. Deposit 10s.

JANUARY 8.—**Huddersfield.**—EXTENSIONS.—For extensions to Royd's Hall Secondary School, for the T.C. Borough Architect, 26, Ramsden-street, Huddersfield. Deposit £1.

✱JANUARY 9. — **London, S.E.** — DWELLINGS. — Erection of a block of dwellings on the Tabard Estate, Southwark, for the L.C.C. Architect to the Council, County Hall, Westminster Bridge, S.E. 1. Deposit £3.

JANUARY 9. — **Tynemouth.** — SCHOOL. — The Education Committee are inviting tenders for the erection of a new elementary open-air school in Lovaine-gardens, North Shields, to accommodate 170 children; and also, by the same date, tenders for a new elementary school at Spring-gardens, North Shields, providing accommodation for 845 children.

JANUARY 10.—**Manchester.**—FLOORS.—For red terra-cotta and for hollow tile floors required in connection with the extension of the Nurses' Home at Booth Hall Infirmary, for the Board of Guardians. Mr. F. H. Overmann, architect, 5, Cavendish-street, All Saints', Manchester.

JANUARY 11.—**Catforth.**—ADDITIONS.—Erection of additions to Village Hall, Catforth. Mr. W. D. Standen, architect, "Oak Dene," Catforth, near Preston.

JANUARY 17.—**Salford.**—HOUSES AND FLATS.— Erection of 62 houses and flats on the Weaste Housing Estate, for the T.C. Mr. G. Westcott, architect, 13, Bridge-street, Manchester.

✱JANUARY 31.—**Hemel Hempstead.**—COTTAGES.— Erection of 24 cottages (in sections of 12), for the Borough of Hemel Hempstead. Mr. Walter R. Locke, Borough Engineer and Surveyor, Market-square, Hemel Hempstead. Deposit £1.

✱FEBRUARY 2.—**London, S.E. 18.**—EXTENSION.— Proposed extension of premises for the Committee of the Woolwich Catholic Club. The Secretary, Woolwich Catholic Club, 28–30, New-road, Woolwich, S.E. 18.

NO DATE. — **Birmingham.** — DECORATING. — For decorating King's Hall, Corporation-street. Mr. E. Marshall, King's Hall, Corporation-street, Birmingham. Deposit £1.

NO DATE.—**Energlyn (Caerphilly).**—FIFTY HOUSES.— For erection of 50 houses, in pairs, at Energlyn Garden Suburb, Caerphilly. Messrs. Huffell & Hatchard, 2, Park-lane, Caerphilly (Glam).

NO DATE.—**Kilmarnock.**—PAINTING.—For painter's work in connection with erection of 30 houses, for T.C. Mr. R. Blackwood, Burgh Surveyor, Kilmarnock.

NO DATE.—**St. Austell.**—ALTERATIONS.—For alterations and additions to shop and business premises at St. Austell. Mr. F. Harrild, architect, 37A, High-street, Totnes.

FURNITURE, MATERIALS, etc.

DECEMBER 17.—**Newport (Mon).**—SUPPLIES.—For supply to the Newport (Mon) Board of Guardians of boots and slippers, steam coal (washed nuts), paints, paint brushes, engineers' stores, electric light fittings, ironmongery and tinware, brushes, leather sundries, corn and meal, &c. Mr. William Dowler, Clerk to the Guardians, Union Offices, Queen's-hill, Newport (Mon).

DECEMBER 17. — **Warrington.**—OILS.—Supply of lubricating oils for six months to the T.C. Mr. R. Wilson, Sewage Manager, Longford Depot, Warrington.

DECEMBER 18.—**Bedwellty.**—BOOTS, &C.—For supply to Bedwellty Guardians for their out-relief recipients in Tredegar district of boots, shoes, &c. Mr. William Hall, Clerk, Union Offices, Tredegar.

DECEMBER 18. — **Lambeth.** — ELECTRIC LAMPS. — Supply of incandescent electric lamps during twelve months, for the Board of Guardians. Mr. James L. Golspink, Clerk, Brook-street, Kennington-road, S.E.11.

DECEMBER 18. — **Warrington.**—MATERIALS.—Engineer's and plumber's goods, for the Board of Guardians. Clerk, Bewsey Chambers, Warrington.

DECEMBER 19.—**Bedwellty.**—SUPPLIES.—For supply to the Bedwellty Guardians of following stores for the institutions at Tredegar, Blackwood and Ebbw Vale:—Coal, boots and shoes, leather and grindery, clothing, drapery, hosiery, and haberdashery; ironmongery and cutlery; hardware and crockery; oils and brushes; drugs and surgical dressings, &c. Tenders to include free delivery. Mr. William Hall, Clerk to the Guardians, Union Offices, Tredegar, Mon.

DECEMBER 19.—**Llanelly.**—SUPPLIES.—For supply to Board of Guardians of ironmongery, leather, boots, drapery, haberdashery, &c. Mr. D. C. Edwards, Clerk, Union Offices, Llanelly.

DECEMBER 21.—**London.**—DUST-ALLAYING FLUID.— Supply of dust-allaying fluid to Commissioners of H.M. Works. Controller of Supplies, H.M. Office of Works, &c., King Charles-street, S.W.1.

DECEMBER 24.—**Elgin.**—ROAD MATERIALS.—For supply of road materials to the Morayshire C.C. Mr. A. Hogg, surveyor, 24, Academy-street, Elgin.

DECEMBER 29.—**Winchester.**—TAR.—Supply of tar for use on roads to the Southampton C.C. Mr. W. J. Taylor, County Surveyor, The Castle, Winchester.

DECEMBER 31.—**Reading.**—MATERIALS.—Supply of broken road materials, gravel, and sand for twelve months, for Berkshire C.C. County Surveyor, Shire Hall, Reading.

JANUARY 1, 1924.—**Gloucester.**—MATERIALS.—For supply of road and other materials to Highways Committee of C.C. County Surveyor, Shire Hall, Gloucester.

JANUARY 23.—**Madras.**—PIPES.—Supply of stoneware pipes and specials, ranging from 4 in. to 18 in. diameter, and aggregating a total length of 400,000 lineal ft., for the T.C. Messrs. James Mansergh & Sons, agents, 5, Victoria-street, S.W. Charge 5s.

NO DATE.—**Treorchy.**—STORES.—Supply of stores to the Ocean Coal Co., Ltd. Offices, Ocean Collieries, Treorchy.

ENGINEERING, IRON AND STEEL.

DECEMBER 17.—**Edinburgh.**—ELECTRIC LIGHTING.— Electric lighting installations of houses under the Gorgie Housing Scheme, for the T.C. Mr. Frank A. Newington, Electricity Supply Offices, Dewar-place, Edinburgh. Deposit, £1 1s.

DECEMBER 17.—**Hayes.**—SEWAGE EJECTOR.—Provision and construction of sewage ejector station, including two 50-gallon pneumatic ejectors, cast-iron tubing and short lengths of rising and air mains, for U.D.C. Mr. D. C. Fidler, Surveyor, Council Offices, Hayes.

DECEMBER 17.—**Kettering.**—PIPES.—Supply of cast-iron water pipes, for U.D.C. Mr. T. Reader Smith, surveyor, Market-place, Kettering.

DECEMBER 17.—**Plymouth.**—GAS INSTALLATION.— Supplying and fixing of gas fires, gas brackets and pendants, &c., at 52 houses now being erected at Swilly-road site, for the T.C. Mr. J. Wibberley, Borough Engineer, Municipal Offices, Plymouth.

DECEMBER 18.—**Hawick.**—HEATING.—For the heating of the Hawick Roman Catholic School, for the Roxburgh Education Authority. Mr. William A. Edward, Executive Officer, Education Office, Newtown St. Boswells.

DECEMBER 18.—**London.**—MATERIALS.—Supply to the Great Indian Peninsula Railway Co. of (1) Points and crossings, &c.; (2) firebricks; (3) bellows; (4) steelwork for bridges; (5) spare parts of carriages and wagons (buffers). Secretary, 48, Copthall-avenue, E.C. Charges, £1 for (5); 10s. for (1) & (4); 5s. for (2); and 2s. 6d. for (3).

DECEMBER 19. — **Edinburgh.** — ENLARGEMENT OF WATER TANK.—For the enlargement of tank at Fairmilehead, for the T.C. Messrs. J. & A. Leslie & Reid, C.E., 29, Waterloo-place, Edinburgh. Deposit £5.

DECEMBER 20.—**South Africa.**—MATERIALS, &C.— Supply to the municipality of Graaf-Reinet of (*a*) cast-iron water-pipes, valves and fittings; (*b*) crude oil engines, generators and street equipment. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

DECEMBER 21.—**Nottingham.**—FILTRATION PLANT.— Construction and erection of filters capable of dealing with three million gallons per 24 hours, at filter works, for the Eastwood T.C. Mr. F. W. Davies, Engineer, Water Dept., Castle Boulevard, Nottingham. Deposit £5 5s.

DECEMBER 24.—**Petersfield.**—ELECTRIC LIGHT.— For electric light installation at the Poor Law Institution. Mr. A. J. C. Mackarness, Clerk, 16, High-street, Petersfield.

DECEMBER 26.—**Aberdeen.**—INTAKE, &C.—Construction of an intake and screening house, a 5 ft. diameter conduit and ancillary works alongside the River Dee at Cairnton, Invercannie, for the T.C. Mr. George Mitchell, Water Engineer, 41½, Union-street, Aberdeen. Deposit £5.

DECEMBER 31.—**Durham.**—BRIDGES.—Designs and tenders for the supply and erection (optional) of a number of steel girder road bridges, on prepared abutments, for the C.C. Mr. Albert E. Brookes, County Engineer, Shire Hall, Durham. Deposit, £2 2s.

DECEMBER 31.—**Kempton Park.**—ENGINES, &C.— Supply and erection of two reciprocating engines and pumps at Kempton Park Pumping Station, for the Metropolitan Water Board. Chief Engineer's Department, 173, Rosebery-avenue, Clerkenwell, E.C. Deposit £3 3s.

DECEMBER 31.—**London.**—CRANES.—Supply of (*a*) 3-ton travelling crane, and (*b*) 30 cwt. workshop crane, for the Central Car Depot of the L.C.C. Tramway Manager, Victoria Embankment, W.C. Deposit £2.

JANUARY 1, 1924. — **Georgetown.** — WATERWORKS PLANT.—Supply and erection of a 250 h.p. crude oil engine and centrifugal pumping set, &c., for the T.C. of Georgetown, British Guiana. Messrs. H. H. Humphreys & Sons, 28, Victoria-street, S.W. Deposit £10 10s.

JANUARY 4.—**London.**—HOIST.—Supply to the South Indian Railway Co. of one 40-ton locomotive hoist. Offices, 91, Petty France, S.W.1. Charge, 10s.

JANUARY 7.—**Bristol.**—DOCK.—For construction of Eastern Arm, Royal Edward Dock, Avonmouth, for Docks Committee. Mr. Thomas A. Peace, Chief Engineer, Port of Bristol. Deposit £15.

✱JANUARY 7.—**London, S.E.**—CONSTRUCTIONAL WORK.—Construction of a roof of steel and glass and of a machinery platform of steel girders and concrete in No. 1 Shaft, Rotherhithe Tunnel, for the L.C.C. Chief Engineer, The Old County Hall, Spring Gardens, S.W.1. Deposit £3.

JANUARY 7.—**Smethwick.**—GASHOLDER TANK.— Excavation for and construction of a mass concrete gasholder tank, 187 ft. 6 in. diameter by 37 ft. 6 in. deep, for the T.C. Mr. E. Hardiker, Engineer, Gas Works, Rabone-lane, Smethwick. Deposit £2

JANUARY 8.—**Birmingham.**—BRIDGES.—For the reconstruction of masonry and steel girder road bridges over the River Tame and the Tame Valley Canal, at Salford Bridge, Erdington, for T.C. Mr. H. H. Humphries, City Surveyor, Council House, Birmingham. Deposit £5.

JANUARY 15.—**Toronto.**—SLUDGE PUMP.—Supply and erection at main sewage pumping station of centrifugal sludge pump, for the T.C. Dept. of Overseas Trade, 3B, Old Queen-street, S.W. Reference 12614/ED/EC/2.

JANUARY 16. — **Glasgow.** — REFUSE DISPOSAL WORKS.—Tenders and designs for proposed refuse disposal works at Govan, Glasgow. Mr. W. Greig, Superintendent of Cleansing, 20, Trongate, Glasgow.

JANUARY 17.—**New Zealand.**—PIPES, &C.— Supply of 10 in., 12 in., and 21 in. steel pipes and fittings, for the Orongorongo-Karori Water Main. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

FEBRUARY 5.—**Egypt.**—PUMPING PLANT.—For supply and erection of a pumping plant to replace an existing steam plant at Qussassin. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's-chambers, S.W.1. Charge 10s.

FEBRUARY 5.—**New Zealand.**—GIRDER SPANS.— Supply of plate girder spans to the Public Works Tender Board, New Zealand, for the Stratford Main Trunk Railway. Department of Overseas Trade, 35, Old Queen-street, S.W. Reference 12569/ED/EC.

FEBRUARY 11.—**Gainsborough.**—PUMPING PLANT.— For engine and pumping plant, for the U.D.C. Mr. S. W. Parker, Waterworks Engineer, Council Offices, Gainsborough. Deposit £2 2s.

FEBRUARY 14.—**Argentine.**—POWER STATION.—For the construction of a central electric power station of 15,000 h.p., for the Argentine State Oilfields Administration. Department of Overseas Trade, 35, Old Queen-street, S.W.

MAY 1. — **China.** — BRIDGE. — The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W.1. Reference 11647/F.E./E.C./2.

ROAD, SANITARY, AND WATER WORKS.

DECEMBER 17.—**Carlisle.**—SEWER, &C.—For the construction of 192 yds. of 9 in. stoneware sewer, &c. and formation of roads and streets on the Blackwell-road housing estate, for the T.C. Mr. Hy. C. Marks, City Engineer, Carlisle. Deposit 10s.

DECEMBER 17.—**Chadderton.**—SEWERAGE WORKS.— Construction of sewerage works, for U.D.C. Messrs. J. Diggle & Son, 14, Brown-street, Manchester. Deposit £3 3s.

DECEMBER 17.—**Chipping Sodbury.**—SANITARY.— For providing cesspools for 20 houses at Winterbourne Down, for the R.D.C. Mr. W. H. Williams, Sanitary Inspector, Council Offices, Chipping Sodbury.

DECEMBER 17.—**Eccles.**—ROADS.—For making-up a number of back roads, for the T.C. Mr. Thomas S. Picton, Borough Engineer, Town Hall, Eccles. Deposit £1 1s.

DECEMBER 17.—**Market Bosworth.**—SEWAGE WORKS. —For sewerage and sewage disposal works at Ibstock, for the R.D.C. Messrs. Elliott & Brown, Burton Buildings, Parliament-street Nottingham. Deposit £3 3s.

DECEMBER 17.—**Mountain Ash.**—ROADS.—Construction of 350 lin. yds. of roadway with sewers and surface water drains, for the U.D.C. Mr. W. G. Thomas, Surveyor, Town Hall, Mountain Ash.

DECEMBER 17.—**Torpoint.**—WATER SUPPLY.—For the provision and laying of 6½ miles of 8 in. and 6 in. water mains, the construction of valves, chambers, storage reservoir, filter beds, service reservoir, and other works, for the U.D.C. Mr. F. Johns, Council Offices, Torpoint. Deposit £5 5s.

DECEMBER 18.—**Bingham.**—SEWERS.—Construction of 868 yds. of 9 in. stoneware pipe sewers, &c., in Shelford-road, Radcliffe-on-Trent, for the R.D.C. Mr. C. W. Kendrick, Sanitary Surveyor, Council Offices, Bingham. Deposit £1 1s.

DECEMBER 18.—**Coulsdon and Purley.**—ROADS.—For shaping and metalling carriageways, footways, kerbing and surface water drainage in Riddlesdown-road, for U.D.C. Mr. R. Chart, County Surveyor, Council Offices, Purley.

DECEMBER 18.—**Salford.**—ROADS.—For paving passages, for the T.C. Borough Engineer, Salford.

DECEMBER 18.—**Tottenham.**—ROADS.—For reconstruction of Park View-road, for U.D.C. Surveyor, Town Hall, Tottenham, N.15. Deposit 10s. 6d.

DECEMBER 18.—**Tottenham.**—ROADS.—For resurfacing Lansdowne-road and parts of Shelbourne-road and Willoughby-lane, for U.D.C. Surveyor, Town Hall, Tottenham, N.15. Deposit 10s. 6d.

DECEMBER 19.—**Hammersmith.**—ROADS.—For the repaving of Hammersmith-road (part of) and Askew-road (part of), for the B.C. Mr. H. H. Clucas, Borough Engineer, Town Hall, Hammersmith, W.

DECEMBER 19.—**Newcastle-on-Tyne.**—ROADS, &C.— Construction of roads and sewers required for the Rochester-street dwellings, Walker, for the T.C. Housing Architect, 18, Cloth Market, Newcastle. Deposit £1 1s.

DECEMBER 19.—**Southam.**—WATER SUPPLY.— Supply of pipes and laying pipes in connection with the Southam and Long Itchington Water Supply, for the R.D.C. Messrs. Taylor & Wallin, Commercial Union Buildings, 47, Pilgrim-street, Newcastle-on-Tyne. Deposit, £5.

DECEMBER 20.—**Holmfirth.**—TRADE EFFLUENT WORKS.—For the construction of trade effluent works, for Messrs. James Watkinson & Sons, Ltd., Washpit Mills, Holmfirth. Messrs. C. H. Marriott, Son, & Shaw, Church-street Chambers, Dewsbury.

DECEMBER 20.— **Southend-on-Sea.** — SEWERS.—For construction of concrete tube sewers, for T.C. Mr. R. H. Dyer, Borough Surveyor, Municipal Buildings, Southend-on-Sea. Deposit £2.

DECEMBER 21.—**Durham.**—PAVING.—For paving works on reinforced concrete, for the T.C. Mr. J. W. Green, City Engineer, Town Hall, Durham. Deposit £2 2s.

DECEMBER 21. — **Southampton.** — ROADS. — For strengthening foundations and paving: (1) Regent's Park-road; (2) Park-street; (3) Highfield-lane, for T.C. Borough Engineer, 33, French-street, Southampton. Deposit £1 1s. each contract.

DECEMBER 22.—**Sheffield.**—SEWER.—For laying of 1,432 lineal yds. of 15 in. and 12 in. pipe sewer at Handsworth, for T.C. Mr. W. J. Hadfield, City Surveyor, Town Hall, Sheffield.

DECEMBER 24.—**Edinburgh.**—DRAINS.—For drainage reconstruction work at Craiglockhart Poorhouse, for Parish Council. Mr. J. M. Johnston, architect, 47, Charlotte-street, Leith.

DECEMBER 24.—**Fort William.**—ROADS.—For the reconstruction of 6¼ miles of roadway between Fort William and Spean Bridge, for the Inverness-shire C.C. Mr. J. Schoolar, Road Surveyor, Fort William. Deposit, £1 1s.

DECEMBER 26.—**Mull.**—ROADS.—Construction of 2½ miles of road in the Island of Coll, for the Argyll C.C. Mr. Arthur MacNaughton, Mull District Surveyor, Tobermory.

DECEMBER 29.—**Featherstone.**—SEWER.—For relaying of about 1¼ miles of 15 in. diameter outfall sewer (cast-iron and stoneware pipe), for the U.D.C. Mr. Samuel Chesney, Council Offices, Featherstone, near Pontefract. Deposit £2 2s.

JANUARY 1.—**Rotherham.**—SEWER.—For construction of 9 in. stoneware pipe sewer, manholes, &c., in Herringthorpe-lane and Barnby Moor main road, in Parish of Whiston, for R.D.C. Mr. C. O. Rawstron, Surveyor, Council Offices, Grove-road, Moorgate, Rotherham.

JANUARY 3.—**Hay (Breconshire).**—WATERCONDUIT.—For necessary works to bring water from springs above Heolinon Farmhouse to Penheolinon, Llandefalle. Mr. Penry C. Lloyd, Estate Offices, Hay.

✱JANUARY 7.—**Catherington, Hants.**—WATER MAINS AND DRAINAGE.—Providing and laying at Cowplain, in the Parish of Catherington, about 1,950 yds. lineal of 6 in. cast-iron water mains; also 900 yds. 4 in. and 2,800 yds. 3 in. ditto, and other drains, &c. Mr. G. E. Vernon-Inkpen, 40, Commercial-road, Portsmouth. Deposit £3 3s.

JANUARY 10.—**Epsom.**—ROADS.—For making up Manor-road (part of), Cecil-road, Derby-road, Salisbury-avenue, Cheam, for R.D.C. Mr. T. E. Ware, surveyor, Waterloo-road, Epsom.

JANUARY 19.—**Manchester.**—SEWERS.—Construction of main drainage work, for the T.C. City Engineer, Town Hall, Manchester. Deposit £10 10s.

Competitions.

(*See Competition News, page* 914).

Auction Sales, Tenders, etc.

DECEMBER 18.—**London, N.**—Messrs. Chas. R. Davis & Co. will sell, under a D/A, *re* W. E. Gann (trading as R. J. Gann & Son), by order of the Trustee, at Monnery Works, 26, Monnery-road, Junction-road, N.19, the builders' and decorators' materials and plant. Auctioneers, 285, Borough High-street, S.E.1.

✱JANUARY 1.—**Ashtead, Surrey.**—Messrs. Fuller, Horsey, Sons & Cassell will sell, *re* Alban Richards & Co., Ltd., by order of Mr. D. L. Honeyman, the Receiver for the debenture holders, in lots, at the Joinery Works, Ashtead, Surrey, modern high-c ass woodworking machinery, four steam wagons and trailers, &c. Auctioneers, 11, Billiter-square, E.C. 3.

✱JANUARY 8.—**Bristol.**—Messrs. Fuller, Horsey, Sons & Cassell will sell, in lots, *re* W. Alban Richards & Co., Ltd., by order of Mr. D. L. Honeyman, Receiver for the debenture holders at the Royal Hotel, Bristol, builders' and contractors' plant laying at the Royal Edward Granary, Avonmouth Dock, at Town Hill, Swansea, and other depots. Auctioneers, 11, Billiter-square, E.C.3.

✱JANUARY.—**London, W.1.**—Messrs. Knight, Frank & Rutley, in conjunction with Messrs. Oakden & Co., will sell, at the Hanover-square Estate Room (unless previously disposed of), by direction of the Eastbourne Waterworks Company, freehold commercial site of about 4¼ acres, with railway facilities and including detached double-fronted residence and factory or warehouse buildings, &c. Auctioneers, 20, Hanover-square, London, W.1.

Public Appointments.

DECEMBER 18.—**York.**—Clerk of Works required in Architect's Department, L. & N.E. Rly. (N.E. Area), commencing January 1, 1924, six months' probation and permanency to suitable man. Apply, with copies of three testimonials, to Mr. Stephen Wilkinson, F.R.I.B.A., Architect, London & North Eastern Railway, York.

✱DECEMBER 19.—**Blackburn.**—Clerk of Works for War Memorial extensions (£62,000 contract). Salary £8 per week. Apply to Messrs. Sames & Green, architects, 14, Richmond-terrace, Blackburn, enclosing copies of three recent testimonials.

✱DECEMBER 19.—**London, S.W.19.**—Fully qualified Building Inspector required by the Merton and Morden Urban District Council. Applications, with three testimonials, to Mr. C. J. Mountifield, Clerk to the Council, Council Offices, Kingston-road, Merton, S.W. 19.

✱DECEMBER 21.—**York.**—ARCHITECTURAL DRAUGHTSMAN.—Architectural Draughtsman, A.R.I.B.A., required for the Architect's Department, with knowledge of housing schemes, possible permanency to suitable man, by the L. & N.E. Railway (N.E. Area). Apply, with copies of three recent testimonials, to Mr. Stephen Wilkinson, Architect, L. & N.E. Railway, York.

✱DECEMBER 28.—**Battersea, S.W.11.**—Junior Assistant, Architectural Assistant and Engineering Assistant required in the Borough Engineer's Dept. Mr. Edwin Austin, Town Clerk, Town Hall, Battersea.

✱JANUARY 1.—**Leeds.**—Instructor in Architectural Construction and Design required at the Leeds School of Art in the Department of Architecture. Director of Education Education Offices, Calverley-street, Leeds.

BOOK REVIEWS.

Painters' and Decorators' Materials. By RANSOME W. COOPER, F.C.S. (London: Trades Publishing Co.)

The author of this book states that it is written primarily to help purchasers and salesmen. It contains a great deal of very useful information, clearly and lucidly stated, and it covers a very wide field and includes a chapter on tools and another on brushes. Considerable information is given about the various methods of manufacturing white lead and other white pigments; attention is also drawn to antimony oxide and titanium, the more recently introduced whites. Reference is also made to waterproof glasspaper introduced to the trade for the purpose of eliminating the risk of creating dust, of a type which is supposed to be harmful to the health of the painter and decorator. The advantages of the adoption of this improved method of treating certain work are ably dealt with. Numerous simple methods of testing materials are given; generally these are of a type that make it possible to obtain certain facts without a very advanced knowledge of chemistry. If information beyond the scope of these tests is required the reader is wisely advised to seek the more expert aid of the paint technologist or chemist. Varnishes, driers, oils, and turpentine receive ample attention, and a chapter is devoted to ready-mixed paints. The treatment of cement, prior to painting, is dealt with. We wish we had the same confidence in the method prescribed by Mr. Cooper as he has. A useful chapter is given on materials used for the preservation of wood, and useful formulæ for paint-removing materials are also given. Paperhangers' paste is unfortunately dealt with in this chapter; it would have been better if included with paperhanging.

The remarks on True Cheapness should be widely read; from the proper understanding of this section much trouble and expense might be saved. Formula tables as set out in this book, we think, are only of value as an approximation of what is wanted. Proportions are useless without a standardisation of the strength and colour of the pigments mentioned.

The list of names, technical terms, chemicals, etc., is not the least interesting section though it is not very extensive. Taken altogether the book should prove very useful.

Property Owners' Guide to the Increase of Rent and Mortgage Interest Restrictions Acts, 1920–1923, and Income Tax Acts. By EDWIN EVANS and B. GRAHAM EVANS. (London: Property Owners' Protection Association.) Cloth, 5s.; paper cover, 2s. 6d.

This little volume of 38 pages is described as a Memorandum explaining briefly the Rent Restriction Acts, 1920 and 1923, and also as containing a summary with explanations of the principal Income Tax and Finance Acts up to and including 1923. It takes the form of a general statement of the effect of the Acts grouped under headings printed in large type, and it is therefore easy for the reader to turn to any particular of the subjects dealt with and to gain an idea of the legislation in a very concrete form. Very few references are given to the actual sections of the Acts, but from the layman's point of view this simplifies the subject. It is no easy task to summarise all the provisions of this complicated legislation, and although we have not examined it in detail the work appears to have been carefully done.

We are not quite in agreement with the interpretation placed upon section 3 of the Act of 1923 as given on page 10. That section relates to leases or agreements granted before the passing of this Act, which will determine at some date after June 24, 1923, at a rent reserved which after that date exceeds the standard rent and the increases permitted under the Acts of 1920 and 1923, and it provides that the landlord may by three months' notice, expiring not earlier than December 21, 1923, or later than March 31, 1924, determine the lease or tenancy, provided that if within one month of the receipt of the notice the tenant shall give notice to the landlord that he elects to abide by the said lease or agreement and the terms thereof, then "the said lease or agreement shall remain in full force and effect in every respect including the amount of the rent thereby expressed to be reserved unaffected by the principal Act or this Act."

The authors in connection with this section say, "or if a notice by the landlord is given but the tenant does not elect to abide by the lease or agreement any rents in excess of the standard rent plus authorised increases will not be recoverable from the tenant or if paid by tenant, could no doubt be reclaimed," and it is suggested that the tenant will become a "statutory tenant."

We read this section as giving the landlord the right to determine the lease or agreement provided that the tenant does not elect to abide by it, and therefore that there is only one alternative to the tenant, either to go or to accept the terms of the lease or agreement, but the question is highly controversial, and we only throw this out as a suggestion.

In glancing through this work we notice some very sound common-sense suggestions made by the authors, and for such a very brief and comprehensive summary of most complicated legislation we have little doubt that it will well serve its purpose.

The Modern Sign-Writer. Edited by W. G. SUTHERLAND. (Manchester: 9, Albert-square.) Price 12s. 6d. net.

This is a useful and practical volume, which should be in the hands of all sign-writers and those interested in good lettering. A steady improvement has been taking place in lettering now for some years, but there still remains room for more. The plates are large and clear, and specimens of numerous historic examples of lettering are given. Chapters of practical value, such as "Sign-writers' materials," "Spacing and display" (a very essential one), "Preparation of grounds," &c., and others equally valuable. The illustrations of banners and signs are boldly handled, and will be of considerable use to designers. Here, again, there is room for much improvement, and good signs would be welcomed and appreciated by all.

Books Received.

SEWERAGE. By A. Prescott Folwell. (London: Chapman & Hall, Ltd.) Price 20s. net.

PAINTERS' AND DECORATORS' MATERIALS. By Ransome W. Cooper. (London: The Trade Papers Publishing Co., Ltd.) Price 6s.

CARDIFF CASTLE. By John P. Grant. (Cardiff: William Lewis (Printers), Ltd.) Price 2s. 6d. net.

THE ENGINEER'S DRAUGHTSMAN. By H. Varley. (London: George Routledge & Sons, Ltd.) Price 5s. net.

PRACTICAL MOULDING. By S. J. Parsons. (London: George Routledge & Sons, Ltd.) Price 5s. net.

CHATS ON OLD ENGLISH DRAWINGS. By Randall Davies. (London: T. Fisher Unwin, Ltd.) Price 9s. net.

LITTLE THINGS THAT MATTER. By Edwin Gunn. (London: The Architectural Press.) Price 5s. net.

ARCHITECTURE AND ITS PLACE IN A GENERAL EDUCATION. By Sir Banister Fletcher. (London: B. T. Batsford, Ltd.) Price 1s.

BERMONDSEY'S "BIT" IN THE GREAT WAR. By Henry Fuller Morriss. (London: The Clifton Publishing House.) Price 5s. net.

LONDINIUM: ARCHITECTURE AND THE CRAFTS. By W. R. Lethaby. (London: Duckworth & Co.) Price 12s. 6d. net.

OPOSED NEW BUILDINGS & OTHER WORKS.*

these lists care is taken to ensure the accuracy of the information given, but it may nally happen that, owing to building owners taking the responsibility of commencing work plans are finally approved by the local authorities, "proposed" works at the time of publication een actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District ; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of ans; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

DEEN.—The T.C. has decided to have plans, pared for the duplication of the remaining of the Girdleness outfall sewer at an estimated £13,000.——Plans passed: Bungalow, for orrison, per Messrs. Sutherland & George, s: house, for Mr. G. Taylor, and house for Watt, on Estate of Kerfield, per Messrs. SutherGeorge, architects; two houses, for Major V. r Mr. L. Durnin, architect; house and garage, road, for Mr. James B. Craigen, confectioner, srs. Sutherland & George, architects; house, road, for Mrs. Eliza Wilson, 47, Queen's-road, srs. Brown & Watt, architects; outhouse, et, for the Trustees of Harrows' Mortification, rs. Jenkins & Marr, architects; alterations at rd Works, for Richards, Ltd., per Messrs. & Walker, architects.

SHAM.—The Board of Guardians has passed a for improving the heating, hot-water and arrangements at the Institution at a cost of 10,000.

CRY.—Plans passed: House, on the Easington for Mr. Hutchings; house, for Mr. Creed; ses, Warwick-road, for Mr. W. Broughton; 10 King's-road, for Messrs. W. and A. Colli son.

AS.—The Bedwas and Machen U.D.C. has intimation from Mr. George Kenshole, acting e colliery companies, that his clients will erect according to plans submitted in return for assistance. The land will be taken over from on Ministry valuation. Council has accepted —The Monmouthshire Education Committee uested U.D.C. to negotiate for site for new o be erected at Maesycwmmer.

S.—Mr. H. E. Byrne, Inspector of the Ministry th, has held an enquiry into the application of C. for sanction to borrow £3,000 for works of for the parish of Whitstable-cum-Seasalter.

NS.—Plans passed by T.C.: G. Temperley & ngalow, Belmont-road; A. H. Price, seven Primula-street; Sir John Holden, new road els, Horrocks Fold; W. E. Helme, bungalow, s Fold; Sir John Holden, new road and sewer, y Bank-road Estate; S. Gee, house, back k-road; Thomas R. Yates, house, off back k-road: George Sykes, four houses, Ashworthowe Bridge Spinning Co., transformer chamber, Mill, Bayley-street; Leigh Bros., Ltd., back Church-road; Horridge & Co., Ltd., n to Beetle-place, Raikes Bleachworks; S. garage, back Park-road; Moore Bros., garage, nge Moor-road: Roscow & Coop, store, Oakenroad; Roocroft Bros., store, Price-street; den & Co., Ltd., heating chamber, Board-street; s & Andrews, alteration to premises, 71, ster-road; R. J. Tyson, house, Green-lane; ard, two houses, Withins-lane; Leigh Bros., y-out plan, Tonge Park Estate; Leigh Bros., ur houses, Dudley-avenue; E. & S. Street, Ltd., ses, St. Michael's-avenue; Leigh Bros., Ltd., ses, Abbotsford-road; Richard Harwood & td., lodge, Tennyson-street; W. Knowles, Wheatfield-street; A. Coward, two houses, road: Henry Turner, conversion of store into uses, 66 and 68, Arden-street; John Archer, es, off Colenso-road; H. Howarth, alteration ises, 270, Markland Hill-lane; John Wood, n to store, Vallett's-lane; A. Leathley, lock-up hepherd Cross-street; F. T. Wild, clogger's Walnut-street; Stafford Haslam, lock-up garreen Bank, Chorley New-road; Miss Jane od, three lock-up shops, Blackburn-road; T. house and warehouse, Bury-road; Leigh Bros., o houses and shops, Chorley Old-road; Leigh Ltd., six houses, Cloverdale-square; Albert lock-up shop, Radcliffe-road; Pendlebury & Ltd., alteration to works, Victoria-street; Cornall & Sons, Ltd., two houses, Coverdale-; William Settle, lock-up shop, Adrian-road; ill Spinning Co., extension to mill and transhouse, Park Mill, Gaskell-street; Waterworks or alterations to premises, Bark-street Depot; nour Meade & Co., shop and café, Deansgate; Brewery Co., rebuilding "The Bull's Head," ad.

NEMOUTH.—Plans passed by T.C.: Three and shops, corner Alma and Stokewood-roads, Welstead; house and shop, corner Alma and ood-roads, Mr. E. Welstead; two houses, w-road, Mr. A. H. Elcock; two houses, Trusenu-, Mr. F. Holly; house, King George- Mr. E. H. Lander; 12 houses and shops, rne-road, Mr. H. C. Barnes; six houses, Cowperr. C. K. Habgood; house, corner Cromer-road een's Park-gardens, Mr. C. V. Miller; house, e's-road, Mr. A. Barnes; house, Elmes-road, Maskell; bungalow, Lascelles-road, Mr. H. bungalow, Irving-road, Mr. J. Myers; house age, De Lisle-road, Mr. R. Symes; bungalow, s-road, Mr. C. Midgeley; two houses, Ken-road, D. Duss; house, South Hill-road, Mr. Welsh; nd garage, Bethia-road, Mr. F. W. Burton; nd garage, Bethia-road, Mr. G. E. Vincent; ages, Fenton road, Mr. M. Sellick; two houses, n-road East, Mr. J. Wellstead; two houses, oad, Mr. F. Ricketts; two houses, Watcombe- C. B. Philpot; house, Seafield-road, Mr. A. H. ; alterations and additions, 40, Charminster- essrs. E. A. Warren & Co.; house, Green-road, oader; office, 367, Christchurch-road, Messrs. s & Chitty; additions, "Lorne House," Lorne ad, Mrs. Kilburn; bungalow, corner Strouden-road, East & Bushey-road, Mr. R. Edgelow; house and garage, Mortimer-road, Mr. A. L. Price; house, Southill-road, Mr. H. Gunstone; house, Murley-road, Mr. C. E. Baker; house and shop, corner Murley and Wynyard-roads, Mr. H. A. Longman; house, St. Alban's crescent, Mr. R. Roberts; bungalow, Acland-road, Mrs. Freeman; house, Oswald-road, Mr. H. E. English; three houses, Eldon-road, Messrs. Rosser & Rosser; six houses, Pine-road East, Messrs. Hiscock & Wareham; house, Danesbury-avenue, Mr. C. Coul; hall, 1, Latimer-road, Mr. F. Lawford; two houses, Beaufort and Burleigh-roads, Mr. G. Riddett; house, corner Wentworth-avenue and Ravine-road, Mr. H. Goode; house, Southill-road, Mr. A. B. Jones; house, Maple-road, Mr. W. Spicer; house, Southill-road, Mr. A. E. Adams; house, Southill-road, Mr. H. Gregory; house, corner Queen Mary-avenue and Endfield-road, Mr. L. Gardiner; house, Stourcliffe-avenue, Mr. E. R. Saunders; bungalow, corner Stamford and Fenton-roads, Miss E. L. Lyford; house, St. Ledger's-road, Mrs. Payne; house, St. Leger's-road, Mr. J. Emmott; pair houses, Pickford-road, Mrs. E. E. Jackson; house, Eldon-road, Mr. W. G. Tallis; house, Methuen-road, Messrs. H. Ellison, Son & Dale; house, 18, Paisley-road, Mrs. Kitzerow; four houses, Stamford-road, Mr. Haycroft; house, King George-avenue, Mr. B. Stathers; bungalow, Lascelles-road, Messrs. Midgeley & Hardy; bungalow, Southbourne-avenue, Mr. H. Scott; house, Bryanstone-road, Mr. R. J. M. Nabney; two houses, Castle-road, Mr. S. G. Ward; two houses, Wentworth-avenue, Mr. S. H. B. Long; bungalow, Pine-road East, Mr. P. A. Troke; house, Coronation-avenue, Mr. A. G. Vivian; bungalow, Southbourne Overcliffe-drive, Messrs. Whiting & Edmunds; house, King George-avenue, Mr. W. T. Rice; house, Section D, Southill-road, Mr. F. P. Wareham; house, Wayside-road, Mr. P. J. Redding; three houses and garages, Wayside-road, Mr. Long; house, Eldon-road, Mr. J. Govaere; house and garage, Arcadia-avenue, Messrs. C. A. Barnes & Co.; two houses, Eldon-road, Messrs. E. T. Scullard & Son; two houses, Eldon-road, Miss M. E. Noble; two houses, Eldon-road, Mrs. A. M. Newton; house, Wynyard-road, Mr. W. Miles; house, Ashton-road, Mr. F. Moorman; house, Delhi-road, Mr. O. Stroud; conversion into flats, 68, Southcote-road, Mr. J. Williams; three houses, Southill-road, Messrs. Mabey & Sons; two houses, Lascelles-road, Messrs. Midgeley & Hardy; two bungalows, Lascelles-road, Messrs. Midgeley & Hardy; four houses and shop, Ensbury Park-and Highfield-roads, Mr. A. E. Bolton; house, Lonsdale-road, Mr. A. D. Lambert; three houses, Dalmeny-avenue, Mr. H. Kneller; house, Pickford-road, Mr. H. Wood; house and garage, Browning-avenue, Mr. R. J. M. Nabney; house, Southill-road, Messrs. Mabey & Son; conversion into flats, "Manorhurst," Snowdon-road, Mrs. Bland; house, Southill-road, Mr. W. Rabbetts; house and shop, corner Ripon and Portland-roads, Mr. W. H. Clark; twelve lock-up garages, rear of 84-94, Shelbourne-road, Mr. G. Dolman; house and garage, Seafield-road, Mr. W. Hoare; house, Burleigh-road, Mr. A. Webb; semi-bungalow, Charminster-road, Mrs. B. Smith; three houses, Wentworth-avenue, Messrs. Holly & Peckham; house, Boscombe Cliff-avenue, Mr. J. F. Ellen; house, 39, Green-road, Mr. W. E. Chapman; house, corner Castle and Southill-roads, Mr. Sweetzer; house, corner Castle and Southill-roads, Mr. Gubbins; house, Danesbury-avenue, Miss F. Brandram; pair houses and garage, Christchurch-road, Mr. A. W. Watts; house and garage, St. Ledger's-road, Messrs. G. S. Brown & Co.; house and garage, Chigwell-road, Mr. C. Newton; house, Chigwell-road, Mr. C. Newton; house, Browning-avenue, Mr. J. Newbury; house, Penrith-road, Mr. J. Newbury; pair houses, Denmark-road, Messrs. J. W. & S. H. Burton; house, corner Ravine and College-roads, Mr. H. H. Lilley; three houses, Windham-road, Mr. C. V. Miller; conversion into flats, 12, Southwood-avenue, Mrs. Shepperd; house, East-avenue, Messrs. Lambert Bros.; bungalow, Lascelles-road, Messrs. Midgeley & Hardy; house, Southill-road, Mr. H. J. King; house, Nairn-road, Mr. R. Pettey; four houses, Wynyard-road, Mr. J. Wellstead; house, Southill-road, Mr. J. Bounea.

BLACKPOOL.—Plans passed by T.C.: Two houses, Calder-road, W. Wrigley; bungalow, Berwick-road, Hargreaves & Emery; bungalow, Chislehurst-avenue, Ormrod & Ogden; two houses, Warley-road, Lund & Brook; 11 houses, off Durley-road, G. Woodhead; seven houses, Ord-avenue, Birchall & Nutter; two houses, Waterloo-road, H. Harrison; two houses, garage and stable, Central-drive, Mrs. S. A. Taylor and Mrs. E. Woodrow; house, Knowle-avenue, G. Atkinson; two houses, Cleator-avenue, G. Hodgson; four houses, St. Anne's-road, Mr. Blake; two houses, Waterloo-road, G. Graham; two bungalows, Hemingway, C. Auty; three houses, St. Alban's-road, Wilson & Thornton; twelve houses, Keswick-road and Salisbury-road, Parker & Allen; bungalow, Central-drive, Mrs. M. Hayes; bungalow, Bispham-road, G. Slater; two houses, Burgate, H. Baines; two houses, Bispham-road, T. Brierley; two houses, Burgate, A. Dean; bungalow, Bispham-road, Mrs. M. Greenwood; bungalow, Bispham-road, L. Hilton; four houses, off Bispham-road, F. Mathews; two houses, Gainsborough-road, J. Gregson; two houses and garages, Poulton-road, R. Pickup; house, Osborne-avenue, Suthers, Wilson & Randall; 6½ houses, Lomond-avenue, F. Jowett; bungalow, Highfield-road, J. Fitton; two houses, Piccadilly, S. Sims; two houses, Cleator-avenue, G. Hodgson; bungalow, Norbreck-road, G. A. Brown; two houses, Leamington-road, H. Thompson; house, Princess-road, N. Pilling; house, Sunny Bank-avenue, Holbrook & Watson; house, Liverpool-road, W. Bond; three houses, Shaftesbury-avenue, R. E. Sumner; house, Warley-road, G. Hodgson; two houses, Pedder's-lane, T. Whiteside; two houses, Bispham-road, Selby & Parkinson; two houses, Gainsborough-road, J. Gregson; seven houses and garage, Severn-road and Trent-road, Hogarth & Pollard; bungalow, Warley-road, Mr. Duffy; four houses, Alexandra-road, Bispham, W. Haslam; two houses, Bloomfield-road, G. Graham; five houses, St. James-road and St. George's-road, A. J. Laid; two houses, Bela-grove, J. R. Grimbledestone; four houses, Princess-avenue, Leach & Taylor; bungalow, Abbey-road, Mr. Harrison; bungalow, Abbey-road, Mr. Jackson; two houses, Harris-avenue, Mr. Grimbledestone; twelve bungalows, Fletcher-avenue, Mr. Harrison; two houses, Worsley-avenue, Abson Bros.; eighteen houses, off Bank-road, G. Bates; house, Wilson-avenue, Mrs. Brownbridge; sixteen houses, Kirkstall-avenue, J. Gregson; two houses, Woodpark-road, S. & J. Wood; two bungalows, off Greenwood-avenue, J. Smith; two bungalows, Thirlmere-road, W. Bingham; two bungalows, Warley-road, S. Rawsthorne; flats, Red Bank-road, H. Osmond; six houses, Layton Hall-road, Mr. Garside; house, Bloomfield-road, J. Harrison; bungalow, Fletcher-avenue, Mr. Bowker; two bungalows, Fletcher-avenue, Mr. Harrison; two houses, Worsley-avenue, H. G. Mason; 34 houses, Queen's-road and Eaton-avenue, J. & W. Ormerod; six houses and garages, Salthouse-avenue, Mr. Marsden; six houses, Broadway, J. Midgley; six houses, off Breck-road, G. Bates; two houses, Bispham-road, T. Brierley; elementary school, Condor-grove, Education Committee; bungalow, Waterloo-road, Mr. Hall; two houses, Norbreck-road, J. Marsden; two houses, Silverwood-avenue, Harrison & Pilkington.

BOSTON.—The T.C. has appointed a Committee to consider the question of erecting 20 houses.

BOURNE.—The R.D.C. has agreed to the erection of the following houses: Four non-parlour type at Deeping St. James, four parlour type at Corby, six parlour type at Billingborough, four non-parlour type at Morton, and four non-parlour type at Baston.

BRECONSHIRE.—The Hay District Council has passed plans for proposed new public hall.——Lord Glanusk has announced that £19,000 has now been subscribed for new War Memorial County Hospital, and that work will shortly be put in hand, the plans having been approved. Brecon will be the locality for building.

BROMLEY.—Plans passed by R.D.C.:—Captain E. D. Beck, house at Hayes-lane; Miss C. Kidd, bungalow, Cambray-road, Orpington; Mr. C. E. Castellan, house, Hill View-road, Orpington; Mr. W. Plumer, cottage, 92, Belvedere-road, Cudham; Mr. E. E. Gough, house, Westerham-road, Cudham; Messrs. Perry & Co., stand and dressing-rooms, Main-road, Foot's Cray.

BURNHOPE.—A new miners' hall, at an estimated cost of £3,000, is to be built at Burnhope.

CARLISLE.—The City Council is proposing to build 50 bungalows of the two-bedroom type.

CARMARTHENSHIRE.—The Lampeter Board of Guardians is considering provision of new heating apparatus for Workhouse, for which the provisional estimate is £600.—The Llanelly Markets Committee is considering alteration and improvement of buildings.

CHELTENHAM.—Plans passed by T.C.:—Bendall & Sons, eight semi-detached houses, Old Bath-road; J. A. Hough, house, Gloucester-road; Cheltenham Corporation, 20 houses, Milton and Byron-roads; Miss E. E. Bowles, house, Swindon-road North.

CHIPPENHAM.—The T.C. has instructed the Surveyor to prepare plans for 20 houses.

CONSETT.—In consequence of a communication received from the Ministry of Health, the U.D.C. have resolved to advertise for tenders for 50 houses, 25 each of "A2" and "A3" types, with substitute tenders for 100 and also 150 houses, to be erected and completed by June, 1925. The Ministry does not approve of the erection of 150 houses, as applied for by the Council, at the present time, but will, according to progress, consider the question of allowing more than the present 50 in the future.

DARLINGTON.—The erection of private dwelling-houses in Darlington is proceeding most satisfactorily, and at the last meeting of the T.C. a further batch of plans were, on the recommendation of the Streets Committee, approved. These include:—Messrs. Kellett & Clayton, 12 houses, Salter's-avenue, and new road adjoining Salter's-avenue; new streets and sewers off Salter's-avenue; H. Pritchett, houses, Carmel-road; 12 houses, proposed new road off Milbank-road; J. E. Chilton, two houses, Pierremont-road; two houses, Woodlands-road, new street, north side of Yarm-road; 20 houses, new road, Neasham-road to Yarm-road; house, The Green, Cockerton; 10 houses, The Mead and Yarm-road; four houses, Brinkburn-drive; seven houses, Neasham-road; eight houses, Pierremont-road; 10 houses, Neasham-road, and proposed road from Neasham-road to Yarm-road; six houses, Bates-avenue; 20 houses, Willow-road; J. H. Stephenson, seven houses, Pease-street and Bright-street; W. W. Lee & Son, house, Fairfield-road; J. Jenkins, nine houses, Haughton-road; two houses Neasham-road; H. Parvin, 12 houses, Leafield-road, four houses, Belvedere-road; T. Rodgers, six houses: new street off The Mead: Clark & Moscrop, four houses, Belvedere-road and Nelson-terrace; two houses, Milner-street; A. Myers, three houses, Willow-road; Bloomer & Gough, service depot, east side of Durham-road; Darlington Co-operative Society, four houses, Neasham-road; 12 houses, Yarm-road, west of The Mead; Bussey & Armstrong, 20 houses, Holmlands-road: G. Dougill & Son, 16 houses, Bates-avenue and Stooperdale-avenue; J. D. Pritchett, new street, south of Milbank-road.—In connection with the proposed erection of a new elementary school, in three buildings, at Cockerton, the Education Committee have adopted a resolution to prepare plans immediately for one building, for approximately 400 infants and juniors.

* See also our List of Contracts, Competitions, etc.

DEVON.—Devon Education Committee has instructed the County Architect to prepare plans for a new school to accommodate 60 children at Boasley Cross, at an estimated cost of £1,300. Approval has also been given to an estimated expenditure of £8,000 and £7,000 respectively for the building of new schools at Colyton and Totnes, £3,500 for the enlargement of the East-street Boys' School, Okehampton, and the installation of central heating and improvement of the playground; £3,400 for the enlargement of Crownhill County School, St. Budeaux, and the installation of central heating; and £1,350 for the enlargement and alteration of schools at Moretonhampstead.

EDINBURGH.—At the Dean of Guild Court, Dean of Guild Forrest presiding, 16 full petitions were presented, and 13 were granted as follows:—Provincial Cinematograph Theatres Co., Ltd., conversion of Picture House at 111, Princess-street into motor showroom for Wolseley Motor Co.; Board of Agriculture for Scotland, erection of potato sheds at Piggeries, at East Craig's Experimental Farm at Corstorphine; Mr. John Macdonald, villa at Barnshot-road; Mr. H. Nichols, villa, at Craighall-gardens; John Taylor & Sons, four flatted houses at the new road, off Mayfield-road; Mr. J. W. Wallace, three cottages, at Meadow Placeroad, Corstorphine; the Royal Bank of Scotland and Sir Robert Maule, reconstruction of premises at Hope-street and Hope-street-lane; Trustees of Mr. John Gordon of Cluny, reconstruction of byres, &c., at Braid Hills-road, necessitated by road widening.

FAIRHAVEN.—The Pleasure Grounds Committee of the D.C. have decided to proceed with the erection of the open-air bath, and the laying out of the undeveloped portions of the foreshore, which include six more grass tennis courts and a ladies' bowling green, at an estimated cost of £38,000. The excavation would be proceeded with within the next two months.

FLOCKTON (YORKS).—Plans passed by U.D.C. Nine houses for the Council in Bessy Amby Field. It was decided to make application for sanction to borrow £4,500 from the Public Works Loan to carry out the scheme.

FOWEY (CORNWALL).—Mr. T. J. Stephens has submitted plans and specifications to the T.C. for 24 houses on the Lawhyre-road site.

GATESHEAD.—The T.C. have received sanction from the Ministry of Health to proceed with the erection of 100 houses on the Carr's-hill estate, and to carry on development for another 100 later.

GLAMORGANSHIRE.—The County Agricultural Committee has instructed the Director of Agriculture (Mr. J. D. Davidson) to draw up schemes for drainage of Peterston, Carntown and Sully Moors. A conference with reference to the straightening of Ely River and drainage of Ely district has been convened with committee, G.W.R. Co. and Cardiff Council as represented bodies.——The Penarth U.D.C. has applied for loans for unemployment relief schemes and road improvement works.——The Cardiff Electricity Committee has decided as follows: to apply for sanction to borrow £45,000 for new mains and £15,000 for new electrical services for the next three years, and has adopted the recommendations of the Electrical Engineer (Mr. Morley New) that £11,500 be spent on obtaining one new boiler unit and accessories for power station, and that it be done as soon as possible, and that consideration be given to completing the reconstruction of original boiler house.——The Penybont R.D.C. has received sanction to borrow £7,720 for erection of 20 houses at Sarn and has passed plans for erection of house at Ewenny, for Mr. C. G. Turbervill. The Council is to proceed with widening of Abergarw Bridge.——The Ogmore and Garw U.D.C. has acquired nine acres of land from Lewis Merthyr Colliery Co., and will layout as recreation ground, grants having been applied for and plans sent to Ministry for approval. Tenders are to be invited for erection of 24 houses at Alltwen and Alltycham, Pontardawe, in connection with Messrs. Gilbertson's (steelworks) employees' housing scheme.——The Cardiff C.C. has been recommended by its Waterworks' Committee to proceed with provision of two new filters for high level service at Rhubina, at estimated cost of £10,000, and to lay new 12 in. water main from St. Mary's Church, Whitchurch-road, *via* Radyrchain to Ely, at estimated cost £9,500.

GLAMORGAN.—Schemes for a new Territorial Force Drill Hall in the Rhondda have been put forward for War Office sanction by County Territorial Association.

GLASGOW.—At a special meeting of the Dean of Guild Court the plans for two housing schemes promoted by the Corporation of Glasgow were passed. These projects were the house purchase scheme at Kelvindale and the subsidy housing scheme at Knightswood.

GLODWICK.—Funds are being raised by the Pitt-street East Baptist Church to provide means for the proposed rebuilding of their Sunday Schools.

GLOUCESTER.—Plans passed by T.C.: Dairy, 220, Barton-street, for Mr. F. Libby; alterations to shed, King Edward's-avenue, for Mr. E. H. Clifford; premises, Bristol-road, for Mr. A. S. Herbert.

GUILDFORD.—Plans passed by T.C.: Pair of semi-detached houses, Aldershot-road, Messrs. L. Hebburn and J. R. Brown; bungalow, Ennismore-avenue, Mr. H. Somerford, Clapham; house, Woking-road, for Mr. D. R. E. Ward, North-street; house, Bray-road, Mr. W. Chambers, Falcon-road; pair of semi-detached houses, Stocton-road, Messrs. Clements & Smith; house, Mareschal-road, by Mr. L. R. Hiscock, for Mr. T. Fergus, Woodbridge-road; house, Clandon-road, by Mr. George How, Bridge-street, for Mr. C. C. Moldram, Pewley-hill; pair of semi-detached houses, Stoke-road, by Mr. W. G. Sheppard, for Miss Cossens and Miss Teague.

GUISELEY.—The U.D.C. has received sanction from the Ministry of Health to erect houses in the district which are eligible for the combined subsidies. The Council propose to employ direct labour.

HARROGATE.—A meeting of the General Committee of the Harrogate Infirmary is to be held to consider an offer of the Trustees of the Grove House Estate for the sale of the site for the purposes of erecting a new Infirmary. The location is on the Skipton main road, and is quite ideal for the purposes intended.—Schemes are being set out by the Borough Surveyor to utilise the Town Hall site as an extra attraction to the Spa.

HASLINGDEN.—The Committee of the Liberal Club propose to renovate their premises, estimated to cost £750. Funds are now being raised.

HECKMONDWIKE.—Plans passed: 16 houses in Princess-street, for Heckmondwike Co-operative Society, Ltd.

HERTFORD.—The T.C. has decided to prepare a scheme for 30 houses on the Ware-road.

HESTON AND ISLEWORTH.—Plans passed by U.D.C.: Messrs. P. Chase Gardener & Co., house, Jersey-road; Messrs. Roper, Son & Chapman, bungalow, Lamptonroad; Messrs. P. Chase Gardener & Co., two houses, Hounslow-avenue; Mr. T. Chapman, house, Staines-road; Mr. A. E. Thomas, bungalow, Bath-road; Mr. A. C. Hodges, house, The Grove; Messrs. Roper, Son & Chapman, nine bungalows, Sutton-lane; Messrs. Roper, Son & Chapman, five bungalows, St. Mary's-crescent; Mr. A. Dodsworth, two houses, St. Mary's-crescent; Building Enterprises, Ltd., 14 houses, New Heston-road; Mr. W. J. Harris, two houses, Hibernia-road; Mr. Glenister Woodger, 10 houses, Pears'-road; Mr. E. J. Jeffs, house, Lampton-road; Messrs. P. Chase Gardener & Co., eight houses, Bulstrode-avenue, house, Hounslow-avenue, and house, Alexandra-road; Mr. R. Emmett, two pairs of houses, Hibernia-road; Mr. W. Gillman, bungalow, Hounslow-avenue.

HETTON.—The U.D.C. have received intimation that the Ministry of Health have favourably considered an application to erect an additional 25 houses.——House, Houghton-road, for Mr. Bulman.

HEXHAM.—The Council has decided to ask the County Council to improve the bridge over the Tyne at Haydon Bridge. The present structure is of insufficient width to permit of vehicular traffic and pedestrians crossing the bridge simultaneously.

HORBURY.—The Primitive Methodist Chapel is about to be improved by new renovations and installation of new electric lighting at an estimated cost of £1,000.

HORNSEY.—Plans passed by B.C.: Twelve houses, Woodside-avenue, Muswell-hill, Stagnall Bros.; eight houses, Park-avenue South, Hornsey, Mr. John Farrer; four houses, Fortis Green-avenue, Muswell-hill, Mr. O. H. Hughes; three houses, View-road, Highgate, Mr. Francis Curtis Ford; three houses, Greenham-road, Muswell-hill, Mr. A. E. Dunscombe; two houses, Parkroad, Messrs. C. & F. Bryen; detached house, corner of Sheldon-avenue, Hampstead-lane, Mr. Walter Quennell; house, Muswell-avenue, Mr. W. Ellyatt; conversion of No. 60, Tetherdown, into two maisonnettes, Messrs. G. Vigurs & Co.; extension of laundry at the Myddleton and Alexandra Laundry, The Campsbourne, Mr. S. G. Goulding; 13 garages, rear of flats at Fortis Green-road, Mr. W. B. Collins.

HULL.—The T.C. has agreed to the following subsidies: J. E. Wray, four houses; G. T. Spruit, 14 houses; Trigg & Spruit, 14 houses; G. H. Needler, 22 houses; J. R. Barnett, 12 houses, Desmond-avenue Estate; J. Taylor, three houses, Chanterlands- and Park-avenues; J. W. Smith, 23 houses, Desmond-avenue Estate; J. H. Fenwick, 15 houses, Desmond-avenue Estate; H. Sanderson, 26 houses, Desmond-avenue Estate; Barnett Bros., 18 houses, Southcoates-lane; Trigg & Spruit, 21 houses, Perth-street.——The Corporation Finance Committee has passed estimates for 26 new houses on the North Hull site, at a cost of £9,200.

ILKESTON.—Plans passed: House and surgery, Bath-street, for the Exors. of the late Mr. R. Potts; offices at Manor House, for the Manners Colliery Co.

KILWINNING.—At a meeting of the Parish Council it was decided to proceed with an improvement scheme at the cemetery at a cost of from £3,000 to £5,000.

LEEDS.—Plans are being prepared for the erection of a proposed police station and library at Middleton new housing estate.

LONDON (BERMONDSEY).—Plans passed by B.C.: Bridges and conveyors, Brown & Davis' Wharves, Pickle Herring-street, for the L.C.C.; warehouse and drainage at Shad Thames Wharf, architect, H. E. Nightingale; shop and offices, 21, Borough High-street, J. E. Whiter, for the Saxone Shoe Co.

LONDON (CAMBERWELL).—Houses, Grove-lane, for Martin & Co.; houses, Ruskin-walk, for Andrews & Peascod; eight houses, Gilkes-avenue, for Murrell & Pigott; one-story shops, Camberwell-green, for A. J. Carpenter; warehouse, Rye-lane, for W. Newcome Wright; drainage, six houses, Gilkes-avenue, for Cook & Co.

LONDON (DEPTFORD).—The B.C. has instructed the architect to submit revised plans to provide two swimming baths, one for males and one for females, and also revised plans and estimates with a view to the erection in the immediate future of the slipper baths, vapour baths and public laundry service.

LONDON (HACKNEY).—The B.C. has approved a revised scheme for the erection of 24 maisonnettes to accommodate 48 families.——Plans passed:—Factory, Paradise-passage, for S. Goodall & Sons; factory, 63, Downs-road, for A. M. Kessly; alterations, "Harrow" public house, 36, Holmbrook-street, for Webster & Son, Ltd.

LONDON (LEWISHAM).—Plans passed by B.C.:—Six houses, Cranston-road, for Mr. P. B. Dannatt; nine houses, Rushford-road, for Mr. A. J. Glock; transformer chamber, Bromley-road, for T. H. Sawyer & Son.

LONDON (ST. MARYLEBONE).—It is proposed by the Works Committee of the B.C. to take steps to improve the public lighting in one of the principal thoroughfares.

MANCHESTER.—Plans passed by the Corporation: R. Johnson, boiler house and chimney to works, Clapham-street, Moston; E. Tweedale & Son, details of steelwork, &c., warehouse, Vesta-street, Ancoats; E. J. Smith, house, Orville-drive, Burnage; R. Grimshawe, house, Orville-drive, Burnage; Harrisons, conversion of house into shop and house, 32, Bowler-street, Levenshulme; Pownall, revised plan steelwork alterations to premises, Stockport-road, West Gorton; H. Pimblott, revised plan of 60 houses, Lindsay-road, Burnage Hall-road, Burnham-drive, Burnham-avenue, and Paignton-avenue, Burnage; G. F. Mason, Ltd., revised plan and section addition to works, Ducie-street, Stockport-road; S. E. Slater, house and shop, Platt-lane, Withington; Rev. J. P. W. Green, revised plan of w.c.'s, Christ Church School, Carter-street, Chorlton-upon-Medlock; Schill Bros., alterati warehouse, 16, Oxford-street; A. Redford, block plan of 12 houses, Kendall-road, Cru F. Fogarty & Co., six houses, Hermitage-road, sall; Woolfenden & Saunders, 12 houses, Be road and Elsdon-road, Rusholme; J. A. Booth, plan of drains, seven shops and houses, Bereste and Buller-road, Rusholme; W. Reeks, revised shops and billiard hall, Stockport-road, Levens J. T. Jackson, 20 houses, Orville-drive and thorpe-drive, Levenshulme; Boddington's B Ltd., alterations to "Oddfellows Arms," S street, Openshaw; Boddington's Brewery, Ltd., tions to "Dog and Partridge," Ogden-lane, Ope Moston Brick Co., dedication plan and section street, Maple-grove, Northfield-road, New M C. H. Oldham, dedication plan and section of new Clifton-drive, Crumpsall; Marshall & Aston, tions and additions to premises, Lever-street pendent Order of Rechabites, alterations to pr Parsonage North Parade, back College Land and Land; H. J. Ogden, garage, Royton-street and street, Deansgate; Marsden, Harcombe & Co., plan and section of show and workrooms, Cros House and Addington-street; C. H. Oldham, plan of two houses, Sherdley-road, Crumpsall; Homesteads, Ltd., house, Woodlands-road, Che C. R. Plantangue, shop and house, Victoria Blackley; C. H. Oldham, 20 houses, Clifto Willow Hill-road, Crumpsall; T. Horrocks & So offices, Norton-street, Newton Heath; Mosto Co., Ltd., plan of eight houses, Maple-grov Moston; Manchester & Salford Co-operative, Co-operative stores, Stockport-road and Ca street, Ardwick; Committee, additions to Conse Club, Rusholme-grove, Rusholme; S. & E. cycle sheds to 33 houses, Burnage Hall-road, L road, and Calverley-avenue, Burnage; E. N vised plan of shops, &c., Oxford-road and street, Chorlton-upon-Medlock; L. Dobson, ad to house, 1, Lytham-road, Rusholme; W. Ba clubroom to social club, Slade-lane, Levens Manchester & Salford Co-operative, plans of 26 Mount-road and Provident-avenue, Levens J. & J. Shaw, revised plan and section of war New Wakefield-street; Wingfield Park Estate, Macefin-avenue, West Didsbury; C. E. Wearin houses, St. Werburghs-road, Chorlton-cum-H R. S. Brayshaw, house, Wilbraham-road, Withi J. T. Jackson, two houses and shops and house an Lloyd-street, South Withington; Western Home Ltd., two houses, Mabfield-road and Rig Rusholme; A. Hartley, 68 houses, Finchle Brocklebank-road, and Barnsfold-avenue, Rus H. Boardman, two houses, St. Brannock Chorlton-cum-Hardy.

MARGATE.—Plans passed: House and Devonshire-gardens, Wiles Bros.; six houses, road, new Dane Estate, V. H. Emptage; hou shop, Dane-road, H. V. Emptage; bedroo garage, Uplands, Northdown Way, R. Elliott house and garage, Pembroke-avenue, T. Wing; hall, Clifton Baths, C. F. S. Palmer; rebuildi of 6, Upper-grove, R. A. Harris; house and Millmead-road, Northdown Way, Pearson & two houses, Eaton-road, H. V. Emptage.

MERTHYR TYDFIL.—The Borough Surveyor h instructed to submit estimates for construction road from Filter Beds to Bryniau and exten road from Heolgerrig to Clwycyfagwr, Brynt The Public Works Committee has been notifie Mr. Howells, High-street, Treharris, will renova reconstruct house property (5-12, High-stree would give land to Council to effect road wide same time. Offer accepted, and negotiatio additional land from another owner proceeding

MIDDLESBROUGH.—Southfield-road Church is t new Sunday School premises.

MONMOUTHSHIRE.—A conference has been co by County Council with the Urban District Cou Pontypool, Abersychan, Panteg and Blaenavo reference to construction, jointly, of a new roa Pontymoile through Pontypool Park to Pontnew ——The Abersychan U.D.C. is to carry out the struction of Rosser-street.——The Pontypool Bu Association is negotiating with the U.D.C. fo struction of a public abattoir.——The County tion Committee has passed plans for a new sc Ynysddu and a new domestic arts centre at Geor (estimate, £2,500), and will invite tenders fo The Committee will also proceed with erection school at Markham as soon as arrangements have been concluded with an objecting compa

MORECAMBE.—The T.C. has approved of pl the widening of the promenade from Mari borough boundary at the West End, and exten the easterly side of the West End Pier, follow with a further widening commencing at the wes Central Pier and terminating at a junction of Th road with Victoria Esplanade. Also the exten the existing promenade, comprising sea wall, c drive, to the extent of five furlongs and five in length.——Plans passed by T.C.: Atkin Halliday, four semi-detached houses in Gr Estate; Mr. J. Thompson, semi-detached h Victoria-esplanade; Mr. E. Shackleton, tw of semi-detached houses in South-road; Mr. J. detached house in Selby-grove; Mr. F. H. Si detached house in Bare-lane; Mr. A. Elkin, two semi-detached houses in South-road; Mrs. I. new street and lay-out off South-road; Mr. R. B house in Bare-avenue; Messrs. Wolfenden & Sa pair of houses in Bare-lane; Mr. H. Bext terrace houses in Beach-street; Mr. T. Wall, houses in Selby-grove; Mr. H. Hall, three ho Union-street; Mr. H. L. Moody, pair of ho South-road; Messrs. Collis & Sykes, pair of ho Torrisholme; Mrs. A. Milner, pair of houses in V place.

NEWCASTLE-UNDER-LYME.—The Ministry of has sanctioned the proposal of the T.C. to b houses on the Silverdale-road and Stanier-stre and to the erection of 172 houses by private ent with the aid of the Government subsidy.

NEW ROMNEY.—Two houses, at Littlestone, for Messrs. Swan & Joy.

NEWBURN.—The U.D.C. have decided to proceed with the erection of 26 houses at Woodside-avenue, Throckley, and have accepted the tender of Messrs. T. F. Brown & Co., Blaydon. They are to seek to secure permission from the Ministry of Health for a loan of £13,500 for the work.——The Council have also approved plans for a new picture hall in Rokeby-street, Lemington, submitted by Mr. J. W. Armstrong, of Newcastle.

NEWMARKET.—The U.D.C. has approved plans by Messrs. Holland & Son, on behalf of Major McCalmont, for a pair of houses in the Avenue.

NEWPORT (MON).—The Newport Public Works Committee has agreed to grant full subsidy assistance for the erection of 50 houses by Messrs. Lysaght's employees' housing scheme and for 50 houses to be erected by the G.W.R. Co. under its employees' assisted scheme. In addition, subsidy grants for 300 houses have been agreed to in respect to persons building own dwellings.——The T.C. has agreed to pay £5,000 in restoring present ruins of Newport Castle so as to utilise them.——A portion of site is required for constructing new road from Shaftesbury-avenue to Newport Bridge. The Tredegar Estate is being negotiated with for site transfer.——The Parks Committee has decided to allocate £200 for providing a putting-green in Shaftesbury Park.——Lord Tredegar having given site for erection of new parish hall for St. Woolo's (the Pro-Cathedral) has made possible the construction of a western approach to the church and carrying out important improvement at junction of Stow-hill with Clifton-street; the scheme includes building of lych-gate or stone porch; preliminaries to work are proceeding.

NEWTON ABBOT.—Plans passed R.D.C.: Three bungalows at Ogwell, for Mr. J. W. Cox; bungalow at Moreton, for Mr. John Gray; bungalow at Lustleigh, for Mr. Scott Painter.

NORTH BERWICK.—The T.C. recently gave instructions for plans being prepared of new municipal buildings for the Burgh. These have been considered by the Council, but as the estimated cost of the two sets of plans amounted to £37,000 and £39,000 respectively, they have been rejected on the grounds of being much too costly, and instructions have been given the architect to prepare plans of a building to cost round about £8,000.

NOTTINGHAM.—The T.C. has adopted a report of the Estates Committee recommending the strengthening of Trent Bridge and widening it to 80 ft. between the parapets, at an estimated expenditure of £130,000. The Ministry of Transport have intimated that, in view of the important situation of the bridge and the great amount of unemployment which exists, it is prepared to contribute 60 per cent. of the cost of the work, provided that the contracts for the steelwork are placed not later than January 31 next, otherwise the grant will be reduced to 50 per cent.

OSSETT.—Plans passed by T.C.:—House and shop, Dewsbury-road, for Mr. H. Jennings; house, Broomcroft, for Mr. W. H. Knight; house, Belgrave-street, for Mr. Wilson Rigg.

OXFORD.—Plans passed by T.C.: C. Wright, 45, Norfolk-square, London, house, Charlbury-road; City Motor Co., Gloucester-street, three oil stores, Botley-road; Kingerlee & Sons, Queen-street, 23 houses, Oatlands-road; Hinkins & Frewin, Walton Well-road, conversion of timber stores to shops and offices, Canal-street; G. R. Stevens Rewley-road, furniture repository, Botley-road.

PAISLEY.—Plans passed: James Martin Newton, 34, Glen-street, house at Marchfield-avenue, Inchinnan-road; Alexander Morrison, Greystones, Wester Bushes, villa at Wester Bushes.

PEMBROKESHIRE.—The County Small Holdings Committee will, in the new year, erect dwellings on Good Hope, Pallau, Llysyffron and Chapel Holdings, and has decided to ask Ministry of Agriculture to allow larger buildings than formerly sanctioned in view of construction cost decrease.——The Haverfordwest Council is to proceed with repairs to Scolton Villas; the Council has requested new Bridge Commissioners to proceed with repairs to new bridge and its approaches; the Council is to borrow £5,000 to supply new gas mains for Merlin's-hill district.——Plans have been submitted to Tenby Town Council for new garages in Cobb-lane, for executors of late Mr. Robert Lock. The architect is Mr. E. Glover Thomas.

PONTYPRIDD.—The U.D.C. has applied to County Council and Ministry of Transport for assistance toward the proposed work of improving, at estimated cost of £25,000, the Rhondda-road at Trehavod and Gellyfeillon in three localities.——The Council is negotiating for joint erection of a maternity home of large dimensions to serve the Pontypridd, Mountain Ash, Rhondda Valleys and Llantrisant areas, with the Urban District Councils of places named. Failing joint scheme, U.D.C. will construct same on smaller scale for Pontypridd district.

POULTON-LE-FYLDE.—The Poulton-le-Fylde Council have been considering the question of enlarging and improving their sewerage system. The district is increasing rapidly and new roads are being made. The Council have asked Messrs. W. H. Radford & Son, of Nottingham, to report on the matter.

PREESALL.—The Clerk to the U.D.C. has reported the receipt of a letter from the Public Works Loans Commissioners stating that the Council's application for a loan of £19,300 for sewerage purposes would be granted.

RAWDON.—The Ministry of Health has approved of the scheme of the U.D.C. for the erection of 25 houses.

REIGATE.—Subsidies granted by R.D.C.: Mr. H. North, cottage in Mid-street, Nutfield; Mr. E. Heard, bungalow in Meath Green-lane, Horley; Mr. Stephen Wayney, cottage in Rockshaw-road, Merstham; Mr. R. W. Turner, bungalow at Lower Kingswood; Mr. Blackman, two cottages in Buckland-lane, Kingswood; Messrs. Costam & Son, six pairs of cottages in Drive Spur, Kingswood.

SCALBY.—Plans passed by U.D.C.: Two bungalows for Mr. Jowett, Cross-lane, and bungalow for Mr. Moorey; two houses for Mr. F. Baker, on Throxenby-lane; house for Mr. Bonser, Cross-lane; two houses for Mr. Shone; bungalow, Cross-lane, for Mr. Helliwell; six bungalows for Mr. Dixon on new road between Coldy Hill-lane and Green-lane; bungalow for Miss Cummins on new road near to Cross-lane; bungalow for Mr. Tymon on Cross-lane; house for Mr. Brodrick on Field Close-lane.

SHEFFIELD.—The Sheffield Coal Company, whose three collieries lie in the neighbourhood of Woodhouse and Beighton, intends to erect a 100 thoroughly up-to-date dwellings for the occupation of their men.

SOUTH SHIELDS.—The Ministry of Health has sanctioned the borrowing by the T.C. of £39,000 for the development of the south foreshore, by the construction of promenades, shelters, &c.

SOWERBY BRIDGE.—Plans passed: Extensions to making-up department at Stansfield Mills, for Messrs. Wm. Morriss & Sons, Ltd.

STAFFORD.—Plans passed by T.C.: Mrs. M. Larkin, two cottages at Rising Brook; Mr. F. Morgan, house at Rising Brook; Miss E. Geoghegan, house in Stone-road; Messrs. Greenwood & Fell, two houses in North-street.

STOKE-ON-TRENT.—Subject to the approval of the Ministry of Health, the T.C. will grant subsidies of £100 per house in respect of 258 houses proposed to be erected at Hanford.——The Borough Engineer is to prepare plans for a maternity home.

SUTTON.—Plans passed by U.D.C.: Bungalow, Ridge-road, for Mr. J. Romaine; house, The Highway, Banstead Downs, for Mr. A. Wordsworth.

WAKEFIELD.—Plans passed by T.C.: Messrs. Chadwick, Watson & Co., alterations to the Empire, Kirkgate, for the New Century Pictures, Ltd.; Mr. J. R. Lister, two houses in Bromley Mount, for Misses L. and M. Horne.

WALTON (SURREY).—Plans passed by U.D.C.: Miss L. Fitt, alterations, Lodge, Mount Felix; assembly Room for Boy Scouts, Felix-road; C. Lippold, house, Mount Felix estate; Pioneer Works, Ltd., conversion of dwellings to dwelling-houses, Mount Felix estate.

WARRINGTON.—In Ellesmere-street, a church and schools are to be built on the site of the present mission.

WHITEFIELD.—At a meeting of the U.D.C. it was intimated that Messrs. Mark Fletcher & Sons, dyers, bleachers, and finishers, had undertaken to bear the whole of the expense (estimated at £1,200) in the construction of a public bowling green, bowl-house, &c., also that they had given half-an-acre of land towards that purpose.

WHITLEY.—At the last meeting of the U.D.C. plans were approved for several new houses, and alterations and additions to the Royal Hotel, and it was decided to widen Ruswarp-lane at an estimated cost of £2,330.

WIGSTON.—Plans have been approved for the proposed open-air swimming-bath which Messrs. W. Dunmore & Son intend to present to the Council.

WIMBLEDON.—Plans passed by B.C.: Messrs. W. H. Whitehead & Co., house, Montana-road; Messrs. Kinnear, Moodie & Co., house and garage, Parkside; Messrs. H. Wakefield & Sons, three houses, Cambridge-road; Mr. P. D. Hepworth, house, Church-road; Messrs. W. H. Whitehead & Co., house, Montana-road; Messrs. Wenton Bros., two houses, Durrington Park-road; Mr. S. Derwent, house, South Ridgway-place; Mr. C. M. D. Davidson, two houses, Denmark-avenue.

WINCHESTER.—Plans passed by R.D.C.: Bungalow, Nations-hill, Mr. L. G. Howson; Clayesmore School Sanatorium, Mr. A. Devine; Rose Cottage, King's Worthy, Mr. V. A. Thompson; four cottages, King's Worthy, Mr. T. Whitcher; bungalow, Littleton, Mr. S. Shambrook; bungalow, South Wonston, Mr. A. Webster; hall, South Wonston, Rev. Canon W. G. Edwards; farm cottage, South Wonston, Mr. F. Redrup; bungalow, Colden Common, Mr. A. V. Francis; farm cottage, King's Worthy, Mr. J. Maddocks; house, Littleton, Mr. W. Mogridge.

WORTHING.—Plans passed by T.C.: House, West-avenue, Sparks Bros., for A. Black; house, Homefield-road, E. J. Love, for L. F. Passmore; house, Brooklyn-avenue, for A. Clare; house, Lawrence-avenue, Cornford & Son, for Mrs. Harris; house, Grand-avenue, S. H. Burdwood, for E. Hawkins; house, Gerald-road, Hall & Co., for C. L. Hudson; house, St. Thomas's-road, for W. G. Sisman; three houses, St. Wilfred's-road, F. G. Abell, for Worthing Estates Building Co., Ltd.; house, Evelyn-road, F. G. Abell, for J. Lawrence; house, Brooklyn-avenue, for Le Maitre Bros.; house, Evelyn-road, for F. G. Abell; additions to "Villa la Loggia," South Farm-road, Bridger & Son, for J. Potts; two houses and shops, Broadwater-road, T. R. Hyde, for Potter Bailey & Co. and C. Whitcomb; house, Brooklyn-avenue, Le Maitre Bros., for H. J. Freeman; house, Wilfred's-road, J. E. Lund, for W. Parsons; house, Wallace-avenue, F. G. Abell, for Worthing Estates Building Co., Ltd.; two houses, Downview-road, for E. G. Goodall; shop and office, Richmond-road, for Churcher Bros.; house, Pavilion-road, J. Gausden, for W. G. Wyatt.

FIRES.

SHEFFIELD.—A disastrous fire has occurred at the extensive premises of Messrs. Loxley Bros., Ltd., letterpress printers and stationers, at Aizlewood-road, Heeley.

We hear from Messrs. Chas. P. Kinnell & Co., Ltd., that they have added an extensive showroom at Southwark-street, where they exhibit the most modern types of heating and domestic supply boilers, combined boilers and cookers, radiators, and other heating requisites for all purposes.

EXPANSION OF BUILDING AND CONSTRUCTION IN INDIA.

(FROM A SPECIAL CORRESPONDENT.)

FACILITIES FOR INDIAN TRADE WITH ITALY.—The Royal Italian Commercial Attaché in Bombay has informed the Indian Merchants Chamber that the Chambers of Commerce of Milan, Genoa, Naples, and Venice will give every assistance to Indian merchants desirous of doing business with Italian firms, and an Italian officer knowing English will be placed at their disposal. Letters of introduction will be issued by the Attaché in Bombay to Indian merchants visiting Italy. With the object of having a reciprocal guarantee of the reliability of the firms, the Chambers of Commerce enumerated will co-operate.

INDIAN TARIFF.—The defects of the Indian economic system affects the Indian tariff problem. Indian industrial labour is unskilled, being mainly recruited from the agricultural classes, and suffers from the want of technical knowledge owing to the lack of schools for training apprentices. It has been suggested that firms supplying, whether within or without India, should afford facilities for the technical training of Indian apprentices. The lack of organisation is a defect common to all the Indian industries. The scarcity of Indian capital for industrial enterprises, which the native often views with suspicion, demands the free utilisation of foreign capital and foreign resources.

PORT EXTENSION PROCEEDING.—During 1922-3 Bombay Port Trust expended a total of £1,639,316, as follows: £464,000 on new dredging plant, £421,600 on Mazagaon cotton depot, £173,300 on constructing Bombay oil pier, £110,000 on rolling-stock for Port Trust Railway, £82,900 on plant for reclamations at Mazagdon, Sewrig and Wadala, £42,000 on staff buildings. The Port of Calcutta expenditure showed—work on King George's Dock scheme £812,327 (bringing the total expenditure up to date to £1,856,014), the new 80 ft. lock entrance, Kidderpore Docks, £64,221, cost of R.I.M. Dockyard £483,197, No. III Calcutta Jetty Reconstruction £22,712.

LOCAL ACTIVITY.—Bombay contractors are pushing improved concrete mixers, electric and mechanical ornamental lifts for buildings, stocks of steel beams. In Calcutta agents hold over 3,000 tons Scotch iron and steel joists, beams, rounds, channels, plates, squares, angles, tees, &c., of all sizes and sections to British Standard Specification. Scotch waterworks appliances are held in Bombay and Calcutta. Refrigeration and ice plants, water coolers, &c., are being introduced from Bombay, Calcutta, Karachi, Madras and Ahmedabad: cold storage has a great future. Reinforced concrete is being pushed as the building material of the present and future, permanent and fire resisting, for theatres, go-downs, mills, offices, workmen's quarters, factories, piers, workshops, bungalows, blocks of flats, foundations, railway sleepers, &c.

INDIAN TOPICS.—On September 30, 1923, the percentage of Indian metallic reserve to circulation was nearly 68. Mr. J. Mercer, Deputy Consulting Architect to Bombay Government, has been posted to work under the Consulting Architect to the Government at Bombay.

LOCAL BUILDERS' DEFECTS.—The Calcutta City Architect recently held an enquiry into the collapse of the Mohammedan Orphanage, and the conclusions were, *inter alia*, the employment of inexperienced advice, the faulty supervision of construction, the unsatisfactory qualities of materials used, the carelessness displayed throughout the construction, bricks were used but no mortar, the dangerous loading of columns on the second story where walls once were, and a disregard of regulations, &c.

BOMBAY PAVEMENTS.—The misuse of Bombay pavements has been criticised and builders have been included. When houses are pulled down the old materials occupy the pavement, and new building materials are dumped on the roads and available pavements.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	2 15 3	Do. Bullnose	10 1 6
Do. Bullnose	3 8 3	Blue Wire Cuts	7 11 6
Best Stourbridge Fire brick :—			
2½ in.	11 3 0	3 in.	13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
Quoins. Bull-nose and 4½in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. "	2 6	4 in. "	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	" "
Thames Sand	15 6	" "
Best Washed Sand	15 6	" "
¾ in. Shingle for Ferro-Concrete	14 0	" "
¼ in. "	15 0	" "
¾ in. Broken Brick	10 6	" "
Pan Breeze	5 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6
51/- alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 6
" Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over "	17/-
Sawn two sides "	27/-
Sawn three or four sides "	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5½
1½ in. to 2 in. ditto, ditto "	1 3

HARD YORK—

Delivered at any Goods Station London.

Scappled random blocks. Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto "	6 0½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto. ditto "	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.

	s. d.
Plain per ft. cube	6 6
Moulded " "	7 9
Cills " "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅜	21/-	1¼	33/6
½	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅜	17/6
½	22/-
1	26/-

BATTENS

Inches	s. d.
2 × 2	2 4 per 100 ft.

SAWN LATHS.

Per bundle	0 2 10
Dry Wainscot Oak, per ft. super, as inch	0 2 0 to 0 2 6
¾ in. do. do.	0 1 6 to 0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 3 to 0 2 6
Cuba Mahogany	0 3 0 to 0 3 6
Teak (Rangoon, Moulmein or Java), per load	45 0 0 to 50 0 0
American Whitewood planks, per ft. cube	0 14 0 to 0 16 0
Best Scotch Glue, per cwt.	4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &C., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions	17 10 0
In "Roof Work"	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅝ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3¾d.
3½ in.	1/2¾	1/0¾	3¾d.
4 in.	1/4	1/1¾	3¾d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7¾	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6¼	1/2¾	3¾d.
3½ in.	1/6¾	1/2¾	3¾d.
4 in.	1/7¾	1/4	3¾d.
4½ in.	1/9½	1/6¼	4d.
5 in.	2/1¼	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7¼	1/1¾	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5¼	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.	£ s. d.
Common Bars	13 10 0 to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	15 0 0
Staffordshire "Marked Bars"	17 0 0	18 0 0
Mild Steel Bars	12 10 0	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0 0
Hoop iron, basis price	16 10 0	..	17 10 0
" Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black—Ordinary sizes to 20 g.	15 0 0	..	16 0 0
" " " 24 g.	16 0 0	..	17 0 0
" " " 26 g.	18 0 0	..	19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets—Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25 0 0
Sheets Galvanised Flat, Best quality—Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	22 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/- to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s.
LEAD—Sheet. English, 4 lb. and up	41 10
Pipe in coils	42 0
Soil Pipe	45 0
Compo pipe	47 10

NOTE—Country delivery, 30s. per ton extra: lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 1 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	27 0 0	—
Do., ex country, carriage forward per ton	28 0 0	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz
8 lbs. S. traps	35/-	45/-	66/-	126/- "

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	.. —
Thin "	0 2 4	.. —
Copper nails "	0 2 3	.. —
Copper wire "	0 2 4	.. —
TIN—English Ingots "	0 2 3	.. —
SOLDER—Plumbers' "	0 1 1	.. —
Tinmen's "	0 1 3	.. —
Blowpipe "	0 1 5	.. —

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 3 10
" " " in barrels "	0 4 0
" " " in drums "	0 4 3
Boiled " " in barrels "	0 4 4
" " " in drums "	0 4 7
Turpentine in barrels "	0 6 6
" in drums (10 gall.) "	0 6 9
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	56 5 0

GENUINE WHITE LEAD PAINT—"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered 73 10 0

Red Lead, Dry (packages extra) per ton	43 0 0
Best Linseed Oil Putty per cwt.	0 16 0
Filocoi per cwt.	0 15 0
Size, XD Quality fkn	0 3 0

[*Concluded on next page.*]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

CES CURRENT OF MATERIALS (*contd.*)

GLASS.

LISH SHEET GLASS IN CRATES OF STOCK AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
fourths	3½d.	32 oz. fourths	8½d.
thirds	4½d.	32 ,, thirds	10½d.
fourths	5d.	Obscured Sheet, 15 oz.	4d.
thirds	6½d.	21 ,,	5½d.
fourths	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
thirds	7½d.	En'lled 15 ,, 5½d., 21 ,,	7½d.

price according to size and substance for squares om stock.

LISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
lled plate	4½d.
ugh rolled	5½d.
ugh rolled	9½d.
gured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
lled Sheet	6d.
hite Rolled Cathedral	5½d.
nted do.	7½d.

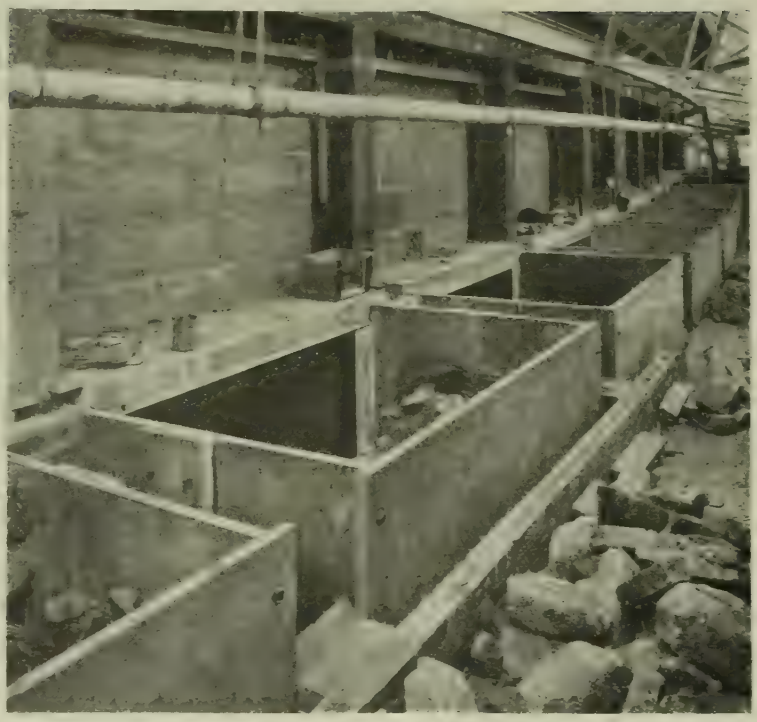
Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
arnish	Outside	0 14 0
itto	ditto	0 16 0
opal	ditto	0 18 0
opal	ditto	1 0 0
opal Carriage	ditto	1 4 0
itto	ditto	1 12 0
arnish	Inside	0 18 0
ale Paper	ditto	0 18 0
opal Cabinet	ditto	1 2 6
opal flatting	ditto	1 0 6
rying Oak	ditto	0 18 0
ard drying Oak	ditto	0 19 0
opal Varnish	ditto	1 0 0
ditto	ditto	1 2 0
ditto	ditto	1 12 0
apan Gold Size		0 12 0
lack Japan		0 12 0
nd Mahogany Stain (water)		0 12 0
wick Black		0 9 0
Black		0 14 0
ing (patent)		1 5 0
and Brush Polish		0 17 6
Dryers in Terebine		0 9 0
Black Enamel		0 7 0

TRADE NEWS.

ssrs. H. R. Vaughan & Co., Ltd., inform us owing to the expansion in the sale of their en waterproofing felts, they have decided opt a generic trade-mark. It takes the of a design embodying the Sphinx, together the slogan, "made to endure."



Slate Tanks at the New Aquarium, Zoological Gardens.

LONDON MASTER BUILDERS' SPORTS' ASSOCIATION.

(Football Section.)

League Table up to and including Dec. 1, 1923.

	P.	W.	L.	D.	Goals F.	Goals A.	Pts
Perrycobow	8	7	0	1	39	7	15
Treeoil	5	3	1	1	39	4	7
Holancube	7	2	2	3	10	10	7
Holloways	5	3	2	0	12	5	6
Minter	5	3	2	0	18	8	6
Higadillo	4	2	2	0	7	15	4
Vigor	3	1	2	0	8	11	2
Higgs	7	1	6	0	9	30	2
Whitehead	6	0	5	1	5	56	1

THE "ZOO" AQUARIUM.

The illustrations on this page show front and back views of the slate tanks in course of erection at the new aquarium at the Zoological Gardens, before the addition of imitation rock work will eventually conceal them. The tanks are 56 in number, many of them being 16 ft. 9 in. by 5 ft. by 5 ft. deep outside dimensions. Their thickness is generally 2 in. and the total weight about 100 tons. They are constructed with very large slabs, all of the best Welsh slate, and were made by Bingley, Son & Follit, Ltd., at their London works and put together by them on the site. Mr. J. J. Joass, F.R.I.B.A., is the architect.



Slate Tanks at the New Aquarium, Zoological Gardens. Mr. J. J. Joass, F.R.I.B.A., Architect.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights ; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.
Deal wrot moulded and rebated	per foot cube	14

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup	1/8	1/9	2/
Deal shelves and bearers	"	1/5	1/7	1/
Add if cross tongued	"	2d.	2d	2

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.
Housings for steps and risers	each	0
Deal balusters, 1 in. × 1½ in.	per ft run.	0
Mahogany handrail ; average 3 in. × 3 in.	" "	6
Add if ramped	" "	11
Add if wreathed	" "	23

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2
Sash fasteners	11½d.	Mortice locks	5/
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.
Rolled steel joists	per cwt.	17
Plain compound girders	"	20
Do. stanchions	"	23
In roof work	"	28

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/
Ogee Do. Do.	"	2/4½	3/1	3/10	4/
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/
Do. nozzles for inlets	"	2/2	2/7	3/10	4/

PLUMBER.

		s.
Milled lead and laying in flashings and gutters	per cwt	54
Do. Do. in flats	"	52
Extra labour and solder in coated cesspools	each	6
Welt joint	per ft. run.	0
Soldered seam	" "	1
Copper nailing	" "	0

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	11d.	1/8	1/11	3/5	4/2	
Do. service	"	1/7	2/1	2/6	3/10		6/
Do. soil	"					3/3	8/
Bends in lead pipe	each						
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	
Do. Do. Sirapite	" "	2	
Do. Do. Keen's	" "	3	
Add sawn lathing	" "	1	
Add metal lathing	" "	2	
Portland cement screed	" "	1	6
Do. plain face	" "	3	
Mouldings in plaster	per 1 girth	0	
One-and-a-half granolithic pavings	per yard sup	5	

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	
26 oz. Do.	" "	1	
Obscured sheet	" "	1	
⅛ in. rolled plate	" "	0	1
¼ in. rough rolled or cast plate	" "	0	1
¼ in. wired cast plate	" "	1	

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	
Knotting and priming	" "	0	
Plain painting 1 coat	" "	0	
Do. 2 coats	" "	1	
Do. 3 coats	" "	1	
Do. 4 coats	" "	2	
Graining	" "	2	
Varnishing twice	" "	1	
Sizing	" "	0	
Flatting	" "	0	
Enamel	" "	1	
Wax polishing	per foot sup	0	
French polishing	"	1	
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

ABERDEEN.—For work in connection with the construction of the section of the new aqueduct between Dunes and Culter, for the T.C. :—

*Clayton, Son & Co., Ltd. (*steel pipes*)	£81,266 12 3
*Macfarlane, Strang & Co., Ltd. (*special castings*)	6,502 13 0
*William Tawse, Aberdeen (*laying of pipes, Crathes to Drum Station*)	26,967 10 6
*Clark & Chapman, Aberdeen (*laying of pipes, Drum Station to Culter*)	36,807 8 3

AMERSHAM.—For construction of sewage scheme at Chesham Bois, for the R.D.C. :—

*G. Bell & Co.	£4,300

ARMLEY.—Erection of new branch stores on the Dunningley-road, for the Leeds Industrial Co-operative Society, Ltd. :—

*C.W.S. Works Department, Leeds.	

BLACKBURN.—For War Memorial extension at the Blackburn and East Lancashire Royal Infirmary. Messrs. Sames & Green, architects, 14, Richmond-terrace, Blackburn. Quantities by the architects :—

J. Highton & Sons, Blackburn	£74,345
J. Gerrard & Sons, Ltd., Swinton	74,000
J. Cronshaw & Sons, Ltd., Blackburn	73,715
T. Higson & Sons, Ltd., Blackburn	72,396
R. Shorrock & Son., Ltd., Darwen	72,189
Wm. Edmundson & Sons, Blackburn	69,045
Ed. Lewis & Sons, Blackburn	68,603
Wm. Livesey & Sons. Ltd., Blackburn	65,350
W. Cronshaw & Sons, Ltd., Blackburn	64,500
*James Whittaker & Sons (Blackburn), Ltd., Blackburn	62,340

CASTLEFORD. — Extensions to the Cutsyke Council School, for the West Riding C.C. Education Committee :—

*A. Gregory & Son, Ltd., Glasshoughton.	

CHELTENHAM.—For the provision of mechanical filters at Dowdeswell Water Works, for the T.C. :—

*Candy Filter Co.	£3,482

CLEVEDON.—For converting portion of old waterworks into Council Room, for the U.D.C. Surveyor, Caldeira-road, Clevedon :—

*W. H. Hill, Clevedon	£437 5 6

DOVER.—For widening the Folkestone-road to a width of 60 ft. for a distance of 600 yards, for the T.C. Mr. W. B. Smith, Borough Engineer, Maison Dieu House, Dover :—

H. G. Sharp, Dover	£24,458 14 5
F. Shepherd & Co., Ltd., Acton	18,836 17 2
Consolidated Construction Co., Ltd., London	17,632 6 4
Bristowe's Tarvia, Ltd., London	15,299 9 0
Brookes, Ltd., London	14,982 6 2
Road Maintenance & Stone Supply Co., Ltd., London	14,740 14 9
Limmer and Trinidad Lake Asphalte Co., Ltd., London	12,799 18 10
Highways Construction, Ltd., London	12,191 11 3
G. Lewis & Sons (Dover), Ltd., Dover	11,770 3 2
*Chittenden & Simmons, Ltd., Maidstone	11,035 5 11

DUBLIN.—For the erection of 42 dwellings at Coyne-street, for the T.C. :—

†R. & J. Martin	£22,112

EXETER.—For erection of eight houses on Isca-road Gate, for the City Council :—

*Stephens & Son, Ltd., Exeter	£4,000

GOSFORTH.—For erection of a Child Welfare Centre :—

W. Charles & Co., Birtley	£4,668 5 10½
Elliott Bros., Jesmond	3,909 7 0
Noble & Son, Newcastle	3,900 0 0
J. S. Hetherington, Newcastle	3,885 0 0
Wm. C. Fleck, Gosforth	3,861 17 0
Stanley Millar, Newcastle	3,800 0 0
J. W. Dodd, Newcastle	3,754 0 0
S. F. Davison, Newcastle	3,740 4 6
*H. Kindred, Durham	3,603 17 4½
W. W. Franklin, Newcastle-on-Tyne	3,502 15 11

HALIFAX.—Painting of interior of St. James' Market, for the Markets and Parks Committee of the Halifax Corporation :—

*Culpan & Ramsden, Halifax	£1,210

HOVE.—Erection of seven sheltered seats on the Sea front, for the T.C. :—

*Every & Son, Lewes	£2,835

HOVE.—Construction of revolving wind-screen for Bandstand on Western Lawns, for the T.C. :—

*Macfarlane & Co., Glasgow	£146

HULL.—For cleaning, &c., at the Guildhall, for the T.C. :—

*Kettlewell, Sons & Co.	£402 8

HULL.—For the erection of (*a*) four blocks of six dwellings, and (*b*) one block of two dwellings on North Hull site, for the T.C. :—

*P. T. Kettlewell (*a*)	£8,544
Do. (*b*)	676

LONDON.—For erection of receiving home at St. Winifred's, Thornton-road, Clapham Park, for the Waifs and Strays Society. Mr. E. J. May, architect :—

*Holloway Bros. (London), Ltd.	

LONDON.—For erection of institute, Clapham-road, for the Royal Association in Aid of the Deaf and Dumb. Mr. Edward Maufe, architect :—

*Holloway Bros. (London), Ltd.	

LONDON.—For alterations and additions to Victoria Hospital for Children, Tite-street, Chelsea. Mr. J. W. Stanley, Burmester, architect :—

*Holloway Bros. (London), Ltd.	

LONDON.—For the supply of 3-ft. by 2-ft. concrete tubes required in connection with the reconstruction of Wells-road sewer :—

*John Ellis & Sons, Ltd., 14s. 6d. per ft. run for 2½-in. reinforced 3-ft. by 2-ft. sewer tubes in 3-ft. lengths.	
Sharp, Jones & Co., Ltd., 13s. 9d. per ft. run for 2-in., 3-ft. by 2-ft. sewer tubes in 3-ft. lengths.	

LONDON.—For Hartington-road, Chiswick, for the U.D.C. Mr. Edward Willis, Engineer, Town Hall, Chiswick :—

Campbell Kenyon & Co.	£6,983 0 0
Modern Roads	6,728 13 4
J. Mowlem & Co., Ltd.	6,196 9 0
A. E. Farr, Ltd.	6,000 0 0
*F. D. Davidson	5,882 6 6
Surveyor's estimate, £6,450.	

LONDON.—For the erection of an ambulance station at Paddington, for the L.C.C. :—

A. & F. Polden, Shepherd's Bush	£1,590
F. Foxley & Co., Ltd., Paddington	1,580
Y. J. Lovell & Son, Paddington	1,298
John Garrett & Son, Balham	1,286
John Marsland & Sons, Ltd., Walworth	1,265
Triggs & Co., Clapham	1,249
J. & C. Bowyer, Ltd., Upper Norwood	1,224
*Sims & Russell, Westminster	1,190

LONDON.—For making-up Dovercourt-road from Woodwarde-road to Court-lane, for the Camberwell B.C. :—

F. R. Hipperson, Norwich	£4,339 7 2
A. L. Etheridge, S.E.	2,470 8 7
The Neuchatel Asphalte Co., Ltd., S.W.1	2,321 10 6
Henry Woodham & Sons, Ltd., Catford, S.E. 6	2,130 10 2
G. J. Anderson, Poplar, E.14	2,089 11 6
*John Mowlem & Co., Ltd., S.W.1	2,073 10 4

LONDON.—For foundations, &c., in connection with the erection of a secondary school at Beechcroft-road, for the L.C.C. :—

A. Phelps & Wilton, Ltd.	£7,439 0
Smith & Sons (Norwood), Ltd.	6,062 0
T. D. Leng	5,954 0
Mullen & Lumsden, Ltd.	5,889 0
G. Parker & Sons, Ltd.	5,865 0
F. & H. F. Higgs, Ltd.	5,650 0
W. Akers & Co., Ltd.	5,587 0
J. Garrett & Son	5,547 10
W. H. Gaze & Sons, Ltd.	5,529 0
W. Lawrence & Son, Ltd.	5,435 0
F. & T. Thorne	5,430 0
Prestige & Co., Ltd.	5,366 0
J. & C. Bowyer, Ltd.	5,335 0
Holliday & Greenwood, Ltd.	5,281 0
*Douglass, Halse & Co., Ltd., Woolwich, S.E. 18	5,061 0

LONDON.—For rebuilding of Reywood-street School, Battersea, for the L.C.C. :—

Thomas & Edge, Woolwich	£3,017 0 0
Douglass, Halse & Co., Ltd., Woolwich	2,770 0 0
Arthur Vigor, Ltd., Knightsbridge	2,748 18 9
William Downs, Ltd., Walworth	2,600 0 0
John Garrett & Son, Balham Hill	2,538 0 0
F. & F. H. Higgs, Ltd., Herne Hill	2,497 0 0
G. Parker & Sons, Ltd., Peckham	2,475 0 0
J. Smith & Sons, Ltd.	2,450 0 0
Higgs & Hill, Ltd., S. Lambeth	2,437 0 0
F. & T. Thorne, Isle of Dogs	2,427 0 0
Holloway Bros. (London), Ltd., Westminster	2,365 0 0
J. & C. Bowyer, Ltd., Upper Norwood	2,364 0 0
G. E. Wallis & Sons, Ltd.	2,342 0 0
Galbraith Bros., Camberwell	2,328 0 0
Rowley Bros., Tottenham	2,337 0 0
Prestige & Co., Ltd.	2,294 0 0
*T. D. Leng, Deptford	2,241 0 0
W. Akers & Co., Ltd., Norwood	2,196 0 0

(The lowest tender was withdrawn owing to errors.)

LONDON.—For the supply of asphalte materials and asphalte paving works for the period of three months ending March 31 next, for the Camberwell B.C. :—

1. *New Asphalte paving, 1 in. footways, at per yd. super.*—

	s.	d.
Accepted tender 1914-15	3	3
Thos. Faldo & Co., Ltd.	7	6
The French Asphalte Co., Ltd.	7	0
La Brea Asphalte Co., Ltd.	6	9
The London Asphalte Co., Ltd.	6	9
The Neuchatel Asphalte Co., Ltd.	6	6
A. C. W. Hobman & Co., Ltd.	6	3
Val de Travers Asphalte Paving Co., Ltd.	6	0
*Whitehall Asphalt & Engineering Co., Ltd.	5	9

2. *Ditto, 1 in. trenches, at per yd. super*—

Accepted tender 1914-15	4 6
The London Asphalte Co., Ltd.	11 0
The French Asphalte Co., Ltd.	10 6
Thos. Faldo & Co., Ltd.	10 0
The Neuchatel Asphalte Co., Ltd.	8 6
La Brea Asphalte Co., Ltd.	7 0
A. C. W. Hobman & Co., Ltd.	7 0
Whitehall Asphalte & Engineering Co., Ltd.	6 3
*Val de Travers Asphalte Paving Co., Ltd.	6 0

3. *Ditto, roadways and crossings to footways, 1¼ in. thick, laid in two layers, at per yd. super.*—

Accepted tender, 1914-15	6 0
Thos. Faldo & Co., Ltd.	13 0
The French Asphalte Co., Ltd.	12 0
The London Asphalte Co., Ltd.	11 9
A. C. W. Hobman & Co., Ltd.	10 6
La Brea Asphalte Co., Ltd.	10 6
Val de Travers Asphalte Paving Co., Ltd.	10 6
Whitehall Asphalt & Engineering Co., Ltd.	10 3
Constable, Hart & Co., Ltd.	8 9
*The Neuchatel Asphalte Co., Ltd.	7 6

4. *Ditto, in trenches, 1¼ in. thick, laid in two layers, at per yd. super*—

Accepted tender 1914-15	7 0
The London Asphalte Co., Ltd.	18 0
Thos. Faldo & Co., Ltd.	16 0
The French Asphalte Co., Ltd.	15 6
A. C. W. Hobman & Co., Ltd.	12 0
La Brea Asphalte Co., Ltd.	11 0
Whitehall Asphalt & Engineering Co., Ltd.	11 0
The Neuchatel Asphalte Co., Ltd.	10 6
*Val de Travers Asphalte Paving Co., Ltd.	10 6
Constable, Hart & Co., Ltd.	9 9

5. *Ditto, roadways, laid in two layers, 2 ins. thick, at per yd. super*—

Accepted tender 1914-15 not included	
Thos. Faldo & Co., Ltd.	15 0
The French Asphalte Co., Ltd.	13 6
The London Asphalte Co., Ltd.	13 3
A. C. W. Hobman & Co., Ltd.	12 0
La Brea Asphalte Co., Ltd.	12 0
Val de Travers Asphalte Paving Co., Ltd.	12 0
Whitehall Asphalt & Engineering Co., Ltd.	9 11
Constable, Hart & Co., Ltd.	9 6
*The Neuchatel Asphalte Co., Ltd.	9 2

6. *Ditto, in trenches, at per yd. super*—

Accepted tender 1914-15 not included	
The London Asphalte Co., Ltd.	£1 0 0
Thos. Faldo & Co., Ltd.	0 18 0
The French Asphalte Co., Ltd.	0 17 0
The Neuchatel Asphalte Co., Ltd.	0 14 0
A. C. W. Hobman & Co., Ltd.	0 13 6
La Brea Asphalte Co., Ltd.	0 12 6
Val de Travers Asphalte Paving Co., Ltd.	0 12 0
Constable, Hart & Co., Ltd.	0 10 6
*Whitehall Asphalt & Engineering Co., Ltd.	0 10 6

7. *Compressed asphalte paving, roadways, 2 in. thick, at per yd. super*—

Accepted tender 1914-15 not included	
The London Asphalte Co., Ltd.	13 3
The French Asphalte Co., Ltd.	13 0
Val de Travers Asphalte Paving Co., Ltd.	12 0
*The Neuchatel Asphalte Co., Ltd.	10 10
Constable, Hart & Co., Ltd.	9 6

8. *Ditto, trenches, at per yard super*—

Accepted tender 1914-15 not included	
The London Asphalte Co., Ltd.	£1 0 0
The French Asphalte Co., Ltd.	0 18 0
The Neuchatel Asphalte Co., Ltd.	0 14 0
*Val de Travers Asphalte Paving Co., Ltd.	0 12 0
Constable, Hart & Co., Ltd.	0 10 6

9. *Mastic Asphalte blocks, at per ton*—

Accepted tender 1914-15	£2 6 6
The French Asphalte Co., Ltd.	6 0 0
La Brea Asphalte Co., Ltd.	4 15 0
The London Asphalte Co., Ltd.	4 12 6
The Neuchatel Asphalte Co., Ltd.	4 10 0
Whitehall Asphalt & Engineering Co., Ltd.	4 10 0
*Thos. Faldo & Co., Ltd.	4 8 0

LONDON.—For (*a*) fir fence in front of Tillings' Field, and (*b*) oak fencing to Butler's Wharf Ground, for the Lewisham B.C :—

*Lewisham Timber Co.	£135 10

MIDDLESBROUGH.—Erection of new hospital block, comprising a ward to accommodate 52 beds, an operating theatre, and an administrative block, to be known as the "Carter Bequest Hospital," in Cambridge-road, Linthorpe :—

*Pearson & Sons, Hartlepool	£22,500

NEWCASTLE-UNDER-LYME.—For construction of new road, for the T.C. Mr. A. A. Pattison, Borough Engineer, Newcastle-under-Lyme :—

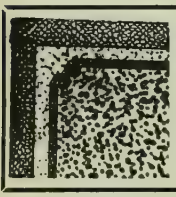
Muirhead, Macdonald, Wilson & Co., Birmingham	£43,383 12 3
Sanders & Torrance, Stoke-on-Trent	43,238 17 4
Andrew, Blair, Lyell & Co., Birmingham	38,558 11 6
J. E. Nadin, Sheffield	34,716 11 6
John Taylor & Son, Stoke-on-Trent	32,009 11 8
*Stephen Heath & Son, Newcastle-under-Lyme	31,450 0 0
W. H. Rogers, Willenhall	31,400 0 0
H. Coxhead & Co., Ltd., Birmingham	31,375 0 7

READING.—For supply of machinery in connection with sewage scheme, for the T.C. :—
*Peter Brotherhood, Ltd., Peterborough £7,913 5 6

STORRINGTON.—For erection of new country residence. Mr. L. J. Redgrave Cripps, architect, Cleveland House, Worthing :—

James Bodle, Ltd., Eastbourne	£12,984
Frank Sandell & Sons, Worthing	12,100
Norman & Burt, Burgess Hill	11,596
J. W. Falkner & Sons, London	11,543
Holloway Bros., London	11,540
J. W. Woolnough, Eastbourne	11,486
A. Clare, Worthing	11,356
Geo. Lynn & Sons, Brighton	11,235
E. H. Burgess, London	10,722
Godson & Sons, London	10,633
Chapman, Lowry & Puttick, Hindhead	10,086
J. Jarvis & Sons, London	9,986
*James Longley & Co., Crawley	9,524

TANFIELD.—For erection of public convenience at Burnopfield, for the U.D.C. Mr. J. R. Heslop, Surveyor, Council Offices, Tanfield, co. Durham :—
R. Southern, Dipton, £128 18s.—*Additional*—4 in. drain at 5s. 2d. per yard.
R. Hodgson, Burnopfield, £156 10s.—*Additional*—4 in. drain at 4s. per yard; retaining wall at 19s. per sq. yard.
J. H. Davis, Burnopfield, £135 10s.—*Additional*—4 in. drainage at 5s. per yard; retaining wall at 20s. per sq. yard.
*H. Kindred, Swalwell, £121 17s. 7½d.—*Additional*—4 in. drain at 4s. per yard; retaining wall at 12s. per sq. yard.


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THORNTON.—Erection of an electricity substation, for the Electricity Committee of the Bradford Corporation :—
*Frank Robinson, Thornton, near Bradford.

THROCKLEY.—Erection of 26 houses at Woodside-avenue, for the U.D.C. :—
*R. F. Brown & Co., Blaydon..... £13,500

TILBURY.—For reconstruction of certain roads, for the U.D.C.:—
*F. Mitchell & Sons £6,971 4 10

TILBURY.—For construction of sewer in North Ward, for the U.D.C. :—
*W. & C. French..... £205

WALLSEND.—Erection of 20 houses at Willington-square, for the Estate Co. :—
*The Battle Hill Estate Co., Ltd.

WALTON-LE-DALE.—Provision of air lift for borehole at Waterworks, for the U.D.C. :—
*Le Grand, Sutcliffe & Gell £437

WARLINGHAM.—For erection of house for Mr. R. Brown. Mr. Guy Church, architect, 93, Long Acre, London, W.C. 2 :—

Mauser	£2,272
Bridges	2,248
Costain	2,200
A. Bean	2,158
*H. & G. Longhurst	2,154

WEYMOUTH.—For extension of sewer in Castle Cove, for the T.C. :—
*Jenkins, Hitt & Grant..... £1,936

WEYMOUTH.—For supplying and laying 1,200 sup. yds. of wood paving on a prepared foundation, for the T.C. :—
*Improved Wood Paving Co., 14s. 6d. per cubic yd.

WEYMOUTH.—For laying asphaltic macadam on the Esplanade, for the T.C. :—
*Limmer & Trinidad Lake Asphalte Co., 11s. 6d. per super yard.

WOLVERHAMPTON.—For the erection of the first portion of the Technical College, for the Joint Committee :—
*H. Willcock & Co., Wolverhampton £25,115

WOLVERHAMPTON.—For installation of heating and hot-water service at first portion of Technical College :—
*Manley & Regulus, Wolverhampton £1,950

WORTHING.—For the erection of Broadwater Green Pavilion, for the T.C. :—

Bostel Bros., Worthing (1918), Ltd.	£715 0 0
A. M. Lyne	635 0 0
*G. W. Still, Shoreham	465 0 0

The architects for the erection of a new hotel on the Airedale Housing Site, Pontefract, are Messrs. Tennant & Smith, and the builder Mr. B. Groves; and not as stated last week.

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THE BUILDER

JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED 'THE BRITISH ARCHITECT."

L. CXXV.—No. 4220. DECEMBER 21, 1923.

COMMERCE AND ARCHITECTURE—I.

A FEW weeks ago we dealt in a leading article with some fallacies which, in our opinion, are a hindrance to a logical development of commercial architecture. We dealt with the subject from an economic or utilitarian point of view, believing as we do in ostract value of ideas quite apart from their momentary nce over the minds of architects. We were fully conscious many artists could maintain that their conception of rchitecture could not be associated with anything less a noble ideal. We would not attempt to prove that rn civilisation is essentially more commercial than at periods in the history of our development as a nation, ould we attempt to analyse the philosophy which seeks ove that the pursuit of commerce is not a noble ideal. nation which has subscribed in hundreds of thousands nds for war memorials in its churches and public places itten down as being commercially minded, when it could built in a time of acute shortage many houses for crippled rs to live in rent free, or maintained a fund to keep them want during their lifetime? It may be some other e which prompts each of us to have a cenotaph for our ity, but it is decidedly not a commercial instinct. What ttempted to show was the difficulty which confronted architect if he attempted to formulate a code of com- al ethics neatly graduated for various forms of archi- al expression. Probably it would be more correct to say it is the absence of clearness of thought and reasoning obscures the true motive of architecture and robs it of gracefulness and force which proceed from any logical opment.

e are not thinking of the subject from the point of view e architectural critic—though it would be a desirable to have some common ground of criticism; we are ing of the attitude of the designer in relation to his subject, f the possible effect upon the building. The problem be developed a stage further if we were able to separate r minds the hackneyed conception of the "commercial" ok of the business man from what we conceived should e forms which commerce should develop in its buildings. ttempt has often been made and always it would appear conclusions are hopeless. Where architecture is to be at its worst we attach the blame to the commercial nt, yet when we see a commercial building adopting n architectural symbols and expressing itself with dignity suggested that architecture has become a means of adver- ent for the proprietor or his goods. The architect ently escapes with his philosophy intact, although it is certain that many of the early commercial buildings it the architect playing a losing game in his attempts to romise by forcing his limited vocabulary of traditional archi- al features to adapt themselves to modern requirements. is ample evidence in our streets to show that there is a r and more uniform standard of architectural design upon fundamental principles which are gradually being stood; yet we return full circle and begin to wonder is wrong with it because it is good! An instinct for romise is often claimed as an essential characteristic of the sh mind, but an architectural compromise is easier to stand than bad metaphysics.

o point is served by caricaturing the architectural effects mmerce upon architecture. The skyscraper, for instance, sents a social development (or anti-social, as the case may nd is not necessarily the ideal of the commercial mind. The architect can hardly attach the whole of the blame to commerce if an architectural jumble is the result, since we cannot assume that he is powerless in his efforts to restrain his client's weakness for irrelevant sky-lines and domes, or a modern emporium designed in the mediæval style.

It is difficult to imagine an architect accepting responsibility for a design of which he secretly or openly disapproves; it is truer to life to say that he may either be glad to be associated with the building or that he has never worked out in his mind the philosophy of architecture in relation to twentieth-century needs. It is not always the business man whose mind hankers after towers and angle-turrets; the architect has been known to enter with zest into the gentle game of dwarfing a neighbouring building competing against his client. Architects have it in their power to curtail abnormal developments in commercial architecture, but first they must see to it that they do not neutralise their efforts by accepting ethical standards which they cannot logically defend.

It seems an impertinence to discuss the compelling emotion that prompts the erection of most buildings to-day with the sentiment that poised the Wingless Victory over the Acropolis of Athens, or reared the mighty dome of St. Paul's and the cathedral at Salisbury. All that can be said is that the theory of art for art's sake is difficult to maintain in our present civilisation, and particularly in a creative and structural art such as architecture. A study of elementary economics teaches us that in the very dawn of things when the people came upon a supply of food which was abundant and certain and easily obtained they had time and energy left over to devote to the satisfaction of other needs. We have not space to develop the relationship between these early expressions of art and current theories upon the artistic impulse of to-day, but we can safely say that the whole system of architectural training is opposed to the idea of architecture developed and expressed by the individual as a spare time hobby. Every age has its own expression, whether we agree with the particular tendency or not, and architects cannot hope to alter the development of civilisation by pretending to ignore it.

It is evident that architecture must be paid for, regardless of the abstract qualities which the building or the architect seeks to express; hence the need for the architect to analyse for himself the sources of money, and settle his doubts about the morality of the transactions which produce money and reproduce art. There is clearly a doubt in the minds of many architects concerning the ethical position of commerce when it desires to express itself through architecture, but the difficulty is apparently removed when commerce leaves a sum of money to the nation to purchase pictures and a building to accommodate them. The inference which is suggested is that fine architecture can only be associated with intellectual profits and dividends!

Twenty years ago the narrow-frontage building of many stories pretended to be supported by an arch which, from the thinness of its abutments, probably deceived nobody. It was designed by an architect (let us be just), but the shop-fronts of that period seemed to be designed as an afterthought by anybody. To-day, there is a vast improvement in the expression of logical construction, and the shop-front—though still an unfortunate element in the design of the building as a whole—is at last being treated with dignity and grace. Having got so far and recovered so much lost ground, is it wise to arrest a development which at least has truth and logic behind it by trifling with ethical commercial values upon which it is evident none of us is competent to judge?

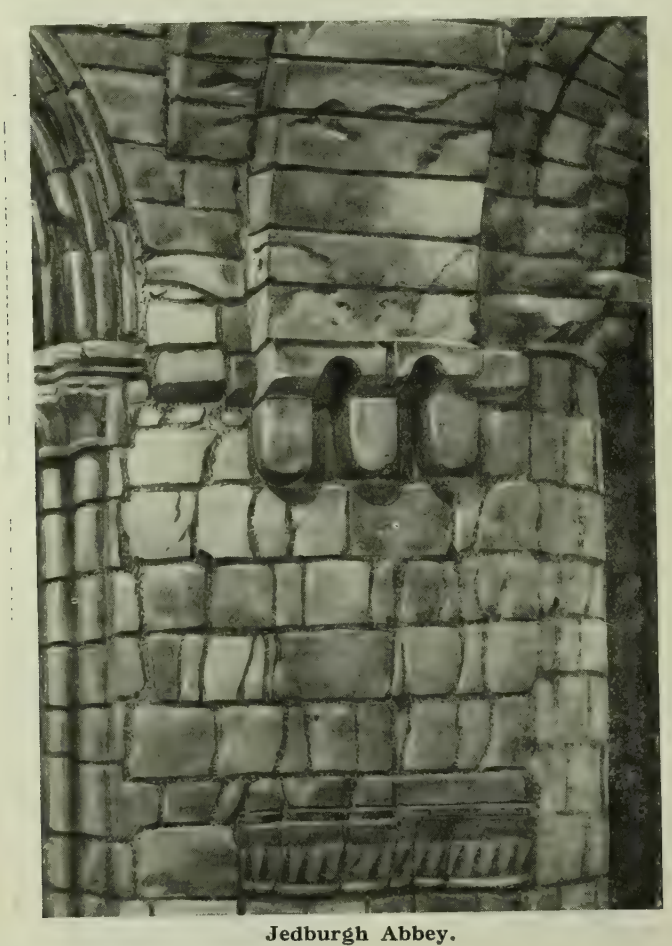
NOTES.

Lloyd's. AFTER one hundred and forty-nine years at the Royal Exchange, Lloyd's, the world-famous insurance corporation, is to move its quarters to Leadenhall-street. Sir Edwin Cooper, F.R.I.B.A., has been appointed their architect, and has prepared preliminary studies for the new premises, which it has been our privilege to see. At a glance one is immediately struck by the admirable directness of the scheme, a directness which can only be attained by much experience and by a master designer. The preliminary studies for the elevations are also well considered, with an excellent sense of proportion. The main portion of the new building will be behind the new buildings west of Leadenhall-street entrance, with a frontage to Lime-street. In the near future we hope to illustrate this important addition to London's new buildings and architecture.

Values. THERE is, of course, an explanation to be found for the purchase of a print at Christie's, on Tuesday, for £3,045. But an explanation is hardly an excuse. We are very busy establishing "records" nowadays, but the enduring values in life are lamentably at a discount value. We shall, before long, have to send in our votes for the building which is worthy of a gold medal if we are interested enough to take the trouble. We wonder if those whose opinion is worth anything will all take the trouble to vote? A good many people could name two buildings which deserve a gold medal, but they were built before the gold medal era set in.

Higher Buildings. THE evidence against sky-scrapers is accumulating, and it must be a question for the serious consideration of London authorities whether the erection of very lofty buildings in the City is desirable or not. We must all agree that some real foresight should be exercised about this, and that the general health of the inhabitants and the preservation of some degree of amenity are matters that must have their place alongside the merely economical considerations.

An Academy Committee. THE Committee which has been formed by the Royal Academy, of artists and scientists, for the investigation of the qualities of artists' materials and to inquire into the methods of cleaning pictures, is a step much needed; in fact, long overdue. The ravages of the picture restorer, ungoverned by control, with methods kept secret himself, have done immense harm, the purpose of this Committee—and a very representative one—is to r some general agreement, with the that until their decisions are publi the owners of old pictures will, so f possible, postpone any plans for restoration or cleaning of them w they may have in contemplation. Committee offer a number of very val suggestions, pointing out that the dec to clean or repair a work of art ough to rest on the judgment of a single but should be a matter for open cons tion with artists and scientists who especially studied the subject; and no countenance should be given to s methods. In such a matter the a of artists will be of special value, as not only a matter of the materials t selves, but of their method of applic which determines the possibility of can be done. To take the case valuable painting which the artist painted in bringing it to completion delicate glazes of colour, the rest methods may remove these altog in the process of cleaning unless has been a careful appreciation o methods through which his results reached. We notice from time to accounts appearing of old masters w have been "discovered"; and w after restoration, are expected to re high price. It will be a good thing there is an authoritative body ab watch over these things, for it is "trained artistic sense" which much required for these matters. Committee includes Sir Aston W Messrs. G. Clausen, J. D. Batten, Heaton, and others, and in undert this inquiry they are doing a most u and necessary thing.



Jedburgh Abbey.

SKETCH BY MR. WILLIAM HARVEY OF PART OF NORTH-WEST PIER OF TOWER AFTER COMPLETION OF THE WORKS OF REPAIR. (*See p.* 965.)

[The stones of the Norman pier have been retained with all their historic fractures. The interior only was renewed with reinforced concrete.]

Society of Arts Competition. WHILE reciprocating public-spirited effort the Society of Arts t prove industrial desig are left in some doubt as to how such competitions effect the pu they have in view, though wishing this may result from it. It will de no doubt, very much in the choice of those who are to adjudicate o matter. But there is another th Surely a certain danger lies in distrib diplomas which "come to be kno conferring a definite and generally nised status as a designer of the rank." Such official recommend are not always of the same service t arts that they are to individuals, perhaps the present age is a little illusioned in regard to such claim we could feel that the possession of diplomas secured invariably such a s then, of course, the more of the better. The more diplomas the g



TCH BY WALTER CRANE FOR GABLE
DRIL SCULPTURE, "ARTS AND CRAFTS," AT
CAMBERWELL POLYTECHNIC. (MR.
RICE B. ADAMS, F.R.I.B.A., ARCHITECT.)

number of first-rank designers. But as easy as all this? Are the machinery good intentions of the Society of Arts icient to secure all these benefits for At this time we do not hold with certainty that design can best be ered in such a way. We need to be ful lest in our desire to raise the ndard of industrial design we forget difficulties lying in industrialism lf, which has its own standards, not ays those of art. The aim to en- rage better design in order to sell the ds, the application of art to industry, ess considered in the light of the lterable claims which art makes upon —whether it sells the goods or not— uld remind us of the difficulty of ting the two together. For to unite m we must identify their objects re nearly, the spirit which informs h the designer and the industrialist st be a mutual one, and we must ieve in beauty for its own sake, not to low our business.

"Period" Rooms.

WE note that in the furniture section designs may be submitted "for the furnie of a modern dining room in Adam le." We are rather sorry to see this, we had supposed the purpose of this mpetition to be the encouragement of lustrial design, and "Period" rooms surely needing none at the present ie, nor will industrial design be fostered working over again this exhausted ound. To reinforce "Adam" interiors th diplomas were to discourage the ry object we imagined the Society had view. The student should be directed ay from all these derivative and second- nd inducements, and be encouraged to ply his abilities in such a way as will eate for industry new identity and ness to be the beautiful expression of wants of our own time.

Design and Industrial Design.

MUCH is being advanced just now about industrial design, but we need to be careful in our definitions. sign is all of one nature, though its plications are so many, and because are considering it in its relation to lustry it does not alter its nature. If we got to think that industrial design were one thing and that there were some other we should be in danger of separating things which cannot be divided. Industrial design is felt to be inadequate, often very bad, and we reciprocate the efforts now being made by the Society of Arts to improve it. No compromise will, however, aid us which wars against its nature. What the public wants, or is supposed to want, has little enough to do with it, and if, for instance, the chocolate box manufacturer really wants better design, he must want it for its own sake, must have faith and appreciation enough to believe in it. Otherwise we shall only reach what is already happening with architecture, where a "salesman's architecture" and other architecture are seen to have been separately inaugurated. It is our good faith in beauty which will improve industrial design, and not merely the desire to make use of it to push sales, and this will do more for us than ten thousand diplomas without this governing requirement. The aim to add the prestige of beauty to our industries is no less proud than difficult, and one which will need a faith commensurate with it.

The A. A. Conversazione.

THE annual conversazione of the Architectural Association took place last week at Bedford-square, where the president, Mr. E. Stanley Hall, M.A., F.R.I.B.A., and Mrs. Hall, received the guests. There was a large attendance. There is much to be said in favour of these social gatherings, giving as they do an opportunity to meet old friends and exchange ideas. Many members who attended the A.A. Avignon excursion met again and had reminiscences to tell, while other matters of professional interest were not forgotten, especially the A.A. play, "So this is Architecture," and the place of meeting of the next annual excursion. Mr. Yerbury had arranged an admirable musical programme for the early part of the evening, followed later by a dance. On the walls were hung members' holiday sketches and photographs of the Avignon trip.

Preservation of Old Buildings.

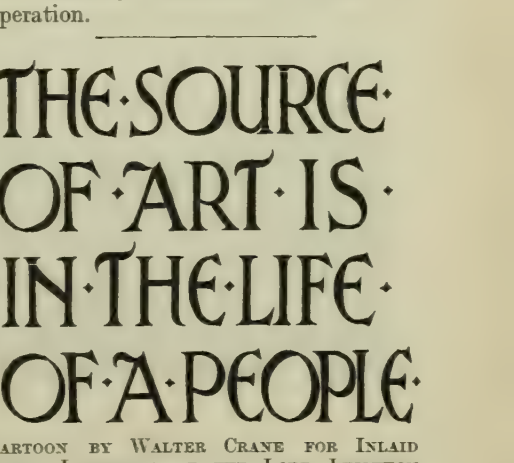
To the small, but appreciative, audience which attended Sir Frank Baine's lecture at the Society of Arts last week, the fine photographs of old abbeys, &c., which showed the old buildings before and after preservation, the thought must have occurred that from the purely artistic point of view the preservation was rather disastrous. The record of architecture is, of course, preserved, but the effect left us is rather that of dead bones. It is possible that most people will consider it better to preserve, but we must all admit that we lose a vast deal in the process. But as things are the final word is, of course, preservation.

A Professional Tribute.

IT is not given to many men to take a leading part in the representation of the affairs of an important profession for nearly 50 years, and the fact that Mr. Maurice B. Adams, F.R.I.B.A., should have been associated with one of our contemporaries for such a period is an event of sufficient interest to deserve suitable recognition. In this belief a few of his friends arranged a luncheon in his honour this week at Simpson's, when some interesting speeches were made in reference to his conspicuous service to the profession for many years as an architectural journalist and his stimulating influence with a large number of students in architectural design. The opinion of a well-known architect, who was unable to be present on the occasion, that Mr. Adams had deserved and gained the affectionate regard of all who had been brought into intimate contact with him, was heartily endorsed, as was the hope that he would write his reminiscences —remarks with which we gladly associate ourselves. We understand that the luncheon was not intended in any way to anticipate a more widespread and public recognition of Mr. Adams' services to the profession, which it may be intended to arrange. It is always pleasant to see a friendly gathering arranged to pay a tribute of regard to a fellow worker, and Mr. Maurice B. Adams must have appreciated the sincerity of feeling which prompted this mark of esteem.

A Bristol Movement.

WE understand that the Kyrle Society in Bristol has arranged with the Royal West of England Academy for a series of lectures to deal with local buildings. These lectures are to be given by the Academy Students to the Secondary School children. The idea is wholly admirable and reflects the greatest credit on the energy of the Society and also on the Academy authorities for their co-operation.



CARTOON BY WALTER CRANE FOR INLAID FLOOR LETTERING AT THE LORD LEIGHTON MEMORIAL ART SCHOOL, CAMBERWELL. (MR. MAURICE B. ADAMS, F.R.I.B.A., ARCHITECT.)

GENERAL NEWS.

Professional Announcements.

Mr. Williams Ellis, of 22, South Eaton-place, is moving his main office to the old Viscount Milton School, 22B, Ebury-street, S.W. 1, on January 15.

The address of Mr. W. Allison, A.R.I.B.A., architect and surveyor, is now 50, Rathbone-place, London, W. 1.

Mr. Victor H. Wilson, architect and surveyor, 91, London-road North, Lowestoft, has taken over the management of the Architectural and Surveying Department of Messrs. P. Chase, Gardener & Co., 269, High-street, Hounslow.

Prix-de-Rome Scholarship in Sculpture.

Mr. David Evans, A.R.C.A., of Chorlton-cum-Hardy, is the winner of the Prix-de-Rome Scholarship in Sculpture.

Bartlett School of Architecture.

Three entrance scholarships tenable in the School of Architecture and two Bartlett Exhibitions are available for award to students entering the School in October, 1924. The value of these scholarships and exhibitions is not less than £40 a year, tenable in some cases for three years and in some for five. The value of any scholarship may be increased if the circumstances make such a grant necessary.

Year's Work of the Road Fund.

The report of the administration of the Road Fund for the period April 1, 1922, to March 31, 1923, was issued recently. The year was one of great activity all over the country in matters connected with highway and construction improvement. The appropriation (1923–4) will include £9,000,000 as grants to maintenance and improvement of class 1 and class 2 roads. In addition to the sum named a further amount of £1,533,000 will be provisionally set aside as a contribution to the cost of the proposed new Liverpool-Manchester road.

Modern Developments in Town Planning.

A lecture was given at the Engineers' Institute, Cardiff, on December 13, by Professor Abercrombie, M.A., A.R.I.B.A., of Liverpool University, on "Modern Developments in Town Planning." A large attendance of members of the Institute of Builders (South Wales Branch) and of the South Wales Institute of Architects, under whose joint auspices the lecture was delivered, was presided over by Mr. T. Alwyn Lloyd, F.R.I.B.A. The lecturer appealed for greater development of the æsthetic element in town planning in contrast to the now too frequent practice of sweeping away all natural advantages or associations of historic interest. Where there was available natural advantage it should be made use of in framing town schemes and development. Cardiff Castle, in the centre of a busy city, made a pleasing contrast to many places. Lantern illustrations of æsthetic elements in ancient Grecian planning were given and instances of modern endeavour on these lines shown. The consequences of neglect, such as was productive of the "Grid-iron" of New York, were also illustrated.

Victoria and Albert Museum.

The Department of Woodwork of the Victoria and Albert Museum has recently received a gift of a set of three chairs, for the Master, Senior Warden and Junior Warden, respectively, of an old lodge of Freemasons constituted in 1730, and meeting at the "White Bear," King-street, Golden-square. The chairs, now exhibited in Room 57 of the Museum, are about the date of the original lodge. These chairs illustrate the period of transition from the later style of Queen Anne to that of the earlier productions of Chippendale. They have carved and modelled claw-and-ball feet, backs with scrolled terminals and centre splats also carved. Each chair is inlaid with the emblems appropriate to the Master and Wardens, and the set forms an addition to the series of chairs made for special purposes, now drawn together in the same room. These include the chair of the President of Lyons Inn, which has for some time been in the collection; a characteristic example of a Chairman's chair in the style of Robert Manwaring of about the year 1760; and another in that of Robert Adam (*c.* 1770) with shield shaped back of French type, and carved vase with garlands and guilloche ornament—the two latter being recent acquisitions. The Department has also acquired a reading table of carved mahogany, with square top resting on tripod stand terminating in scroll feet, the top being hinged so that it can be raised to form a reading desk, and with four drawers providing compartments for pen and ink. This table was, with other furniture, made in 1770 by William France for the library at Kenwood, under the supervision of Robert Adam, who built the house for Lord Mansfield. The bill is still in existence, and shows that France received the sum of £6 14s. for the table now in the Museum (Room 56).

COMPETITION NEW

Dunfermline War Memorial.

FOR THE DUNFERMLINE WAR MEMOR COMMITTEE.—Designs for a monument to erected at a cost of £3,000. On receipt £1 1s., which will be returned on receipt a *bona fide* design, competitors will rece conditions of competition, plan of site, photographs of surroundings. The assesso Sir John J. Burnet, A.R.A., R.S.A. Sendin day, January 1, 1924.

Swansea Masonic Temple.

In this competition, the assessor, Mr. Art Keen, F.R.I.B.A., has made the follow awards: 1, Messrs. Willmott & Smith, 4, Pa place, Cardiff; 2, Mr. A. F. Webb, M.S. Blackwood, Mon. The design placed first given in this issue.

Industrial Designs.

The Royal Society of Arts will hold a c petition in June next year, at the Victoria Albert Museum. Over £1,000 will be offere prizes. The competition, open to students British schools of art, and all British subje will be divided under the following hea Architectural Decoration, Textiles, Furnit Book Production, Pottery and Glass, and M cellaneous.

Full particulars of the competition may obtained from Mr. G. K. Menzies, Secret Royal Society of Arts, John-street, Adel London.

Other Competitions.

Other competitions still open include following (the dates given are, first the sendi in date, and second the issue of *The Builde* which full particulars were given):—Singap College (Jan. 1, 1924; March 30). Duc Memorial (Jan. 5, 1924; Sept. 14). Memor to the Missing (Jan. 1, 1924; Aug. 3). N castle Concert Hall (Feb. 1, 1924; Oct. Essays on Concrete (Dec. 31; Nov. 16). Bel Union Heating and Lighting (March, 19 Nov. 9). Essays on Heating and Ventila (Mar. 31, 1924; Nov. 9). Monument to Wilfrid Laurier (April 3, 1924; Dec. 14). Ho side Hospital (Feb. 14, 1924; Dec. 14).

MEETING.

SATURDAY, DECEMBER 22.

London Society.—Visit to Trinity Ho 2.30 p.m.



Southport War Memorial: The Monument.

MESSRS. GRAYSON & BARNISH, FF.R.I.B.A., AND MR. A. L. MCMILLAN, A.R.I.B.A., Joint Architects. (*See p.* 964.)

From a Drawing by MR. LEONARD BARNISH. F.R.I.B.A.

CORRESPONDENCE.

Strand-on-the-Green, Chiswick.

Sir,—Notices have recently appeared in the ess to the effect that the new embankment ll recently erected by the Chiswick Urban strict Council has been made to conform with wishes of the Art Standing Committee of the I.B.A. by the addition of a wide splayed oing, well weathered and projecting each side. rther, that the R.I.B.A. has thanked the iswick U.D.C. for the consideration shown to Institute's wishes. The first part of this tement is so wide of the truth that the facts ould be made known generally, as follows:—Early in 1923 the attention of the Art Committee was called to the fact that the Chiswick D.C. was about to rebuild a portion of the bankment wall at the above. In view of nsiderable anxiety which was being shown by al residents and other members of the public to the Chiswick Council's intentions, the Art mmittee approached the Chiswick Council on matter. After repeated enquiries over a riod of three months or so the Chiswick D.C consented to an investigation of their oposals.

Thereupon the Art Committee appointed three its members, of which I was one, to meet the resentatives of the Chiswick U.D.C. and cern public-spirited residents of the neighbourod on the site, when it was found that the rk was already considerably advanced, and owed a portion of the wall completed and ed with random rubble masonry of a very ly and mechanical appearance. It was plained that the wall was to be finished with iron spiked unclimbable fence.

Following discussion, the representatives of Chiswick U.D.C. agreed to the suggestion of representatives of the Art Committee that remainder of the wall facing should be of old ck bricks—of which the Council had plenty their yard—of the character shown in parts the old river walling, that the parapet should finished with a plain thin stone coping, and t the railing should be omitted.

Some months later the R.I.B.A. was informed the Chiswick U.D.C. that they were unable secure the necessary adjustments in their ntract, and that the work was being continued ording to their original scheme. In view of s, a statement explaining the Institute's ion in the matter was published in the *rnal* and, I believe, in the Architectural and neral Press.

Since the recent references to the matter in Press I have visited the site and found the rk completed in the original ugly random ble facing, pointed in cement with a sort of ineering joint, and capped with a mechanily square and smooth stone coping, 14 in. by in. in section, which does not project over, t is even a little narrower than the parapet ll. The effect is that of a slice of rather rich m cake with a generous slab of almond icing it; the R.I.B.A. evidently thinks with me this, for it has swallowed it whole.

The *Chiswick Times* of November 16, 1923, s that the letter from the R.I.B.A. states: . . the work as now executed by the Chiswick ncil at Strand-on-the-Green entirely meets views of the Art Standing Committee." ving now seen the wall, I regard this statent with the greatest astonishment.

Until one remembers that the composition of present Art Committee is not the same as t of 1922–23, it is difficult to understand its lings of approval and gratitude towards the iswick U.D.C., and as one of the three repretatives of the Art Committee of 1922-23 I sh to dissociate myself entirely from any such nplacement.

To put the matter in a nutshell, the Chiswick D.C. has snubbed the R.I.B.A., and the I.B.A. has thanked the Chiswick U.D.C. for ing so.

Arthur Welford.

Cambridge Collegiate Buildings Committee.

Sir,—I did not intend to enter into this ntroversy again, but I notice a number of your correspondents assume that the conditions of the Cambridge competition were broken by the winners.

Anyone who has seen their design and has studied the conditions will know that that is not the case. Statements to the reverse effect were originally issued to the Press by a group of the beaten competitors, but on the very points they raised the conditions were in each instance permissive. The fact that a different impression has evidently got abroad is exceedingly unfair to the winners. I would suggest again that the matter is one which clearly calls for the intervention of a Committee of the Institute, Practice, Standing or Competitions, whichever may be the competent authority.

C. H. Reilly.

Liverpool.

The Pupils of Sir John Soane, R.A.

Sir,—An excellent and complete list of Soane's pupils was compiled and published by Mr. Arthur T. Bolton, F.S.A., F.R.I.B.A., and it may interest your readers if we consider what became of at least some of them.

Mr. E. Foxhall, D.S. St. George, Hanover-square, was present in January, 1845, at a meeting of London District Surveyors, with a view to forming an association for mutual assistance and support. He was afterwards Hon. Treasurer of the District Surveyors' Association until 1858, when he resigned his District.

Mr. J. H. Good was District Surveyor of Poplar, and was later joint architect for the Orphan Clergy School at Leatherhead.

Mr. J. M. Gandy, A.R.A., became a frequent exhibitor at the R.A., and Mr. D. Mocatta became a well-known architect, while Mr. C. J. Richardson became noted as an architectural artist.

Sir R. Smirke, R.A., obtained a number of commissions for good jobs, and Mr. George Wightwick published one or two books.

The works of Mr. George Basevi are well-known to the Fitzwilliam Museum at Cambridge, &c. He fell from the roof of Ely Cathedral and was killed.

Many in the list did not reach a conspicuous position.

Henry Lovegrove.

The Story of a Lake.

Sir,—The article in *The Builder* of Dec. 7, under the heading of "The Lake in St. James's Park—Past and Present," is very interesting, and to me it is particularly so because my old friend The Lake in St. James's Park is referred to.

The ways of H.M. Office of Works are, at times, inscrutable. When War huts were sorely needed in London the site of this Lake was selected upon which to build the huts, involving, of course, the draining off of the water. After the Armistice these huts remained until the pressure of the Press emptied them of their occupants, and thus put an end to those delightful little episodes, which I used to see, where pretty little flappers tripped from one hut to another, about 11 a.m., with cups of cocoa for the sustenance of their Cuthberts who had been working strenuously for nearly half an hour.

Then came the refilling of the lake, and, after the clearance of the huts, the "Department" exercised its usual skill in showing "How not to do it." All that was really needed was to fill in the fissures with puddled clay, let in the water from the various pipes which supplied the lake, and thus give back to the public the old delights of the Park.

This course, however, was not adopted, and after many attempts to "make the flesh creep" and sundry scientific admonitions, what we now know was executed, and the work consists of:

(1) Preparation of the old bed of the lake for its future covering.

(2) A core of hard good old bricks broken up for the purpose.

(3) Layers of gravel and concrete.

(4) Two layers of steel reinforcement of ½ in. rods, laid in squares of about 12 in.

(5) A layer of concrete about 3 in. in thickness.

(6) The finished surface of cement.

It may be that this new bed will resist the boating pressure which may hereafter come upon it, and the cost to the taxpayers has only been about £50,000.

Wm. Woodward.

Criticism Permanent and Passing.

Sir,—It is true that introspection and expression are not commonly equally intended by the same individual; but that introspection has any inimical effect upon expression—beyond this: that the thinker primarily engaged in exploring the depth of his person is tempted to prolong the line inward further than he projects it outward—I cannot conceive. Complete thought, I assume, runs inward and outward in a straight line. Incomplete thought may be represented by any figure that is not a straight line. But, whatever its external configuration may be, it is but opposite in direction and capable of equal extension to that which is internal. It is, I hold, axiomatic that the depth to which we descend conditions the height to which we are able to climb—though not the height to which we do climb.

Thus the artist expresses externally the result of his criticism of works of art by a work of art. The Parthenon is criticism of the Doric, superior to any words that have or can be written upon Doric art. So the literary criticism of literature is the most nearly perfect and simply apprehended of all forms of verbal criticism.

The verbal criticism of the arts other than literature, even when the author is himself an artist in a sphere other than words, represents externally a line that internally may be conceived as parallel but not coincident with his other expressive line. If it were actually coincident the external manifestation would be alike in kind and co-extensive—that it is not makes it clear that it is not the same line.

The very employment of words to transmit thought is but a makeshift. Thought can only be apprehended by thought.

Dudley Harbron.

Hull.

Society of Chemical Industry.

In connection with the report in our last issue of the papers read by Mr. J. Allen Howe and Mr. J. J. Fox, at a meeting of the Society of Chemical Industry, Messrs. Szerelmey, Ltd., state: "As it is commonly recognised that water is the chief cause of the decay of stone, it appears that the safest method is one which provides an impenetrable membrane without casehardening the stone. Surely the free breathing of the stone on its outer face is a very minor consideration compared with keeping out water and its accompanying deleterious agents."

Can Tarnishing Be Prevented?

Sir,—With reference to the above appearing in last week's issue of *The Builder*, it is my opinion that the only way to keep silver goods correctly, and also to save labour, is to first of all to clean the silver thoroughly with some good plate powder, and then to add more plate-powder and leave this second application to dry on the goods and to be brushed off, and the silver re-rubbed with a chamois leather the next time it is wanted.

D. R. Broadbent, A.M.I.E.E.

London.

Sir,—The only way to prevent tarnishing is to keep the silver in airtight cases. One of the worst cases of tarnishing in my fifty years' experience was at a goldsmith's, at Exeter. Here the River Exe runs under the shop windows and the silver had to be taken out every ten days and cleaned. In 1897, Messrs. Vale Bros., of Weston-super-Mare, received an order to make the windows airtight; since then there has been no trouble whatever with the silver goods.

Edward Vale.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

HIGHER BUILDING IN RELATION TO TOWN PLANNING.

MR. RAYMOND UNWIN, F.R.I.B.A., delivered a lecture on Monday, at the Hall of the Royal Society of Medicine, on this subject. The chair was taken by Mr. H. C. Gooch, Chairman of the London County Council.

The lecturer said twenty or thirty years ago in England it was generally assumed that great gains could be secured by over-crowding dwellings upon the land; and that some dire economic necessity arose from those reputed gains which compelled us so to develop our towns. That fallacy had now been pretty well exploded. Most of those who had examined the matter were agreed that, if people so willed, land could be developed at a density of ten or twelve houses to the acre, at little, if any, more, and sometimes at even less cost per house, than the same land could be developed for the same type of house, at a density of twenty or thirty to the acre; that so far from there being anything to be gained from overcrowding dwellings on land, the fact was such overcrowding yielded less total return to the landowners, and afforded a dearer plot for the occupant. So that apart from other disadvantages, congestion of dwellings was an expensive luxury. Unless they were careful modern business intelligence would not be content until it had had actual and disastrous demonstration that the vertical form of overcrowding had even less to be said for it than the horizontal kind. The fact that the method had been fairly well tested in America; that it had created there urban problems of a difficulty exceeding anything which they knew even in London; that 183 American towns, which contained 40 per cent. of their urban population, had already adopted zoning ordinances; and that the remaining cities hurried after one another pell-mell to adopt regulations which limited the height of buildings, as drastic as the vested interests already created would allow, did not seem enough to convince some of their urban theologians that many men could not stand on the same flagstone at the same time, nor more than one car move at one time on an identical piece of roadway. Nevertheless, in the hope that it was not too late to save London from copying mistakes which New York, Chicago, and other American cities now regretted, and the evil results of which they were now desperately struggling to remove, it seemed worth while to examine somewhat carefully the conditions which prevailed in those cities, and to realise what would be the effect in London if they now adopted the method of expansion upwards which the Americans were trying to discard.

The arguments that could be brought against the adoption of high buildings were many and weighty. The law of diminishing returns applied to such buildings in almost all respects. With every added story the effective floor area per story was reduced, while the cost per square foot was increased; the greater proportional number of lifts required took their toll of space from each of an increasing number of floors. You did not dispense with transportation by going up; you merely changed the horizontally moving omnibus for the vertically travelling lift, and, incidentally, made walking for even short journeys far more difficult.

The more general, or town-planning aspect of the problem, had acquired a special degree of urgency for them during the last few years, because they appeared to be following another lead of their American cousins in regard to the extensive use of the private motor-car.

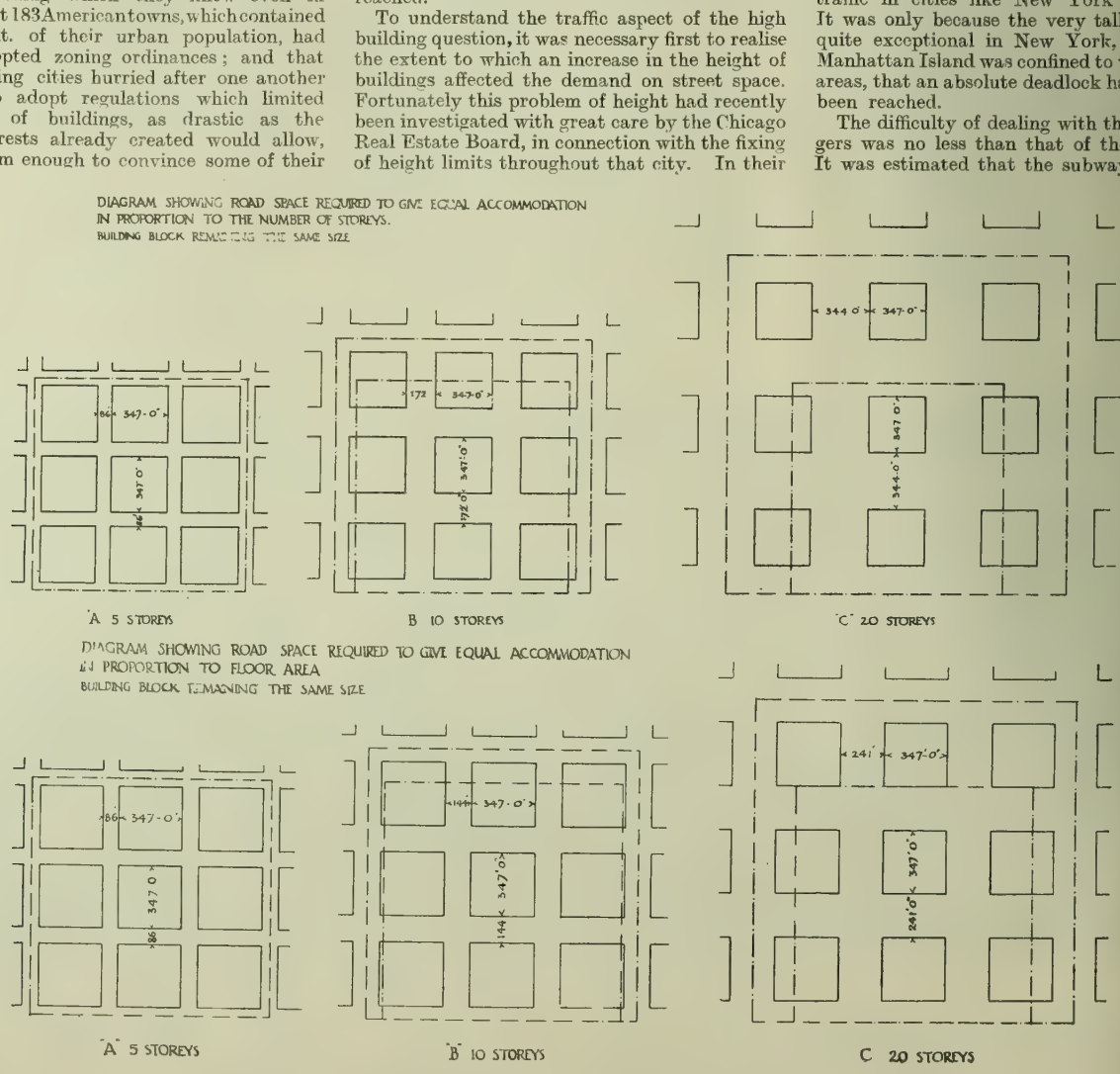
It was not yet apparent what would prove to be the saturation point in regard to ownership of motor-cars. Mr. Ford, who had contributed more than anyone else to the supply, did not consider that that point had been nearly reached.

To understand the traffic aspect of the high building question, it was necessary first to realise the extent to which an increase in the height of buildings affected the demand on street space. Fortunately this problem of height had recently been investigated with great care by the Chicago Real Estate Board, in connection with the fixing of height limits throughout that city. In their report they gave precise data for buildi ranging from five to twenty stories high, erec on one particular corner plot, including the rentable floor space, cost, and other matt There appeared to be a fairly constant relat between the net rentable floor space and total day population. He had checked it connection with one or two individual buildi like the Woolworth in New York, also in connection with the whole of the l area of Chicago, and he found that a figur about 45 square feet of rentable floor per h of population appeared to be near the m

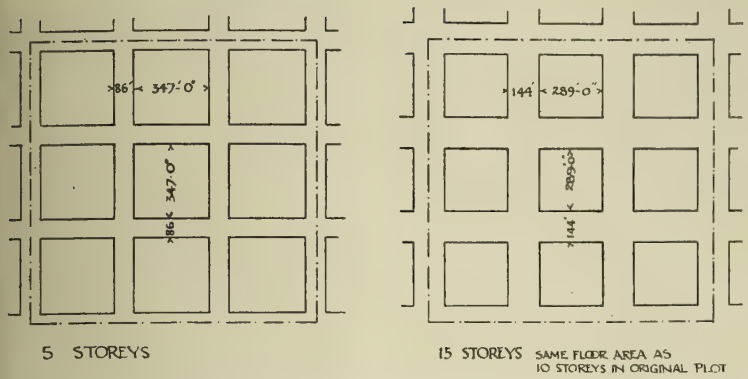
As regarded carriage-way, it was safe assume in America that the class of people wh formed the day population in city buildi including as it did a minimum proportion children and others not owning cars, would any rate own the average number of one ca every ten people. If those cars were to att at the building to bring people to work, or t them away in the evening, and were packe closely as already indicated, they would fill whole of the carriage-way for a length of 1, feet with a five-story building, 2,220 feet w a ten-story building, 4,158 feet with a twe story building, and 5,616 feet, well ove mile, with a thirty-story building. If half carriage-way only were taken, on the grou that the other half of the street should be for the use of the buildings on the other s those lengths would have to be doubled. might reasonably be said, therefore, that w the present extent of ownership of motors America, the cars required twice as much len of roadway to accommodate them as the pe would require walking along the footways.

They would hardly be surprised, therefo that the utility of the private car was dimin ing, or wonder at the enormous congestion traffic in cities like New York and Chica It was only because the very tall building quite exceptional in New York, and even Manhattan Island was confined to very restric areas, that an absolute deadlock had not alre been reached.

The difficulty of dealing with the foot pass gers was no less than that of the road tra It was estimated that the subways could d



BUILDING BLOCKS OF THE SAME AVERAGE SIZE AS THOSE IN "THE LOOP," CHICAGO.



AGRAM SHOWING WITH SAME ROAD SYSTEM THE WIDENING OF ROAD AND CONSEQUENT DUCTION OF BUILDING BLOCK TO GIVE SAME ROAD ACCOMMODATION IN PROPORTION TO FLOOR AREA.

maximum, with 60,000 people per hour, hey could get that number to the trains. they had already seen that the 14,000 le from the Woolworth Building would nselves occupy over a mile and a quarter ne of New York's main footways, and it ld take them half an hour to enter the ion. The congestion at the entrances to tube stations, under these circumstances, d hardly be surprising, but this was not the st. The condition had been reached when as doubtful whether any relief could be red by constructing new tube railways. the difficulty of accommodating the pedes- n and the moving traffic were great, the of the standing motor-car was even worse. the 60,000 motor-cars which the present pants of the Loop owned among them, 3,500 could find places where standing was nitted within the Loop area. If the whole he road space were packed solid with cars, e would still be only standing room for 00 cars, or something like one-fifth of those ed. As a matter of fact, the car owners of Loop area had appropriated the large open e between Michigan-avenue and the Lake, aside for Grant Park, and it was no un- mon thing to see 25,000 motor cars, or more twice the number that would fill the streets ie Loop, parked at one time on this gigantic or garage. Indeed, the promoters of the t town-planning scheme designed by iel Burnham, of which the park was a picuous feature, were not free from anxiety o how they were to recover the area from motor owners, in order to lay it out and t it.

ithout pursuing the matter further, he ght that enough had been said to prove main contention which he had put forward— increase in height of buildings necessarily lved augmented street traffic; that where traffic had already reached the comfortable city of the streets, any further increase in ht must cause or increase congestion, with equent loss of time and efficiency for all users of the street. Further, that the ease could not in practice be met by street ening, because the utmost that could be in this direction could barely cope with other causes, which in all growing modern ns were tending to swell the volume of et traffic.

nfortunately he had come across no evidence the increasing use of the private motor-car ed a diminution in the patronage of public ns of conveyance. On the contrary, experi- showed that the demand for public trans- ation facilities was still rapidly growing. increased extent to which the streets of don were now being occupied by the motor ibus must be apparent to everybody, and lengthening queues of those 'buses which mulated on important road crossings idy presented a formidable appearance. as clear, therefore, that, quite apart from increase in the height or volume of buildings in the central area of London, they were y to have to face a steadily increasing volume of private and public transportation on the streets. It would tax all their powers to provide adequate road space to deal with the traffic, without permitting any increase in the height of buildings, with the consequent further congestion of people and business in the centre.

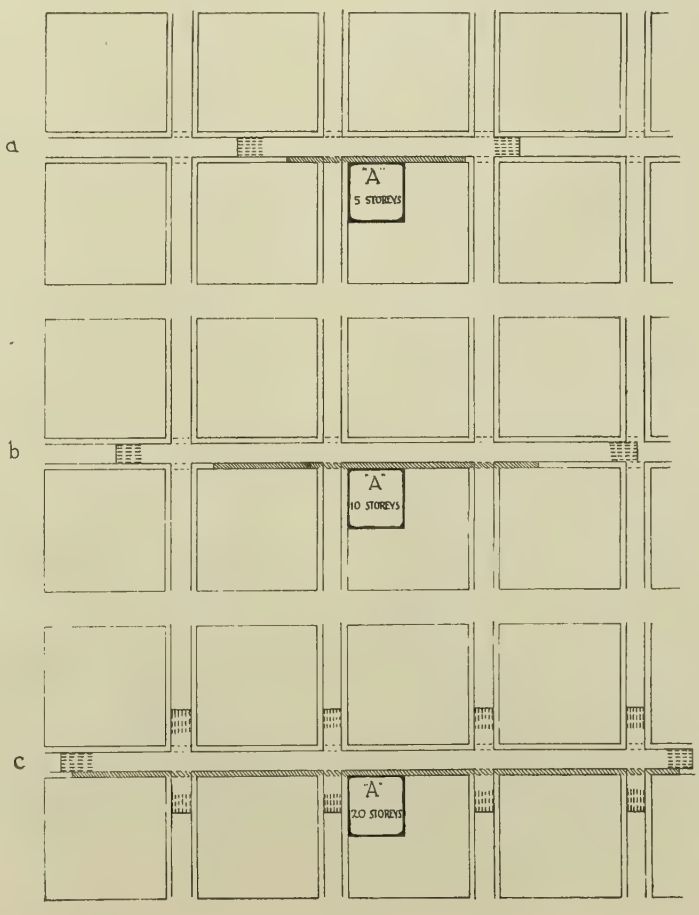
The advocates of high buildings suggested that their policy would at any rate reduce the general traffic problem. He found no evidence to support the contention, and much that tended the other way. If the concentration of people in high business and residential buildings tended to reduce traffic, a comparison of the traffic conditions in New York, with those in decentralised London, should give some indication of this. On the contrary, the number of journeys per head of the population in New York exceeded 500 per annum, considerably more than in London, where last year they numbered 390.

He ventured to suggest that, contrary to the view of the advocates of high buildings, it was approximately true to say that in regard to a large town, the nearer people lived to the centre, the greater was the demand which was made on the street and the various public transport conveniences, and the farther they lived from the centre, the less was that demand. Anyone who would consider the ways of his own family and those who served them would confirm this.

The real transport difficulty in connection with the residents in Southend and similar places was of quite a different nature. It was not so much a question of congested traffic in the centre, as one of the cost of providing adequate transport facilities at the two busy times, when folk were going to or from their work, in cases where the demand for transport during the remaining hours of the day fell far below the peak load. The problem was by no means insoluble. The chief difficulty sprang from the capital cost of the permanent way, which might have to be spread over a short daily use of the line. Apart from this fact, the running of a full train from start to finish of the journey was more economical than the condition of most suburban traffic, in which the load began to diminish at the first stop, and most of the trains had one-third or two-thirds of their seats empty for a considerable part of the journey. The rolling stock could easily be diverted to the lines where midday traffic was most intense. The capital cost of the permanent way itself would be immensely reduced if the routes were reserved in the regional town plan. Moreover, the means of transport were now so varied that one suitable to most kinds of load could be provided if there were effective co-operation between the town-planning and the transport authorities; while the efficiency of the transport itself could be increased, and the strain on the roads greatly reduced, if all the various means now available were co-ordinated under one general direction.

Some truths, the lecturer continued, seemed too obvious to be readily credited; men were prone to try clever and complicated devices to attain the same end by a more devious route. Perhaps the nation was feeling specifically poor,

DIAGRAM SHOWING AMOUNT OF STREET AREA REQUIRED WITH BUILDINGS OF DIFFERENT HEIGHTS TO ACCOMMODATE: THE AVERAGE NUMBER OF PEOPLE IN THE BUILDING "A" AND THE AVERAGE NUMBER OF CARS OWNED BY THEM.



but, to produce more wealth or to waste less seemed too simple methods of enrichment to be popular. Oppressed as they were, too, with the miseries of overcrowding and housing shortage, how hesitatingly did the simple remedy of building plenty of good houses secure full recognition. Similarly, the towns being already unbearably congested, and the traffic in their streets in danger of being reduced to crawling pace by its excessive volume, the idea that congestion would best be relieved if we desisted from crowding, or traffic most effectually reduced by better distribution of people and buildings, was much too simple to be readily accepted. Indeed, many seemed bent on piling more buildings on the top of those we had and boring more subways or erecting more elevated tracks to pour their additional multitudes into the already swollen torrent in the streets.

To the town planner this looked liked sheer madness; but perhaps there was something unusual in his make-up which predisposed him, with child-like innocence, to put more faith than some of his neighbours in the simple and the obvious. Or perchance, if an architect, there was something in his training or his practice which encouraged this tendency. At least, it was a fact that the art of design, which it should be the purpose of his training to develop, and his life work to practise, consisted largely in finding simple solutions for seemingly complex problems When the designer could not see the forest for the trees he was a lost soul! He must depend on his trained imagination to keep the forest as a whole ever clearly in his view while his mind was occupied threading its way through the obstructing trees and their distracting shadows. If he missed the one simple and direct path to unity, which when found would appear to all to have been quite obvious, he would usually have produced not a design at all, but a mere compilation.

He had ventured to draw from American cities a warning as to some things which they should avoid, and to use their experience as a guide for their future steps. Beautiful as were many of the towers of New York when considered singly, there was yet lacking the sense of grouping between them which would spring from their forming parts of a greater design. Fine as individuals, they bore yet little relation or proportion to each other. He was inclined to compare a cluster of them with the three related towers of that older Lincoln which they prized.

However that might be, as architects they were trained to rely on orderly planning and proportional relation; and they naturally believed that they could be applied to towns; that the application of foresight and planning would result in the better distribution and relation of each other of industrial, commercial, and residential areas, and could secure the more generous reservation of belts of open space to protect and define the different parts of the town, the wards, the suburbs, the dormitories or the satellite towns; that cities should extend not by fortuitous accretions around the circumference, but by the addition of definitely planned and defined suburbs or satellite towns, each made as self-contained as possible, depending on the main centre for only those functions which were by their nature centralised; that the position of suitable rapid transit lines to connect these parts to the centre, and to each other, could be laid down and reserved, and that congestion of street traffic could be prevented not only by the provision of adequate roads, but mainly by the proper localisation of the life of each district, and the saving of a large part of the useless rushing about which now sprang from so many people, buildings, and parts of the town being in the wrong places. They were convinced that congestion would be cured, not by increasing the density of the crowd, but by transforming the crowd into an orderly queue. This at least was the alternative they offered to the policy of expansion upwards, being convinced that nothing could be gained by crowding.

Discussion.

Mr. H. C. Gooch moved a vote of thanks and said he agreed with every single word of the paper, which had been most convincing. They had to remember London was several hundreds of miles north of New York, and if it were possible to translate the conditions of America to England, the difficulties would be aggravated. Whatever might be said of the commercial value of high buildings, there was nothing to be said for them as habitations for the people. If they were doomed to live in buildings in which they could only get up and down in express lifts, there would be no opportunity for healthy exercise.

Mr. C. R. Forber seconded the vote of thanks, and said Mr. Unwin had given the devotees of high buildings a good deal to answer; a good deal to think about. He hoped that London would be spared from the evils that had inflicted New York.

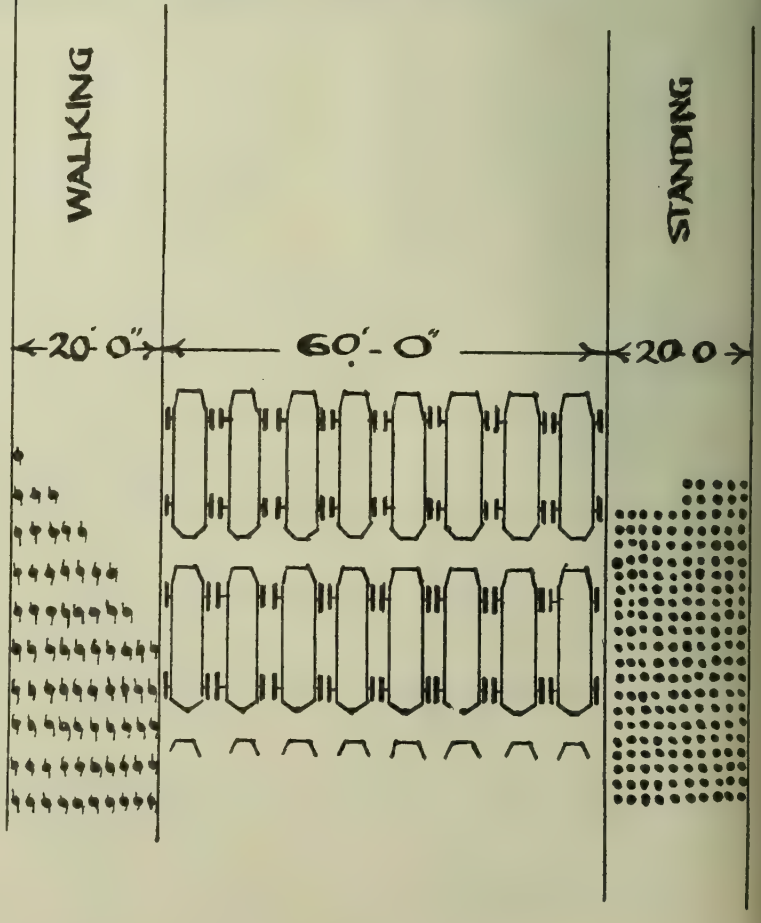
Professor Adshead, F.R.I.B.A., said he came with the anticipation of hearing some new argument put forward. The question was almost a hardy annual; he felt, however, that the solution was near at hand. There was one point which he thought might be misinterpreted. The lecturer said if Central London were occupied by householders, we should have increased congestion; but if one took a map of London it was found that the old residential quarter had rapidly decreased in the centre, yet it did not mean that congestion had decreased.

Mr. Edward Warren, F.R.I.B.A., said it would be an appalling disaster if London were to admit buildings of even half the height of New York and Chicago. If London were deprived of sunshine our streets would be deplorable.

Professor Beresford Pite, F.R.I.B.A., said that a very important and interesting part of the subject could be dealt with from the æsthetic side. Whatever beauty was manifested in a high building was entirely taken away if they had another one next to it: only was sufficient to give dignity to the They could realise the effect if instead of Victoria Tower they had a hundred crow into a small space, similar, in fact, to conditions at Manhattan Island. The æsth aspect was ruined when they had contiguity

Sir Martin Conway, M.P., said he disag with many of the lecturer's conclusions. N had he experienced more comfort than whe lived somewhere about the fifteenth or twent story. In regard to the view from a building, it was incomparable: the most beau in the world. As regarded floor space he sidered that, instead of getting less, one got as one went higher. It had been suggested congestion in New York was the result of buildings. He, however, considered that buildings were the result of congestion, du increase of business. No one, he said, posed to put one high building against anot they must be widely spaced one from the ot Perhaps the main reason why he wanted buildings was to prevent London from encro ing on the country.

Mr. Delissa Joseph, F.R.I.B.A., said Mr. Unwin had referred throughout his a ments to higher buildings, and not to scrapers. No one suggested sky-scrapers neither were they likely to do so. Hi buildings had no connection with sate towns; but if commerce continued to gro must have office accommodation. That acc modation could be obtained by the mode raising of the height of buildings. If logically supported Mr. Unwin's theory were to curtail the development of sh banks, insurance offices, and general commer development, for the fear of a trouble traffic problem getting worse. It was a ma for traffic experts. Let them devote themse to the problem. They must not let the c mercial and industrial development of



ire suffer through curtailment of its s. If Mr. Unwin's forebodings were ded we should have to bring the forces of ion to a standstill.

nally, they must ask themselves the main ve behind the erection of a building. It one of profit not that of amenity or ctics. A man increased the height of his ises because he wished to increase his ess. He remembered some time back the man of the L.C.C. Fire Committee said that lings could not be higher than 80 ft., because was the limit to which water could be ed. At the time it had been remarked "it was grotesque that architecture ld be restricted by the height to which County Council could squirt water."

conclusion, the PRESIDENT moved a vote anks to the meeting, to which Mr. RAYMOND IN briefly responded.

e following are notes from the Minutes of Council meeting on December 3 :—

R.I.B.A. Examinations.

The Board of Architectural Education ts that two candidates had passed the mediate Examination in Sydney and one idate the Special Examination in Cape n.

The Overseas Final Examination qualifying or the Associateship will be discontinued January, 1924, and in its place the Intermate, Final and Special Examinations of R.I.B.A. will be held in the Dominions overby arrangement with the Allied Societies erned.

The following schedule of subjects has laid down for the examination in Professional Practice for students of recognised schools epted from the Final Examination :—

(1) Professional conduct; duties and bilities of client, architect, and builder; chitect as agent of client; architect as bitrator.

(2) Forms of contract and contract documents, including general clauses in specifications.

(3) Law of Easements; rights of landlord d tenant, including dilapidations.

(4) Building Acts and By-Laws.

e attention of candidates is drawn to the that the time allotted for the optional ct, C.3 (Design), will be increased at all e examinations from four hours to 6½ s, i.e., from 10 a.m. to 1.30 p.m., and p.m. to 5.30 p.m. instead of from 10 a.m. p.m. as previously.

e Provincial Conference of 1924 will be at Oxford in July.

der the provisions of By-law 12, Mr. d C. Bossom was elected a Fellow of the B.A.

der the provisions of By-law 24 a Licenwas censured and suspended for six months uoting fees lower than those prescribed by R.I.B.A. scale when applying for appointas architect to a public authority.

"DIANA OF THE EPHESIANS."

R BANISTER FLETCHER, in his lecture at the ral School of Arts and Crafts on Decem-5, traced the origin of the "Ionic Order" chitecture, as used by the Greeks, more ially in their colonies in Asia Minor. It was ter and more graceful than the sturdy an, and so it came about that the capital widened by the addition of the Ionic e above the echinus and the base was d to the fluted column to supply an appearof strength.

discussed the various suggestions, more or fanciful, as to the downward carving lute" or curl, which might be studied by loners at the British Museum to-day. Some ght its origin might be traced to Nature-s, such as the twist of the ram's horn, or of beautiful nautilus shell, which must have nded on the shores of Greece; others ght it was merely a developed form of the bracket capital of primitive timber architecture; while others, again, turned to the vegetable types of Egyptian capital as the prototypes of this curved form.

Amongst the many temples erected by the Greeks in this order were the two widely-different temples of Nikè Apteros, picturesquely perched on the Acropolis rock, dedicated to Athena in her character as patron goddess of naval enterprise, and that other gigantic building at Ephesus, erected to Artemis, better known as "Diana of the Ephesians." The site of this vast structure might still be traced, but the most striking record of this temple, with its services, its craftsmen, and its surroundings, was that dramatic description in the Acts of the Apostles which vividly portrayed the human interest of those days during the dawn of Christianity. The Erechtheion, a triple temple on the Acropolis, was another beautiful example of the Order, which had been much used down to modern times, and was thus another example of the immortal element which ever persisted in art.

MANCHESTER SOCIETY OF ARCHITECTS.

MR. PAUL OGDEN, speaking recently at the annual dinner of the Manchester Society of Architects, said he was weary of hearing people decry the architectural features of the city. Manchester had been told to remove the Albert Memorial. He would affirm that there was not a better memorial in the country, and it was the work of a Manchester man. A better theatre could not be found than the old Theatre Royal, nor a better art gallery than Barry's building in Mosley-street, and there were many other fine things if people only had the eyes to see and the intelligence to appreciate them.

In regard to the Ministry of Health, he said he was ready to admit that the Ministry had given them open spaces and the valuable Tudor Walters' report. But it had interfered with Manchester schemes in a manner which indicated that it did not know its mind, and he felt bound to say that Manchester could manage these things for itself much better than London.

THE LORD MAYOR (Alderman W. T. Jackson) said he agreed that devolution in such matters was desirable, but when the central authority provided a good deal of the money for building schemes interference of some degree was inevitable. On the general subject of architecture, he said that good architecture as a civic amenity had been somewhat neglected. Most big cities now had an architect's department, and the question arose: What was the legitimate sphere of activity of such a department? Personally, he thought it should be rather an administrative and advisory department than one to which people should look for creative genius. Some time ago, the Manchester City Council rejected the plans of an outside architect for a 'bus garage on the ground that there was a municipal architect who could furnish designs. That did not seem to him wise. It would have been just as reasonable to build an art gallery and then commission one artist to paint all the pictures for it. He was a strong believer in municipal enterprise, but for that very reason he would enlist the best brains in any profession to help any enterprise upon which the municipality was engaged. He did not see why good architecture should not be introduced to a greater extent in domestic buildings. He did not see why a workman's cottage should necessarily be ugly, but almost invariably it was.

MR. J. A. GOTCH (President of the Royal Institute of British Architects) said he had never heard a public man in the position of Lord Mayor make a speech so full of sound common sense on the subject of architecture as that which the Lord Mayor had delivered. He ventured to suggest that Manchester should follow the example of Birmingham and form a civic advisory committee to consider questions relating to the architectural amenities of the city and similar matters.

GOOD AND BAD MANNERS IN LONDON ARCHITECTURE.

AT the second General Meeting of the London Society, held on December 14, Mr. A. Trystan Edwards read a paper on this subject. Sir Charles Ruthen presided. The lecturer, in the course of his remarks, dealt with the nature of urbanity in architecture, and said urbanity was nothing more or less than good manners, and the lack of it bad manners. He contrasted a city of the old-fashioned type, in which public buildings dominated over shops, offices, and private dwellings, with a city in which the social hierarchy no longer obtained. He objected to sky-scrapers overtowering cathedrals and town halls, and to shops with domes and steeples, on the ground that such buildings showed a spirit of vulgar self-assertion which made impossible the dignified aspect of the city as a whole. Many British architects would like to erect sky-scrapers similar to the Tribune Tower, Chicago, but what chance would a Wren building have of asserting itself against such a heavy-weight? The Bush Building, which, when completed, would present a cupola comparable in size to the dome of St. Paul's Cathedral was, he said, a tendency to be deplored. It would eventually oust the dome of St. Paul's from its proud position of pre-eminence. When finished, the dome, from the riverside, would over-top Somerset House and be the most conspicuous thing in view.

The London squares of the Georgian era suggested that the occupants were more concerned to provide restful architectural effects than the tiresome expression of the idiosyncrasies of each separate householder. There was too much tit-bit architecture in those parts of London where the genius of our eighteenth-century forefathers established a great tradition of urban building. Urbanity in architecture consisted not only in the deference which one class of structure might owe to another, but in the deference it should pay to the street of which it formed a part. Another kind of bad manners in buildings, such as disregard for the public, was shown in carelessly designed backs of houses. The convention of blind windows was one of those white lies without which social intercourse was impossible; in fact, architectural good manners—not, perhaps, admirable in itself, but necessary for street buildings.

The lecturer also made reference to the "discourtesy" of many modern commercial buildings, which ignored the scale of the human figure and belittled the passer-by as if with direct intent to make him feel insignificant. Types of modern shops, familiar to Londoners, were contrasted unfavourably with the buildings of old Regent-street. In suffering Regent-street to be destroyed, we had lost the extreme example of good manners in architecture. In conclusion, he expressed the view that the cause of good manners in architecture was best served by a critical public opinion which, through agencies such as the London Society, could powerfully assert itself and ensure that the civic ideal would receive recognition.

In the discussion that followed, Mr. Raymond Unwin said Regent-street was on its way to destroy its value as a shopping centre, and customers were removing to another street. There was profound reality in the fact that, if architecture got too far away from the truth, it would come a cropper in the end. Truth was not inconsistent with good manners. They should learn and recover from the past the way in which architecture should be carried out.

The lecture was illustrated by slides, including views of the Quadrant in Regent-street, and the Harmonic Institution at the corner of Argyll-street.

PLAN COPYING IN BLACK LINES. By H. J. Hall. (London: Sir Isaac Pitman & Sons, Ltd.) Price 2s. 6d. net.

REVIEW OF ARCHITECTURAL WORK IN INDIA, 1918–1921. (Calcutta: Superintendent Government Printing, India.) Price, Rs. 5.

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ILLUSTRATIONS.

Royal Academy Students' Work.

A review of the drawings submitted for this year's Royal Academy Prizes and Studentships was given in our last issue; this week we illustrate a Design for a Railway Terminus, by Mr. J. C. G. Knight (R.A. Gold Medal and Edward Stott Travelling Studentship, £200); and Design for the Decoration of a Portion of a Public Building (Pottery), by Mr. T. D. England (First Landseer Prize (£30) and Silver Medal).

Swansea Masonic Temple Competition.

The design for Swansea Masonic Temple, by Messrs. Willmott & Smith, of Cardiff, was placed first in the recent competition. Mr. Arthur Keen, F.R.I.B.A., was the assessor.

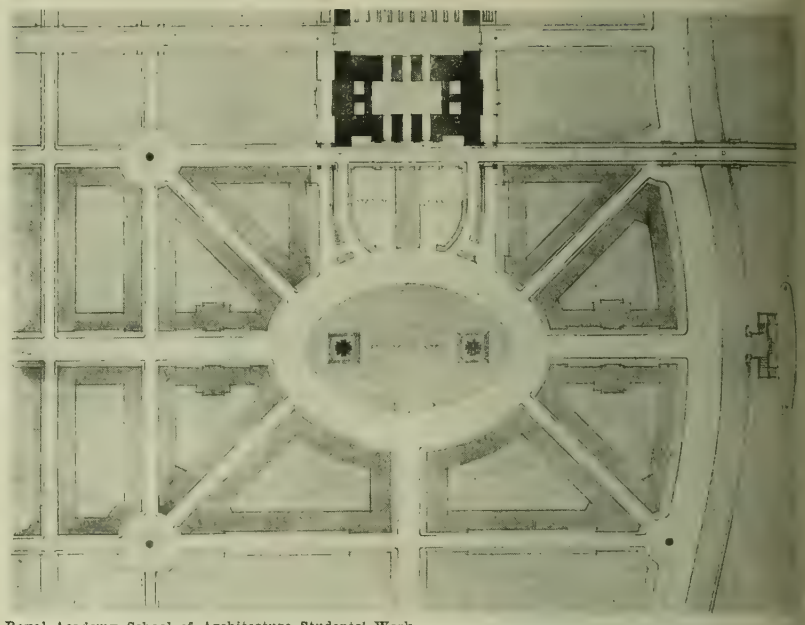
Holy Trinity Church Hall, Hounslow.

The main entrance is from Bulstrode-road and faces south. A staircase leads to the larger hall on the first floor (58 ft. by 40 ft.), which seats 450 persons and could be used for dances as well as concerts, &c. At the farther end of this hall is a raised stage with retiring rooms, &c., for artists. An additional exit at this end is provided by a secondary staircase, giving access on to the Alexandra-road. This staircase is continued to the stage level for the use of the artists. There is a smaller hall (40 ft. by 28 ft.) on the ground floor at the northern end of the building, which is capable of sub-division by a movable partition. Lavatories for both sexes are placed in suitable positions for use in connection with both halls, and service is provided by means of a kitchen in close communication with the secondary staircase.

In addition, there are four large classrooms which can on occasion be alternatively used as cloakrooms. The building will be heated by means of hot-water radiators and pipes.

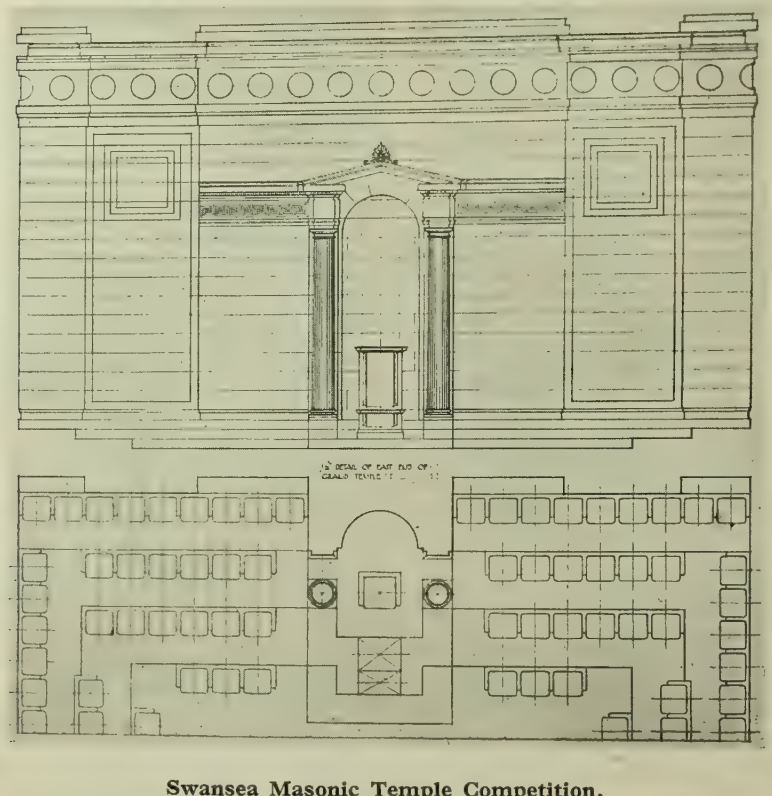
Considerations of economy have dictated a style of formal simplicity both in plan and elevation. Ornament has been avoided, a an attempt has been made to obtain archit tural effect by the inter-relation of the m features of the composition. The walls are be faced with picked London stock bricks, interior of the walls being of Fletton bri finished fair face and distempered. The ro will be supported by steel trusses 10 ft. ap and covered with double Roman tiles.

This design, by Mr. Cyril A. Farey, A.R.I.B. was selected by the assessor, Mr. Walter Tapp in the recent limited competition.



Royal Academy School of Architecture Students' Work.

Design for a Railway Terminus. By MR. J. C. G. KNIGHT.
Awarded R.A. Gold Medal and Edward Stott Travelling Studentship (£200).



Swansea Masonic Temple Competition.
Design Placed First: By MESSRS. WILLMOTT & SMITH.

House at Nunthorpe, Berkshire.

This house is being built in the village Nunthorpe, some nine miles from Middlesbrou and occupies a site looking on to some of t most beautiful peaks in the Cleveland Hi All the principal living-rooms are arranged the south front with a view towards these hi the kitchen wing and garage, &c., occupy the north-east corner. The house is built local sand-faced bricks and hand-made sa faced roofing tiles.

The feature of the plan is the hall-living-roo with the drawing-room and dining-room openi off it. All the domestic offices are screened a high wall, towards the garden front, which terminated by the garage roof, forming a go protection from the north-east winds. T main staircase and all floors to ground-flo living-rooms are in oak.

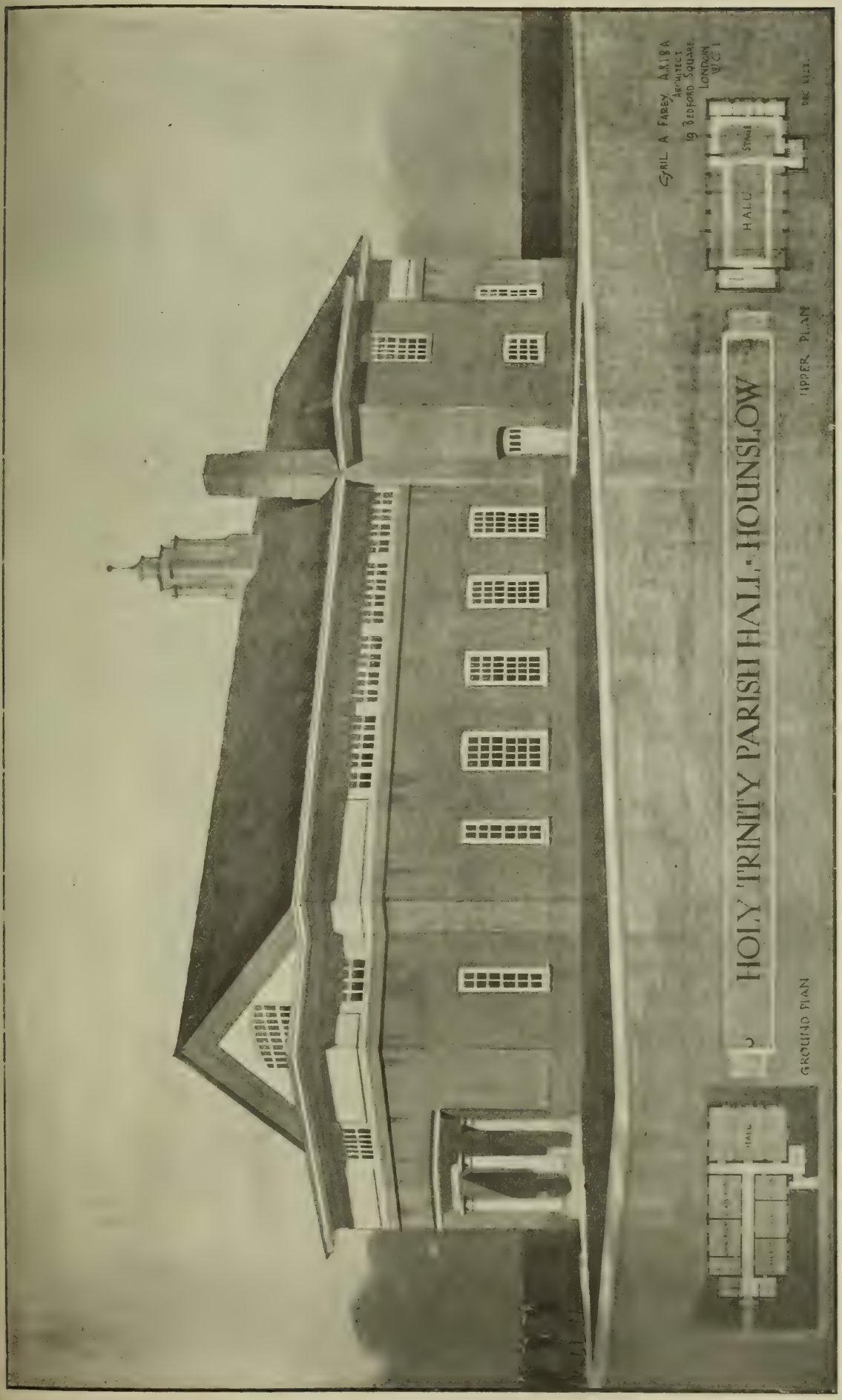
The house is being built by Messrs. Goodru & Tapster, of Middlesbrough. The bricks a supplied by the Eaglescliffe Brick Co., and t tiles are hand-made "Rosemary."

Messrs. Adshead & Ramsey, FF.R.I.B.A are the architects.

New Premises, Wimbledon.

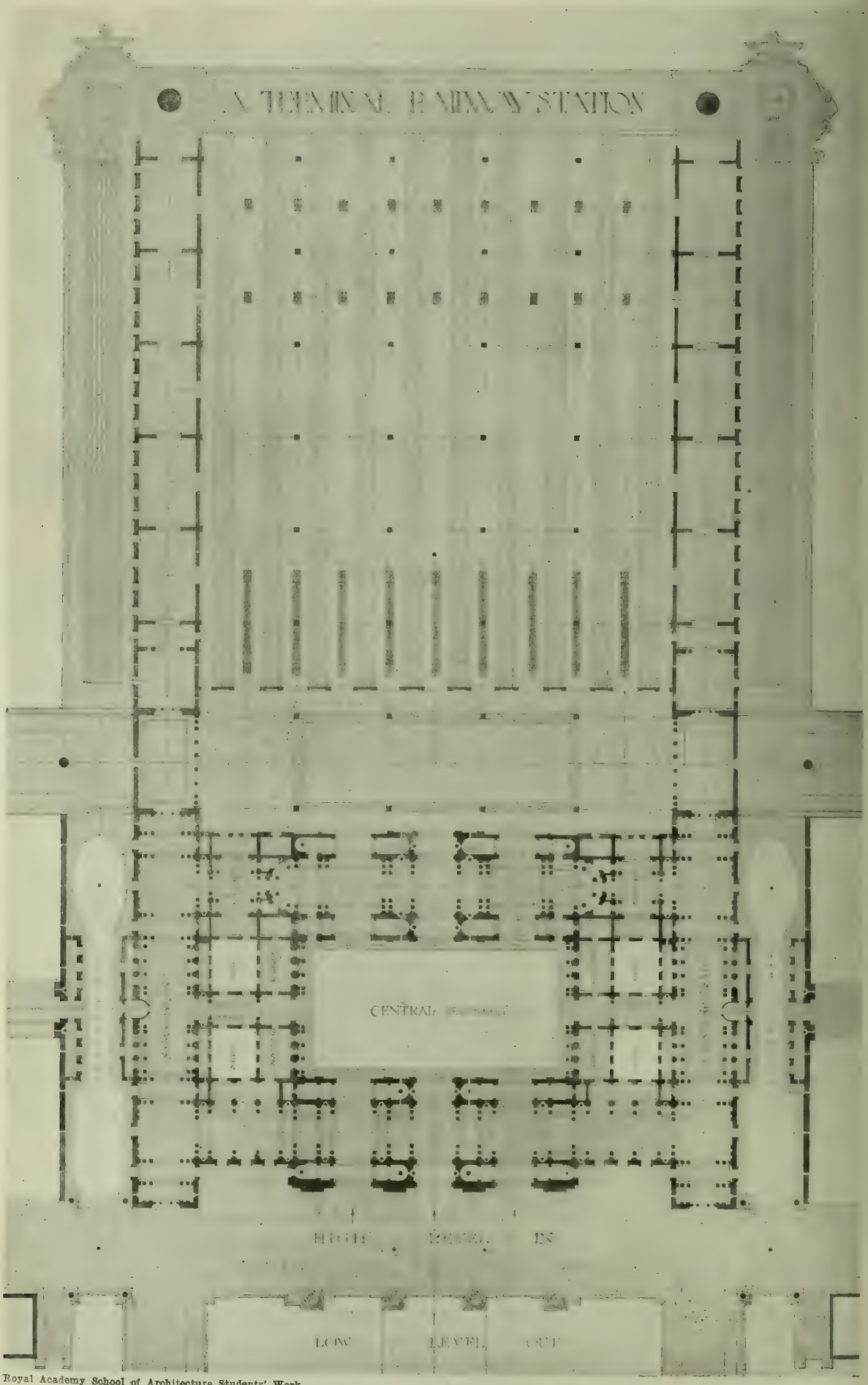
The illustration on p. 961 is of a new drape establishment for Messrs. Elys, at Worple-roa Wimbledon. This is an extension of the present premises facing Hill-road, and unit thereto. The joint architects are Mr. Hamilton Simpson, F.R.I.B.A., and Mr. Hen W. Burns, F.S.I., and the quantities we prepared by Mr. A. J. H. Sprague, F.S.I.

The general contractors are Messrs. Roberts & Co., Ltd., of Kensington; met shop front by Messrs. Griffiths Bros., Chris church; floors by Messrs. Fram, Ltd.; centr heating by Messrs. Durbin & Katesmark artificial stonework by Messrs. F. Bradford Co.; steelwork by Messrs. H. Young & Co. metalwork by Messrs. Jas. Gibbons, Ltd. ornamental glazing and top-lights by Messr Luxfer; electric light wiring by Messrs. Misk & Rice; asphalte by Messrs. Thos. Faldo Co., Ltd.



Holy Trinity Parish Hall, Hounslow.

Mr. Cyril A. Farey, A.R.I.B.A., Architect.

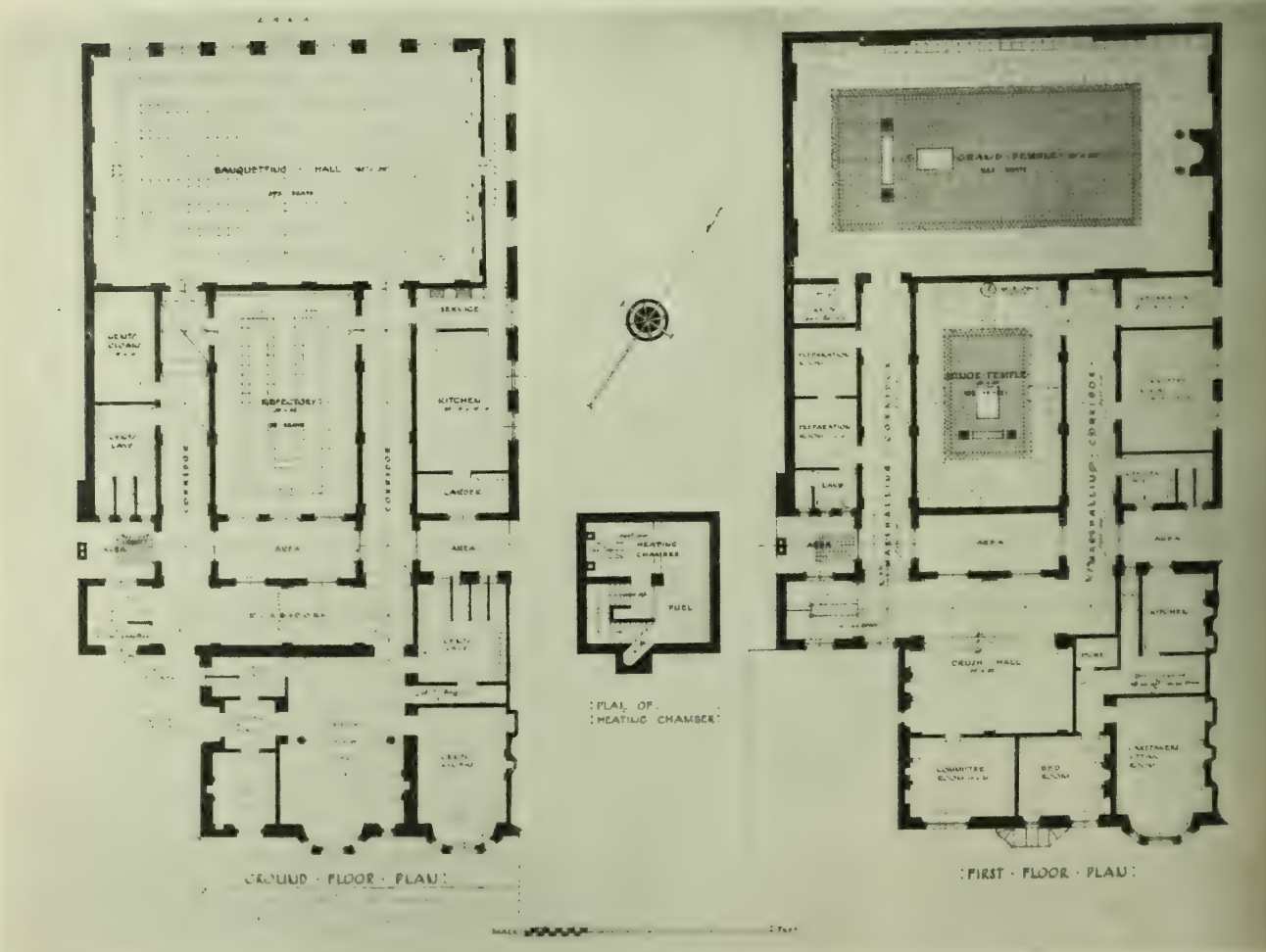


Royal Academy School of Architecture Students' Work.

Design for a Railway Terminus. By MR. J. C. G. KNIGHT.

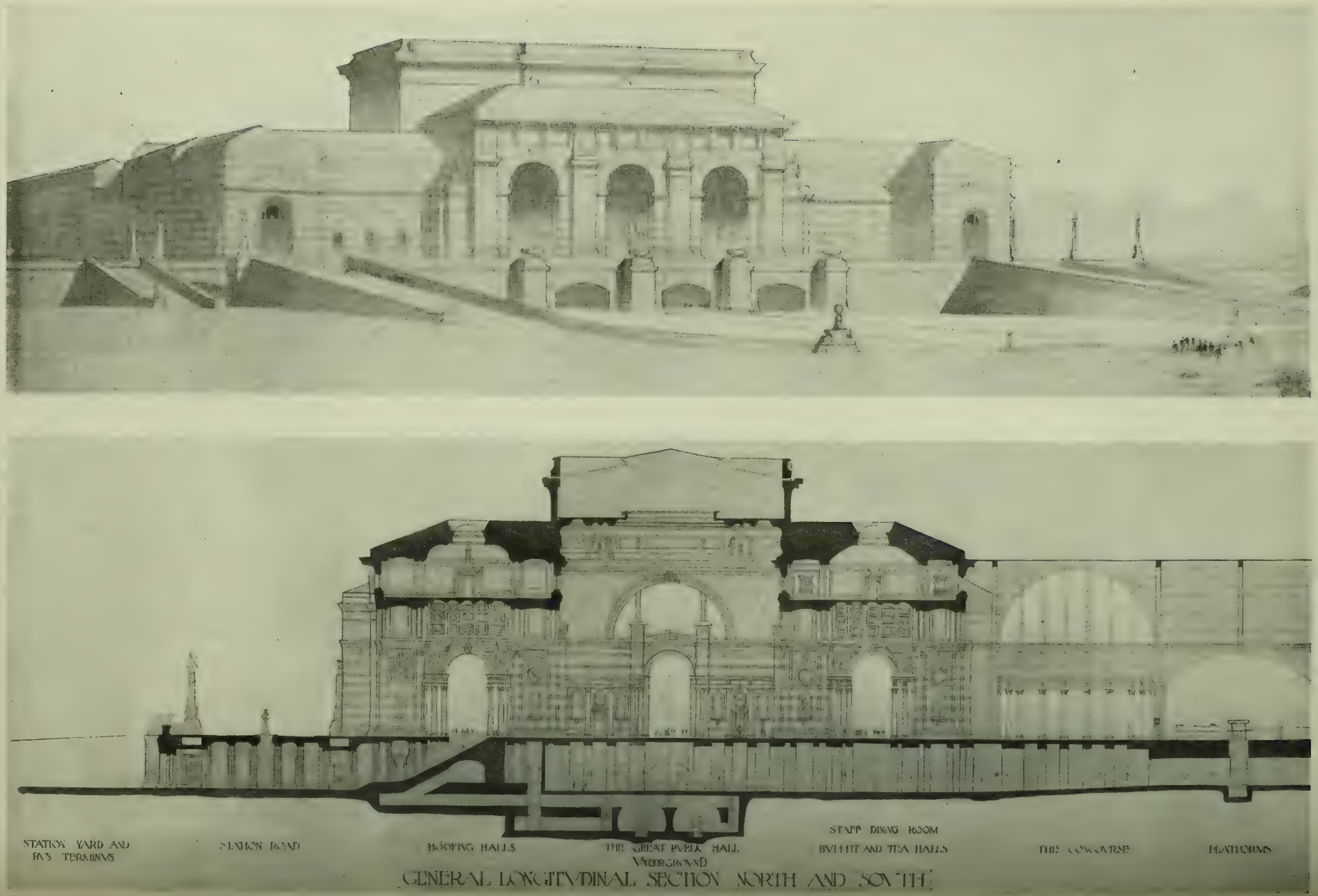
Awarded R.A. Gold Medal and Edward Stott Travelling Studentship (£200).





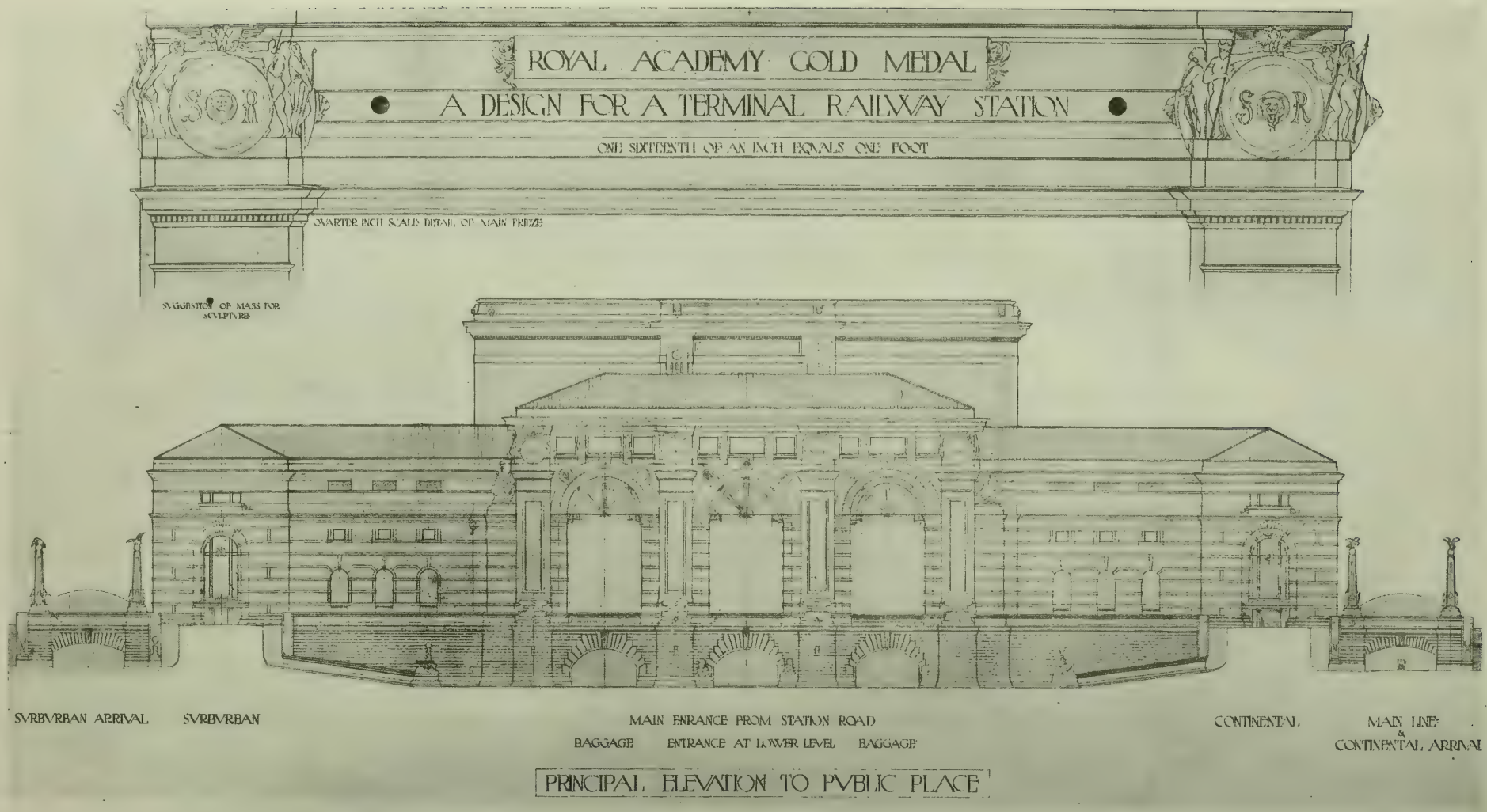
Swansea Masonic Temple Competition.

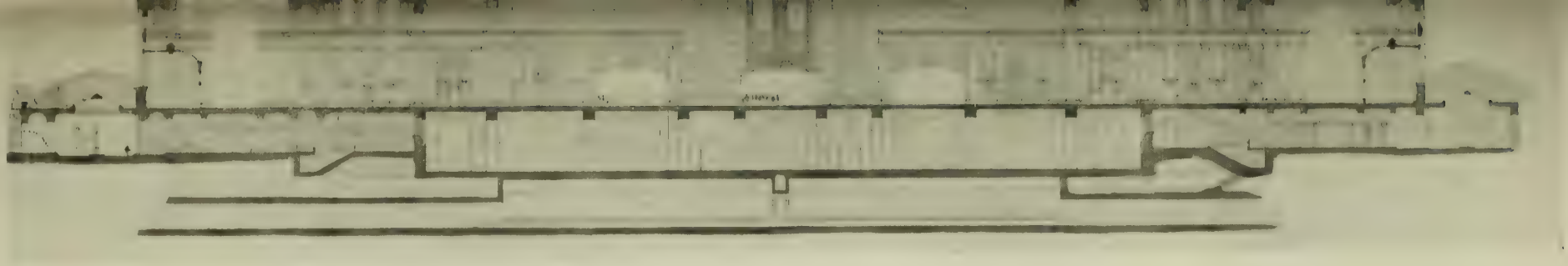
Design placed First: By Messrs. Willmott & Smith.



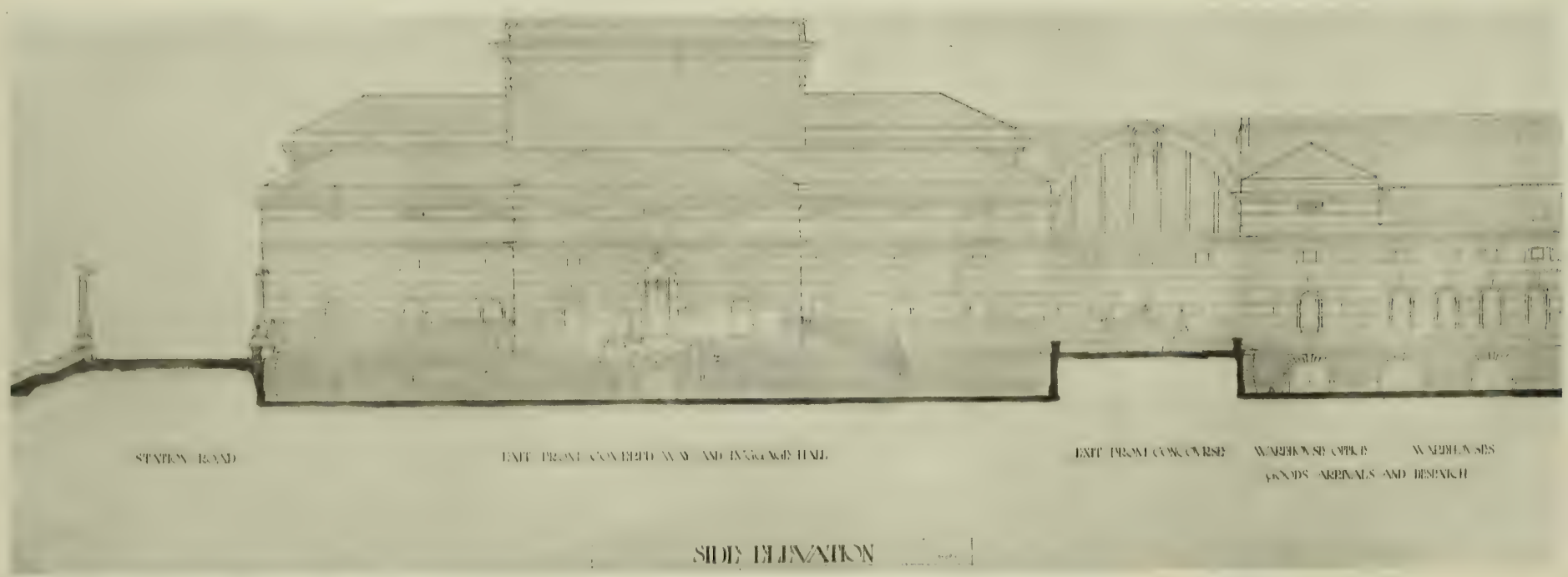
Royal Academy School of Architecture Students' Work.

Design for a Railway Terminus. By Mr. J. C. G. Knight. Awarded R.A. Gold Medal and Edward Stott Travelling Studentship (£200).


ROYAL ACADEMY GOLD MEDAL
A DESIGN FOR A TERMINAL RAILWAY STATION
ONE SIXTEENTH OF AN INCH EQUALS ONE FOOT
QUARTER INCH SCALE DETAIL OF MAIN FRIEZE
SUGGESTION OF MASS FOR SCULPTURE
SUBURBAN ARRIVAL
SUBURBAN
MAIN ENRANCE FROM STATION ROAD
BAGGAGE
ENTRANCE AT LOWER LEVEL
BAGGAGE
CONTINENTAL
MAIN LINE & CONTINENTAL ARRIVAL
PRINCIPAL ELEVATION TO PUBLIC PLACE



TRANSVERSE SECTION.



SIDE ELEVATION

Royal Academy School of Architecture Students' Work.

Design for a Railway Terminus. By Mr. J. C. G. Knight.

Awarded R.A. Gold Medal and Edward Stott Travelling Studentship (£200).



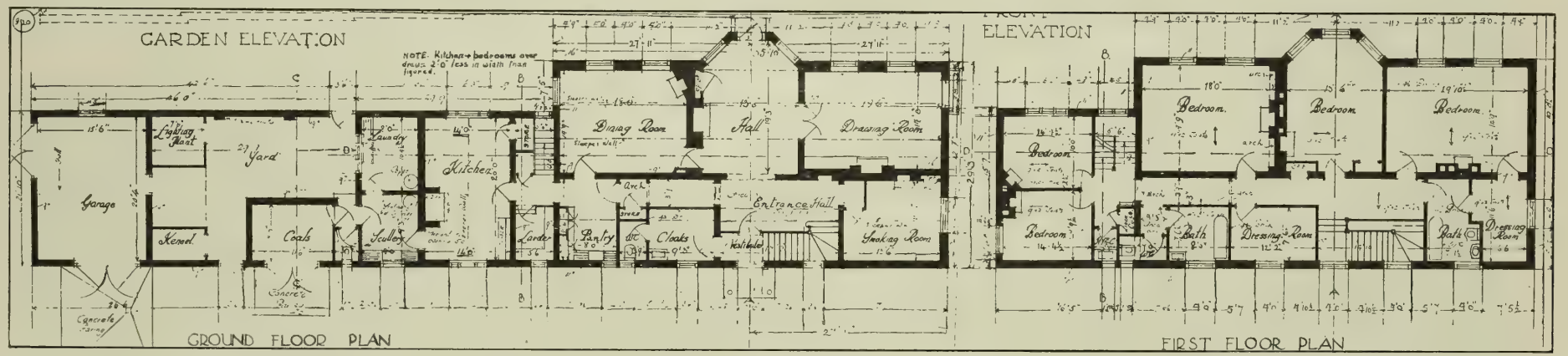


Royal Academy Students' Work.

Design for the Decoration of a Portion of a Public Building: Pottery. By Mr. T. D. England.

[Awarded First Landseer Prize (£30) and Silver Medal.]



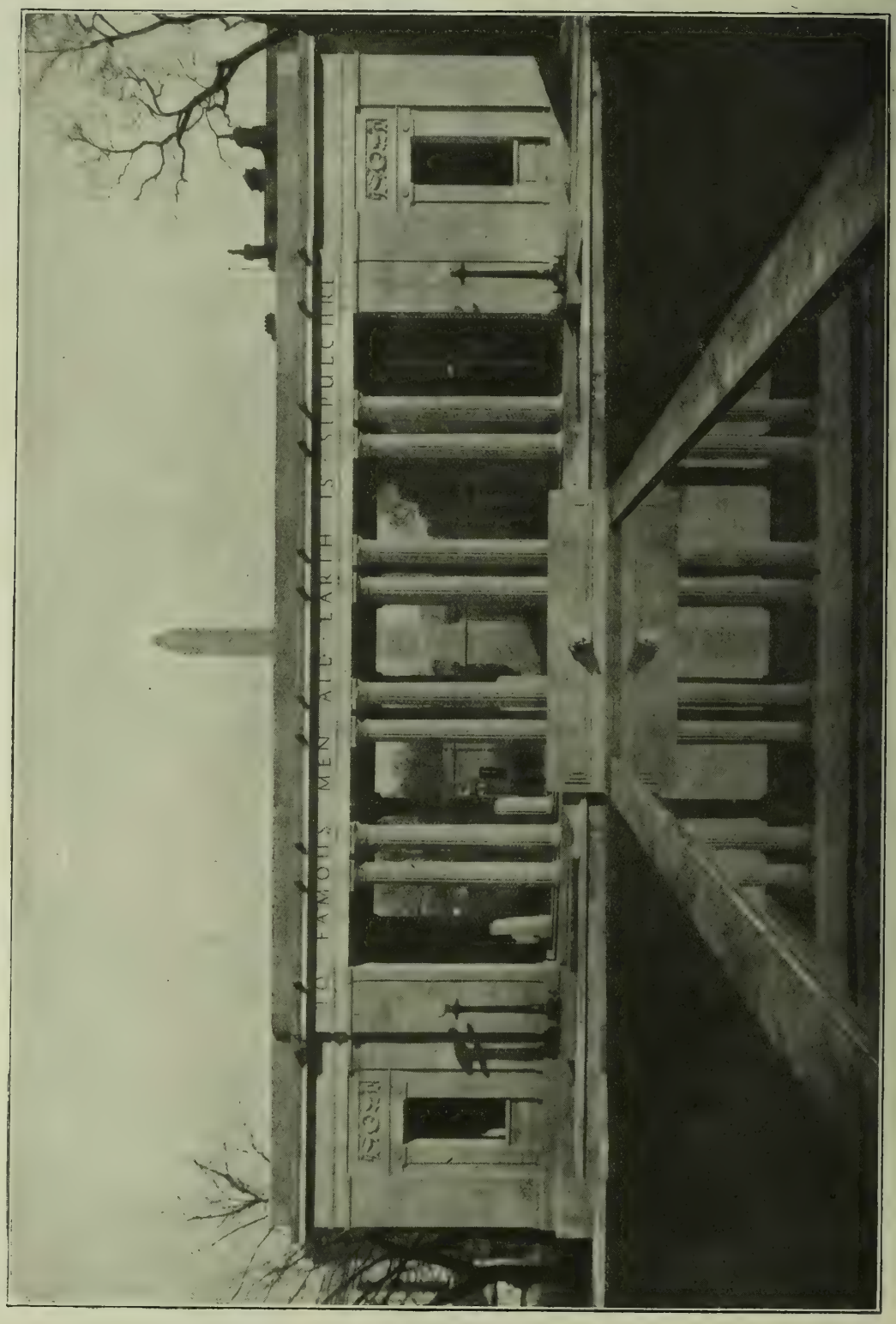


House at Nunthorpe, Yorkshire.

MESSRS. ADSHEAD & RAMSEY, FF.R.I.B.A., Architects.



New Premises, Wimbledon. MR. C. H. SIMPSON, F.R.I.B.A., AND MR. HENRY W. BURNS, Joint Architects.



Southport War Memorial: The South-West Colonnade and New Water Garden.

Messrs. Grayson & Barnish, FF.R.I.B.A. and Mr. A. L. McMillan, A.R.I.B.A., Joint Architects. (*See p.* 964.)



Southport War Memorial: The South-West Colonnade

MESSRS. GRAYSON & BARNISH, FF.R.I.B.A., AND MR. A. L. MCMILLAN, A.R.I.B.A., Joint Architects. (*See p.* 964.)

SOUTHPORT WAR MEMORIAL.

THE Southport War Memorial was unveiled on November 18 by the Earl of Derby. The joint architects are Messrs. Grayson & Barnish, FF.R.I.B.A., of Liverpool, and Mr. A. L. McMillan, A.R.I.B.A., of Southport, whose design was accepted in an open competition assessed by Sir Reginald Blomfield, R.A., in 1919. A connecting link between the obelisk and the gardens and the approach to the cenotaphs is formed by the open colonnades, which also emphasise the symmetrical lay-out of the square. The colonnades, formed with coupled Doric columns, have coffered ceilings. By the Ionic columns which mark the approach to the cenotaphs is a series of flags fixed to ebonised teak standards, and secured by bronze brackets. The apex of the obelisk is 67 ft. 6 in. above the flagging, the upper portion being 87⅞ diameters high.

EXHIBITION NOTES

OLD DRAWINGS AND PRINTS.

In the pleasant galleries of Messrs. Ellis & Smith, Grafton-street, is an extremely interesting exhibition of old drawings and prints of old London, which cannot have been got together without much careful effort. Notwithstanding the doubtful drawing and somewhat mechanical handling of many of the pictures, they have an undeniable charm. Sometimes the drawing of architecture by Rowlandson is so bad that one wonders how so able an artist could see it so badly, yet in his "Grand Improvements at Westminster" the figures and buildings are so intimately allied that a very charming drawing results and we forget to criticise the buildings. James Malton, Thomas Sandby, George Shepherd and Joseph Farrington made illustrations which remain of real value. Of these, Malton was the most remarkably sound and reliable—he would never have drawn the abutment columns on Waterloo Bridge with volutes as in the Farrington drawing. There is a fine aquatint of his "New Palace Yard" and the view of "Saint Paul's," of "St. Peter-le-Poor," and "Covent Garden" are amongst his best. The view of what Charing Cross was, as depicted by George Moore in his statue of Charles the First, shows how charming a picture it was compared with the dull mixture we see to-day, which only needed foresight and breadth of treatment to have become one of the finest civic centres in the world. To-day we have lost the old charm of the picturesque without obtaining the breadth and dignity which might have been some sort of compensation.

SWEDISH ARTS AND CRAFTS.

The Swedish Arts and Crafts Exhibition at the Grieves Gallery is worth seeing. A noticeable feature is the refinement of detail in the silver work, but in the fabrics there is much that seems crude and needlessly archaic. The pottery and glass are interesting, but we regret wood-carving was not included in the subjects.



"VICTORY." "MOURNING."

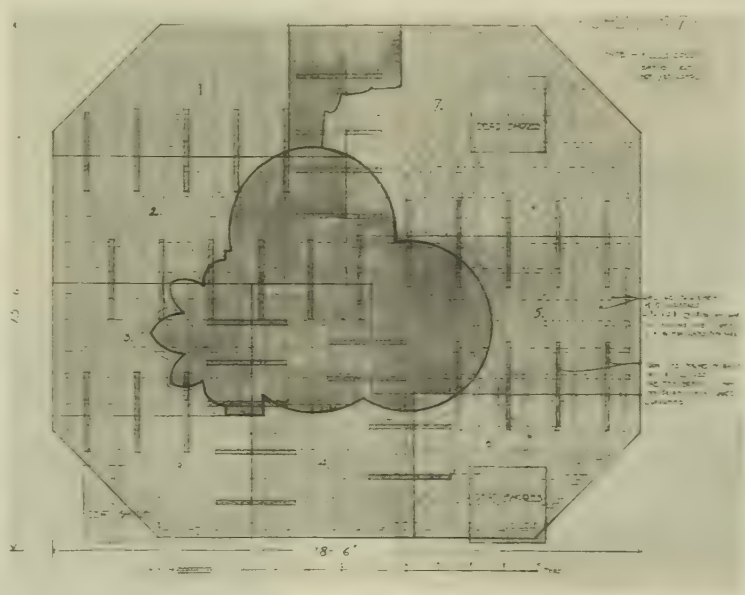
Panels on the Southport War Memorial.

MESSRS. GRAYSON & BARNISH, FF.R.I.B.A., AND MR. A. L. MCMILLAN, A.R.I.B.A., Joint Architects

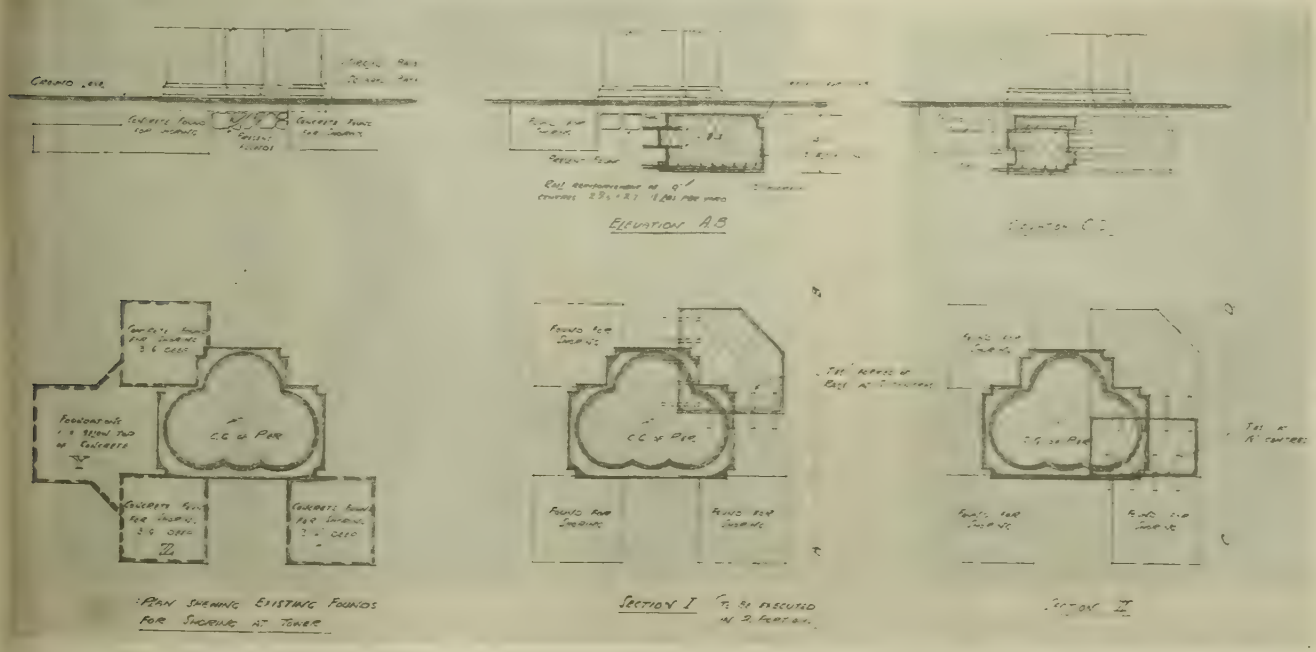
JEDBURGH ABBEY.—II.

By WILLIAM HARVEY.

The threading of the needles through the shattered walls of the tower demanded great caution, and a plan of operations was carefully made out before any stones were withdrawn. Although it was extremely desirable to avoid burdening the old piers, the state of the tower walls was such as to make it impracticable to cut needle holes until the surrounding masonry had been consolidated with cement grout. After the erection of the raking shores to the tower and centering to its arches, but before any needling could be commenced, the process of washing out joints and inserting cement was put in hand. The process involved a great deal of anxiety as the temporary timber supports could not be expected to relieve the fractured piers to any great degree, and the weight of cement required to fill the starved joints at this part of the masonry was considerable. The piers showed continual signs of movement under the altered conditions and added load. Tell-tales placed across the old cracks fractured again and again after being renewed, and demonstrated the precarious state of the ruined building. When the process of consolidation had proceeded as far as was deemed advisable in view of the conflicting requirements of the case, the holes for the needles were cut in successive small stages, with all the precautions used in tunnelling operations. The sides of the excavation were made good in hard Hailes stone set in cement as the work proceeded. The outer stones, which had perforce to be removed, were numbered in accordance with diagrams and photographs previously prepared, and were reserved for rebuilding in their proper positions after the needle should have been withdrawn again. The tops of the tunnels had to be made sound enough to communicate the support from the needles to the upper parts of the tower, and this was performed by inserting specially shaped steel plates as lintols from side to side of the opening with their ends bearing upon the Hailes stone linings at the sides of the tunnels. Each lintol was wedged up tightly to the underside of the old work before the next section of the tunnel was proceeded with, and the height of the tunnel was diminished as its length increased so that each succeeding lintol was placed at a rather lower level than that next to it. This device permitted of access to the irregular space between the lintol and the old work above for wedging and tamping in each case. When the tunnels were completed the rolled steel joists were slipped into position, and the space between their top phlanges and the undersides of the steel lintols was built up solid with wedges and small stones set in cement. This packing was rammed in so tightly as to produce a noticeable deflection in the needles since it was considered essential that they should actually carry the load before any operations could be started upon the piers below. Even with the needles in position and the piers relieved of the heaviest part of their load their condition was not such as to inspire confidence. Bulging and split, with the facing stones fractured and the internal rubble core in a powdered and disintegrated state, they had still to support the weight of their own masonry to the height of over 40 ft. above ground level. Some further work of consolidation was put in hand in the tower walls around the position of the needles to guarantee that the work should not break away piecemeal or settle unequally and affect the piers. It was also necessary to see how the gantry behaved under the load before attempting any work between the needles and the ground. These precautions were completely justified by the facts which were revealed in the process of the repairs. The cracks and movements which showed themselves on the wall face were but symptoms of more serious defects within, for, in addition to fractures and starved joints, large



Plan of North-West Pier: Sections 1 to 5 of New Reinforced Concrete Foundations were placed in Position before the Temporary Dead Shores were Removed.



Reinforced Concrete Foundations to Pier of Tower: Part of a Diagram Prepared to Show the Order of Operations.

Jedburgh Abbey: Underpinning Tower Piers.

[The photographs and drawings, except where otherwise stated, illustrating this article are published by permission of H.M. Office of Works.]

cavities were found in the centre of the wall, where old wall passages had been hidden in the course of fifteenth-century repairs without being filled in or having the earlier work properly bonded to the later.

Preparatory to actual recoring works a method of operations was devised, and the limits of each stage in the proceedings agreed upon. Special material was prepared to hand in the shape of screw jacks, steel bar lintols, steel and oak wedges, and short ends of steel rails, and it was made a principle of the operations that whatever was removed from the building should be immediately replaced by something stronger than itself. Each step in the proccedings was directed by this leading idea, and the several successive stages of the work were both thought out and carried out in such a manner as would tend to the prompt insertion of some suitable alternative support placed where it would not interfere unduly with future operations. If once a movement began while the piers were under treatment there was a very unpleasant probability that it would not stop until the material should have arranged itself in a heap on the ground. It was imperative that every action should be smartly executed, and only comparatively small portions of the work were undertaken at any one time. The number of skilled men who can be found for such work is necessarily limited, and space does not permit of hustling methods, nor can the mason in charge of the operations be made responsible for the supervision of too extended a field where so many details all vitally important to the safety of the monument, his own safety, and that of his men, demand his personal attention.

The first cut was made in the north-east pier early in February, 1915, when a small opening was made by the removal of a few facing stones, and the insertion of a pair of jacks and a steel lintol. The lintol was kept down sufficiently far from the top of the opening to admit of the insertion of steel bars between lintol and stone, and each stone was picked up on folding wedges supported by the steel lintol. The steel bars were used as ceiling joists to the cavity in process of excavation in the heart of the pier, and were pushed forward as the work of excavation advanced until they ultimately stretched right across the interior of the pier and were supported at their advanced ends upon the tail ends of stones composing the ashlar facing of its further side. Intermediate supports were put in from time to time as the nature of the work demanded, and the long bars were supplemented by short crossbars in places where the ceiling of rubble was particularly bad. How bad it was may be gathered from the fact that during the whole of the recoring operations it was never necessary to use a tool to dislodge the core which trickled out to meet the masons until at the end of th recoring work the masonry near the ste needles was reached where the repai already executed provided a sound roof f the first time.

The sectional area of the plan of the pi was divided into four quarters, and only on fourth was excavated at once. An entranc having been made, as already described, t direction of the excavation was slanted one side and the left-hand portion of the pi hollowed out completely for a height of abo 3 ft. until the cavity was bounded on thre sides by the tail ends of the ashlar facin stones and on the fourth side by the remai ing mass of rubble core and the small vest bule hole for access. While the roof of t excavation was upheld by the steel bars, jack and props which had been placed in positio as the core was removed, the interior wa carefully cleaned of dust, washed, and t tail ends of the ashlar facing stones coate with cement grout to ensure the adhesion the new concrete. Steel reinforcement ba ½ in. diameter were then placed in positio with hooked ends buried in small hole groped for them in the vertical face of th existing rubble core to provide for connectio to the adjoining mass of concrete when should come to be inserted. The concrete wa composed of Whinstone broken to pass a 1-in ring, 3 parts; clean gritty sand, 1¼ parts; an Portland cement, 1 part. In addition to th provision of reinforcement bars bond wa arranged between the blocks of concrete b forming a step or ledge in the rubble face



Apparatus for Relieving Shores of the Weight of the Needles. Thin Steel Wedges were Inserted in Saw Cuts and Withdrawn by the Use of a Screw Press.



View of Ends of Needles in Wall of Tower. The Upper Needles Penetrate Cornerwise to Grip Two Walls Equally.



Typical Access Hole in Pier of Tower. The Adjoining Stones are Strutted to Prevent Movement during the Recoring Operations.

Jedburgh Abbey Church: Recoring of Piers of Tower

he core against which the concrete was deposited. To ascertain the degree of success hat had attended the process of consolidation specimen of concrete was cut out with a ragment from the back of one of the facing tones firmly embedded in and adhering to t. When the first mass of concrete had been uccessfully rammed home and allowed to arden a second portion of core was excavated n the other side of the pier, and when the oncrete had been deposited there the reaining central mass of core was removed nd the two great blocks of concrete incorporated together by means of a third mass eposited in the space between them. The ooked ends of the reinforcement bars came nto view again as the intervening mass of ubble core was removed, and connection was ade with other bars made with hook to hook. rogress was necessarily slow, as each conrete block had to set before adjoining parts ould be proceeded with. A slight delay occurred through the sinking of a boat which ruck a mine while bringing cement for the orks.

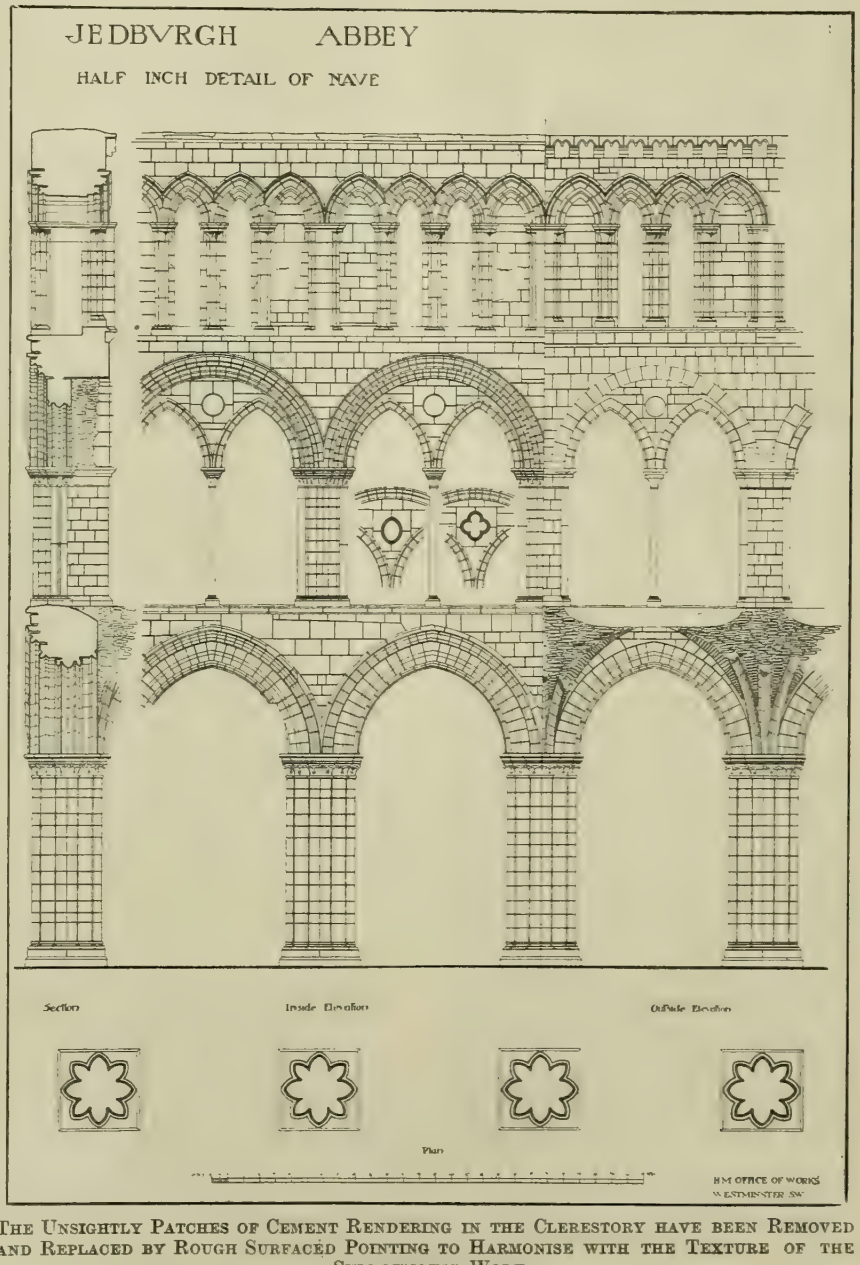
By the end of May, 1915, nearly four onths after the first cut had been made, he north-east pier had been recored up to the vel of the springing of the tower arches. he core here was found to be extremely oose and disintegrated, and the work was rried on upwards and outwards over the orth arch. As had been the case in the inerior of the pier, the ashlar was found to ave been split in all directions, and it was ecessary to insert copper cramps to save the agments of voussoirs that were in danger f falling away piecemeal. Steel reinforcement was used in the haunches of the arch o connect the masses of concrete, and some ther heavier sections of steel were inserted o take up part of the shearing stress which ad shown its dangerous effects in the fracured capitals and voussoirs near the springg of the arch. Throughout the work the shiar facing stones were found to have been rought only for a distance of 2 in. or 3 in. om the face, and to have been roughly essed to a pointed form where they tailed to the core. This " scamping " of the beds oubtless contributed to the bulging of the ers while the interior was formed of indifrent lime rubble; it is, perhaps, no defect ow that the piers are packed with excellent ment concrete since the space between stone nd stone allows the infilling to penetrate om the interior to within a few inches of e exterior face of the piers.

Work upon the north-west pier was comenced on May 8, 1915, and proceeded eadily until a year later the recoring had eached well out over the arch, and was conected up to the concrete already deposited the eastern half with a large keystone or rown block of concrete. This block had for s upper boundary the portion of the tower all that had been consolidated when the eel needles were inserted. On each side it as bounded by the masses of concrete, reacing the old disintegrated core, and beath it were the old Norman voussoirs, or ther the fragments of them which had rvived the racking movements in the arch. hey were retained in position with the help copper cramps, and still form part of the ructure although the core of reinforced conete is now so continuous as to form a comete weight-carrying frame. The two piers nd the arch above had now been thoroughly nsolidated and made practically monolithic ithout the removal of any large proportion the ancient facing stones. It must not e supposed that the whole of this delicate iece of work was performed without any xtraordinary precautions being taken. All d fractures were bridged with cement tellles, and the inspection and renewal of these, nd the examination of surrounding surfaces r possible new cracks, formed an important art of the work. The labour of keeping the mporary supports, wedges, screw jacks, rops, and bars in an efficient state of bearing during two years was colossal, and demanded vigilance both day and night. Undue force in tightening minor supports would have precipitated movements in the shattered structure, and to keep all supports equally tight demanded a routine of rounds which could neither be neglected nor relegated to any inexperienced workman.

The information as to movements in the structure afforded by the cement tell-tales and the opening of fractures was augmented by periodical readings of the levels of a series of copper dowels that had been inserted in the tower parapet at the commencement of the repairs, and also by reference to plummets at the corners of the tower. As the readings from these sources admitted of some uncertainty due to varying conditions of temperature, humidity and wind pressure, a special instrument for detecting minute movements was prepared at the National Physical Laboratory, Teddington. After experimenting with a magnifying lever arm, a telescopic apparatus was installed. The telescope was mounted upon a rigid support and was directed to sight through a lens fixed upon the north-west pier near its base to a graduated scale on the north transept wall. Readings of great precision were taken with this instrument, which permitted records to be kept of movements incapable of measurement by levelling or the use of the plummet.

A clerk of the works' report on July 21, 1917, describes the tell-tales and plummet wires as steady and no sign of movement in the tower. The telescope readings, however, lifted slightly on very hot days and returned to the centre of the scale on cool ones. The variations due to temperature were extremely slight, and from the moment the recoring was completed structural movement was practically brought to a stop with the summit of the tower just 1-16th in. lower than it had been shown by the preliminary survey.

The future preservation of the tower demanded that the underpinning should be put in hand. The weight of the two defective piers and of the north wall of the tower had been increased, by the addition of sound new material, to the extent of approximately 32 tons, and against the improved power of resistance thus obtained the fact had to be considered that some of the chief original causes of decay remained unchecked. Nothing had yet been done to spread the weight effectively upon the weak subsoil. The south winds would still tend to overturn the building, and the existing historical overhang of the wall to the north, which had been pre-



THE UNSIGHTLY PATCHES OF CEMENT RENDERING IN THE CLERESTORY HAVE BEEN REMOVED AND REPLACED BY ROUGH SURFACED POINTING TO HARMONISE WITH THE TEXTURE OF THE SURROUNDING WORK.

served with all other historical evidences, still exerted a damaging eccentric pressure upon the two northern piers, and would assuredly tend to make them grind their way deeper into the subsoil by imperceptible degrees with every vibration of the building just as had been the case before the repairs had been undertaken.

The underpinning operations were complicated by the presence of the temporary foundations for the pitch pine dead shores, which could not be removed until a large proportion of the underpinning was completed. These concrete blocks beneath the shores had been inserted when the shattered condition of the piers forbade any freedom of excavation near their bases, and for this reason it had been found impossible to arrange for their retention or include them as part of a future scheme of underpinning. To keep the pressure on the subsoil below three tons to the square foot a large lateral spread was necessary, and the combination of mass concrete with a grillage of reinforcement was adopted. The principle of executing the work in sections, which had been pursued successfully in the recoring of the piers was also adopted for the insertion of the new foundations. As each pit was formed for depositing the concrete the reinforcing rails were laid with their ends pushed forward into small holes groped for them in the earth on the sides where other sections of concrete would be cast in later stages of the work. Bond between the different blocks was assured by several lengths of rail inserted in this manner, and also by steps or toothings formed in the concrete to avoid straight vertical joints between one block and the next. Six-inch toothings were formed by the use of double waling pieces to strut the sides of the excavations and then depositing the concrete around them. The waling pieces were removed when the next adjoining section of excavating was put in hand. The interaction of design and the proposed method of execution, so essential in the treatment of ancient monuments, is clearly illustrated in these simple and sensible provisions.

As the underpinning neared its completion and the space occupied by the foundations of the dead shores was required for this purpose, means had to be taken to relieve and withdraw the steel needles. These had been forced to take a very great portion of the weight of the tower and were tightly fixed on the tops of the dead shores, with the steel folding wedges jammed and immovable beneath their seatings. It was desirable that the removal of the needles should be performed without shock of any kind, and also that after they had been relieved they should remain in position ready to be wedged up again in case of necessity if any settlement or fracture appeared in the building owing to the altered conditions of support as its weight was replaced upon the piers instead of upon the needles and dead shores. The operation was performed by sawing the dead shores through near their tops, the saws being followed up by thin-bladed steel wedges specially prepared for the purpose. The wedges were driven in such a manner that when the saws were withdrawn the wedges filled the sawkerf and supported the weight. The wedges were now gradually withdrawn again by means of a specially designed screw press, and the needles were lowered about 1-16th of an inch. The weight of the tower was now once more borne upon its Norman piers. Although the overhanging walls of the nave did not present the same difficulties as the tower or call for such radical treatment, their state was far from satisfactory since, while the bases of their piers stood in approximately straight lines, the wall tops as seen from the top of the tower were curved into gigantic bows with fractures at the centres of the curve, where their overhang reached its maximum, and at the points of junction with the masonry of the west gable and of the central tower. The difficulty of successfully treating these walls was very greatly increased by the piecemeal decay of the stone surface under the action of wind and damp, particularly in the soffit and walls of the clerestory passage. Certain repairs had already been executed here in recent years which were sound enough to be permitted to remain though the hard sharp edges and monotonous tooling of the new stonework contrast painfully with the weather-worn appearance of adjoining parts. Fortunately the walls are neither very high nor very heavy, and the piers, though slender, are comparatively well built and closely spaced. The pressures due to the overhanging wall tops are therefore not altogether out of proportion to the resistance afforded by the piers below. The walls were consolidated by washing out the dirt from cavities and defective joints and inserting cement, tamping and pointing. The overhang of the wall and the exclusion of water from the wall top were treated together. The loose dirty core in the wall top was removed and replaced by a long reinforced concrete beam hidden in the thickness of each wall. These beams are not designed to carry weight above their upper faces, but to act horizontally against the wind pressure from the south and against the overturning moment of the wall itself towards the north under the action of its own unbalanced overhang. Ample masses already existed in the masonry of the tower and of the west gable to form anchor holds or abutments at the ends of the long beams and the outward leaning west gable will be benefited by having the ends of the beams buried into its substance to prevent its further drift towards the west. Above the beam the wall top was neatly paved with York stone slabs with a sunk stone gutter and stone gargoyles to throw the water clear of the lower parts of the walls.

The Lady Chapel, which occupies the south choir aisle, retains its early vaulting, rising from massive cylindrical piers. The upper surface of the vault had already been protected by an asphalted flat roof at some former repair, and this has been allowed to remain in position, although when seen from above its dingy black colour is not altogether in harmony with the warm buff and purple grey of the old stonework. The underside of the vault had become covered with a sooty incrustation which adhered to the many coats of lime-white superimposed upon the surfaces of the ribs and panels. After ascertaining by experiment that no colour decoration remained to be affected, the dingy coat was carefully removed and the stone surface brought to light once more.

A paving of York stone was laid as a floor to this chapel to prevent the driving rain making a quagmire of the subsoil.

Excavations on the south side of the building revealed some foundation walls of claustral buildings which have been preserved in view; but the major part of the Abbey ground has been laid out as a garden, which makes a peaceful and pleasant setting to the ancient walls. The artistic value of such suitable surroundings is immense, particularly when blue, cream and white flowers happen to be showing in profusion.

Victoria and Albert Museum.

The Swiss Minister, Monsieur C. R. Paravicini, has lent to the Victoria and Albert Museum seven panels of early stained glass which are now exhibited on the stairway leading from Room 131 to Room 112 on the first floor. Three of the panels, originally in the Cathedral, Passau, belong to the Salzburg School and are dated 1494. The remainder are rare early Swiss work—two representing the Virgin and St. John the Evangelist, of either the Constance or the Zurich School of about 1430; and two are heraldic panels of the School of either Constance or St. Gall, dating from about 1440.

PRESERVATION OF ANCIENT MONUMENTS & HISTORIC BUILDING

SIR FRANK BAINES, C.V.O., lectured bef the Royal Society of Arts on December 12 this subject. Sir Aston Webb, K.C.V. C.B., P.R.A., presided.

The lecturer said he did not think it necessary, in view of his audience, to st a case which illustrated the value of prese ing their ancient monuments and histo buildings. They were a part of the cult and history of the British people, and he p posed to take it for granted that they were agreement as to the essential need of th retention and preservation. They were signal record of a previous social tra tion which brought down to our mechani and competitive age a suggestion of a sa spirit and finer method of life.

Before discussing the question in detail, would like to suggest first of all what th meant when they used the word "preser tion." Clearly they did not mean restorati or replacement of what was gone; they did mean renovation or renewal. The lat phrases were dangerous phrases—they w sometimes used by people entirely conservat in their sympathies, as though they were int changeable with the term "preservation." course they were not interchangeable, and was necessary to define the word "preser tion" as it meant a method which involv the retention of the building or monum in a sound static condition, without a material addition thereto or subtraction the from, so that it could be handed down futurity with all the evidences of its charac and age unimpaired. Restoration might a word which justifiably described a method preservation, but he wished to make it cl that that method was not the method he vocated.

The treatment of ancient monuments in past might be referred to under three he ings—the first, regrettably represented by word demolition; the second, by the word storation; and the third, by the word p servation.

The first phase clearly could be said to d from the dawn of history, and had be arrested in part only so late as the ea years of the nineteenth century.

Even when archæology was studied scien fically, Lord Elgin would seem to have h no compunction in removing the treasures Greece to this country, while as late as 18 Cleopatra's Needle was brought to this count and set up by the Thames. Naturally it cayed under the acid-laden atmosphere modern London.

In Germany, however, regulations for t preservation of its ancient monuments h been framed since 1815, and although th would not appear to have had statutory sar tion, much respect was shown for their mon ments. Indeed, Germany was richer at t present time in mediæval church furnitu than any other country of Europe. Englan in accordance with the democratic social ganisation, appeared to await the expressi of public opinion before committing itself statutory enactments, and it was not un 1822 that the first Bill which dealt with t subject became law.

In England, as in France, the lecturer sai the damage done owing to over-prodigality expenditure in preservation had been serio and irreparable. For example, to give o instance alone, the restoration of Worcest Cathedral between 1857 to 1874, which i volved an expenditure of considerably ov £100,000, resulted in handing down to us building that was externally to all intents ar purposes a modern structure. There was r record that major structural problems we involved, but a great deal of money w

ent on refacing, owing to the character of red sandstone of which the Cathedral was lt. During the first 50 years of Queen toria's reign, well over £1,000,000 was ent on 20 of our cathedrals, with results the judicious could only deplore; many these buildings were now largely modern, ticularly so in the cases of Worcester, ester and Lichfield. The east window Carlisle and the west window of York nster, probably the finest examples of wing tracery in this country, and perhaps the world, were lost to us; the whole ing been renewed in both cases. Need he again that replicas of ancient work, how-er perfectly and accurately executed, could ve no real historic or archæological value atever.

The lecturer said the first principle laid wn in regard to the problem of preservation s the need to ascertain as clearly as pos-le the static condition of the structure under its conditions of decay, incipient and par-l failure, actual collapse, etc., and he first all dealt with Tintern Abbey, which he id was one of their most interesting and antic Cistercian abbeys. The date of the isting work was generally that of the end the thirteenth century.

The original proposal, before the Department dertook the charge of the building, was to ke down and rebuild plumb, a great pro-rtion of the arcade above the arches. The partment, however, decided that such a urse of action would ruin the amenities of e building and, generally, the scheme which as undertaken was to relieve the eccentric ess on the north side of the piers, and also relieve them entirely of stress due to wind essure. This was done by the institution a great lattice girder of the N. type chored into the wall of the south transept d to the wall of the west gable, designed move under temperature stresses and under ght oscillation of the arcade. He wished make it clear that the scheme was devised preserve the amenities of the arcade as en from the nave, which otherwise would ve had to be heavily buttressed.

The lecturer then referred to Rievaulx bey, which he said was the earliest Cister-n House in the country, being founded in 31. Of the church, only the presbytery and e choir with the transepts and the east arch the crossing remained; and the nave, when was taken over by the Crown, presented a apled mound of ruins. The ruins had been ed as a quarry by the neighbourhood for ny years, and certain difficult structural blems were involved in their preservation. e method adopted to preserve the stability the arcade and the chancel was to remove e fractured stones one by one and to recore e whole of the spandrel and pier above with ong reinforced concrete. Afterwards the nes removed for the purpose of executing e work were replaced in their exact posi-ns. No single new facing stone had been ed, and even in the 12 months which had psed since the completion of the work no ce of what had been undertaken was servable.

The lecturer said that the problem of dburgh (recently dealt with in *The Builder*) s one of the greatest with which the De-rtment had had to deal.

It was believed that before the building was nded over to the control of the Government, suggestion had been made to take down the ver and rebuild it, at a very heavy cost. e methods followed by the Department, wever, could not contemplate this.

The actual cost of the work undertaken at dburgh by their methods, which were slow t inexpensive, was probably one-tenth (for e whole church) of what it would have st to take down and rebuild the tower ne. To-day the tower stood absolutely as was with no additions thereto, beyond the ernal reinforced core, which was now carry-g the load, with all the modern additions removed and the amenities of this fine build-ing were entirely preserved.

The lecturer said that Carnarvon Castle was probably the finest defensive castle in the country, and, indeed, in Europe: one of the great Edwardian defensive castles dating from 1285-1322. As the works of preservation, however, were mainly of normal character, he did not describe it in detail.

In regard to the method of preserving Whitby Abbey, the difference made in the building since it was taken over by the Government was very great, as it was suffering from destruction as a result of bombardment during the war, while the nave and the crossing were littered with fragments of the fallen church. The history of the Abbey was of extraordinary interest, as it was first founded upon the present site in A.D. 657, but the portion which remained was the twelfth-century church, which consisted of nave and choir, with aisles, transepts and, originally, a lofty tower at the intersection, all of which were encumbered with great masses of fallen masonry from the vaulting and superstructure which fell in the nave in 1762 and the great central tower which fell in 1830. Their recent excavations had revealed a large section of the plan of the Norman church, which would be shown in outline on the floor of the present church. The excavations to the north of the church now disclosed some very early buildings, which appeared to have been constructed in part of "wattle and daub." The excavations were far from complete at the moment, but it would appear that eventually a large portion of the Saxon, Norman, and twelfth-century buildings could be disclosed, the two former at least in plan. The problem in dealing with the west front was very difficult, as many of the stones were shattered into fragments, and the greatest difficulty was found in identifying them and replacing them in their true position. No moulded and wrot stones were put back unless they were original, and the whole of the work, after the work of preservation had been completed, was such that no intelligent observer could do other than perceive accurately what was original work and what was the later work of strengthening and repair.

In Kirby Muxloe they saw an example of a fortified manor house of Tudor times, which was commenced in 1480, apparently upon the site of an earlier moated house. It was of brick construction throughout, even to the turret staircases, with their complicated and enriched winding vaults, and was a remarkably fine example of first-rate brickwork of the period. The problem of preserving a brick building was entirely different from that of a stone building, particularly where the bricks were scaling and flaking through weather and age, and through the action of growth of all kinds. No attempt had been made, however, to re-face the scarred brickwork, but the flaking and decaying brickwork had been seized by a mastic cement and the original faces retained without any addition.

The lecturer next dealt with Bylands Abbey, which, he said, was in a serious state of neglect when it was handed over to the control of the Government. It was situated on the rich fertile plain at the foot of Combe Hill, in the North Riding, and there was little remaining above the ground level beyond stumps of walls heavily covered with ivy, all of which were in a state of complete disintegration and decay. There, again, the building appeared to have been used as a quarry for those requiring materials for building in the district. Buttresses were robbed, and the ashlar masonry removed in many instances as far as could be reached without scaffolding. It was difficult to exaggerate the appalling condition in which this building was found, and the regret they must feel was emphasised by the wonderful finds of enriched and carved work which they had made in excavating the church. The magnificent detail of much of the work of the building could hardly have been apprehended before its preservation was undertaken. Moulded caps and bases, corbels and carved springers, etc., had been found which, for their simplicity and beauty of design and astonishing assurance of execution, were difficult to rival. Quite a large area of fine vitrified tile paving had been exposed in the chancel which, although somewhat rough in manufacture, had special merit for its design and planning of colour scheme.

The next building, which illustrated the methods followed by the Government, was Goodrich Castle, the earlier history of which was not known. It was mentioned in 1204, while the small and very perfect Saxon keep clearly suggested that the work of the castle originated before the Norman Conquest, while the present remains, apart from the keep, would appear to date from Norman times until the reigns of Henry V and Henry VI. The problem was, he said, again grave, because of the consistent neglect of the building for well over 200 years. The stone used in the castle was a soft red sandstone, without any great strength, and this had weathered very badly, and the greatest care had to be exercised in dealing with the stonework, which was fractured and split apart in many cases by the roots of ivy and young trees growing upon the wall heads. Only a few weeks before the building was transferred under the Ancient Monuments Act a length of the north-west curtain wall, totalling a weight of 200 to 300 tons, fell into the moat, and left little or no evidence of the main cause of failure, but illustrated very definitely that the masonry had little strength in resistance to shear. They found that this castle was "slighted" by an order made by Parliament in 1647, and it was probably due to this order that the castle was in such an appallingly defective condition, although it was surprising that so much remained standing nearly 300 years after the order was made.

The lecture was illustrated by slides and views of the following buildings and structures:—Netley Abbey, Hampton Court Palace, Westminster Hall, Richmond Castle, Huntingtower, Stonehenge, Maes Howe, Mousa Brock, Maiden Castle, Dorchester; and the lecturer explained briefly the character of the works of preservation undertaken in each instance, and illustrated how the scheme of preservation was strictly relative in every instance to the peculiar character of the work which remained.

Law of Property Act, 1922.

Mr. A. F. Topham, K.C., gave his third and last lecture on this subject at the College of Estate Management on December 1. In this lecture Mr. Topham dealt with the changes in intestate succession under the new Act, and showed the various ways in which the law of succession had been simplified. He pointed out that these entailed no real hardship on anybody because if the rules of intestate succession were not liked it was only necessary for the person to make a will in order to avoid them. The new Act also simplified matters very much by doing away with the various rules which in the past had been connected with the various kinds of tenure. The lecturer then dealt with the subject of compulsory registration of title and the arrangements for its possible extension to the Provinces in years to come. He also pointed out the improvements which were made in the Act of 1922 in the working of the Register. The various extensions and amendment of the Settled Land Act under the new Act were then considered and explained. In conclusion he pointed out that he had had to omit very many important points in the new Act, but the features he had dealt with were the outstanding ones which were of the greatest importance to those dealing with estate and to those who make the greatest change to the general public.

THE POETRY OF ARCHITECTURE.*

THE claims of architecture are so important in the attainment of the higher standards of living now considered necessary for the people, that we welcome the growing interest which is evident around us. A wide field of operation is opened to all who are engaged in the building crafts, but without general esteem and popular appreciation to replace the patronage of the past there can be no stable foundation upon which to develop the art. It is with pleasure, therefore, that we observe the inclusion in the People's Library of a volume upon the "Poetry of Architecture," by Mr. Frank Rutter.*

Both in the title of his book and by the significant headings of the chapters, our thoughts are directed to architecture in its more emotional sense. The author writes of the ages—of Fear, of Grace, of Strength, of Piety, of Aspiration, of Elegance, and, last of all, of Memory. He is not unconscious of the fact that these fluctuating and variable emotions existed at every age—we might add that most of them occur not only in humanity but in the animal kingdom. The author believes in the predominance of one or other of these emotions as distinguishing traits upon the physiognomy of buildings, and as visibly impressed upon the canonic styles. Architects are too deeply preoccupied with the systems of construction and the synthetic development of design to set much value upon these psychological impressions, but the unfailing attraction they possess for others must be recognised.

From the professional point of view the book may be regarded as the work of an amateur of taste and intelligence, whose intuitions, predilections or prejudices, are not always sound; but it is clear that he enjoys architecture and appreciates it in many of its manifestations. Some parts of this book bristle with what we regard as erroneous views founded on misinformation and misunderstanding, but this will not disturb many who would hesitate to approach our professional literature. The art of simple and natural description, which seems to come so happily to his pen, does not generally come so easily to those engaged in finding expression in another medium.

Architecture is one of the most wonderful of human achievements. In every style and at every age its transcendental qualities are visible, and although æsthetic expression may at times seem feeble and inadequate, when we have probed a little deeper we generally see, preserved those fundamental and universal principles which underly all the arts. Architecture proceeds upon rational and continuous principles, however miraculous and wonderful the structure may appear: it is the outcome of particular circumstances resulting from methods responding to the knowledge of the times. Such fearful solemnity as impressed Egyptian architecture accrues from the heavy terraced roofs employed in that early stage of civilisation, and from the heavy columns which were required to support such a load. The grace of Greek and Greco-Roman buildings was made possible by the introduction, at a later date, of the tiled or gabled roof. The strength and grandeur of the architecture of Imperial Rome, with the magnificently ordered plans, marks the development of the Arch and its congener the Vault. The daring developments in arcuated building ultimately attained in the aspiring churches of the Middle Ages follow a gradual constructive development. Such amazing structures only the gods could have foreseen, with imaginations in full flight.

A further accumulation of knowledge, with new-found individual liberty, accompanied by profound study of the monuments of antiquity, inspired the Renaissance. The scholarly impressiveness of St. Paul's Cathedral, the North Pavilion of the Louvre, the Theatre of S. Carlo, Naples, and such spirited and imaginative frontispieces as that of the Cathedral at Granada are the culmination of all that had then been attained in architecture.

The memory of these undying glories fills our minds with ardour, and what has been done encourages us to continue in the same spirit the same undying traditions to the attainment of a still greater future.

* "The Poetry of Architecture." By Frank Rutter. (London: Hodder & Stoughton.) Price 2s. 6d. net.

PRESENTATION TO AN ARCHITECT.

ON December 12, at the Savoy Hotel, a complimentary dinner was given to Mr. F. C. Bayliss, F.S.A., followed by a presentation of silver plate. The chair was taken by Mr. C. T. Marshall, L.R.I.B.A. The following guests were present:—Mr. F. C. Bayliss, F.S.A.; Sir Charles T. Ruthen, F.R.I.B.A.; Mr. W. H. D. Acland; Mr. M. St. J. Hornby; Mr. W. Tweedy, F.S.A.; Mr. F. Bayliss, jun.; Mr. G. S. Packer, M.S.A.; Mr. G. Pemberton, L.R.I.B.A.; Mr. P. B. Rigg, M.S.A.; Mr. B. C. Andrews, M.S.A.; Mr. G. L. W. Blount, M.R.I.A.I.; Mr. A. H. Lister, M.S.A.; Mr. H. T. Bill, A.R.I.B.A.; Mr. L. F. Thurgood, C.S., and Mr. G. Overall.

SIR CHARLES RUTHEN proposed the guests, and MAJOR ACLAND responded.

MR. G. S. PACKER said he regretted the President and Secretary of the R.I.B.A. and the S.O.A., respectively, were unable to be present. He mentioned he first met Mr. Bayliss when he was the architect for a warehouse in connection with a large shop in the North.

MR. C. T. MARSHALL said it had seldom been the lot of any man in the architectural profession to preside over a similar function to that which he had the pleasure of presiding over that night.

Mr. F. C. BAYLISS, in reply, said it was very interesting, when one looked back, to see the close association between the smiths and the architects in monasteries of long ago. To their encouragement of the arts they owed much of their present prosperity. Ruskin said there were four standards of architectural admiration: sentiment, pride of possession, workmanship, and the artistic. The question whether the thing admired was wholly admirable depended entirely on a matter of proportion—did it serve its proper purpose? That was the standard they had to judge by to-day.

One of Edgar's laws read: "We command every priest to increase knowledge, diligently learn some handicraft." That law had far-reaching effect on their development, although it was made by a comparatively young man about the year 975; and they all realised to-day that the fostering of the arts and crafts was a vital thing in the country's welfare.

Ruskin further said of the architect that he was one who could appreciate all the beautiful things of the world, and brought them into proper use, rather than a mere builder of stone and iron. As architects they had a very high mission if they liked to grasp the opportunities before them. If they looked round they could see that a new order of architecture was springing up, which might appropriately be called "the commercial order." It was having a great influence on the style of architecture in all their great cities and towns. It was rather interesting to note how their first shops came into being in England. It seemed a remote illustration, but was, notwithstanding, a true one, however quaint. The feast days of the priests became the fair days; they gradually led to the "forestaller," whom Henry III regarded as an oppressor, and an edict was brought out against him and his little stall in the road, which eventually led to the front room of the houses being turned into shops for the display of goods.

If they carried their minds back 20 years they could easily visualise the wonderful progress which had been made in the streets of their principal cities. One had only to think of Regent-street and the colossal changes which were taking place, of the great difference between the ideas which were forcing their way into prominence in the development of those buildings, and what was attempted in the first block near Piccadilly-circus, to realise the truth of the assertion that there was no shop architecture springing up which took into account the vital needs of the business which they had to house. Kingsway was another example. He remembered being one of the first to go down Kingsway when it opened and when one looked at it to-day it seemed very difficult to imagine the quietness of its early days. Many more examples could be given but those given served to show the great future which laid before them in this respect and the need for a department of architecture which took into account the business requirements of their streets.

MUNICIPAL RECREATION.

THE eighth of the series of lectures on Town Planning, given by Mr. William Haywood, F.R.I.B.A., at Birmingham University, was entitled "Municipal Recreation," in the course of which the lecturer said that an important auxiliary to health in great cities was the provision of an adequate amount of open space; and where this could be arranged in association with closely built areas, it was at its greatest value, whether for the general purpose of ventilation or as an aid to amenity.

The absence of spacious accommodation for promenading in industrial towns led to the use of main roads for this purpose—a purpose which they were never intended to serve; and which cities like Vienna, with great belts of parkway near to the centre of the town, could absorb with advantage to all concerned.

Suburban parks, which were once used almost exclusively for promenading, were now greatly encroached upon in order to accommodate casual or organised ball games, the increasing demand for which continued to embarrass the park administration of our great towns. This was particularly true of Birmingham, where notwithstanding the provision of special sports fields by large industrialists for the use of their employees, and the generous efforts of the municipal authority and of private benefactors to extend the present accommodation the need was still very great.

It was clear that park administration in this country was tending towards wider and more significant responsibilities; and that in common with other European countries we should reconsider the whole question of municipal recreation on a basis similar to that adopted in America, where great nature reservations outside the city were linked up with suburban parks, by means of parkways and strays, which cut right across the heart of the town, and so brought space and amenity to those who needed it most. This framework was supplemented by neighbourhood centres, which were provided at suitable intervals, for those whose duties or temperament kept them near to their homes, and by smaller grounds where children could play in safety with apparatus specially designed for their use.

Such schemes for recreative facilities were designed as an integral part of the town plan, and were adjusted to the needs of all classes of the population. Their cost was usually met by a "betterment levy," *i.e.*, a method of assessment on property which had been improved in value by association with new parks and boulevards.

Messrs. G. Bell & Sons, Ltd., inform us that early in the New Year they are publishing an illustrated volume on the ancient architecture of Western Asia. It will deal with Chaldæan, Hittite, Assyrian, and Persian architecture.

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Tubes 2 ft. long and over ..... per ft.	4d.	4½d.	5½d.	6¾d.	9½d.	1/1	1/4½	1/10
Pieces 12 to 23½ in. long ..... each	10d.	11d.	1/1	1/5	1/11	2/8	3/4	4/9
Do., 4 to 11½ in. long..... „	7d.	8d.	9d.	11d.	1/3	1/8	2/2	3/–
Long screws, 12 to 23½ in. long.. „	11d.	1/–	1/3	1/7	2/2	2/10	3/9	5/3
Do., 3 to 11½ in. long..... „	8d.	9d.	10d.	1/1	1/5	1/11	2/6	3/6
Bends ..... „	8d.	9d.	11d.	1/2	1/7½	2/7½	3/2	5/2
Springs, not socketed ..... „	5d.	6d.	7d.	9d.	1/1½	1/11½	2/3½	3/11
Elbows, square ..... „	10d.	11d.	1/1	1/3	1/6	2/2	2/7	4/3
Tees ..... „	1/–	1/1	1/3	1/7	1/10	2/6	3/1	5/1
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It will be seen from this list that wrought iron tubes, 2 ft. long and over, are charged at the Standard List price, less the discounts, which vary from time to time.

Pieces less than 2 ft. are sold at each.

Long screws are pieces of wrought iron tube with a longer thread than usual, and are used to form a connector. The connector, therefore, consists of a long screw and a backnut ; the backnut is necessary, otherwise the joint is apt to leak owing to the thread of the long screwed tube being cut slightly deeper.

Bends are supplied to several angles. When supplied to a right angle they are termed "Bends" ; when to some more obtuse angle they are termed "Springs." The seeming difference in price is due to the springs not being quoted with sockets.

Nowadays a large amount of pipe work is done by entirely eliminating the screwed ends and sockets to the barrel, and doing the whole work with plain barrel and making bends and connections of the pipe by acetylene welding methods, and it is considered in the case of pipes 2 in. diameter and upwards to be much cheaper.

One of the advantages claimed for this method is that in the event of a pipe leaking it would only be necessary to use an acetylene blow pipe to remedy the defect.

In estimating for tube work it is necessary to measure the actual running length of the pipes, and the number of the fittings such as tees, elbows, bends, &c., required.

ELBOWS (SQUARE).

Internal diameter.	¼ in.	⅜ in.	½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
List price	10d.	11d.	1/1	1/3	1/6	2/2	2/7	4/3
Discount, 42½ per cent.	4d.	4½d.	5½d.	6½d.	8d.	10½d.	1/1½	1/9
Nett	1/2	1/3½	1/6½	1/9½	2/2	3/0½	3/8½	6/–
Labour fixing would cost about 25 per cent. of gross cost of fitting, say....	2½d.	2½d.	3½d.	4d.	4½d.	6½d.	8d.	1/1
	1/4½	1/6	1/10	2/1½	2/6½	3/7	4/4½	7/1

BENDS.

Gross List price	8d.	9d.	11d.	1/2	1/7½	2/7½	3/2	5/2
Discount, 42 per cent.....	3½d.	4d.	5d.	6d.	8d.	1/1½	1/4	2/2½
Nett price	11½d.	1/1	1/4	1/8	2/3½	3/9	4/6	7/4½
Labour fixing would cost about 25 per cent. of the gross cost of fitting, say..	2d.	2½d.	3d.	3½d.	5d.	8d.	9½d.	1/3½
	1/1½	1/3½	1/7	1/11½	2/8½	4/5	5/3½	8/8

TEES.

Gross List price	1/–	1/1	1/3	1/7	1/10	2/6	3/1	5/1
Discount, 42 per cent.....	5d.	5½d.	6½d.	8d.	10d.	1/1	1/4½	2/2½
Nett price	1/5	1/6½	1/9½	2/3	2/8	3/7	4/5½	7/3½
Labour fixing would cost about 50 per cent. on the gross cost of fitting, say..	6d.	6½d.	7½d.	9½d.	11d.	1/3	1/6½	2/6½
	1/11	2/1	2/5	3/0½	3/7	4/10	6/–	9/10

The cost of labour, &c., for running tube work is approximately as follows :—

Per ft. run, ¼ in., 2d. ; ⅜ in., 2d. ; ½ in., 2¾d. ; ¾ in., 3½d. ; 1 in., 4½d. ; 1¼ in., 6½d. ; 1½ in., 8½d. ; 2 in., 11d.—or about 50 per cent. of the gross cost of tubes.

The cost of fixing the fittings, elbows, &c., would be additional.

As a rule it is rather cheaper to form a "fire" bend than to use the ready-made article, as with ready-made bends it is necessary to make two joints, which give more opportunities for leakage.

In the bending of iron pipes care must be taken not to buckle the pipe, and to ensure this for the larger size pipes two or more heats in forge will be necessary. The smaller pipes may probably be bent in one heating operation.

There are various methods of making approximate estimates for pipe work. These are sometimes of use where the runs of pipe are not actually known, and it would, therefore, be impossible to take exact particulars.

A fairly reliable method is to take the approximate number of running feet of pipe and add on about 45 per cent. to the nett cost of the pipe to cover fittings. A special amount must be added for labour to suit the presumed conditions.

Another method of arriving at an approximate price is to find the approximate number of running feet of barrel, add on the probable cost of labour for running the pipe, and add 20 per cent. to the cost of both labour and materials to cover fittings.

Experienced estimators prefer to get the exact particulars required and quote accordingly.

In cheaper work malleable fittings are often used.

MR. FREDERICK JOHN DOVE.

We very much regret to announce the death of Mr. Frederick John Dove, of Messrs. Dove Bros., the well-known London firm of builders, which occurred on December 18. We hope to give a further account of Mr. Dove's career in our next issue.

BUILDING SURVEYORS' AND INSPECTORS' ASSOCIATION.

A GENERAL meeting of the Building Surveyors' and Inspectors' Association was held at Stoke-on-Trent on Saturday last, under the chairmanship of Mr. W. J. Stone (Chairman of the Association). It was resolved that steps be proceeded with for the formation of a London Area Branch of the Association.

At the conclusion of the official business, Mr. James Wilding, F.S.I. (Surveyor and Engineer to the Urban District Council of Runcorn), read a paper on "The Building Surveyor in Relation to Town Planning."

In referring to town planning, he said the knowledge of the suitability of the various parts of a town to carry various buildings was one of the greatest assets of the building surveyor. It was in that direction that the co-operation of building surveyors of large cities was of great advantage in the consideration of the schemes. No matter how desirable dwellings were, public buildings, factories and works would always take a prominent place.

Take the phase of town planning in which housing figured so prominently. Surely that was the domain of the building surveyor. By training, inclination and practice, every detail was familiar to him, and one wondered why men so peculiarly adapted had not played a more conspicuous part. Was it because their work was not looked upon as "creative," but "inspectoral"? If the matured experience obtained from years of contact with cottage

building had been used, would not the results have justified the building surveyor's inclusion in the scheme of things? He commended to them the idea—could not the work be more creative by expanding the scope of duties? Hardly a man in their ranks was without that intimate knowledge of detail which alone secured success, and all must have seen and noticed the impracticability of many well-meaning suggestions. Progress could only be made on a well-laid track; the pitfalls of building were better known to them than to those who spent their days only on design, and it was by knowing the failures that they were able to suggest remedies.

The roads and streets of housing areas were in a different category. Value was secured by keeping the building lines wider apart. The much abused "by-law" street was never the offender, but the commercial spirit which jammed the building line hard on its statutory width. Whether street or building, all came within the purview of the building surveyor.

Nearly every authority had schemes in hand—some completed, some in progress. Each surveyor often had one or more in his district; towns were spreading, slowly now, but with a promise of greater future speed. Why, then, should not building surveyors submit a series of suggestive reports on the possibilities they encountered. They saw the size of rooms; the good qualities or defects of the houses they inspected; they could often vastly improve, had they the opportunity—why not formulate all they could in the way of improvement? He believed there was a great desire in departmental circles to improve conditions and to welcome truly practical schemes.

COST OF BUILDING MATERIALS.

THE Ministry of Health issued, on December 19, the third interim report of the Inter-Departmental Committee appointed to survey the prices of building materials.

It states that since April last, fluctuations in prices of bricks had been comparatively small. In seven instances common bricks were quoted at a higher figure in the returns for October than they were in April, the increase in six cases varying between 2s. 6d. and 3s. 6d. per 1,000. In two instances decreases were shown. The Committee say they have not had brought to their notice any organised effort to raise prices by means of the operation of trade combinations, trusts, or agreements. Owing to the difficulty of obtaining immediate delivery of British-made bricks, in some quarters supplies had been obtained from abroad. The Fletton Association had only reduced their minimum prices, since the appointment of the Committee, by an amount approximating to the reduction in railway rates, and the Committee express the opinion that the Association might well take into consideration the question of a general reduction in their price.

With regard to light castings, the report mentions that there had been a considerable expansion in house building generally, carrying with it as a necessary consequence an increased demand for light castings, such as rain-water goods. There is, the Committee say no longer justification for the maintenance of the existing prices by the National Light Castings Association.

Sir Halford Mackinder, the Chairman of the Committee, in his monthly report, which is appended, states that a further advance in lead has been notified, while timber also, on the average, has increased in price. Common bricks have risen 3s. 6d. per 1,000 at Edinburgh, and, on the other hand, facing bricks in that district had fallen 7s. per 1,000. From Manchester a fall from 65s. to 60s. per ton was reported in British Portland cement. In the remaining materials no very appreciable change had occurred, but in the case of other items, such as nails and turpentine, prices appeared to be somewhat easier.

THE LONDON MASTER BUILDERS' ASSOCIATION

Annual Dinner.

ON Thursday last week, at the Hotel Victoria, Charing Cross, Mr. FRANK J. WALTON (President) occupied the chair at the annual dinner of the London Master Builders' Association, when some 420 members and guests were present. Among those present were Lord Burnham, Mr. E. J. Partridge (President, Society of Architects), Sir Wm. Mackenzie (President, Industrial Court), Mr. W. H. Nicholls (President, National Federation of Building Trades' Employers), Mr. A. J. Forsdike, Mr. T. C. Mansfield (Master, Worshipful Company of Tylers and Bricklayers), Mr. G. Topham Forrest (Architect of the London County Council), Mr. F. J. Gayer (President, Institute of Builders), Mr. C. G. Musgrave (Chairman, Metropolitan Water Board), Mr. G. W. Humphreys (Chief Engineer, London County Council), Mr. J. M. Theobald, F.S.I., Mr. George M. Burt, Mr. E. Wimperis, F.R.I.B.A., Mr. F. Shingleton, Mr. R. Angel, F.R.I.B.A., Mr. A. Roome, Mr. J. P. Williams (President, London Association of Master Decorators), Mr. W. H. Gascoigne (President, Association of Master Plumbers), Mr. F. Higgs, Sir Frederick Rice, Mr. A. G. White (Secretary, National Federation of Building Trades' Employers), Mr. S B. Depree, Mr. B. T. Luckett, Mr. W. B. Simpson, F.R.I.B.A., Mr. L. Shingleton, Mr. H. J. Johnson, F.S.I., Mr. D. G. Somerville, M.P., Mr. W. E. Collier, Mr. R. J. Holliday, Mr. Arnold Mitchell, F.R.I.B.A., Mr. F. M. May, Mr. F. W. Loasby, Mr. J. T. Mackie (President, London Builders' Foremen's Association), Mr. R. L. Roberts, Mr. P. C. Culver, Mr. A. B. H. Colls, Mr. F. Thorne, Mr. E. J. Brown (Director, London Master Builders' Association), Mr. H. T. Holloway, Mr. Roland B. Chessum, Mr. A. B. Falkner, Mr. G. Brittain, Mr. A. H. Adamson, Mr. G. E. Withers, F.R.I.B.A., Mr. W. A. Leaning, F.S.I., Mr. Harold H. D. Anderson, Mr. F. E. Wallis, Mr. H. T. Brammall Daniel, Mr. Ralph Knott, F.R.I.B.A., Mr. Sydney Tatchell, F.R.I.B.A., Mr. Wontner Smith, F.R.I.B.A., Mr. Walter Lawrence, Mr. F. G. Minter, Mr. Josiah Gunton, F.R.I.B.A., Mr. J. E. Drower, F.S.I., Mr. Ben Carter, Professor A. E. Richardson, F.R.I.B.A. Mr. C. L. Gill, F.R.I.B.A., Mr. H. Austen Hall, F.R.I.B.A., Mr. W. G. Newton, A.R.I.B.A., and Mr. W. J. Rudderham (Secretary, London Master Builders' Association).

After the loyal toasts had been honoured, Mr. HENRY T. HOLLOWAY proposed "The Architects and Surveyors." The toast he was proposing was, he said, always most cordially received at the annual dinners of the London Master Builders' Association, and the reason was not far to seek. Both architects and surveyors were held in the highest esteem by builders, and the relations which existed between those professions and the building industry were marked by sincere friendship. The position occupied by architects and surveyors to-day was one of immense importance, not only to the building industry, but also to the people generally. There was no doubt that the appearance of new buildings had an effect on those who lived in the neighbourhood; a beautiful building would have an uplifting effect, while the opposite would be the result from an ugly building. The architect had an extremely important function to perform in beautifying cities, and that this was realised was obvious from the excellent architectural schools in which the younger members of the profession were being educated to high ideals.

In responding on behalf of the architects, Mr. E. J. PARTRIDGE said although generally nothing but goodwill existed between architects and builders, at the same time it had to be acknowledged that in some instances there was perhaps a feeling of suspicion on both sides. It was the endeavour of the architect, as he knew it was of the builder, to overcome that suspicion, but there must be co-operation. The architect could not do without the builder, nor could the builder do without the architect, and without co-operation the various members of the industry would never attain the position they hoped to reach. In urging co-operation amongst the various branches of the industry, he also included the operatives.

Mr. J. M. THEOBALD responded for the surveyors, and said quantity surveyors were very proud of the cordial relations which existed between members of their profession and builders, and very much appreciated the sporting way in which builders accepted the decisions they sometimes had to make.

Mr. ROLAND B. CHESSUM, in proposing "The National Federation and its President," said he would appeal to those present to realise the tremendous responsibilities the Federation had in the welfare of the country generally, and he appealed to all builders to support the Federation. In his opinion the Federation was the only thing which would ameliorate the conditions of strife, and if architects would support the Federation more whole-heartedly by calling for tenders from Federated builders only they would considerably help that body in its efforts to avert strife. At the present time builders outside the Federation got all the benefits that body had obtained for the industry without bearing any of the burdens.

Mr. W. H. NICHOLLS, in responding, said the Federation was the best form of insurance the industry possessed. The past year had been a very worrying time, industrial problems were not getting any easier, and they had found that any measure of success which had been obtained was solely due to the loyalty of the members of the Federation. He thought London had a right to be proud of its new buildings, its architects, surveyors, builders, and operatives, and the aim of the National Federation was to bring about that condition of affairs which would enable the industry to carry on without friction. It was an aim of which they should all be proud. The employer should not only endeavour to get his living out of the industry, but he should do his best to make conditions better for all engaged in the industry, and that was the work of the Federation. They should endeavour to do something for the country as well as get something out of the industry, and there was no better way of combining business and the betterment of the country than by making their industry the channel through which they worked for the improvement of the condition of the country. England was to-day faced with problems such as it had never had to meet before, and that was partly brought about because a large proportion of the community were not able to live up to a good standard of comfort. Members of the building industry should take upon themselves the responsibility of uplifting their industry, for on the shoulders of building trade employers and operatives rested the responsibility of producing such a flow of labour that those conditions could be remedied at the earliest possible moment. But they would not make up for the work which had been kept back by bidding against one another for labour; they would only be able to meet the demand by bringing in an addition to the ranks of the industry.

Lord BURNHAM, in proposing "The Association," said there was never a time when he had so much reason to be proud not only of the standard of integrity, but also of humanity between employers and employed in this country; such relations did not exist in any other country in the world, and he had no fear whatever of the industrial future of this country.

Mr. WALTON, in response, said the Association was greatly indebted to Lord Burnham for the work he did at Tavistock-street. They had passed through a difficult year, but the matters in dispute had been referred to arbitration, and both sides were loyally abiding by the award. They were now looking forward to the sunshine of the New Year. In London the builders had every reason to congratulate themselves on their magnificent solidarity, and the Council had taken steps to organise the membership on a much larger scale; in this work they looked for the personal support of every member.

ELECTRICALLY OPERATED CURTAIN GEAR.

THE Society of Arts' meeting-room in ohn-street, Adelphi, derives its light in the ytime from a glass dome, the base of which 12 ft. in diameter and some 40 ft. above e floor level. The room is frequently used r lectures during the day, and to enable des to be shown it was necessary to devise ne means of rapidly darkening the room. the base of the ventilating cowl at the top the dome a circular iron ring was already existence, and to this twelve copper wires re stretched to the base of the dome, these rming the guides for the curtain. The rtain was constructed of black material, ade up in the form of an umbrella, in sec-ons to fit the space enclosed by the guide res. At the points which would be occu-ed by the ribs of an umbrella a series of ngs was sewn on the outside or top of the rtain, and threaded over the guide wires to pport it. The edge of the curtain was eighted round the whole of its circumfer-ce, so that when the main holding cord is released it would fall by gravity. ttached at equidistant points to the bottom d on the inside of the curtain are six short lling cords, joined to one main cord passing through the ring to which the top of the rtain and guide wires are fixed. The eration of opening and closing the curtain carried out by a small electric winding ar fixed at the base of the cowl. This gear fitted with limit switches, and is operated remote press-button control at the back of e room. To darken the room all that is cessary is to press a button, and the cur-in descends in about four seconds. This ethod of darkening the room was worked t jointly by the architect, Mr. A. T. lton, F.R.I.B.A., who was responsible for alterations to the Society's buildings, and ssrs. Edmundsons Electricity Corporation, d., Broad Sanctuary Chambers, West-nster, who carried out the whole of the w lighting scheme and special power re-irements necessary for experimental and er work in the Society's lecture-room.

ORROSION OF METALS.

A research on the subject of the Atmospheric rrosion of Metals is that being carried out by Atmospheric Corrosion Committee of the itish Non-Ferrous Metals Research Associa-n, and Mr. W. H. J. Vernon, B.Sc., the estigator, has just submitted his first experi-ntal report. The work has been carried out der the supervision of Professor H. C. H. rpenter, F.R.S., at the Royal School of Mines, l deals chiefly with the initial stages of rosion—the tarnishing of metals. Quantita-e measurements have been made on the rela-e behaviour of different metals and alloys, h indoors and outdoors. The subject is of ch importance not only to those who are cerned in the manufacture of metal fittings l articles, but in its direct relation to labour-ing in daily housework.

New Lambeth Bridge.

n connection with the proposed reconstruction Lambeth Bridge by the London County ncil, it is reported by the Improvements mmittee that it will be necessary to submit the Select Committee of Parliament, who l consider the Bill, drawings showing the posed architectural and artistic treatment the new structure. Time not permitting of imited competition among architects, Sir ginald Blomfield, R.A., has been approached, l has expressed his willingness to collaborate h the Chief Engineer and Architect of the ncil in the preparation of the design. It is ommended that his offer be accepted.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur :—

	Masons.	Brick-layers.	C'p'ters, Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brentwood	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Colchester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Great Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Norwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Helens	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	0/11½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2

(For rates of wages in the Building Trade in Scotland, see page 974.)

COLOUR COMPETITION.

IN connection with their colour scheme for a vestibule, Messrs. T. Parsons & Sons recently arranged for the presentation of the prizes for the best design (illustrated in *The Builder*).

This ceremony was performed by Lady Lavery. As many as 796 colour schemes were sent in from all parts of the country. These were adjudicated upon by Sir Edwin Lutyens, R.A., F.R.I.B.A., Sir John Lavery, R.A., Sir David Murray, R.A., P.R.I., H.R.S.A., Mr. Frank Brangwyn, R.A., and Mr. E. Guy Dawber, F.R.I.B.A.

Mr. Gordon Selfridge opened the meeting and expressed his great pleasure at being present. The object in view was most commendable. He particularly thought that they should encourage the younger members of the community to apply serious and constructive thought to the development of the genius which they possessed. The art of interior and exterior decoration was one to which the latent talent of the country could very well devote itself. They knew that there were numbers of people whose artistic merits should be developed, otherwise they would be left quite dormant.

Sir John Lavery, R.A., who was one of the judges, said that out of the seven or eight hundred colour schemes they looked through very few showed any real sense of repose. He did not mean by this that gaiety and brightness should be subordinated, but he did feel that the reckless use of primary colours irritated rather than soothed the beholder. They were more suited for the Orient, where the sun brought them into line. He remembered Whistler saying that he had brought the sun into London houses by the judicious use of black, white and yellow. Of course, there were other styles of decorations besides those of Japan, by whose decorative art Whistler was much impressed. To-day China and Persia had superseded Japanese influence, but those phases were largely a matter of fashion, though they undoubtedly played their part in the ultimate forming of tastes. In London the desire to see bright colours was a very natural one, but the more sparingly they were used the more telling and direct their effect.

Mr. E. Guy Dawber, F.R.I.B.A., in the course of his remarks said that those who travelled about must have been struck by the feeling of brightness and sense of gaiety of the Continental streets, largely due to the colour used in the painting of the outsides of the houses. Bright cream, yellow, pink, and some white, all added to the cheerfulness of one's daily life and had a noticeable effect on one's spirits.

He contrasted the drabness of our London streets, and urged the introduction of colour on the houses, and even suggested the white-washing, periodically, of such streets as Gower-street, to lighten the gloom with which they were hourly surrounded.

He pointed out the re-action which took place some twenty years ago from the garish wall papers of the Victorian period, to the opposite treatment of keeping every interior a dead white, until now another reaction had set in and colour was demanded on every hand.

They had to be careful, though, not to err too much in the other extreme, and lose their sense of proportion in the endeavour to be original.

Lady Lavery then presented the prizes as follows :—

Mr. E. A. Cox, 120, Adelaide-road, London, N.W.3., 1st Prize 100 guineas; Mr. K. Anns, 5A, Sinclair-gardens, London, W.14, 2nd Prize 50 guineas; Mr. A. W. Wall, 33, Bonnington-crescent, Sherwood, Notts, 3rd Prize 25 guineas.

She was honoured, said her ladyship, by being asked to present the prizes. She only wished there were more. She had seen some of the drawings, and she could not but think there were many of them that she would like to have given prizes to. Her husband suggested a scheme whereby the public could see them and pass an opinion on their merits. She thought that this proposal would be accepted by most people.

Sir Harry Newton then proposed a vote of thanks to Lady Lavery and the distinguished guests present.

THE SCOTTISH BUILDER

DIRECT LABOUR.

DIRECT labour in the building trade was referred to by speakers at the annual dinner of the Edinburgh, Leith and District Building Trades' Association, held recently in Edinburgh.

MR. J. R. WATSON proposed the toast of "The Corporation of Edinburgh," and warned the Corporation against using direct labour. A great deal of harm could be done in a very short time. They could not interfere with the industrial machine with impunity. He would not suggest that the consequences of direct labour would be as bad as in the case of housing, but they would be bad enough.

DEAN OF GUILD FORREST, in reply, said certain parties were doing all they could to get the Corporation to adopt direct labour. So far as he was concerned, he was dead against it.

MR. DAVID A. ANGUS (President of the Scottish Builders' Federation) replied to the toast of "Kindred Associations and Guests," proposed by Councillor J. Hay, and said the day had now come when Scotland and England, in the building trade, could not fight alone. The workmen were united, and what was good enough for the workmen was good enough for them. Their organisation was slowly being built up, and they were all working to one end—the benefit of the trade. After all, it was self-interest that must keep them alive. If they did not work for their own interests, they would be crushed out.

MR. HUGH D. FINDLAY (President, Glasgow Master Wrights' Association) proposed the toast of "The Edinburgh, Leith and District Building Trades' Association," and said the Federation had got clear of wages, hours, and conditions. These matters were now settled by a National Committee. That was a tremendous relief to the local Associations. If all Associations were linked up it would do away with direct labour, because they would be able to assist Corporations in furthering their building schemes. If Corporations were associated with the Building Associations, they would get more work, and would get it done at smaller cost than by direct labour.

THE CHAIRMAN, in reply, said direct labour was now being carried on by certain departments of the city. They had the tramway manager laying down rails. The Water and Gas Committees employed direct labour, not always to the benefit of the city. He thought Councils should do all they could to sweep away all work done by direct labour and place it out to contract.

NEW BUILDINGS IN SCOTLAND.

Glasgow.—It was announced at the annual general meeting of the contributors to the Victoria Infirmary which was held in the Merchants' House, Glasgow, that the Governors proposed to erect a pavilion for patients and also additional accommodation for nurses, at an estimated cost of £100,000, and that the erection of the Pavilion should be proceeded with early in the New Year.

St. Andrews.—The Town Council has decided provisionally, to erect 50 houses in the town under the Housing Act, 1923. The architect appointed for the work is Mr. Charles [illegible] Anderson.

Edinburgh.—The Corporation has adopted a scheme for the erection of 20 houses at Saughton hall-drive. The estimated cost of each house is £560.

Caldercruix.—At a meeting of the Middle Ward District Committee of the Lanarkshire County Council, held recently in the County Buildings, Glasgow, it was stated that in connection with the proposed erection of 50 houses at Caldercruix the all-in price of a room and kitchen house, according to the lowest tenders received, would be £470. A sub-committee has been appointed to go into the question of costs.

Greenock.—The Dean of Guild Court has passed plans submitted by the Greenock Industrial Society for new house in Prospecthill-street and for two cottages in Inverkip-road, for Mr. A. Jones.

Edinburgh Factory Fire.

A serious outbreak of fire occurred recently in the Middlemiss Biscuit Factory, Edinburgh, damage estimated at about £30,000 resulting.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick Masons' layers' Labourers.	Plasterers'
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/-	
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2	
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 973.

CONTRACTS, COMPETITIONS, &c.

or some contracts still open, but not included in this List, see previous issues. Those with an asterisk advertised in this number. Certain conditions beyond those given in the following information imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any der; that a fair wages clause shall be observed; that no allowance will be made for tenders; and t deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

he date given at the commencement of each paragraph is the latest date when the tender, or the names ose willing to submit tenders, may be sent in; the name and address at the end is the person from whom lace where quantities, forms of tender, &c., may be obtained

BUILDING AND PAINTING.

ECEMBER 22.—**Bradford.**—PAINTING, &C.—For at the Cartwright Memorial Hall, viz.:—(1) rnal cleaning, colouring, &c.; (2) French polishing. Architect, Town Hall, Bradford.

ECEMBER 22.—**Cadoxton.**—RENOVATION.—For the vation of the shop premises; 100, Main-street, xton, for the Trustees of the property. Mr. H. Jones, architect, Bank Chambers, Hengoed.

ECEMBER 22. — **Folkestone.**—COTTAGES.—Erection 0 cottages adjacent to Penny-Pot Farm, Dymch-road, and a further 30 to 40 on Tanner's-hill. J. L. Seaton Dahl, F.R.I.B.A., Radnor Chambers, estone. Tenders will be based on plans and fication (not quantities). Deposit £2 2s.

ECEMBER 22.—**Moira (County Down).**—COTTAGES. ection of 13 cottages in Moira (County Down), he Government of Northern Ireland. Secretary, stry of Finance, 15, Donegall-square West, Belfast. sit £1.

ECEMBER 24.—**Aberdeen.**—BRICKLAYER WORK.—bricklayer work in connection with vertical retort e at Aberdeen Gas Works, for T.C. Mr. S. Milne, Engineer, Aberdeen.

ECEMBER 24.—**Abergavenny.**—HOUSE, &C.—Erecof house, with stables, garage, and two cottages, reat Trilay Farm. Messrs. Rodger & Stevens, tects, 25, Stoke-lane, Westbury-on-Trym, Bristol.

ECEMBER 24.—**Birkby.**—HOUSES. For erection of ir of semi-detached houses in Bromley-road. rs. J. H. Hall & Son, architects, Exchange ldings, Market-street, Huddersfield.

ECEMBER 24.—**Brading.**—ROOFING.—For roofing ldings with corrugated iron, &c., at Alverstone Farm, he Isle of Wight C.C. Messrs. Stratton & Millgate, itects, Newport.

ECEMBER 24.—**Carlisle.**—DEMOLITION.—For pulling and removing "Bird in Hand" Inn and adjacent ises at Scotland-road, Stanurn, for T.C. Mr. Marks, City Engineer, 18, Fisher-street, Carlisle.

ECEMBER 24.—**Edinburgh.**—TELEPHONE EXCHANGE. r erection of telephone exchange at Murrayfield. itect, H.M. Office of Works, 4-5, Drumsheughens, Edinburgh. Deposit £1 1s.

ECEMBER 24.—**Rochdale.**—HOUSES.—Erection of uses on the Turf-hill Estate, for the T.C. Mr. Morgan, Borough Surveyor, Town Hall, Rochdale. sit £2 2s.

ECEMBER 26.—**Glasgow.**—PAINTING.—For the er work of shops at Kennyhill and Riddrie, for C. Mr. J. Lindsay, Town Clerk, City Chambers, gow.

ECEMBER 26.—**Loanhead.**—HOUSES.—Erection of houses (three and four apartment), for the T.C. rs. Morham & Brotchie, surveyors, 29, Hanover-t, Edinburgh.

ECEMBER 27.—**Battle.**—ALTERATIONS.—For alterand additions to the Institution of the Board of dians. Mr. A. J. Jenner, surveyor, Linton House, e.

ECEMBER 27.—**Glasgow.**—HOUSES.—Erection of enement houses at Crossmyloof, for the T.C. Mr. ndsay, Town Clerk, City Chambers, Glasgow.

ECEMBER 27.—**Liverpool.**—PAINTING.—For exl and internal painting, &c., at Kirkdale Homes, ney-road Section, for the West Derby B.G. Works rtment, Belmont-road Institution, Liverpool.

ECEMBER 27. — **Yealmpton.**—ALTERATIONS.—For ations at Council School, for Devon C.C. County itect (Education), 1, Blackall-road, Exeter. sit £1 1s.

ECEMBER 28.—**Eastbourne.**—CHIMNEY.—Erection brick chimney (60 ft. high) at the Eastbourne n, 123, Church-street, Eastbourne, for the Guar-. Mr. Fredk. G. Cooke, Assoc.M.Inst.C.E., M.S.A. tect, 2, Hyde Gardens, Eastbourne. Deposit £1 1s.

ECEMBER 28. — **London, N.** — TELEPHONE EXGE.—Erection of a telephone exchange at Palmer's , London, N., for the Commissioners of His ty's Office of Works. Contracts Branch, O.W., King Charles-street, London, S.W.1. sit £1 1s. (payable to the Secretary).

ECEMBER 28. — **Manchester.** — SORTING OFFICE TELEPHONE EXCHANGE.—Erection of a sorting and telephone exchange at Openshaw, Manchester, e Commissioners of His Majesty's Office of Works. acts Branch, H.M.O.W., King Charles-street, on, S.W.1. Deposit £1 1s. (payable to the tary).

ECEMBER 28.—**Newport (Mon).**—VARIOUS WORKS.—recting, for the B.C. Parks Committee, a tennis on, public shelter and public convenience at au Park, Newport. Borough Engineer, Municipal bers, Corn-street, Newport. Deposit £1 1s.

ECEMBER 28.—**Southampton.**—HOSTEL, &C.—Con-No. 1: The erection of a hostel for 45 students (de-£5 5s.); (2) For the construction of ferro-concrete , stairs and flat roofs to the hostel, "Coignet" n (deposit £2 2s., for the County Borough of ampton. Mr. A. L. Roberts, County Architect, astle, Winchester. Cheques to be made payable rossed "Lloyds Bank, Ltd. (Capital and Counties h), Winchester."

DECEMBER 29. — **Bradford.** — HOUSES. — Housing Scheme No. 12, Lower Grange, Thornton-road, erection of 20 houses, Class "A"; two houses, Class "B." (1) Contractors may tender for separate trades, or for the whole of the works in all trades complete; (2) the tenders shall be based upon fixed prices for labour and materials, for the City of Bradford. Office of the City Architect; Town Hall, Bradford.

DECEMBER 29. — **Ennis.** — REBUILDING. — For the partial restoration of Ennis Civic Guard Barrack, co. Clare. Mr. J. J. Healy, Secretary, Office of Public Works, Dublin. Deposit £1.

DECEMBER 29.—**Harrogate.**—SHED.—Erection of store shed, for the T.C. Mr. C. E. Rivers, Borough Surveyor, Harrogate.

DECEMBER 29.—**Salford.**—ADDITIONS.—For additions to Union Infirmary, Pendleton, for the Board of Guardians. Mr. E. H. Inchley, Clerk, Offices, Eccles New-road, Salford. Deposit £2 2s.

DECEMBER 31.—**Liverpool.**—CHAPEL.—Erection of new Chapel, Earlsfield-road. Mr. Owen Owens, 362, Smithdown-road, Liverpool.

DECEMBER 31.—**Monmouthshire.**—BUILDING AND DRAINAGE.—For the following works, for the Monmouthshire Agricultural Committee:—(1) Erection of a set of farm buildings on holding No. 9, at Great House Farm, Caerwent; (2) general repairs and new drainage at Broadwell Farm, Mathern, near Chepstow. Mr. A. Every-Clayton, County Land Agent, 2, Gold Tops, Newport (Mon).

DECEMBER 31.—**Nottingham.**—GARAGE.—For enclosing the stable yard for a garage at Bagthorpe Institution, for the B.G. Messrs. Ernest R. Sutton & Son, architects, Albion Chambers, King-street, Nottingham.

DECEMBER 31.—**Oldbury.**—HOUSES.—Erection of 20 houses in Queen's-road, Londonderry, for U.D.C. Mr. R. Fletcher, Surveyor, Public Buildings, Oldbury. Deposit £2 2s.

DECEMBER 31.—**Owenbeg, co. Sligo.**—EXTENSION.—For extension of Owenbeg National School, co. Sligo, for Commissioners of Public Works. Very Rev. M. J. Canon Tully, P.P., Easkey, co. Sligo.

DECEMBER 31.—**Pontefract.**—HOUSES.—Erection of 24 houses at Willow Park and 10 at Wakefield-road, for the T.C. Mr. J. E. Pickard, Borough Surveyor, Pontefract. Deposit £2 2s.

DECEMBER 31.—**Rhymney.** — CONVERSION. — For carrying out, for the Monmouthshire Education Committee, the alterations necessary to "The Lawns," Rhymney, to convert same into a central school. Hours and wages conditions in contract. Mr. John Bain, Architect, County Hall, Newport (Mon).

JANUARY 1.—**Barnet.**—HOUSES.—Erection of 23 houses at a net inclusive cost of £350 or thereabouts, for the Barnet U.D.C. Contractors can submit their own designs and specifications, or they can quote on the scheme prepared by the Council. Engineer and Surveyor, Council Offices, Wood-street, Barnet.

✱JANUARY 1.—**Ryde, I. of W.**—PAVILION.—Erection of a pavilion in the Esplanade Gardens, Ryde, I. of W., for the B.C. of Ryde. Messrs. Vincent & West, 20, Portland-street, Southampton. Deposit £2 2s.

JANUARY 1.—**Thornton Rust.**—HOUSE.—Erection of a detached house, Thornton Rust, near Aysgarth, for Dr. J. Hutchinson Wood. Mr. P. J. Lucas, architect, 8, King William-street, Strand, W.C. 2.

✱JANUARY 1.—**York.**—HOUSES.—Erection of 86 houses of the non-parlour type in blocks as follows:—One block of 2, one block of 5, 16 blocks of 4, and five blocks of 3, at their Heworth Housing Estate, York, for the Housing Committee of the York Corporation. Mr. F. W. Spurr, Architect, Guildhall, York. Deposit £2 2s.

JANUARY 2.—**London E. and Essex.**—STEEL-FRAMED BALCONY AND REPAIRS AND PAINTING.—(1) Erection of steel-framed balcony and verandah at High Wood Hospital for Children, Ongar-road, Brentwood, Essex. (2) Repairs and painting to the Laundry at the Eastern Fever Hospital, The Grove, Homerton, E.9, for the Metropolitan Asylums Board. Office of the Board Victoria Embankment, E.C.4. Deposit £1.

✱JANUARY 2.—**London, S.W.6.**—CLEANING, PAINTING AND REPAIRS.—Cleaning, painting and repairs: (1) Western Ambulance Station, Seagrave-road, Fulham, S.W.6; (2) South-Western Ambulance Station, Landor-road, Fulham, S.W.6; (3) Mead Works, Carnwath-road, Fulham, S.W.6., for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1 in respect of each work.

✱JANUARY 2.—**London, S.W. 6.**—LINING BUILDING AND CONCRETING.—Work required to be done in lining an existing steel-framed building to form dust-proof cubicles and an external concrete heating pit, at the Mead Works, Carnwath-road, Fulham, S.W. 6, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

JANUARY 2.—**Ossett.**—PAINTING.—For painting 13 houses Northfield-avenue, 14 houses Wilson's-avenue, and 22 houses Manor-road and Teal-street, for T.C. Mr. H. Holmes, Borough Surveyor, Town Hall, Ossett.

JANUARY 3.—**Omagh.**—HOUSES.— Erection of 16 pairs of semi-detached dwellings, for the U.D.C. Mr. J. P. McGrath, architect, Londonderry.

✱JANUARY 4.—**Porth, South Wales.**—POST OFFICE.—Erection of a post office at Porth, South Wales, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s.

JANUARY 4.—**Stafford.**—HOUSES.—For erection of 20 houses in Backwalls North and South, for T.C. Mr. W. Plant, Borough Engineer, Borough Hall, Stafford. Deposit £2 2s.

JANUARY 5.—**Ripley, Derbyshire.**—ALMSHOUSES.—Erection and completion of six almshouses, at Greenwich, Ripley, for the Ripley U.D.C. Mr. G. W. Bird, Town Hall, Ripley, Derbyshire. Deposit 10s.

JANUARY 8.—**Huddersfield.**—EXTENSIONS.—For extensions to Royd's Hall Secondary School, for the T.C. Borough Architect, 26, Ramsden-street, Huddersfield. Deposit £1.

JANUARY 9.—**London.**—DWELLINGS.—For the erection of a block of dwellings on the Tabard Garden Estate, Southwark, for the L.C.C. Architect, The County Hall, Westminster Bridge, S.E. 1. Deposit £3.

JANUARY 9. — **Southport.** — CONVENIENCES.—Construction of underground conveniences in Lord-street, for the T.C. Mr. A. E. Jackson, Borough Engineer, Southport. Deposit £2 2s.

JANUARY 9. — **Tynemouth.** — SCHOOL. — The Education Committee are inviting tenders for the erection of a new elementary open-air school in Lovaine-gardens, North Shields, to accommodate 170 children; and also, by the same date, tenders for a new elementary school at Spring-gardens, North Shields, providing accommodation for 845 children.

JANUARY 10.—**Manchester.**—FLOORS.—For red terra-cotta and for hollow tile floors required in connection with the extension of the Nurses' Home at Booth Hall Infirmary, for the Board of Guardians. Mr. F. H. Overmann, architect, 5, Cavendish-street, All Saints', Manchester.

JANUARY 11.—**Catforth.**—ADDITIONS.—Erection of additions to Village Hall, Catforth. Mr. W. D. Stander, architect, "Oak Dene," Catforth, near Preston.

✱JANUARY 11.—**New Malden, Surrey.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at New Malden, Surrey, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s.

✱JANUARY 15. — **Gateshead.** — TELEPHONE EXCHANGE.—Erection of a telephone exchange at Gateshead, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

✱JANUARY 15.—**Newport, Mon.**—TELEPHONE REPEATER STATION.—Erection of a telephone repeater station at Newport, Mon, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

JANUARY 15.—**West Bromwich.**—HOUSES.—Erection of 47 houses on Tantany Estate, for T.C. Mr. A. Wickham, Town Clerk, Town Hall, West Bromwich. Deposit £2 2s.

JANUARY 17.—**Salford.**—HOUSES AND FLATS.—Erection of 62 houses and flats on the Weaste Housing Estate, for the T.C. Mr. G. Westcott, architect, 13, Bridge-street, Manchester.

✱JANUARY 21.—**Reigate.**—NEW LAUNDRY AND EXTENSION OF BOILER HOUSE.—Erection of a new laundry and extension of the boiler house at the Guardians' Institution, Earlswood, for the Reigate B.G. Mr. O. J. Porter, F.S.I., 45, Bedford-row, W.C. 1. Deposit £2 2s.

JANUARY 31.—**Hemel Hempstead.**—COTTAGES.—Erection of 24 cottages (in sections of 12), for the Borough of Hemel Hempstead. Mr. Walter R. Locke, Borough Engineer and Surveyor, Market-square, Hemel Hempstead. Deposit £1.

FEBRUARY 2.—**London, S.E. 18.**—EXTENSION.—Proposed extension of premises, for the Committee of the Woolwich Catholic Club. The Secretary, Woolwich Catholic Club, 28–30, New-road, Woolwich, S.E. 18.

✱NO DATE.—**Alperton.**—HOUSES.—Erection of six houses at Alperton. Mr. Alfred A. Aspalak, M.S.A., 25, Victoria-street, S.W.1. Deposit £1 1s.

NO DATE.—**Barnsley.**—ERECTION OF SHOP.—For erection of shop, &c., at the Borough Foundry, for Messrs. Needham Bros. & Brown, Ltd. Messrs. Dyson, Cawthorne & Coles, surveyors, 10, Regent-street, Barnsley.

NO DATE.—**Buxton.**—HOUSE.—Erection of detached house at Buxton. Messrs. Lamb & Walton, architects, 19, Clifton-street, Blackpool. Deposit 10s.

✱NO DATE.—**Chatham.**—ALTERATIONS AND ADDITIONS.—Alterations and additions to the premises of Messrs. Timothy White & Co., Ltd., at 126, High-street, Chatham. Construction Department, 30, Chandos-street, Portsmouth.

NO DATE.—**Horsforth.**—HOUSE.—For erection of detached house at Horsforth. Mr. W. P. Peters, architect, 89, Albion-street, Leeds.

✱NO DATE.—**Ilfracombe.**—Construction of a concert hall at Ilfracombe for the Urban District Council. Messrs. Frank Matcham & Co., 9, Warwick-court, Holborn, W.C.1.

✱NO DATE.—**Teddington.**—HOUSES.—Erection of six houses at Teddington. Mr. Alfred Ospalak, M.S.A., 25, Victoria-street, S.W.1. Deposit £1 1s.

FURNITURE, MATERIALS, etc

DECEMBER 24.—**Elgin.**—ROAD MATERIALS.—For supply of road materials to the Morayshire C.C. Mr. A. Hogg, surveyor, 24, Academy-street, Elgin.

DECEMBER 27.—**Bexley.**—MATERIALS.—Supply to the U.D.C. of tar, highway materials, pipes and stores for one year. Mr. W. T. Howse, Surveyor, Bexley Heath, Kent.

DECEMBER 29.—**Winchester.**—TAR.—Supply of tar for use on roads to the Southampton C.C. Mr. W. J. Taylor, County Surveyor, The Castle, Winchester.

DECEMBER 31.—**Derby.**—MATERIALS.—Supply to the C.C. of tarmacadam, granite and basalt, iron furnace slag, limestone, bitumen, and other surface dressing material. Mr. J. W. Horton, County Surveyor St. Mary's-gate, Derby.

DECEMBER 31.—**Gloucester.**—MATERIALS.—Supply to the Gloucestershire C.C. of materials for road repairs. County Surveyor, Shire Hall, Gloucester.

DECEMBER 31.—**Middleton.**—MATERIALS.—Supply of road materials, cement, bricks, &c., to the T.C. for six months. Borough Surveyor, Town Hall, Middleton.

DECEMBER 31.—**Reading.**—MATERIALS.—Supply of broken road materials, gravel, and sand for twelve months, for Berkshire C.C. County Surveyor, Shire Hall, Reading.

JANUARY 1.—**Islington.**—WOOD BLOCKS.—Supply of 42,000 creosoted yellow deal paving blocks to the B.C. Borough Engineer, Islington.

JANUARY 1.—**Norwich.**—ROAD MATERIALS.—Supply to the Norfolk C.C. of tar and bituminous materials, tarred slag macadam, and granite. Mr. S. H. Warren, County Surveyor, Shirehouse, Norwich.

JANUARY 5.—**Perth.**—TIMBER.—For hire of timber to be used in erection of Highland and Agricultural Society's Show at Perth, in July. Mr. J. Reid, 55, Blenheim-place, Aberdeen.

JANUARY 7.—**Egypt.**—PAINTS, &C.—Supply of paints, oils, &c., to the Port and Lighthouses Administration, Egypt. Department of Overseas Trade, 35, Old Queen-street, S.W. Reference 11944/F.E./C6.

JANUARY 23.—**Madras.**—PIPES.—Supply of stoneware pipes and specials, ranging from 4 in. to 18 in. diameter, and aggregating a total length of 400,000 lineal ft., for the T.C. Messrs. James Mansergh & Sons, agents, 5, Victoria-street, S.W. Charge 5s.

ENGINEERING, IRON AND STEEL.

DECEMBER 24.—**Petersfield.**—ELECTRIC LIGHT.—For electric light installation at the Poor Law Institution. Mr. A. J. C. Mackarness, Clerk, 16, High-street, Petersfield.

DECEMBER 24.—**Wakefield.**—PLANT.—Supply to the West Riding C.C. of light railway track, trucks, tractors, &c. Clerk, County Hall, Wakefield.

DECEMBER 26.—**Aberdeen.**—INTAKE, &C.—Construction of an intake and screening house, a 5 ft. diameter conduit and ancillary works alongside the River Dee at Cairnton, Invercannie, for the T.C. Mr. George Mitchell, Water Engineer, 41½, Union-street, Aberdeen. Deposit £5.

DECEMBER 29. — **Wellingborough.** — GRITTING MACHINE.—Supply of gritting machine to the R.D.C. Mr. H. G. Cordon, Surveyor, Commercial-place, Wellingborough.

DECEMBER 31. — **Aldershot.** — STEEL WORK. — Supply of the necessary steel work required for the erection of a gantry, for the T.C. Mr. James Neave, Borough Surveyor, Municipal Buildings, Aldershot.

DECEMBER 31.—**Durham.**—BRIDGES.—Designs and tenders for the supply and erection (optional) of a number of steel girder road bridges, on prepared abutments, for the C.C. Mr. Albert E. Brookes, County Engineer, Shire Hall, Durham. Deposit £2 2s.

DECEMBER 31.—**Kempton Park.**—ENGINES, &C.—Supply and erection of two reciprocating engines and pumps at Kempton Park Pumping Station, for the Metropolitan Water Board. Chief Engineer's Department, 173, Rosebery-avenue, Clerkenwell, E.C. Deposit £3 3s.

DECEMBER 31.—**London.**—CRANES.—Supply of (*a*) 3-ton travelling crane, and (*b*) 30 cwt. workshop crane, for the Central Car Depot of the L.C.C. Tramway Manager, Victoria Embankment, W.C. Deposit £2.

DECEMBER 31.—**Stourbridge.**—PIPES.—For supply and delivery of 146 tons of 9 in. cast-iron pipes, for Stourbridge and District Water Board. Mr. W. Fiddian, Stourbridge. Deposit £2 2s.

JANUARY 1.—**Georgetown.**—WATERWORKS PLANT.—Supply and erection of a 250 h.p. crude oil engine and centrifugal pumping set, &c., for the T.C. of Georgetown, British Guiana. Messrs. H. H. Humphreys & Sons, 28, Victoria-street, S.W. Deposit £10 10s.

JANUARY 4.—**London.**—HOIST.—Supply to the South Indian Railway Co. of one 40-ton locomotive hoist. Offices, 91, Petty France, S.W.1. Charge 10s.

JANUARY 4.—**London.**—HYDRAULIC PLANT.—Supply of hydraulic plant to Director-General, India Store Department, Branch No. 12, Belvedere-road, S.E.1.

JANUARY 7.—**Bristol.**—DOCK.—For construction of Eastern Arm, Royal Edward Dock, Avonmouth, for Docks Committee. Mr. Thomas A. Peace, Chief Engineer, Port of Bristol. Deposit £15.

✱JANUARY 7.—**Hove.**—CONCRETE SEA WALL, &C.—Constructing a concrete sea wall, incline, steps and other works incidental thereto and in connection therewith in extending the King's Esplanade, for the B.C. of Hove. Borough Surveyor, Mr. H. H. Scott, Town Hall, Hove. Deposit £2 2s.

JANUARY 7. — **London, S.E.** — CONSTRUCTIONAL WORK.—Construction of a roof of steel and glass and of a machinery platform of steel girders and concrete in No. 1 Shaft, Rotherhithe Tunnel, for the L.C.C. Chief Engineer, The Old County Hall, Spring Gardens, S.W.1. Deposit £3.

JANUARY 7.—**Meathop.**—SLUICE.—Construction of a reinforced concrete tidal sluice on Meathop Marsh, Westmorland, for the Meathop and Witherslack Drainage Board. Mr. E. A. Fulton, Secretary, 14, Finkle-street, Kendal. Deposit £1 1s.

JANUARY 7.—**Smethwick.**—GASHOLDER TANK.—Excavation for and construction of a mass concrete gasholder tank, 187 ft. 6 in. diameter by 37 ft. 6 in. deep, for the T.C. Mr. E. Hardiker, Engineer, Gas Works, Rabone-lane, Smethwick. Deposit £2.

JANUARY 8.—**Birmingham.**—BRIDGES.—For the reconstruction of masonry and steel girder road bridges over the River Tame and the Tame Valley Canal, at Salford Bridge, Erdington, for T.C. Mr. H. H. Humphries, City Surveyor, Council House, Birmingham. Deposit £5.

JANUARY 15.—**Toronto.**—SLUDGE PUMP.—Supply and erection at main sewage pumping station of centrifugal sludge pump, for the T.C. Dept. of Overseas Trade, 35, Old Queen-street, S.W. Reference 12614/ED/EC/2.

JANUARY 16. — **Glasgow.** — REFUSE DISPOSAL WORKS.—Tenders and designs for proposed refuse disposal works at Govan, Glasgow. Mr. W. Greig, Superintendent of Cleansing, 20, Trongate, Glasgow.

JANUARY 16.—**Stoke-on-Trent.**—CRANE.—Fifty-ton electrically-driven overhead travelling crane. Borough Electrical Engineer, Stoke-on-Trent. Deposit £2.

JANUARY 17.—**New Zealand.**—PIPES, &C.—Supply of 10 in., 12 in., and 21 in. steel pipes and fittings, for the Orongorongo-Karori Water Main. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

JANUARY 19.—**Depwade.**—HEATING, &C.—Supply of steel vertical boiler, horizontal semi-Diesel oil engine, dynamo and motors and accumulators, wiring for power and lighting, supply and fixing apparatus for hot-water heating and domestic hot-water supply, at the Poor Law Institution. Vulcan Boiler & General Insurance Co., Ltd., 67, King-street, Manchester. Deposit £1 1s. each for five sections.

FEBRUARY 5.—**Egypt.**—PUMPING PLANT.—For supply and erection of a pumping plant to replace an existing steam plant at Qussassin. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, S.W.1. Charge 10s.

FEBRUARY 5.—**New Zealand.**—GIRDER SPANS.—Supply of plate girder spans to the Public Works Tender Board, New Zealand, for the Stratford Main Trunk Railway. Department of Overseas Trade, 35, Old Queen-street, S.W. Reference 12569/ED/EC.

FEBRUARY 11.—**Gainsborough.**—PUMPING PLANT.—For engine and pumping plant, for the U.D.C. Mr. S. W. Parker, Waterworks Engineer, Council Offices, Gainsborough. Deposit £2 2s.

FEBRUARY 14.—**Argentine.**—POWER STATION.—For the construction of a central electric power station of 15,000 h.p., for the Argentine State Oilfields Administration. Department of Overseas Trade, 35, Old Queen-street, S.W.

MAY 1. — **China.** — BRIDGE. — **The Commercial** Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W.1. Reference 11647/F.E./E.C./2.

ROAD, SANITARY, AND WATER WORKS.

DECEMBER 22.—**Sheffield.**—SEWER.—For laying of 1,432 lineal yds. of 15 in. and 12 in. pipe sewer at Handsworth, for T.C. Mr. W. J. Hadfield, City Surveyor, Town Hall, Sheffield.

DECEMBER 24.—**Edinburgh.**—DRAINS.—For drainage reconstruction work at Craiglockhart Poorhouse, for Parish Council. Mr. J. M. Johnston, architect, 47, Charlotte-street, Leith.

DECEMBER 24.—**Fort William.**—ROADS.—For the reconstruction of 6¾ miles of roadway between Fort William and Spean Bridge, for the Inverness-shire C.C. Mr. J. Schoolar, Road Surveyor, Fort William. Deposit £1 1s.

DECEMBER 24.—**Haywards Heath.**—LEVELLING.—For extending the level in the Victoria Park for a distance southwards of 100 ft., for the U.D.C. Mr. Geo. Plummer, surveyor, South-road, Haywards Heath.

DECEMBER 24.—**Micklefield.**—PIPES.—For supplying 250 yds. of 15 in. earthenware pipes, and 8 yds. of 15 in. and 8 yds. of 12 in. eathenware pipes. Mr. J. Crosthwaite, Micklefield.

DECEMBER 26.—**Mull.**—ROADS.—Construction of 2¼ miles of road in the Island of Coll, for the Argyll C.C. Mr. Arthur MacNaughton, Mull District Surveyor, Tobermory.

DECEMBER 27.—**Leyton.**—ROADS.—For the construction of a new road from Forest-road to James-lane, and the widening and improvement of Forest-road and James-lane, for the U.D.C. Mr. E. H. Essex, Surveyor, Town Hall, Leyton. Deposit £10.

DECEMBER 27.—**Royton.**—ROADS.—For construction of new road from Rochdale-road (deep cutting) to Tandle Hill Park, for U.D.C. Surveyor, Town Hall, Royton. Deposit £3 3s.

DECEMBER 27.—**Stirling.**—SEWERS.—For construction of 500 yds. of 9 in. sewer (fireclay, iron or steel) partly in tunnel, for the Stirling C.C. Mr. G. Thomson, 164, Bath-street, Glasgow. Deposit £1 1s.

DECEMBER 28.—**Failsworth.**—SANITARY.—(*a*) For conversion of 18 privies to waterclosets; (*b*) For supply of 18 sets of sanitary fittings for same. Mr. J. W. E. Brown, Town Hall, Failsworth, near Manchester.

DECEMBER 29.—**Dorking.**—ROADS.—For making-up a portion of South-terrace, for the U.D.C. Mr. S. S. Gettings, Surveyor, Council Offices, Dorking. Deposit £2 2s.

DECEMBER 29.—**Featherstone.**—SEWER.—For relaying of about 1¼ miles of 15 in. diameter outfall sewer (cast-iron and stoneware pipe), for the U.D.C. Mr. Samuel Chesney, Council Offices, Featherstone, near Pontefract. Deposit £2 2s.

DECEMBER 29.—**Southam.**—WATERWORKS.—Supply of 294 tons of 5 in., 4 in., and 3 in. cast-iron spigot and socket pipes; laying about 12,130 lineal yds. of 5 in., 4 in., and 3 in. cast-iron pipes, &c.; and construction of a concrete reservoir at Rectory Farm, Southam, for the R.D.C. Messrs. Taylor & Wallin, Commercial Union Buildings, 47, Pilgrim-street, Newcastle-on-Tyne. Deposit £5 5s.

DECEMBER 29.—**Southwick.**—ROADS.—For making up the carriage-way of St. Aubyns-road, Fishersgate, for the U.D.C. Mr. G. W. Warr, Surveyor, Town Hall, Southwick, Sussex. Deposit £1 1s.

DECEMBER 31.—**Gravesend.**—SEWER.—For constructing a 30 in. cast-iron main effluent sewer (about 134 yds.) into the River Thames, for the T.C. Mr. Frederick T. Grant, engineer, 4, Woodville-terrace, Gravesend. Deposit £1.

DECEMBER 31.—**Hammersmith.**—ROADS.—For compressed asphalte (Waterloo-street); (2) asph macadam (part of Blythe-road); and (3) tarred macadam (seven roads), for the B.C. Mr. R. Clucas, Borough Engineer, Hammersmith, W.

DECEMBER 31.—**Stafford.**—WATER MAINS.—For ing 2,470 yds. of 6 in. dia. cast-iron pipes and sp castings: also for laying 650 yds. of 21 in. dia. forced concrete pipe sewer, for T.C. Mr. W. P Borough Engineer, Borough Hall, Stafford. De £2 2s.

JANUARY 1.—**Ealing.**—ROADS.—Formation of road, connecting Gunnersbury-avenue with Gunn bury-lane, and the improveme t of Windmill-road, the B.C. Mr. W. R. Hicks, Borough Engineer, T Hall, Ealing. Deposit £1 1s.

JANUARY 1.—**Enfield.**—SEWERAGE WORKS.—construction of 1,500 yds. run of stoneware pipe se &c., at Botany Bay, for the U.D.C. Mr. H. R. Cr Surveyor, Public Offices, Enfield. Deposit £2 2s

JANUARY 1. — **Erith.** — ROADS. — Making Woolwich-road and Erith-road, Belvedere, for U.D.C. Surveyor, Bexley-road, Erith. Deposit £

JANUARY 1.—**Rotherham.**—SEWER.—For consti tion of 9 in. stoneware pipe sewer, manholes, &c. Herringthorpe-lane and Barnby Moor main r in Parish of Whiston, for R.D.C. Mr. C. O. Rawst Surveyor, Council Offices, Grove-road, Moorg Rotherham.

JANUARY 2.—**Ossett.**—FOOTPATHS.—For asphal or concreting footpaths in Northfield-avenue, Sow avenue, Wilson's-avenue, Manor-road and T street, for T.C. Mr. H. Holmes, Borough Surve Town Hall, Ossett.

JANUARY 3.—**Hay (Breconshire).**—WATER COND —For necessary works to bring water f springs above Heolinon Farmhouse to Penheoli Llandefalle. Mr. Penry C. Lloyd, Estate Offices, H

JANUARY 3.—**Salford.**—ROADS.—For making-up streets on Weaste Housing Site, for T.C. Boro Engineer, Town Hall, Salford.

JANUARY 4.—**Beddington and Wallington** SEWERAGE WORKS.—Laying of about 201 li yds. of 9 in. diameter stoneware pipe sewer in Sta Park-road, Wallington, for the U.D.C. Mr. S. F Carter, Surveyor, Council Offices, Wallington. posit £1.

JANUARY 7.—**Barnsley.**—ROADS.—For making three back roads within the Borough, for T.C. Boro Engineer, Fairfield House Offices, Barnsley.

JANUARY 7.—**Beckenham.**—ROADS.—For const tion of three new roads on Elmers End Estate, for U.D.C. Mr. J. A. Angell, Surveyor, Council Offi Beckenham. Deposit £2.

JANUARY 7. — **Catherington, Hants.** — WA MAINS AND DRAINAGE.—Providing and laying Cowplain, in the Parish of Catherington, about 1 yds. lineal of 6 in. cast-iron water mains; also 900 y 4 in. and 2,800 yds. 3 in. ditto, and other drains, Mr. G. E. Vernon-Inkpen, 40, Commercial-r Portsmouth. Deposit £3 3s.

JANUARY 7. — **Hendon.** — ROADS. — Making Ravenscroft-avenue (second portion), Elmcroft-ave Beechcroft-avenue, Clifton-gardens, Brookside-r Hodford-road (second portion), Greenfield-gard and Wycombe-gardens, for the U.D.C. Mr. A. Knight, Surveyor, Town Hall, Hendon, N.W Deposit £5 5s.

JANUARY 7.—**Hendon.**—SEWER.—Construction 600 yds. of 9 in. stoneware pipe sewer, &c., at Up road and Marsh-lane, Mill Hill, for the U.D.C. A. O. Knight, Surveyor, Town Hall, Hendon, N.W Deposit £3 3s.

JANUARY 9.—**Crediton.**—ROADS.—For strengthen and re-surfacing (1) Rock-road, a length of 4¼ mi and (2) Black Dog, about 3¼ miles, for the R.D.C. F. Horbury, Surveyor, Fordton, Crediton. Dep £1 1s.

JANUARY 10.—**Epsom.**—ROADS.—For making Manor-road (part of), Cecil-road, Derby-road, Sa bury-avenue, Cheam, for R.D.C. Mr. T. E. Wa surveyor, Waterloo-road, Epsom.

JANUARY 19.—**Manchester.**—SEWERS.—Consti tion of main drainage work, for the T.C. City Engin Town Hall, Manchester. Deposit £10 10s.

NO DATE.—**Scarborough.**—ROAD.—Construction new road (about 300 yds. long) at Scarborough. Mes F. Mitchell & Sons, Architects, 9, Upper Fontai street, Albion-street, Leeds.

Competitions.

(*See Competition News, page 952*).

Auction Sales, Tenders, etc

JANUARY 1.—**Ashtead, Surrey.**—Messrs. Full Horsey, Sons & Cassell will sell, *re* Alban Richards & C Ltd., by order of Mr. D. L. Honeyman, the Recei for the debenture holders, in lots, at the Joinery Wor Ashtead, Surrey, modern high-class woodwork machinery, four steam wagons and trailers, Auctioneers, 11, Billiter-square, E.C. 3.

JANUARY 8.—**Bristol.**—Messrs. Fuller, Hors Sons & Cassell will sell, in lots, *re* W. Alban Richa & Co., Ltd., by order of Mr. D. L. Honeyman, Recei for the debenture holders, at the Royal Hotel, Brist builders' and contractors' plant laying at the Ro Edward Granary, Avonmouth Dock, at Town H Swansea, and other depots. Auctioneers, 11, Billit square, E.C.3.

✱JANUARY 15.—**London, N.W.**—Messrs. J. Skelding & Co. will sell, by order of Messrs. Tir Beckett & Partners, Ltd., unreserved clearance sale the whole of the capital at the works, 38, Harlesd road, Willesden-lane, N.W., stock of timber, plant a machinery of van and wagon builders, shoeing a general smiths. Auctioneers, 48, Gresham-stree E.C.2.

UARY 15 AND 16.—**London, E.9.**—Mr. F. H. Clark ll, at the National Projectile Factory, Hackney s, E.9, absolutely without reserve, timber and al resultant of the demolition of the above . Auctioneer, Railway Wharf, York-road, sworth, S.W.18.

NUARY 17.—**North Finchley, N.**—Messrs. Wheeler ght will sell the remaining portions of the West- Estate at the Torrington Hotel. Auctioneers, ing Woodside Park Station, N.

NUARY 22.—**London, W.**—Messrs. J. T. Skelding will sell, by order of Messrs. Selfridge & Co., Ltd., Yard, Balderton-street, Oxford-street, W., ant unreserved sale of the capital surplus of rs' and contractors' plant and machinery, timber, and effects. Auctioneers, 48, Gresham-street,

NUARY 24.—**County Down.**—Messrs. Garnet W. Co. will sell, by public auction, the Crowreach es, Newry, with yard, machinery, plant, &c., premises at Catherine-street, Newry, to be sold lots. Auctioneers, Newry.

UARY.—**London, W.1.**—Messrs. Knight, Frank ley, in conjunction with Messrs. Oakden & Co., ll, at the Hanover-square Estate Room (unless usly disposed of), by direction of the Eastbourne works Company, freehold commercial site of 4¼ acres, with railway facilities and including ed double-fronted residence and factory or ouse buildings, &c. Auctioneers, 20, Hanover- , London, W.1.

Public Appointments.

EMBER 28.—**Battersea, S.W.11.**—Junior Assis Architectural Assistant and Engineering Assistant ed in the Borough Engineer's Dept. Mr. Edwin n, Town Clerk, Town Hall, Battersea.

ECEMBER 31.—**Liverpool.**—Three experienced rary Architectural Assistants required in the Steward and Surveyor's Architectural Depart- by the Finance Committee of the City of Liver- Mr. Walter Moon, Town Clerk, Municipal ings, Liverpool, endorsed "Architectural Assist-

UARY 1.—**Leeds.**—Instructor in Archi- ral Construction and Design required at the School of Art in the Department of Architec- Director of Education, Education Offices. ley-street, Leeds.

0 DATE.—**Grimsby.**—Architectural Assistant rary), with experience of housing schemes. e months' engagement. Borough Engineer, 170, ia-street, Grimsby.

Appointment Vacant.

South Wales Federation of Building s Employers is to appoint a whole-time iser. Applicants must have knowledge xperience of the building trade. Appli- should give details of qualifications, age, ience and salary required to the Secretary, astle Arcade Chambers, Cardiff, not later December 31.

"Mechanical World Year Book."

he 1924 edition of this handbook (Man- r: Emmott & Co., Ltd., price 1s. 6d. net) and lengthy section on the combustion of rms a prominent feature. Notes and data ven on the composition and properties of ir required for combustion; weights and es of air and products of combustion; ic values of fuels—solid, liquid, and s, &c. A new section on the strength of lates embodies a concise summary of the s rules for the strength of rectangular, and circular plates, both *encastré* and supported, and includes the results of the ecent investigations. A section on tanks included. Notes are given on the thick- f tanks, staying and riveting of tanks, ties of tanks, &c. In the body of the arious revisions have been effected, while nber of new illustrations have been uced.

Change of Title.

re informed by Messrs. The Oxford Steam Company, Ltd., that on and after y 1, 1924, the name of the company will n Allen & Sons (Oxford), Ltd. The is purely a nominal one, caused through ansion of their business. No alteration ken place in the ownership, management cy of the company.

Builder's Estate.

Griffith Williams, of Wallasey-road, ey, Cheshire, retired builder, left £11,046 net personalty of £3,216.

NEW COMPANIES.

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

B. GOODMAN, LTD. (193,464). Registered October 31. 33, Haggerston-road, Dalston, E.8. Housebreakers and contractors, builders, house decorators, &c. Nominal capital, £36,000.

STROUDS (HOUSING SPECIALISTS), LTD. (193,258). Registered October 22. 19, Charing Cross-road, W.C. Building contractors, land developers, surveyors and estate agents, financiers and other agents. Nominal capital, £1,000.

STEEL & CO., LTD. (193,287). Registered October 23. Builders' merchants, iron founders and heating engineers, now carried on by Katharine Harriette Steel, at Trimdon-street Foundry, and Paley-street, Sunderland, under the style of Steel & Co. Nominal capital, £15,000.

IRLAM BRICK CO., LTD. (193,279). Registered October 23. 42, Deansgate, Manchester. Manufacturers and dealers in bricks, fire-bricks, tiles, pottery, &c. Nominal capital, £15,000.

SAMUEL JEFFERIES & SONS, LTD. (193,342). Registered October 25. Dudbridge, near Stroud, Gloucester. Brick and tile manufacturers, coal merchants, farmers, hauliers and engineers, heretofore carried on by Messrs. Albert Edward Jefferies, Charles Richard Jefferies, and Stephen Arthur Jefferies, under the style of Samuel Jefferies & Sons, at Stroud, County of Gloucester, and elsewhere. Nominal capital, £5,000.

BRIGHTON ESTATES, LTD. (193,393). Registered October 29. 8, Pavilion-parade, Brighton. To acquire lands, buildings, and hereditaments, and turn same to account. To carry on the business of builders, contractors, &c. Nominal capital, £1,000.

LOUGH BROTHERS (CONTRACTORS), LTD. (193,407). Registered October 29. 4, The Crescent, Consett, Co. Durham. Builders and general contractors, &c. Nominal capital, £5,000.

HENSALL CONCRETES, LTD. (193,460). Registered October 31. 28, Eldon-street, Barnsley, Yorks. Quarry-owners and masters, tar macadam and brick manufacturers, manufacturers of road-making materials, &c. Nominal capital, £4,000.

HARGATE BUILDING CO., LTD. (193,544). Registered November 3. 100, King-street, Manchester. Builders and contractors, quarry owners and road-makers. Nominal capital, £10,000.

WILLETT WORKS, LTD. (193,478). Registered October 31. Willett Building, Sloane-square, Chelsea, S.W. Builders, contractors, paviors, &c. Nominal capital, £7,500.

F. BRACEY (ROADS), LTD. (193,465). Registered October 31. 182, Hagden-lane, Watford, Hertford. Road and sewer contractors, &c. Nominal capital, £600.

ECCLESTON ESTATES, LTD. (193,585). Registered November 6. 22, Chancery-lane, W.C. 2. Brick, pipe and tile manufacturers, and to carry on and execute all kinds of financial, mercantile, commercial, trading, and other operations. Nominal capital, £20,000.

WM. SCOTNEY & SONS, LTD. (193,624). Registered November 7. Ramsey-road, St. Ives, Huntingdon. Timber merchants, builders, poultry appliance makers, and general merchants. Nominal capital, £3,000.

S. M. H. CO., LTD. (193,576). Registered November 5. Estate Office, Elm Park-avenue, Stamford Hill, N. 15. Estate developers, builders, and contractors. Nominal capital, £1,000.

FINNEGAN CONTRACTORS, LTD. (193,781). Registered November 15. Builders, contractors, constructors, house agents, surveyors, and architects, &c. Nominal capital, £5,000.

C. BENNETT, LTD. (193,652). Registered November 9. 68, Whitworth-street West, Manchester. Joiners, builders, contractors, &c. Nominal capital, £750.

THE SMOKE INSPECTOR'S HANDBOOK.*

IT is now two years since the report of Lord Newton's Committee on Smoke Abatement was published, and yet no action has been taken by the Government to enforce any of the suggestions contained therein. However, we have not yet abandoned hope that some Government in the not too distant future will see fit to lessen the immense waste of our national resources, to improve the health of the community, to bring sunshine into our town, to protect our buildings, to prevent a vast and needless expenditure in laundry, painting and cleaning, by revising and bringing up to date the regulations dealing with smoke emission.

When such an event comes to pass, the use of Mr. Clinch's book will be even greater than it is at present; meanwhile, it is fulfilling a very real need. Smoke inspecting requires considerable technical knowledge, and Mr. Clinch has assembled all the relevant matter in ten chapters, dealing respectively with Heat, Energy, Fuel, Fuel Combustion, Stoker's Work, Draught, Flue Gases, Smoke, Economisers, Boilers, and Mechanical Stokers. There is a short concluding chapter on "The Law Relating to the Emission of Smoke." But this is a matter which has been fully dealt with elsewhere. The book is amply illustrated.

Although smoke inspecting is a highly specialised task, and scarcely remotely connected with architecture, nevertheless it behoves the architect to know something of the conditions which tend to minimise the production of smoke, and the merits of the various methods of firing and of stoking—the latter not being, as is so often imagined, merely a matter of muscular energy, but rather a skilled job requiring knowledge and intelligence, qualities well worth paying for, since bad stoking must be the cause of an unnecessary loss of millions of pounds.

We think, therefore, that this book may be of more than passing interest to architects whose practice deals with factories. There is an interesting introduction by Mr. Cyril Banks (Chief Medical Officer of Health for the County Borough of Halifax), in which he points out that, although the domestic hearth is responsible for most of the smoke evils, this must not be taken as an indication that the smoke of factories is negligible. The smoke menace must be combated from every side, and all who desire to see an A 1 nation must take part in the attack.

Society of Engineers.

The following premiums have been awarded for papers read before, or published by, the Society of Engineers during 1923:—President's Gold Medal to Mr. J. W. Gordon, K.C., for his paper on "Railway Surveying by Photography"; Bessemer Premium (value £5 5s.) to Mr. Mauclere for paper on "The Pneumatic Handling of Petrol and Other Inflammable Liquids"; Nursey Premium (value £3 3s.) to Mr. A. Hiley for paper on "The Impact of Imperfectly Elastic Bodies with Particular Reference to the Effect of the Hammer Blow in Pile Driving"; Bernay's Premium (value £3 3s.) to Mr. A. Ferguson for paper on "A New Entirely Automatic Machine for the Mass Production of Glass Bottles"; Society Premium (value £3 3s.) to Mr. A. S. E. Ackermann for paper on "The Physical Properties of Clay (fifth paper) and the Dynamics of Pile-Driving"; Clarke Premium (value £5 5s.) to Mr. R. C. Hill for paper on "Work Beneath the Waves," read before the Gloucestershire Engineering Society, associated with the Society of Engineers; Geen Premium (value £5 5s.) to Mr. H. F. Jones for paper on "Boilers," read before the Crystal Palace Engineering Society, associated with the Society of Engineers.

*_The Smoke Inspector's Handbook_; or, _Economic Smoke Abatement_. By H. G. Clinch, M.R.San.I., M.I.A. (London: H. K. Lewis & Co., Ltd.). 7s. 6d. net.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

BARMOUTH.—An enquiry has been held by the Ministry of Health into the application of the U.D.C. to borrow £5,000 for sea erosion works and for repairing the promenade.

BARNSLEY.—Plans passed by T.C.: Hey & Pashley, 12 houses, Dodworth-road; W. Storrs, four bungalows, Westbourne-grove; D. R. Snowden, three houses, Upper Sheffield-road; J. Grierson, conversion of one house into two flats, at Beech-grove; J. Dunk & Sons, six houses, Clyde-street; Keys & Trimby, two houses, Carlton-road, Smithies; H. Hibbert, one house, Grace-street; W. Storrs, 20 houses, Woodstock-road; W. Bowden, bungalow, Lund-lane; L. W. Williamson, bungalow, street off Lund-lane; G. Edson, two houses, Allendale-road, off Honeywell-lane; E. S. Graham and F. Potter, two houses, Locke-avenue; Mrs. I. Turner, house, Westville-road; M. Kilbride, house, Woodstock-road; Mrs. M. E. Tonra, house, Woodstock-road; C. Tyas and Miss E. A. Tyas, two houses, Woodstock-road; C. W. Plastow, house and garage, Locke-avenue; D. R. Snowden, lock-up shop, Upper Sheffield-road; C. H. Croft, house, Barnsley-road, Stairfoot; M. Gelder, eight houses, Dodworth-road; Hey & Pashley, eight houses, West End-road, off Dodworth-road; R. Cawthrow and J. Linacre, two houses, Well-lane, Monk Bretton; W. J. & J. G. Deighton, nine houses, Blenheim-road; H. S. & J. A. Horne, two houses, Blenheim-road; A. Senior, two houses, Keresforth Hall-road; W. Gothard, six lock-up shops and offices, Eldon-street and Regent-street South; J. Hood, two bungalows, Thoresby-avenue, Monk Bretton; Mrs. S. A. Tinker, alterations to two cottages, Bleach Croft; Read & Shaw, two bungalows, Lund Wood; Needham Bros. & Brown, erecting shop and new brass shop to foundry, Pontefract-road.

BATLEY.—The B.C. have approved of plans and estimates for the erection of 14 houses on the Bradford-road estate, at an estimated cost of £14,107. Application is to be made to the M.H. for sanction to borrow.——Plans passed: Conversion in Purlwell-lane for St. Anne Sunday School; fish restaurant in Alexander-road, for Mr. W. Thompson; bungalow in Fort Anne-road, for Mr. Thomas Elliott; house in Sykes-lane, for Mr. Frank Binks.

BEDWORTH.—The Parochial Committee has approved an amended scheme prepared by the surveyor for sewage works, at an estimated cost of £9,263.

BIGGLESWADE.—Plans passed by R.D.C.: Pair of houses, at Edworth, for Mr. T. H. Smyth; two houses at Henlow, for Mr. Alfred Beaumont.

BLACKBURN.—Plans passed by T.C.: Sausage works, Beardwood, by Mr. J. H. Entwistle; house, Lammack-road, by Mr. A. Mallinson; four houses, Fecitt-road, by Messrs. John Fecitt & Sons, Ltd.; house, Featherbed-road, by Mr. J. Ashworth; five houses, Lambeth-street, by Mr. F. A. Robinson; house, Featherbed-road, by Mrs. Duxbury; two houses, Azalea-road, by Mr. James Thompson; 14 houses, Willis-street, by Mr. H. Southworth; house, Maria-street, by Mr. J. T. Halliwell; six houses, Brothers-street, by Mr. Felton; three houses, Black-a-Moor-road, by Mr. Joshua Grimshaw; three houses, Queen's-road, by Mr. J. Grimshaw; four houses, Langham-road and Eldon-road, by Mr. Hy. Thompson; two houses, Norfolk-street, by Mr. John Duckworth; four houses, Branch-road, Lower Darwen, by Mr. A. Johnson; two houses, St. Francis-road, by Mr. H. Southworth; four houses, Lynwood-road, by Messrs. Penny Bros.; four houses, Green-lane, by Mr. A. Riding; four houses, Ramsey-road, by Mr. Thomas Brogden.

BLYTH.—Plans passed by T.C.: Shop, Croft-road, for Blyth Land Co.; house, Disraeli-street, for Mr. T. P. Cook.

BOSTON.—A new housing scheme, under the Act of 1923, has been submitted to the T.C. by Mr. F. Peck, Chairman of the Sanitary Committee, and generally approved. The details are to be worked out by a special sub-committee.

BOURNEMOUTH.—Sir Charles Nicholson has submitted plans to the Building Committee of a new church to be erected in the Springbourne district, in the place of the present St. Mary's Church, at an estimated cost of £13,000, the seating accommodation being for 600 persons.

BRADFORD.—Subsidies have been agreed to by the T.C. in regard to the erection of the following houses: Foster Bros., Whitby-road (4); W. Harrison, Sunnybank-road (3); J. W. Pickles, Bradford-road and Moorlands-place (2); Cansfield & Sons, Rooley-Lane (5), Mayo-avenue and Mayo-grove (14); B. Wainwright, Lees-road, Eccleshill (1); R. J. Patchett, Ltd., Nursery-road, Gt. Horton (5); Wilfred Turner, Royds Hall-lane, Buttershaw (1); Smith Priestley (agent, T. Riley), Hawesroad, Wibsey (6); W. Pickering, Quarry-street, Heaton (1); Ellis Balmforth & Sons (agents, Spencer & Sharp), Melrose-street, Great Horton (7); Clarence A. Gadie, Wharncliffe-drive (4); Groves & Greenwood, Beechwood-drive (11); Walton & Wilkinson, Haworth-road (4); Mrs. J. A. Williamson, Haworth-road (2); Dalby & Hutchinson (agent, A. Varley), Norman-avenue, Eccleshill (2); J. J. Leach (agent), W. Illingworth), Baring-avenue (12); Mrs. E. Smith, Norman lane, Eccleshill (2); T. R. Robinson (agent, T. Riley), Woodlands-terrace (8).——Included among plans passed by the Street Improvement and Buildings Committee last week, were those for the first instalment, numbering 104, of the houses to be erected under the auspices of the Bradford Council of Social Service.

BRIDLINGTON.—A Ministry of Health inquiry has been held into the application to borrow £54,000 for the south side of the new sea wall, under the unemployment scheme, and for £6,500 for the purchase of property in Quay-road for municipal offices.

BROMLEY.—Plans passed by T.C.: Mr. A. A. Webb, bungalow, Sunningdale-road; Mr. W. J. Harrington, house, Park-avenue; Mr. S. G. Soper, house, King's-avenue; Messrs. Woodhams (Bromley), Ltd., house, Hawthorne-road.

BURNLEY.—The Ministry of Health has sanctioned the borrowing by the Corporation of £4,910 for machinery and £1,950 for buildings in connection with the installation of ice-making plant at the cold-air stores. In addition, the Ministry have agreed to the borrowing of £2,657 for the provision of a bowling green, tennis courts, and a shelter at Ightenhill, and of £1,600 for four hard tennis courts with shelter at Barden recreation ground.

CALVERLEY.—Plans passed by U.D.C.: House at Brookfield-avenue, for Mr. Haigh.

CAMBRIDGE.—Plans passed by T.C.:—Three houses, Storey's-way, H. C. Buttress; two houses, Hills-road, H. C. Buttress; six houses, Hartington-grove, J. R. Bennett & Sons; three houses, Barton-road, W. Saint, Ltd.; house, Highworth-avenue, D. Onyett; house, Storey's-way, Rev. E. H. Askwith; two houses, Milton-road, H. C. Buttress; outbuildings, Ciare-road, M. Burkitt; house, Belvoir-road, J. T. Wallman; parish room, Trumpington-street, the Rector and Churchwardens; house, Storey's-way, G. Walker; house, Storey's-way, Mrs. H. C. Stewart; house, Storey's-way, Mrs. F. Jenkinson.

DEWSBURY.—Plans passed: Reconstruction of premises in Westgate, for Liverpool & Martin's Bank, Ltd.; two houses on Wakefield-road housing site, for Mr. A. Hinchliffe; two houses, Heald's-road, for Messrs. Sharp & Battye; two houses, in Slaithwaite-road, for Messrs. Fisher & Rawlinson; house, Wakefield-road site, for Mr. C. H. Hirst; new offices and warehouse, at Dewsbury Mills, for Messrs. Wormalds & Walker, Ltd.; house, Wakefield-road site, for Mrs. J. H. Blackburn; store and warehouses at Dewsbury Mills, Thornhill-road, for Messrs. Wormalds & Walker, Ltd.; two houses, Leeds-road, for Hamer & Brooke; two houses at Whitley Lower, for G. & H. Asquith; six houses, South-street, Saville Town, for Mr. J. Crossley, Jnr.; houses at Healds-road, for Mr. A. Hirst; house at Wakefield-road, for Mr. Richards; house at Moor End-lane, for Mr. N. Greenwood; two houses, for Messrs. Jackson & Dewsnap.

DOVER.—The T.C., having considered a scheme for an extension of the sea baths, at an estimated cost of £4,662, has decided that the Borough Surveyor shall prepare a cheaper scheme.

DUNDEE.—Plans passed by the T.C.: House, Americanmuir-road, for the Misses Philip; house, Blackness-road, for Miss E. S. McGregor; dairy premises, North-street, for the Dundee Pasteurised Milk Co., Ltd.

EARLSTOWN AND NEWTON.—The U.D.C. has decided to erect 50 additional houses.

EASTBOURNE.—Plans passed by R.D.C.: Bungalow at Alfriston, for Mr. C. Bruce, Mr. H. Wilson, builder; house, Dittons Farm, Westham, for Mr. H. Marshall, Mr. A. G. Payne, builder; house, Dittons Farm, Westham, for Mr. H. Turner, Mr. J. F. Cornwell, architect.

EAST HAM.—Plans passed by B.C.: Nine houses, 57–73, Monmouth-road, Herapath Bros.; three houses, Flanders-road, adjoining "White Horse," T. H. Lethaby & Co.; four houses, Tilbury-road, Stokes & Sons; three houses, 72, 74 and 76, Monmouth-road, J. W. Lohden; foundry, Forest View, C. Binks; dairy, corner of Masterman-road and High-street South, W. Bradley & Son; power house, factory, North-end, Boleyn-road, C. Haysey.

EDINBURGH.—The Dean of Guild Court has granted warrants as follows: To D. Borthwick, for bungalow at Dovecot-road, Corstorphine; G. Paterson, semi-detached houses at Templeland-road, Corstorphine; Thomas Webster, two villas at Ladywell-road, Corstorphine; and Mrs. M. Grieve, house at Davidson's Mains.

FARNHAM.—Plans passed by R.D.C.: House, Tilford, for Mr. A. J. Craddock; house at Rowledge, for Mr. L. Shrubb; two bungalows at the Hog's Back, Seale, for Mrs. J. W. Browne; house at The Sands, Seale, for the Crooksbury Estate, Ltd.

FARSLEY.—Plans passed: Bungalow, in Red-lane, for Mr. E. A. G. Wilson, to rank for subsidy.——The Council has received sanction from the M.H. for the erection of 50 houses by private enterprise, all of which are to rank for subsidy.

FORMBY.—Plans passed by U.D.C.: Detached house, Piercefield-road, for Mr. A. Ashridge; two houses, Argarmeols-road, for Mr. H. Longman; three pairs of houses, Old Mill-lane, for Mr. J. E. Sanders; house and garage, Kirklake-road, for Messrs. J. & H. Burroughs; pair of houses, Rimmer's-avenue, for Mr. T. Rimmer; house and shop, Four Acres-lane.

GLASGOW.—The contributors of the Victoria Infirmary have decided to erect a new wing extension, at an estimated cost of £100,000.

GRIMSBY.—An inquiry has been held by Mr. P. M. Crosthwaite into an application of the T.C. for sanction to borrow £31,000 for work in connection with sewage disposal.

GUISELEY.—The proposed new Church Sunday School which is estimated to cost £6,000, will be commenced in the early spring. The site has been acquired through the generosity of a local resident, about £4,200 has also been raised for the building.

HEMSWORTH.—At a meeting of the Health Housing Committee intimation was received of the intention of the South Kirkby, Featherstone Hemsworth Collieries Co. to build 300 or 400 hou the Fitzwilliam area of the Hemsworth district was agreed that when plans were submitted the C would lay the necessary sewers.——Plans pass R.D.C.: Twenty-eight houses at Grimethorp the Carlton Main Colliery Co., Ltd.

HOUGHTON-LE-SPRING.—Plans for 39 hous Fence Houses, for the Lambton and Hetton Col Ltd., have been passed by the R.D.C. The H Committee has reported that new tenders ha received for the erection of eight "A" type hou the East Rainton site, and that of Messrs. Lindsley & Co., Chester-le-Street, had been pro ally accepted and submitted to the Ministry of for sanction.

HOVE.—Plans passed by T.C.: Mr. G. Hutt Mr. H. C. Hillier, house, Holland-road; Mr. Matthews, conversion into flats, 9, Fourth-av Mr. D. S. Matthews, conversion into flats, 66, Ti road; Messrs. J. H. Hackman, Ltd., 10 semi-de houses, Portland Villas; Mr. A. W. Scamell f P. B. Swain, stores, 42, Brunswick-square; Mr. Giebeler, addition, 29, Brooker-street; Mr. A. P for Mr. C. E. C. Bovey, riding school, Eaton-g Messrs. W. H. Woodroffe & Son, new roads, Ho road, Reynolds-road, and extension of Law road; Messrs. Turner & Wells for Mr. Poiney, l low, Erroll-road; Messrs. Turner & Wells fo B. A. Pigott, bungalow, Erroll-road; Mr. V Overton for Mr. Marchant, eight houses and 12 garages, Lawrence-road; Mr. H. Buckwell for M Jones, conversion into flats, 47, Brunswick-s Mr. R. Mitchell, pair semi-detached houses and ga Old Shoreham-road; Mr. C. Boast for Mrs. H. H conversion into flats, 49, Carlisle-road; Messrs. & Wells for Mrs. Young, proposed bungalow, road; Mr. F. A. Crouch for Mr. W. J. Short, det house, Modena-road; Messrs. Norman & Bu Dr. F. W. Brookes, detached house, Hove-s Mr. A. Emery for Mrs. S. Emery, house, Furze Mr. P. B. Hunter for Mrs. Fletcher, house, N avenue; Messrs. J. Parsons & Sons for Miss S conversion into flats, 47, Brunswick-place; Mr. Overton for Mr. E. Boam, house, Langdale-Messrs. T. Garrett & Son for Mr. W. Bennett, bung Old Shoreham-road.

HUCKNALL.—Great activity prevails in the bu trade in this district. At the last meeting District Council plans were passed for the erect 20 houses.

KIDDERMINSTER.—Plans passed: House in naught-avenue, for Mr. Johnson; house in S Park-road, for Mr. Walker; house at Aggborou Mr. J. Ferguson; house at Aggborough, for Brooke. The above plans include for subsid proposed houses by Messrs. Johnson, Walker guson.

LEICESTERSHIRE.—The County Council's Educ Committee propose to erect a new elementary at Ibstock to accommodate 680 children. A t amounting to £10,418 has been provisionally acc with a Coalville firm of contractors.

LIVERPOOL.—Over 1,000 plans from private bu have been received, of which over 500 have been pa under the £75 subsidy scheme, which is availab any house up to 950 square feet floor space.— Tramways' Committee has decided to spend £20 upon tramways extensions.

LONDON (CITY).—The Corporation has resolve widen St. Martin's-le-Grand to eighty feet, from gate-street and Gresham-street; Gresham-street, St. Martin's-le-Grand to Foster-lane, to 50 feet; Cheapside, in front of Sweeting's-corner to the jun with St. Martin's-le-Grand, to about 95 feet.

LONDON (STEPNEY).—The B.C. proposed to steps towards erecting municipal buildings at Arbi square.

MAIDSTONE.—Plans passed by T.C.: Tonbri road, shop and house, for Mr. F. H. Rowcroft; ho for Mr. Wood; Loose-road, five bungalows, for S. Bratchell; Curzon-road, bungalow, for Mr Bramley; Old Tovil-road, two houses, for Me Clarke & Epps; Marsham-street, addition of sani annexe for the Committee of the West Kent Ge Hospital.

MATLOCK.—The U.D.C. has decided on a schem the demolition of an old block of shops in Crown-squ and for the erection of shops for the tenants in Impe road.——Plans for a new dining-room and cor hall at Rockside Hydro, and for a number of ho and shops on the land between the Police Station Lime Grove-avenue have been passed by the U.D.

MEDOMSLEY.—In connection with the Mi Welfare Scheme the local colliery proprietors combined for the purposes of purchasing a new m ambulance, and the erection of garage and hous the ambulance driver. Plans for the buildings been approved. The site is situate near the "Hat Feather" Inn, Medomsley. The Consett Iron Co to supply all the necessary building materials at price, and the estimated cost is about £2,500.

NORMANTON (YORKS.).—Plans passed: Tw houses in Dalefield-road, Normanton, for Me Knowles & Kirk; 2 houses, in Ashfield-street, Messrs. F. Smith & G. Carter.

NOTTINGHAM.—The Extension Committee of General Hospital has decided to have plans prep for extensions on the reservoir site.

OSSETT.—Plans passed: House, in Broomcroft, Mr. Wilfred H. Knight; house, in Belgrave-street, Mr. Wilson Rigg; extension and alterations of exis sub-station in Wesley-street, for Messrs. Clay Bro

PONTEFRACT.—Plans passed: New road and se in Mayor's-walk, for Mr. R. Marshall; house in Bagl lane, for Mr. A. Pease; bungalow in Mayor's-walk, Mr. J. T. Miller.——The T.C. recommended that pl and specifications of 10 houses at Wakefield-road and 24 houses on the Baghill site be approved, that the Council invite separate tenders for the w

* See also our List of Contracts, Competitions, etc.

PORTOBELLO.—The Edinburgh City Architect has been asked to submit a report on the question of providing a shelter to bandstand on promenade, etc.

PUDSEY.—Plans passed: Bungalow in Cemetery-road.——The Council are to seek sanction to borrow £3,000 for the purposes of the housing scheme subsidy.

READING.—The T.C. has been asked to consider a proposal for the conversion of Reading Gaol into residential flats as a means of relieving the housing shortage.——The Thames Conservators have approved plans for a new bridge over the Thames at Reading, to take the place of the present Caversham Bridge. The new bridge, which is to be constructed by the Corporation, will be of reinforced concrete, and will have two spans.

ROTHERHAM.—At a meeting of the U.D.C., housing plans for 100 houses, to be built by Mr. Wadsworth Howard, at Bromley, were approved.—It was reported that the Council had conferred with representatives of some of the colliery interests in the district with a view to their building houses, and, subject to the sanction of the Ministry of Health, the companies had indicated their willingness to build an equal number of houses, with a subsidy from the Council, as the Council is willing to build.

RUNCORN.—Plans passed: New club house and recreation ground, for the British Legion Club, on a site in Thomas-street and Dover-street.

SALTCOATS.—The T.C. has received a deputation of local fishermen who request the construction of another breakwater to prevent their craft from being damaged by the heavy backwash which constantly takes place. A committee has been appointed to investigate the request and prepare a suitable scheme.

SHEFFIELD.—Plans passed by T.C.: New street, Parkhead-crescent, for Mr. A. J. Belton; new street, Dalewood-road extension No. 1, for Mr. Frank Crawshaw; bungalow, Selbourne-road, for Mr. P. Parry; bungalow, Hollinsend-road, Gleadless, for Mr. Wm. Ward; two houses, Edge Bank, Machon Bank-road, for Mr. W. Moorhouse; house, School Green-lane, for Mr. G. E. S. Jarvis; six houses, School Green-lane, for Messrs. H. & D. Blenkhorne; six houses, Rundle-road, for Mr. W. Ramsey; house, Dalewood-road, for Mr. F. V. Brindley; house, Trap-lane, for Mr. J. Vickers; house, Derbyshire-lane and Norton Lees-lane, for Mrs. A. Parkin; two houses, Moorbrook-road, for Mr. H. N. Vann; house, Huntsman's-road, for Mr. J. W. Busby; house, Dalewood-road, for Mr. E. Johnson; two houses, Chesterfield-road, for Mr. R. Jones; house, Main-road, Handsworth, for Mr. Ernest Allen; bungalow, Dalewood-road, for Mr. F. Wentworth; 44 houses, Manor Estate, for Estates Committee, Sheffield Corporation; house, dancing hall, and sports pavilion, Brincliffe-hill and Chelsea-road, for Mr. J. W. Shaw; two houses, Montgomery-road, for Messrs. Dyson & Co.; four houses, Carter Knowle-road, for Mr. A. J. Belton; 17 houses, Whirlowdale-road, for Mr. J. Middleton; two houses, Canterbury-avenue and Chorley-road, for Mr. J. Wilfrid Sivil; house, Dromwich-road, for Mr. Cyril Parker; two houses, School Green-lane, for Mr. W. R. Wilson; house, Bellhouse-road and Oakes-lane, for Mr. H. Oxspring; house, Linscott-road and Camping-lane, for Mr. A. France; bungalow, Redmires-road, for Mr. W. R. Haywood; bungalow, Redmires-road, for Mr. Harold Lindley; bungalow, Dalewood-road, for Mr. Dunn; 2 houses, Parkhead-crescent, for Mr. A. J. Belton; two houses, Hunting Tower-road, for Mr. E. Davy; four houses, Peveril-road, for Mr. Riley Watson; two houses, Huntingtower and Tullibardine-roads, for Mr. Moses Simpson; two houses, Rupert-road, for Miss Winifred M. Belchamber and Miss Eva F. Kingham; house, Hessle-road, for Mr. F. A. Mutcham; house, Marion-road, for Mr. C. Morley; house, Trap-lane, for Mr. J. Vickers; two houses, Abbey and Cow-lanes, for Mr. W. S. Coey; four houses, off Richmond-road, for Messrs. W. & E. Sadler; bungalow, off Richmond-road, for Mr. G. Taylor; bungalow, off Richmond-road, for Mr. W. Jones; house, Richmond-road, for Mr. A. Wick; bungalow, School Green-lane, for Mr. C. W. Howsey.

SHIPLEY (YORKS).—An inquiry has been held by the Ministry of Health into the U.D.C. application for sanction to borrow £680 for the purchase of a site on which to erect a small-pox hospital at Heaton Royds. The provision of this hospital is a matter of very great urgency.

SILSDEN.—Plans passed: New warehouse at Aire-dale Shed.

SPENBOROUGH.—Plans passed by U.D.C.: Proposed warehouse at Oxford-road, Gomersal, for Mr. W. Smith; 6 houses at Oxford-road, Gomersal, for Mr. H. Thornton.——It is also proposed to lengthen the large bath, and tenders for this work are to be invited.

STOCKSBRIDGE.—The West Riding Education authority has approved of a site, comprising about 10 acres, at an estimated cost of £1,000, situated near the housing site at Shay House-lane, Stocksbridge, for the erection of a new elementary school.

STOCKTON.—A scheme for the construction of a new bridge at Newport into the Borough of Stockton has been approved by the T.C., and an early start with the scheme is to be made.

STOCKTON-ON-TEES.—Plans have been approved for alterations to the White Swan Hotel, Norton, and for eight houses in Grange-avenue, for Mr. J. S. Earnshaw.

SUNDERLAND.—The Housing Committee of the Corporation has passed plans for the erection of 102 houses by local builders, all of which are to rank for subsidy.——The Bath's Committee of the Corporation has decided to erect a new plunge bath in Kayll-road, the size of new bath is to be 100 ft. long and 25 ft. wide.

THROCKLEY.—Plans passed for the erection of a picture house in Rokeby-street, Lemington, for Mr. J. W. Armstrong.

TYNEMOUTH.—Plans passed by T.C.: Warehouse and shop at corner of Queen Alexandra-road and Preston-road, by Mr. W. Stockdale, for Messrs. Jones & Barnsley: conversion of canteen premises to offices, by Messrs. Cackett & Burns Dick, for Messrs. Smith's Dock Co.; semi-detached houses, Kenners' Dene Estate, by Mr. A. K. Tasker, for Messrs. J. F. Newbold & Co.

UPPER RENFREWSHIRE.—Plans passed: Forty terrace houses, each of six apartments, at Ormonde-avenue, Muirend, Cathcart, for John Dickie & Son, builders; bungalow of five apartments at Carolside-avenue, Clarkston, for John M'Callum, builder; cottage at Kilmarnock-road, Newton Mearns, for Robert Carswell, Eaglesham; bungalow at Southfield-avenue, Potterhill, Paisley, for David Ralph, Paisley; 30 terrace cottages, each of five apartments, at Netherlee, Cathcart, for A. Mitchell & Sons, Ltd., builders, Cathcart; double bungalow (two houses), each of six apartments, at Busby-road, Giffnock, for the Southern Building Company, 480, Pollokshaws-road, Glasgow; two double bungalows (four houses), each of five apartments, at Percy-drive, Giffnock, for Philip Thomasson, builder, Motherwell; and bungalow of six apartments and new road, Davieland Estate, Giffnock (South), for John Mackie, Pollokshields.

UTTOXETER.—Plans passed by U.D.C.: Pair semi-detached houses, Heathfield-row, for Messrs. Jones & Brassington; pair semi-detached houses, Heathfield-road, for Messrs. Duncombe & Wood; house, Heathfield-road, for Messrs. J. Chell & Son; house, Heathfield-road, for Messrs. Ward & Godbehere; house, Heathfield-road, for Mr. J. Russell; house, Heathfield-road, for Mr. J. Ryder.

WAKEFIELD.—Plans passed by City Council: 2 houses in May Bush-road, for Messrs. A. & J. E. Stead; 2 houses in Back Hatfield-street, for Mr. W. Smith; 2 houses in Horbury-road, Lupsett, for Mr. R. H. Lockwood; and 2 houses in Bramley Mount, for the Misses L. & M. Horne.——Application is to be made to the M.H. for sanction to raise a loan of £21,526 to meet the cost of erecting 50 additional houses of the working-class type on the Portobello Estate.

WIDNES.—Mr. K. North has held an inquiry as to the Corporation's application to borrow £12,000 for private street improvement work in Farnworth South district.

FIRES.

BARNSLEY.—A fire occurred at Needlewood Hall, Heresforth Hill-road, the residence of Mr. J. S. Petch, estate agent to Captain Bruce Wentworth, and damage estimated at thousands of pounds was done.

COALBOURNBROOK.—Damage estimated at between £5,000 and £6,000 was done by a fire which occurred on Saturday last at the works of Mr. A. H. Guest, builder, contractor, and timber merchant, of Coalbournbrook, near Amblecote, Stourbridge.

HOUNDSDITCH.—A destructive fire has occurred at the premises of Messrs. Freedman & Pearl, importers and general merchants, at 130, Houndsditch, E.

NEW BUILDINGS IN LONDON.

A new cinema is now being erected under the name of the Euston Cinema, at 81, Euston-road, N.W. Mr. S. Gordon Jeeves, M.S.A., Architect, 4, George-street, Hanover-square, W. 1. Quantity surveyor, Mr. W. H. Webber, F.S.I., 33, Furnival-street, E.C. 4. General contractors, Messrs. Robert Young's Construction Co., Ltd., Canonbury Works, Canonbury-street, N. 1. Sub-contractors are as follows: Plenum installation, piping system central heating, internal plumbing work, sanitary fittings, drainage, fire hydrants and gas supply are by Messrs. Stitson, White & Co., 102, Victoria-street, Westminster, S.W. 1; steel casements and metal front to pay box, W. James & Co., Hythe-road, Willesden Junction, N.W. 10; constructional steelwork, Matthew T. Shaw & Co., Ltd., West Ferry-road, Millwall, E.14; electric light and power installation, Cecil Cooper & Co., Ltd., 14, Gloucester-road, South Kensington, S.W. 7; artificial stonework, W. Baxter Elliott, 304, Hither Green-lane, Lewisham, S.E. 13; steel lettering, S. Haskins & Bros., Ltd., Blackhorse-lane, Walthamstow, E. 17; flagstaffs, Piggott Bros. & Co., Ltd., 220–6, Bishopsgate, E.C. 2; automatic shutters, Joseph Stone, St. George's Ironworks, St. George's-road, Southwark, S.E.; handrails and newels, A. R. H. Maxted, Ltd., Premier Works, Hardwidge-street, Bermondsey, S.E. 1; stucco work and fibrous plaster, Plaster Decoration Co., Ltd., 30, Stannary-street, S.E. 11; ironmongery, A. Jones Lock Co., Ltd., 10, Dyers-buildings, Holborn, E.C. 1; vacuum cleaning apparatus, British Vacuum Cleaner and Engineering Co., Ltd., Parsons Green-lane, S.W. 6; and gas arc lamps, Gas Light and Coke Co.

East India-avenue.—After 150 years at the Royal Exchange, Lloyds, the famous firm of underwriters, is to remove to East India-avenue, Leadenhall-street. An area of nearly an acre has been acquired on the site of the old East India Company's quarters. The site reaches from East India-avenue to Lime-street. Altogether the scheme will involve millions of pounds. Sir Edwin Cooper, the architect of the new Port of London building at Tower Hill, is responsible for the plans.

HOUSING CONFERENCE

AT a Conference on Housing, held on Wednesday last week, at 4, The Sanctuary, Westminster, Mr. F. M. ELGOOD, F.R.I.B.A., said there had been volumes written and numbers of conferences held on the subject of housing, and he attributed some of the obstacles in the way of reform to apathy, thoughtlessness and ignorance. A large number of the population really did not know the conditions under which so many of their fellow beings lived. Education was, therefore, necessary, and it was proposed to inaugurate a Women's Housing Council in Westminster, to undertake work on the lines of the Council in Kensington, where public interest had been aroused and insanitary houses had been purchased and made habitable.

Mr. H. H. ALDRIDGE, National Housing and Town-Planning Council, suggested lines of remedial action, and said that, from the beginning of civilisation, the poor in every land had not been properly housed. In his opinion, the standard of wages should be raised, but housing reform should not wait for that, which might be fifty years. The money which was being wasted as the result of bad housing was more than the amount saved by leaving it alone, and, therefore, it could not afford to wait from the point of view of economy. A code of legislation had been placed on the Statute Book imposing certain duties on the local authorities, and it was their duty to suppress overcrowding by building houses and renting them to people at what they could afford to pay, and making up the difference out of the State funds. Before the question of housing could be solved, London would have to be considered as a whole in connection with transport and other things.

Miss S. M. BUSHELL, spoke of the desperate position of those who lived in slums and could afford to live in better houses if they could find them. She said the Women's Housing Council was to help the men: the question was not wholly for women, although, perhaps, they came more in contact with the overcrowding.

In reply to questions put by Mr. Cecil Smith, Mr. ALDRIDGE said that private enterprise had broken down, and the community must be prepared to pay the difference between the economic rent, and the rent people could afford to pay. The arrears of rent in municipal housing schemes generally were very low indeed. In Sheffield, they were high, owing to the very large amount of unemployment, and in many cases people were even going short of food in order to pay their rent. If confidence were restored in the building trade, private enterprise could get back to work and provide all the houses necessary, except for the very poor, who should be catered for by the State. He thought the only way to restore confidence, and to get houses built on a large scale, would be by the coming together of masters, men, the Ministry of Labour, Ministry of Health, and others, to form a housing policy spread over twenty years. The numbers of skilled builders had been extraordinarily reduced by the lack of apprentices, who were deterred by the small wages offered, and no guarantee of continuous employment.

Mr COURTHORPE (Western Australia) said the Workers' Board in his country was doing a great work. Anyone whose annual income was less than £400 could borrow £800 to build a house, the rent of which would be about seventeen shillings per week; and special facilities were made for people to travel to and from their work.

Obituary.

The death has occurred of Mr. Robt. S. Dawson, aged sixty-seven, of Chester-road, Sunderland, who had carried on business as a slate merchant in St. Mary's-crescent for nearly forty years.

The death has taken place, at Newport (Mon), of Mr. Robert William Moon, past-President of the Newport Master Builders' Association. He had constructed many buildings of note in Monmouthshire, including the National Provincial Union Bank, Ltd., at Newport.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 17 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 11 6
Do. grooved for plaster	2 15 3	Do. Bullnose	10 1 6
Do. Bullnose	3 8 3	Blue Wire Cuts	7 11 6
Best Stourbridge Fire brick :—			
2½ in.	11 3 0	3 in.	13 2 0
GLAZED BRICKS—			
Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
Headers	21 10 0	One Side and two Ends	31 10 0
Quoins. Bullnose and 4½in. Flats	28 10 0	Two Sides and one End	32 10 0
		Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. "	2 6	4 in. "	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	" "
Thames Sand	15 6	" "
Best Washed Sand	15 6	" "
¾ in. Shingle for Ferro-Concrete	14 0	" "
½ in. "	15 0	" "
¾ in. Broken Brick	10 6	" "
Pan Breeze	5 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

	£ s. d.
Best Portland Cement, British Standard Specification Test £2 18 0 to 51/- alongside at Vauxhall in 80-ton lots.	£3 3 6
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 6
" Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
HOPTON-WOOD STONE.	
Delivered at any Goods Station, London.	
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over "	17/-
Sawn two sides "	27/-
Sawn three or four sides "	32/-
YORK STONE, BLUE—*Robin Hood Quality*.	
Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5½
1½ in. to 2 in. ditto, ditto "	1 3
HARD YORK—	
Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto "	6 0½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto. ditto "	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s. d.
Plain per ft. cube	6 6
Moulded " "	7 9
Cills " "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£24 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	21/-	1¼	33/6
¾	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.	MATCHINGS (BEST). Inches	per sq.
1	24/6	⅝	17/6
1¼	33/6	¾	22/-
1½	38/6	1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2	0 to	0	2 6
¾ in. do. do.	0	1	6 to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1	9 to	0	2 6
Cuba Mahogany	0	3	0 to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0	0 to	50	0 0
American Whitewood planks, per ft. cube	0	14	0 to	0	16 0
Best Scotch Glue, per cwt.	4	10	0 to	—	
Liquid Glue, per cwt.	4	7	0 to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
" Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	16 10 0	⅝ in. to ⅞ in.	13 10 0
⅜ in.	14 10 0	1 in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discount, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¾	3½d.
4 in.	1/4	1/1¾	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7¾	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5¾
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5¾	3 3¾
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3¾	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0
Hoop iron, basis price	16 10 0	..	17 10
" Galvanised	31 0 0	..	32 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	15 0 0	..	16 0
" " " 24 g.	16 0 0	..	17 0
" " " 26 g.	18 0 0	..	19 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0
Cut Nails, 3in. to 6 in.	20 10 0	..	22 0
(under 3in. usual trade extras.)			

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/- to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s.
LEAD—Sheet, English, 4 lb. and up	41 10
Pipe in coils	42 0
Soil Pipe	45 0
Compo pipe	47 10

NOTE—Country delivery, 30s. per ton extra; lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 1 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	27 0 0	..	—
Do., ex country, carriage forward per ton	28 0 0	..	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/-	76/-	153/-	246/-	510/- per doz

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz

NEW RIVER PATTERN SCREW DOWN MAIN FERRULE.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1½ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/-

COPPER—	£ s. d.		
Strong Sheet per lb.	0 2 3	..	—
Thin "	0 2 4	..	—
Copper nails "	0 2 3	..	—
Copper wire "	0 2 4	..	—
TIN—English Ingots "	0 2 6	..	—
SOLDER—Plumbers' "	0 1 1	..	—
Tinmen's "	0 1 3	..	—
Blowpipe "	0 1 5	..	—

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 3 10
" " " in barrels	0 4 0
" " " in drums	0 4 3
Boiled " " in barrels	0 4 4
" " " in drums	0 4 3
Turpentine in barrels	0 6 6
" in drums (10 gall.)	0 6 3
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	56 5 0
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	79 10 0
Red Lead, Dry (packages extra) per ton	43 0 0
Best Linseed Oil Putty per cwt.	0 16 0
Filocol per cwt.	0 15 0
Size, XD Quality fkn.	0 [illegible]

[Concluded on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

ICES CURRENT OF MATERIALS (*contd.*)

GLASS.

LISH SHEET GLASS IN CRATES OF STOCK ES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
z. fourths....	3½d.	32 oz. fourths	8½d.
,, thirds	4½d.	32 ,, thirds	10½d.
,, fourths....	5d.	Obscured Sheet, 15 oz.	4d.
,, thirds	6½d.	21 ,,	5½d.
,, fourths....	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
,, thirds	7½d.	En'lled 15 ,, 5½d., 21 ,,	7½d.

a price according to size and substance for squares from stock.

LISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
Rolled plate	4½d.
Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Varnish	Outside	0 14 0
ditto	ditto	0 16 0
Copal	ditto	0 18 0
Copal	ditto	1 0 0
Copal Carriage	ditto	1 4 0
ditto	ditto	1 12 0
r Varnish	Inside	0 18 0
Pale Paper	ditto	0 18 0
Copal Cabinet	ditto	1 2 6
Copal flatting	ditto	1 0 6
d drying Oak	ditto	0 18 0
Hard drying Oak	ditto	0 19 0
Copal Varnish	ditto	1 0 0
ditto	ditto	1 2 0
ditto	ditto	1 12 0
Japan Gold Size		0 12 0
Black Japan		0 12 0
and Mahogany Stain (water)		0 12 0
swick Black		0 9 0
n Black		0 14 0
tting (patent)		1 5 0
ch and Brush Polish		0 17 6
id Dryers in Terebine		0 9 0
ss Black Enamel		0 7 0

XPANSION OF BUILDING & CONSTRUCTION IN INDIA.

NDIAN PROJECTS.—The roads programme of Bombay Municipal Corporation, widening, is estimated at £362,823.

NDIAN TENDERS.—Among recent Indian ders are: The Chief Controller of Stores, ian Stores' Department, Delhi: steel mobilisa- hutting with steel doors and windows for tary works. Also 300 tons structional steel- k for the domes and half-domes of the islature Chamber, Delhi. The Chief En- er, North West Railway, Lahore: 300,000 ring plates, notched with six holes for dog es to take both 75 lbs, B.G.S. rails and 75 lbs. . flange rails, plates to be of wrought iron or d steel. The Secretary, Railway Board, lhi: delivery during the year ending March 31, 5, 3,000 goods wagons for broad and metre ge railways of types to the standard designs he Indian Railway Conference Association. Municipal Commissioner, Corporation of ngoon: construction of Part B. of the New nicipal market contract including the steel ned and other buildings, comprising the main aar, single and double story lock-up shops, nite set and concrete paved roads and open es, and surface water drainage, covering area about 600 ft. by 490 ft.

Rent Restrictions Act.

Ir. Graham Mould, barrister-at-law, gave the ond of his lectures on this subject at the lege of Estate Management recently. He lt with the changes in the original Acts le by the new Act of this year; and empha- l the discretionary powers given to the rt by this Act. The lecturer then went ough the Act section by section, showing effect of the various changes, and pointing the concessions made to various parties.

PATENTS.*

APPLICATIONS PUBLISHED.

203,431.—International One-Pipe Heater, Ltd. (International Heater Co.): Heating of houses, halls, and other buildings.

203,456.—A. W. Stewart: Ventilation fitting.

203,483.—F. J. Brougham (Perfect Window Regulator Co.): Window regulator.

203,490.—H. J. Jocelyne and Bifurcated & Tubular Rivet Co., Ltd.: Fastening-means for handles, door-knobs, and the like.

203,493.—S. Wildeblood: Automatic safety window-catch.

203,514.—C. A. Gray: Desks.

203,528.—D. McLean: Ventilation of cavity walls and building structures.

203,578.—Parker Rotary Stone Saw Co. and D. W. Parker: Rotary stone-sawing machine.

203,603.—B. May and Improved Metallic Paints, Ltd.: Vessels for containing paints, distempers, and other liquids of a similar character.

203,604.—A. Thomas: Device for setting saws.

203,636.—J. H. E. Francis: Vitreous enamelled tiles and bricks.

203,640.—A. Ferguson: Pivoted sliding-windows.

203,736.—F. Bibby: Wall brackets.

203,740.—H. F. Taylor: Sheet materials for paving and flooring.

203,746.—E. Hanson: Means for distributing granite and like chippings or sand on roadways.

203,756.—S. H. Lock: Packing-cases.

203,800.—A. J. Rout: Mattresses, chairs, and settees.

203,806.—J. McHardy: Door-knob furniture.

203,814.—Crompton & Co., Ltd., and H. O. Burge: Couplings for electric ceiling-fans.

203,826.—A. E. E. Cuckow: Treatment of building materials of a porous or absorbent nature.

203,833.—H. Kopplinger: Manufacture of metal sash-frames for double-casement windows.

203,844.—G. D. Peters & Co., Ltd., and L. J. Le Clair: Apparatus for raising, lowering, and holding windows.

203,847.—Titanine, Ltd., T. W. H. Ward, and J. Fletcher: Manufacture of dopes, varnishes, or paints.

203,853.—M. Rosenbaum: Method of rendering coats of distemper and mineral colours washable.

203,890.—H. R. Metcalfe and J. R. S. Hayes: Folding-chairs.

203,950.—W. H. C. D. Charity: Powders for cleaning and polishing metals and the like, and for cleaning and colouring stonework.

203,963.—W. R. Cochrane: Making of cement from blast-furnace slag.

203,972.—Waygood-Otis, Ltd. (Otis Elevator Co.): Electrically controlled lifts.

203,825.—S. Miller: Water or other taps.

203,986.—A. L. Benson: Device for trimming the edges of wallpaper.

203,988.—H. Abraham: Roofing-shingle strips.

203,999.—A. J. Rout: Arms of chairs and settees.

204,083.—W. H. Swanton and A. F. Echberg: Machine for moulding building-blocks.

204,093.—S. R. Trevor and J. E. Moosman: Manufacture of paints.

204,112.—H. Taylor: Combination bath and lavatory taps.

204,125.—T. F. Fenney: Means for cleaning bricks, paving blocks, and setts.

204,128.—J. J. Rawlings and Rawlings Bros., Ltd.: Gratings for wastes and vents of sinks, baths, and wash-basins.

204,135.—J. G. Connell: Supply fittings of water-closets, baths, and lavatory basins.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

RAILWAY COMPANY EASEMENT: INCREASE OF BURDEN.

An interesting point to those who have land near a railway and have rights over level crossings has been decided by the Court of Appeal in the recent case, South Eastern Railway Company *v.* Cooper (*Weekly Notes*, December 1).

In 1844 the plaintiffs had constructed a branch railway, and by agreement they had acquired some land from the defendant's predecessors in title. The portion thus acquired had originally abutted upon a highway, but in making the line the highway had to be diverted, and the defendant's land was cut off from the highway. To restore this access and to connect several portions of the property a right of roadway and passage for themselves, their agents and workmen, on foot, or on horseback, and with carts, carriages, horses, and other animals, had been granted to the defendants' predecessors in title, their heirs and assigns over a level crossing, subject however to the by-laws of the Company as to level crossings, and it was provided that the defendants were to have a right of roadway "for the commodious use of the same crossing and the safe and commodious use of the lands thereto adjoining," and these rights were not to be cut down or interfered with.

The level crossing had always been used for agricultural purposes only, but the defendant had recently opened a sandpit on his land and used the level crossing to carry gravel and sand to the highway, and in this action the company had sought to obtain a declaration that the defendant was not entitled to so use the crossing as substantially to increase the burden of the easement by altering or enlarging its character and extent as enjoyed at the time the railway was constructed, and an injunction was asked for. The Court of Appeal, reversing the Court below, held that the grant was a grant in wide terms of a right of way for all purposes and not merely a grant of an accommodation way; that the grant was not so cut down as to show that the roadway was to be used for agricultural purposes only, nor was it limited to the user at the time it was granted in 1847. It was contended that the grant was so wide as to be *ultra vires* the railway company, but the Court of Appeal on the authority of a case, Rex *v.* Inhabitants of Leake (1833, 5 B. & A. 469), negatived that contention, holding that where it was compatible with the use of a railway company to make a wide grant of way subject to directions to be contained in by-laws, such a grant could not be held *ultra vires*.

"THE BUILDER" ARCHITECTS' & SURVEYORS' POCKET DIARY.

This diary, for the first edition of which there was a large demand, has been much improved by the substitution of a flexible leather cover, which will ensure that it does not become ragged after being carried in the pocket for several months. A thinner paper is used this year, so that the same number of pages are contained in a book occupying less space in the pocket. This diary is specially prepared for the use of architects and surveyors by *The Builder* in conjunction with the Architects' and Surveyors' Assistants' Professional Union (price, 2s. 9d., post free), and the first sixty pages contains a great deal of information required by members of those professions in their daily practice, including fire insurance, mensuration notes, tables of areas of circles, weights and measures, &c., a list of professional institutions, with notes as to membership, prizes and studentships offered, &c.; the new British Standard Sections; and a great deal of useful information under the heading of the different trades. The diary is arranged with one opening to each week.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
½ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.	¾"	1"	1¼"	1½"
Deal-edges shot per sq.		49/-	58/-	67/-
Do. tongued and grooved "		54/-	65/-	72/-
Do. matchings "	45/-	55/-		
Moulded skirting, including backings and grounds per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.	1½"	1¾"	2"
Two-panel square framed per ft. sup.	2/1	2/4	2/6
Four-panel Do. "	2/5	2/8	2/11
Two-panel moulded both sides "	2/8	2/11	3/2
Four-panel Do. Do. "	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and	
Casement stays	1/2	making good	19/-
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	54	0
Do. Do. in flats	"	52	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	4

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	11d.	1/8	1/11	3/5	4/2	
Do. service	"	1/7	2/1	2/6	3/10		6/10
Do. soil	"					3/3	8/2
Bends in lead pipe	each						
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	" "	2	6
Do. Do. Keen's	" "	3	6
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	"	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS.

munications for insertion under this heading should dressed to "The Editor," and must reach him not than Tuesday evening.

notes *accepted.* † Denotes *provisionally accepted.*

notes *recommended for acceptance.*

notes *accepted subject to modifications.*

BERYSTWYTH.—For erection of seven houses refechan site, for T.C. :—

	Per house.
W. J. Gregory & Son, Colwyn Bay	£658
Calways, Ltd., Swansea	475
T. Jones & Son	457
Evans Bros., Cemmes	427
J. E. Morgan Jones, Oswestry	395

ARNSLEY.—For construction of (*a*) 44 houses at ton-lane; and (*b*) 52 houses on same site, for the :—

(*a*) C. D. Potter & Sons	£15,956 4
(*b*) Fairhurst Bros.	18,850 0

ATLEY.—Erection of 32 houses adjoining Copley-t and Loxley-street, at Bradford-road West, for Corporation :—

Mason work—
Herman Booth, Batley.
G. Aveyard, Batley.

Slater—
W. H. Thompson, Batley.

Joiner's work—
J. Brooke & Sons, Batley Car.

Plumber's work—
A. Shackleton, Batley.
Walshaw & Wood, Batley.

Electrical work—
Hepworth & England, Batley.

Plasterer's work—
J. Greenwood, Batley.
W. Lockwood, Batley.

Pain'er's work—
N. Ramsden, Dewsbury.
Each house, £440. Total cost, £14,107

LACKBURN.—For erection of a pavilion at Rock-Recreation Ground, for the T.C. Mr. A. T. eman, Borough Engineer, Town Hall, Blackburn : John Fecitt, Ltd., Blackburn.

GLASGOW.—Supply of steel tubes for housing schemes, for the T.C. :—

*Stewarts & Lloyds	£2,380	6	9

GLASGOW.—For the brickwork in connection with the erection of buildings at Mearnskirk Sanatorium, for the T.C. :—

James Crawford	£50,329	6	2
John Train & Co., Ltd.	50,289	1	0
William Taylor & Son (Glasgow), Ltd.	49,875	5	5
*Robert Rogerson & Co., Glasgow	47,907	5	10

GLASGOW.—For joinery works in connection with buildings at Mearnskirk Sanatorium, for the T.C. :—

John MacDonald (Contractors), Ltd., Burnside	£29,013	16	8
Lawson & Co., Govan	28,813	9	0
*Robert Rogerson & Co.	28,593	14	5

GLASGOW.—For the erection of a sub-station at Baillieston, for the T.C. :—

*Brown, Fraser & Co.—*Brickwork, &c.*	£4,720	0	0
*S. M. Stark—*Carpenter and glazier*	1,040	0	0
*C. Wilson—*Slater*	244	2	3
*H. Twaddle & Son—*Plumber*	298	2	0
Norfolk Decorators, Ltd.—*Painting*	89	2	3
*Brown, Fraser & Co.—*Reinforced concrete*	1,202	0	0
Total	£7,593	6	6

HARBLEDOWN.—For erection of small house Mr. E. A. Jackson, architect, Ashford, Kent :—

W. Cozens, Canterbury	£2,438	0	0
—. Judges, Faversham	2,239	0	0
O. Marx, Folkestone	2,168	0	0
G. Browning, Canterbury	1,956	0	0
W. Shippam, Ashford	1,945	0	0
Earl & Co., Ashford	1,835	10	0
Clark Bros., Maidstone	1,775	8	6
Dickins & Phillips, Canterbury	1,775	0	0
L. T. Dadds, Canterbury	1,739	0	0
A. Wiltshier, Canterbury	1,738	0	0
Whiting Bros., Faversham	1,736	0	0
D. Godden & Son, Ashford	1,728	0	0
Lewis & Son, Dover	1,637	0	0
R. J. Barwick, Dover	1,610	0	0
J. Hawkes, Faversham	1,310	5	6
*W. Watling, Cranbrook	1,225	0	0

OLTON-UPON-DEARNE.—For erection of 20 houses (four Parlour Type, 16 Non-Parlour Type), for the C. Mr. W. H. Adams, Architect, Council Offices, Bolton-upon-Dearne :—

	Parlour B.N. 1 (2)	Parlour B.N. 2 (2)	Non-Parlour A.N. 3 (8)	Non-Parlour A.N. 3x (8)	Total. (20)
Gelder Bros.	£995 15 ..	£993 10 ..	£3,060 ..	£3,060 ..	£8,149 5
h & Hawley, Ltd. Sheffield	920 8 ..	893 10 ..	2,760 ..	2,760 ..	7,333 18
. Meanley & Son Mexboro'	796 0 ..	792 0 ..	2,840 ..	2,840 ..	7,268 0
well & Co., Rotherham	875 0 ..	870 0 ..	2,760 ..	2,760 ..	7,265 0
n & Whittington, Doncaster	830 0 ..	820 0 ..	2,776 ..	2,776 ..	7,202 0
. Dickinson, Bolton-upon-Dearne	834 0 ..	844 0 ..	2,680 ..	2,720 ..	7,078 0

ROXBOURNE.—Provision of a Stoney sluice, he Metropolitan Water Board :—

Ransomes & Rapier	£230

RTON-ON-TRENT.—For alterations to offices, at Town Hall. Mr. George T. Lynam, Borough neer, Town Hall, Burton-on-Trent :—

Thos. Lowe & Sons, Burton-on-Trent	£1,805 15 11

RTON-ON-TRENT.—For erection of 48 houses. he T.C. Mr. G. T. Lynam Borough Engineer, n Hall, Burton-on-Trent :—

Chadwick & Keen, Burton-on-Trent —8 houses in brick	£3,480
G. Hodges & Son, Burton-on-Trent— 10 houses in hollow blocks	4,980
30 houses in brick	15,240

AMBRIDGE.—For improvement works in Brook-ls-avenue, for the T.C. :—

Jonas & Sons	£236

HORLEY.—For re-flooring four class-rooms at e-street Council School. Education Officer, Town , Chorley :—

William Townson & Sons, Ltd., Bolton.	

ONISBOROUGH.—For laying sewer in Tickhill-re, for the U.D.C. :—

H. Cooper, Maltby	£298

ORCHESTER.—For repairs and renovations to ns at North-square, for the T.C. Mr. H. D. nge, Borough Surveyor, 21, North-square, Dor-ter :—

Dorchester Building Guild, Dorchester	£328 7 2
Chas. E. Slade, Dorchester	258 10 0

LASGOW.—For construction of Cardonald main , for the T.C. :—

A. M'Cracken & Sons, Motherwell	£15,204 1 3

LASGOW.—For repair of roads at Ruchill Hospital, the T.C. :—

Aitken Thomson & Sons	£105

LASGOW.—For (*a*) excavation, mason, &c., ss; and (*b*) steel work, in connection with new dings at corner of Trongate and High-street, for T.C. :—

(*a*) Emery & Sons	£21,676 0
(*b*) Redpath, Brown & Co.	3,336 7

HULL.—For the external painting of Corporation properties :—

*(1) City Engineer	£27	10	
*(2) J. Codner & Son	132	0	
*(3) City Engineer	29	10	
*(4) Kettlewell, Sons & Co.	110	10	
*(5) J. Codner & Son	29	10	
*(6) Kettlewell, Sons & Co.	47	10	
*(7) do.	15	10	
*(8) City Engineer	31	0	
*(9) do.	88	0	

LEEDS.—For erection of sub-station in Devonshire-avenue, Roundhay, for the T.C. :—

J. Ferguson & Son	£461	18	6

LEEDS.—For materials in connection with water main being laid in Dewsbury- and other roads, for the T.C. :—

*Clayton, Sons, & Co., Ltd.— Mild steel tube for railway crossing at Dewsbury-road	£222	0	0
*Cochrane & Co., Ltd.— 250 9-in. concrete-lined pipes, at per pipe	3	14	9
400 18-in. concrete-lined pipes at per pipe	8	7	0
42 18-in. cast-iron special pipes, at per ton	21	0	0
*Stanton Ironworks Co., Ltd.— 340 12-in. concrete-lined pipes at per ton	9	18	6
91 12-in. cast-iron special pipes, at per ton	21	5	0

LEEK.—For painting interior of 20 houses on housing site, for the U.D.C. Mr. W. E. Beacham, Surveyor, Town Hall, Leek :—

E. Phillips & Sons, Leek	£480	0	0
G. Mason, Leek	395	0	0
V. Robinson, Leek	390	0	0
Baker & Co., Whitchurch	367	16	5
C. Dale, Leek	305	0	0
Warren & Fogg, Leek	300	0	0
Condring & Sons, Leek	289	0	0
J. Williams, Longlin	179	0	0
Emery & Co., Birmingham	145	0	0
*E. Hughes, Leek	180	0	0

LEEK.—For bowling pavilion, for Bowling Green Committee. Mr. W. E. Beacham, Architect, Town Hall, Leek :—

T. Godwin, Hanley	£1,425
J. Heath & Sons, Leek	1,399
T. Grace, Leek	1,220
J. Cooke, Longport	1,250
S. Salt, Leek	1,195

LEOMINSTER.—For construction of 10 parlour type and 10 non-parlour type houses, for the T.C. Mr. James Budd, Borough Surveyor, Town Hall, Leominster :—

Mann & Price, Kington	£10,080
W. C. Bott, Hereford	9,440
Watkins Bros., Leominster	8,900
Philpott Bros., Leominster	8,900
Turford & Southward, Ludlow	8,300
*Powles & Jones, Leominster	8,300
Surveyor's estimate	8,800

LETCHWORTH. — For erection of bungalow, Meadow Way, for Mr. A. Monger. Mr. J. C. Tickle, architect, Lytton-avenue, Letchworth :—

R. W. Smith, Letchworth	£725	0	0
Pettengall & Clark, Letchworth	680	9	0
Jeffs & Bigley, Letchworth	665	0	0
J. A. L. White, Letchworth	650	10	6
*Quinn & Seater, Letchworth	650	0	0

LONDON.—For taking down old and erecting new urinal in High-street, for the Lewisham B.C. :—

Charles Cutler, Hither Green	£183	0	0
Burke, Collins & Co., Lee	153	10	0
*A. T. Peyton, Lewisham	148	17	6

LONDON.—For Sutton Court-road, Chiswick, for the U.D.C. Mr. Edward Willis, Engineer, Town Hall, Chiswick :—

The Acme Flooring and Paving Co., £17,938. 9d. per yard per annum for maintenance.
F. D. Davidson, £19,792 10s. 2s. 6d. per yard per annum for maintenance.
*A. E. Farr, Ltd., £12,881.
Howard Farrow, £18,086 5s.
W. Griffiths & Co., Ltd., £18,301 16s. 6d.
The Improved Wood Pavement Co., £16,960 15s. 6d. 6d. per yard per annum for maintenance.
Surveyor's estimate, £20,670.

LONDON.—For conversion of No. 8, Carlton House-terrace, S.W., into four flats. Messrs. F. W. Rees & Archer-Betham, architects, 44, Park-lane, Croydon. Quantities by Mr. W. J. Lewis, Ilford :—

Bridge & Co., Croydon	£10,500
Arthur Vigor, Ltd., London	9,993
Winter & Ward	9,808
Holloway Bros. (London), Ltd., London	9,720
Holland & Hannen & Cubitts, Ltd., London	9,714
O. Craske, Chelsea	9,548
Trollope & Colls, Ltd., London	9,340
Hall, Beddall & Co., London	9,200
H. D. Ebbutt, Ltd., Croydon	9,200
Ashby & Horner, Ltd., London,	9,190
Mullen & Lumsden, Ltd., London	9,155
Read & Sons, London	9,118
Walter Lawrence, Ltd., London	8,989
C. H. Gibson, Ltd., Croydon	8,932
Bovis, Ltd., London	8,857
Lewis, Helby & Tanner, Croydon	8,800
J. McManus, Ltd., London	8,623
W. F. Blay, Ltd., London	8,384
F. G. Minter, London	7,982
Architect's estimate	8,600

LONDON.—Supply of reinforcement for repairs to three reservoirs, for the Metropolitan Water Board :—

*Richard Hill & Co.	£386 13 6

LONDON.—For decorative and repair works at Tuberculosis Dispensary and Maternity and Child Welfare Centre, for the Westminster C.C. :—

Contractors.	Exterior.	Tuberculosis Dispensary.	Maternity and Child Welfare.
Army & Navy Co-operative Supply, Ltd.	£524	£177	£161
Townsend & Pearson, Ltd.	447	127	129
Sims & Russell	397	132	121
*Walter Lilly & Co.	330	115	120

LONDON.—For repairs to flooring at 59 and 60, Jessel House, for the Westminster C.C. :—

Burton Bros.	£198	10	4
Sims & Russell	174	4	3
*Townsend & Pearson, Ltd.	161	19	3

LONDON.—For extension of West Green Baptist Church, Tottenham. Mr. Geo. W. Newman, architect, 140, Wellington-road, Bush Hill Park, Enfield. Quantities by Mr. W. H. Lamble, 1, Broad-street Buildings, E.C.2 :—

Kelland & Sons, Ltd.	£4,078
G. Groves & Son	3,995
Allen Fairhead & Son	3,741
James Stewart	3,725
Albert Monk	3,720
A. Harston & Co.	3,677
Henry Knight & Son	3,673

METROPOLITAN ASYLUMS BOARD.—The following tenders have been received for various works :—

Darenth Training Colony—Weighbridge foundations, &c.—

L. Kazak, Hampstead	£352	0	0
†D. C. Bowyer, Belvedere, Kent	197	0	0

Northern Hospital—Weighbridge foundations—

J. Darch, Ltd., E.C.	£275	0	0
†Barnes & Co., Lewisham	195	0	0

White Oak—Repairs to tiled roofs—

J. Macquire, Bermondsey	£253	0	0
W. H. Hill, Bromley	225	0	0
Barnes & Co., Lewisham	195	0	0
†D. C. Bowyer, Belvedere	149	12	0

Tooting Bec Mental Hospital extension—Asphalt paving to covered ways—

T. W. Heath, Ltd., S.W.	£487	10	0
J. H. Bradshaw, Ltd., Manchester	406	7	5

A. C. W. Hobman & Co., Ltd., South Bermondsey	£348	19	3
Val de Travers Asphalte Paving Co., Ltd., E.C.	326	9	2
Ragusa Asphalte Paving Co., Ltd., W.	305	14	7
Limmer & Trinidad Lake Asphalt Co., Ltd., S.W.	296	0	0
†Neuchatel Asphalte Co., Ltd., S.W.	275	0	0

Leavesden Mental Hospital—Re-slating roof of water tower—

†J. Macquire, Bermondsey	£152	0	0

Tooting Bec Mental Hospital—Alterations and extensions to electric lighting and power installations in kitchen—

A. Higginbotham & Sons, Idle	£420	0	0
G. Morrison, Blackpool	417	2	6
S. Reed & Sons, S.E.	285	0	0
T. Clarke & Co., Ltd., S.W.	270	0	0
Manley & Regulus, Ltd., Wolverhampton	262	12	0
Tredegars (1923), Ltd., W.	241	18	6
C. A. Carpenter, E.C.	238	0	0
Guild Housing, Ltd., Acton	234	12	6
Myall Bros., Leigh-on-Sea	228	0	0
†Guild of Engineers (London), Ltd., S.E.1	153	0	0

Tooting Bec Mental Hospital extension—Supply of cast-iron rainwater gutters, &c.—

S. & G. A. Allwood, Ltd., Derby	£210	0	0
Carron Co., Stirlingshire	186	10	8
D. King & Sons, Ltd., Glasgow	178	6	9
J. Allen, Senr., & Son, Ltd., E.C.	169	11	8
Pryke & Palmer, Ltd., E.C.	168	14	5
Teuten & Co., Ltd., E.C.	£144	16	6
†A. Danks, Ltd., Gloucester	137	0	0
Blagg & Johnson, Ltd., Newark-on-Trent (for pressed steel)	106	0	0

Tooting Bec Mental Hospital—Installation of new brick built steam pipe oven—

W. F. Mason, Ltd., Manchester	£965	0	0
T. Hunt & Sons, Battersea	850	0	0
Benham & Sons, Ltd., W.1	818	0	0
J. Baker, Sons, & Perkins, Ltd., Peterborough	798	10	0
Alfred Hunt, Ltd., Leicester	650	0	0
†Thomas Collins & Co., Bristol	600	0	0
Henry Heaton, Harlow, Essex	574	0	0

North-Western Hospital—Installation of 20-ton weigh-bridge—

	With platform 20 ft. long.			Credit for old machine
Day & Millward, Ltd., Birmingham	£500	0	0..	—
W. & T. Avery, Ltd., E.C.	495	0	0..	£28
S. Parsons & Co., Ltd., Bradford	455	0	0..	—
Henry Pooley & Son, Ltd., E.C.	470	0	0..	18
Saml. Denison & Son, Ltd., Leeds	440	0	0..	20
Ashworth, Son, & Co., Ltd., E.C.	425	0	0..	20
†Hodgson & Sons (Weighing Machinists), Ltd., Salford	355	0	0..	20
James Spencer & Co., Ltd., Manchester	350	0	0..	20
Charles Ross, Ltd., Sheffield	325	0	0..	Included

Queen Mary's Hospital for Children—Installation of aerated water plant—

Bratby & Hinchcliffe, Ancoats, Manchester	£165	0	0
†Barnett & Foster, N.1	130	14	0

NORTHAMPTON.—For erection of new Isolation Block at the Northampton General Hospital. Mr. F. W. Dorman, architect, 18, Market-square, Northampton. Quantities by Mr. John T. Burt, F.S.I., 6A, St. Martin's, Leicester:—

Edward Green & Son, Northampton	£15,968
Edwin Archer & Sons, Ltd., Northampton	14,795
Executors of Henry Green, Northampton	14,669
S. & C. Cosford, Northampton	14,632
A. P. Hawtin & Sons, Ltd., Northampton	14,586
J. T. Powell, Northampton	14,540
*Henry Martin, Ltd., Northampton	14,424

SHEFFIELD.—For alterations and fittings for sanitary inspector's office at Town Hall, for the T.C.:—

*John Walsh, Ltd.	£268 15

WILLESDEN GREEN.—For alterations and additions to "The Clergy House." Mr. Wallace J. Gregory, architect, 8, High Holborn, W.C.1:—

W. H. Watts	£1,566	7	6
I. C. Tennant & Co.	1,388	0	0
H. Roffey & Sons	1,318	0	0
H. F. Wilkins	1,317	0	0
*The Modern Decorators & Builders	1,100	0	0

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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXV.—No. 4221. DECEMBER 28, 1923.

COMMERCE AND ARCHITECTURE—II.

A RECENT architectural criticism in a provincial paper confirms the opinions we hold upon the necessity for a clearer definition of architectural and commercial values. The criticism of the architectural technique is excellent, but we are lost when the ritic embarks upon his hierarchy of commercial values. Again, re have the suggestion about the supposed greater dignity ttached to wholesale trading as opposed to retail trading. he foreign trader, we suppose, would be on a higher scale than he home trader, because the whole of his business would be onducted by correspondence, and his building might have the ppearance of, say, an insurance office! Probably the wholeale trader presents a less troublesome problem to the architect nd it is easy to make the problem into a question of dignity n architectural values); but if we are in the mind to set up thical standards in the chain of commerce, surely the manufacurer of the goods would be paramount. Or, in the same way, we are in the mood to criticise the quality of the goods there a tendency to blame the salesman, whereas it is the manuacturer who gauges the pulse of the market. We have recently ealt with the architectural dignity which we generally associate ith buildings for manufacturing processes, and we contrasted with the buildings and advertisements which we associate ith the selling departments of our modern civilisation. We ather from the criticism that the problem for the architect to express the dignity of the firm or firms which occupy the uilding. It will be noted how easily this gets rid of the disgreeable commercial function of the building and how easy would be to develop the idea into an expression of the wealth f the client. Ruskin gave us the æsthetic laws upon the orality of art standards, but we have lived long enough to e that many of his ethical assumptions were based upon deductive method of reasoning which ignored the possibility of ivilisation making any further progress. He gave us some elightful and interesting criticism, even if we do not accept his onclusions; he was intent upon certain important and neglected ualities in art, and these he detected unerringly. We have een a great improvement in the treatment of commercial rchitecture during the last twenty years; so much so that, like uskin, we are tempted into considerations of ethical values, st we have no architectural features left over to express the gnity and importance considered necessary for our public uildings. The truth is we are frightened of a dominant comercial age—yet we have lived under its rule for many years. is true that architecture is only beginning to catch up with he great commercial development of the latter half of the last entury, and we fear that much remains to be done before we an complain of an architectural world so uniformly dull because he work was so uniformly good. It may be a healthy development that architects should begin to think of social gradations their architecture as the standard of design improves; but e are not certain that architects generally are either capable making these distinctions, or that they have the architectural nge to satisfy them.

We have repeatedly pointed out that any system of graduated cial values is bound to lead to a conventional and hopeless ate of architecture. The cinema, for instance, is modern ough to place the problem beyond the imagination of the ncient Greeks. Many philosophers have expressed their doubts about the value of this popular development. It may or may not have much to commend it as a social factor in our lives; this is not our concern at the moment, but it is the concern of those who are determined to associate social values with architectural expression. Meantime, it is important to note that several of these buildings represent some of our finest examples of scholarly architectural work in the modern Greek style. We do not say this is a mistake; we merely point out the slender ethical basis upon which architects are building.

It has been suggested that as the principles of architecture become more widely understood architecture becomes more uniform, and gradually assumes the continuity and importance of a style. Under these conditions alarm is expressed at the social status of the commercial building, which would be as good as that of the public building. The only effective answer is that it is more reasonable to expect the architect to widen the scope of his architectural expressions than to narrow the list of subjects deserving of treatment. If the tendency of civilisation is to become more complex it is obvious that a limited architectural vocabulary would find difficulty in giving different expressions to the numerous manifestations of a busy world. To convey a sense of a hidden reserve of power is always difficult, and architecture suffers in this respect with all the other arts. It is merely a passing thought, but it seems curious that as the need, or rather, desire, for different architectural expressions increases, there should be a growing tendency to develop a style which (probably) is to a certain extent limited in its range. Any restriction of style is arbitrary, and care is necessary not to confuse an architectural style with the broad architectural principles which underlie every good design.

In a recent article upon "Digging Up the Greeks," Lord Riddell begins by suggesting a supposition that if by some strange process we could spend half an hour with an ancient Greek, what should we ask him? If he had the opportunity, this is what he thinks he would say: "Mr. Greek, can you tell me in a few words what enabled your small country to achieve such great things? How came it that the Greeks founded mathematics, physics, philosophy, and literature? What was the essential quality of the Greek mind." Probably he (the Greek) would reply: "Forgive me, I am tired of the subject. Let us discuss something more modern and interesting." It is a fascinating suggestion, and the idea occurs to us that architects would do well to develop the subject further. We have heard several architects speculating upon the outlook of the Greek mind upon architectural matters, and the general agreement was that the Greeks would have developed a finer architectural expression to our various types of buildings. We are not too certain about how the Greeks would have dealt with insurance offices, free libraries, municipal buildings, cinemas, warehouses, and motor depots. It is just possible that they would not pay too much respect to fictitious values and good form, and think too little of life and "the glittering noisy moment."

And, after all, if we never convince one another in our arguments upon the relations of art to commerce, it is not an established fact that the architect does give us the expression we would like when he is free from the chains of commerce. The only convenient analogy we can think of is in literature, where "a slight and elusive theme can be made to dance to the airiest pipings . . . a thing all music and light or it is nothing." Curiously enough the architect is not happy when lightness of touch and arrangement seem to be called for; everything seems to be treated alike, and the idea dies in his hands and is cold and stiff and formal. The assessors' report may say that the architect, whose design is placed first, is heavy and is not happy on the wing: nevertheless, our loss seems to be a small thing compared with the reassuring statement that the cloakrooms and exits are well arranged. From this it might appear that architects were more commercially-minded than they think.

NOTES.

The A. A. Pantomime.

THE pantomime, "So This is Architecture: Being a Nightmare with a Moral to all who take Life too Seriously," met with a well-deserved reception last week at the Y.M.C.A. Hall, Tottenham Court-road. The topical allusions were right up-to-date, and to those in or connected with the profession, and the inner workings of the A.A. schools, the incidents presented caused much amusement. The story commences with an architectural student who entered a competition. The effort proving too much for his overworked brain, he fell into a fitful sleep and dreamed the incidents so well presented in eleven scenes. Many of these scenes have been cleverly based on a successful popular play of to-day and much ingenuity has been displayed in so doing. All the scenes are worthy of mention, but space prevents this, though mention may be made of No. 2, "At Burlington House," where a demonstration of the much-discussed jury system for assessing competitions is witnessed. No. 6, "That Russia is always Russia," even in these days of enlightenment and Architectural Schools, proved another highly amusing scene, as also did No. 7, with its Early Victorian setting, all characteristic of the period; and No. 9, "That old Institutions need blood." In this scene Mr. "Riba" was operated on for a transfusion of blood from a more vigorous and youthful member of another body, viz., the "A.A." All ends well, as it should—the student awakens to find Fortune knocking at his door. The whole proved a creditable performance, all taking their various parts admirably. The scenery was all in character with the various scenes, and the orchestra well conducted.

The Building Industry.

THE building industry has its own industrial problems as apart from most other industries, but it depends for its prosperity upon the conditions in other industries. The economic exception which applies to building is the fact that the demand for and supply of houses are not regulated by a free market. The artificial restriction which applies to a section of the work of the building trade provides an excellent illustration of the economic principles put forward in Mr. Strachey's book on economics which we reviewed last week. Obviously, there are only two remedies for an artificial economic condition: one is to remove the artificial restriction (*i.e.*, the Rent Act); the other is to wait for an automatic solution, until building costs and rentals reach a economic level of their own volition. Th question is, How long have we to wait?

A Butterfield Letter.

THE following letter by th late William Butterfiel (1814–1900) which we re ceived a good many yea ago, is, we think, of sufficient interest t put on record in these columns. Thi letter was addressed from 4, Adam-street Adelphi, on December 28, 1878:—

"I am very sorry to seem uncourteous There are, however, several reasons wh I desire that my works should be illus trated as little as possible, besides that o preferring to live as quiet a life as my wor will allow me to do; my natural disposi tion inclines me strongly to this. One o my reasons for declining publication of m works is that my most frequent treatmen of architecture is largely dependent on and connected with, coloured materials I should be sorry to see such works pub lished unless that treatment could be don justice to. I think I may have said thi to you on a former occasion. I hav always had regret when I have at all give way in the direction of publicity. It i no way suits my taste to do so. I ca therefore only hope that people like your self will charitably understand me in thi and similar matters. I am, my dear —— yours very faithfully, W. BUTTERFIELD." It will thus be evident that he greatly valued his mural schemes, and to such a extent did Butterfield allow his love o patterned colour to govern his action that on one occasion, seeing some college buildings which he had erected being more or less encroached upon by climbing foliage, he ordered the gardener straigh away to cut down the creepers and forth with dig a wide trench round the premises filling in same with concrete to prevent further risk of any similar interference with his design in future.

Boughton Malherbe Panelling.

THE regret which we must feel that this famous panelling should now be on exhibition in New York, it having been acquired by the firm of Charles, may be tempered with the thought of the great wealth of this country in such traditional memorials of the past The recent publication of a further volume of the Essex Survey (Historical Monuments Commission) reveals to us that in Essex alone the record of monuments reaches to the total of 5,506. The wealth of this country in historic and artistic possessions of interest is very great, and though the large number recorded in Essex includes many of very minor importance, they are none the less of ancient origin and represent many examples of widely divergent character. No doubt the Wotton panelling is of exceptional interest and beauty, and has been known to antiquaries "as one of



Mountsorrel War Memorial: Showing the Butter Market in the Foreground.
MESSRS. STOCKDALE HARRISON & SONS, Architects. (*See p.* 994.)

the best preserved specimens of its kind in England," according to the account appearing in *The Times*. The whole of the room has been reconstructed in the galleries of the New York firm, and measures 19 ft. by 19 ft., and is about 13 ft. high.

Villa Carlotta.

THE many thousands who have visited the lovely shores of Lake Como will learn with regret that the Villa Carlotta, which came into the possession of the Italian Government under the terms of the Peace Treaty, is to be dismantled, and its treasures transplanted to Rome, after removing the rare plants for which its terraced gardens are famous. The historic associations of Lake Como suffer a loss in this way, and it is much to be hoped that before too late something in the nature of international protest will be made against this act of spoliation. The grounds adduced, those of economic necessity, are not, we should have thought, of equal importance with the advantage of preserving the beauty of such historical associations, which influence, hardly less than the beauty of the district, so many thousands of tourists to visit the neighbourhood.



Pavilion de la Reime, Les Baux, near Avignon.

We understand that there is even danger that the house itself may be pulled down. Its late formal style, though perhaps not of the best, is singularly suited to its situation in that it is wholly local and distinctive, and has received the eulogium of John Ruskin in one of his writings. The Italian Lakes have perhaps suffered less than other localities from a cosmopolitanism which takes little heed of local and traditional characteristics, and we trust that the inhabitants who are opposed to the destruction of their famous Villa will succeed in the appeal which they are making to Rome, and that it may be preserved to give pleasure to the thousands of tourists who haunt the shores of the lake each year.



St. Botolph's Church, Bishopsgate. From a Sketch by MR. W. J. B. PRICE.

William Blake's "Milton."

AT Sotheby's there has just been sold this volume for the sum of £3,400, and it is understood that it will now go abroad, probably to America. It was Goethe who said that the artist was not paid, and the sum now realised by others for this book is more than William Blake through half his lifetime received for his work when alive. Yet the poet, when talking in his old age to a little child, is recorded to have said to her: "May your life be as happy as mine has been"; from which various inferences may be drawn as to where the profit in life lies, since one so gifted could give up so much to gain so very much more.

GENERAL NEWS.

Change of Address.

After December 3 the address of Mr. Geo. T. Morris, M.C.I., will be 24, Portugal-street, W.C. 2.

Professional Announcements.

Messrs. F. Palmer & G. F. Armitage, of 47, Leys-avenue, Letchworth, are dissolving partnership at the end of the present month, and from January 1 onwards the Welwyn business will be carried on at Bridge-road, Welwyn Garden City, by Mr. F. Palmer, and the Letchworth business at 47, Leys-avenue by Mr. G. F. Armitage.

York Minster Window.

So far the amount subscribed to the fund being raised by the Dean of York for the renovation of the stained-glass window at York Minster amounts to over £27,000. Donations may be sent to the Dean of York, The Deanery, York.

Hemsted Estate Sale.

Nearly 2,000 acres on the Hemsted estate were offered for sale by auction last week by Messrs. Winch & Sons, in conjunction with Messrs. Curtis & Henson. All but two small lots found purchasers, the proceeds of the sale amounting to £28,061, exclusive of timber valuation. It was stated that Hemsted mansion had been sold for a girls' school.

St. Olave's, Tooley-street.

The site of St. Olave's Church, Tooley-street, London Bridge, has been disposed of for approximately £10,000. The work of demolition has not yet commenced, but it is ordained by Act of Parliament that the fabric shall be pulled down within a certain period after the completion of the sale, and that observation shall be kept for any ancient foundations which may exist. Ultimately the site of the church will be utilised for a warehouse.

COMPETITION NEWS

Talbot Memorial Park.

Design for a Lodge and Main Entrance Gates. A premium of 20 guineas is offered, and the successful architect will be engaged to supervise and carry out the work. Sending in day, January 20, 1924. (See advertisement this week.)

Dunfermline War Memorial.

FOR THE DUNFERMLINE WAR MEMORIAL COMMITTEE.—Designs for a monument to be erected at a cost of £3,000. On receipt of £1 1s., which will be returned on receipt of a *bona fide* design, competitors will receive conditions of competition, plan of site, and photographs of surroundings. The assessor is Sir John J. Burnet, A.R.A., R.S.A. Sending-in day, January 1, 1924.

Monument to Sir Wilfrid Laurier.

The Canadian Government has inaugurated an open competition for a full-length statue of the late Sir Wilfrid Laurier to be erected in the grounds of the Parliament Buildings, Ottawa. Designs are to be in the form of sketch-models in plaster. The author of the selected design will be given the commission to carry out the work, and the author of the design placed second will be awarded a premium of 1,000 dollars. The cost of the memorial and pedestal is not to cost more than 25,000 dollars. Sending-in day April 3, 1924. Further particulars from the Secretary, Public Works Department, Room 784, Hunter Building, Ottawa. (The conditions, photographs and site plan may be seen at the office of *The Builder*.)

Heating and Lighting Scheme, Belfast Union.

FOR THE BOARD OF GUARDIANS.—Installation of heating and lighting plant. Premium for best scheme submitted, 100 guineas. Sending-in date, March, 1924. (See our issue for Nov. 9.)

Design for National Theatre.

The sending-in date for this competition is April 26, 1924.

City of Hereford.

Designs for the reconstruction of the market hall and adjoining premises. Full details can be obtained from the Town Clerk on the payment of £2 2s. The premium is £100; and the architect whose design is selected will be appointed to carry out the work.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Singapore College (Jan. 1, 1924; March 30). Dudley Memorial (Jan. 5, 1924; Sept. 14). Memorials to the Missing (Jan. 1, 1924; Aug. 3). Newcastle Concert Hall (Feb. 1, 1924; Oct. 26). Essays on Concrete (Dec. 31; Nov. 16). Essays on Heating and Ventilating (Mar. 31, 1924; Nov. 9). Holmside Hospital (Feb. 14, 1924; Dec. 14). Industrial Designs (June, 1924; Dec. 21).

"THE EASTERN GATEWAY."

In sending the sketch, reproduced below, of the view from a window in the office of the Architectural Department of the L.N.E.Rly. at Liverpool-street Station, Mr. W. J. B. Price says the object has been to depict the complication of London's skyline and to show the disfigurement due to the conglomeration of chimney pots. In the background the four pinnacles of the tower of St. Michael's, Cornhill, and the cupola of the Royal Exchange can be seen. The title is chosen only to suggest a comparison between the modern Liverpool-street Station and the mediæval Bishop's and Aldgate which it seems to supplant.



"The Eastern Gateway."

VIEW FROM THE OFFICES OF THE ARCHITECTURAL DEPARTMENT OF THE L.N.E. RAILWAY, LIVERPOOL STREET, E.C.

From a Sketch by MR. W. J. B. PRICE.

THE COMPLEAT ARCHITECT.

By DUDLEY HARBRON.

No. XI.—FITNESS.

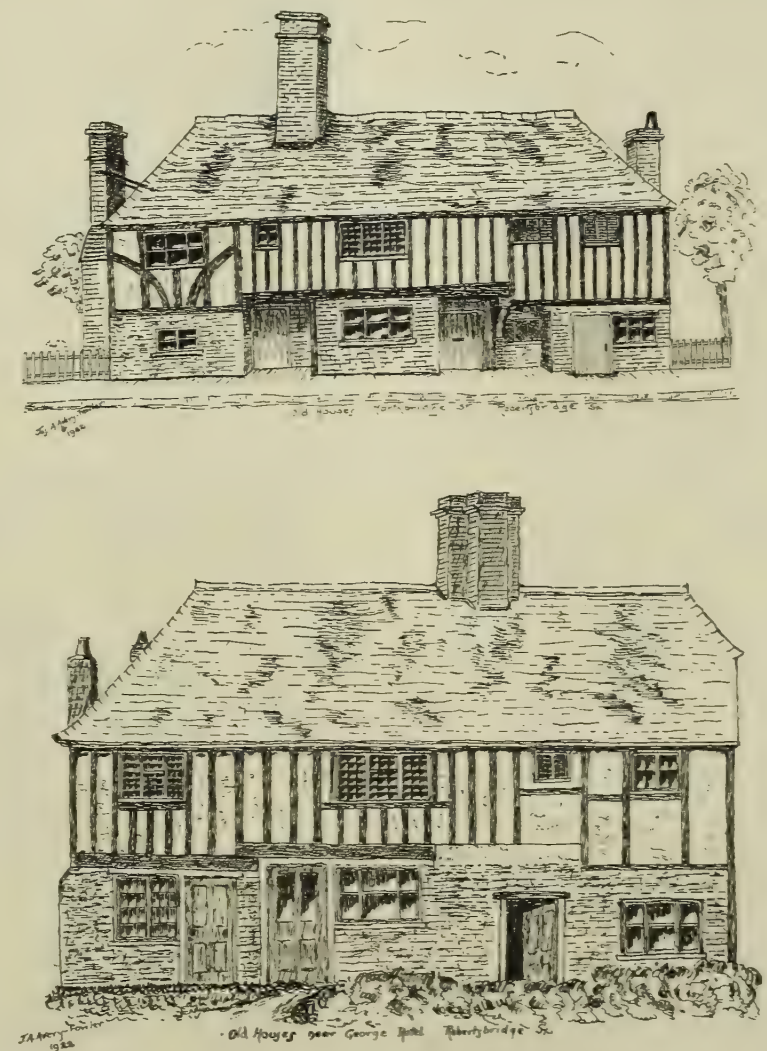
FINE buildings are put to uses quite other
n their authors intended, but no fine building
s ever conceived which did not in its original
tability fulfil the requirements of its occupiers
ts very excellent qualities spring from the
isfactory solution of these wants in their
bodiment in building. It is easy to trace how
ial, symbolism, law, system of communi-
ion, and a hundred and one other conditions,
l and assumed, have had their influence
on the buildings of the past; but whilst they
ect intention and modify fitness, their effect
outside æsthetics. Fitness is attained when
ention is realised. There is no path except
t formed by the artist, or in the footprints
other artists who have gone before. In
tching students at work upon a given theme,
is interesting to note their difficulties. In
ir earliest stages, those of them who have any
swer to offer to the problem posed have only
e, and this they are incapable, or unwilling, to
sake, even when the answer contains un-
stakable absurdities. The errors are due in
st instances to an imperfect realisation of
ention, not to any insolubility of the problem,
lack of content wherefrom to frame an
swer. The right understanding of the question
he first necessity to its solution, but it should
qualified by suitable or satisfactory, which,
turn, equates fit. That there are several
utions any selection of competition drawings
l demonstrate. That there is a suitable
ution is the only justification for the appoint-
nt of the assessor. Every competitor, doubt-
s, honestly considers that his personal set of
wings is the best, until he sees the others
mitted and reads the award, when he
uld find himself in agreement with the
essor. It is when the intention has not been
ly realised, or when difference of interpre-
ion are trivial, that disappointment and
pute occurs. For if the assessor is competent
l honest, he will doubtless be right—indeed,
has the best opportunity to be right of any
us in this imperfect world. When the assessor
s, it is when, having awarded the first place
a design upon certain grounds, he awards the
ond to some radically different solution,
en there are plans which more nearly resemble
e successful competitor's that should, if his
st conclusion were right, be in fairness given
e next place. Competitions being judged,
en, on the nearness with which they realise
e intention of the promoters, that is, their
ness, it will readily be grasped how important
factor it is, and from the rarity with which
win them, how difficult to attain. Conveni-
ce in every particular is that which has to be
ught after. It sounds very simple, but, in
uality, it calls for constant vigilance; its
king leads to continual change, refinement
d progress. That which is unfit is self-con-
mned. Fitness is not solely concerned with
e plan of a building; it permeates all the
ails and subsidiary parts, lying in wait to
p us down dark corridors, and catch us on
necessary hooks. The doors, the windows,
e stairs and balustrades, must have some
ation to the needs of the frequenters of the
ilding. Except they are suited to the amount
traffic which it is estimated will pass through
em, doors may very easily be incongruous;
ere are other implications beside traffic, as
emonial uses influenced the western doorway
the cathedrals and sun worship Egyptian
mple doorways; but, in every case, they
uld be, and not seem to be, significant. Fitness
not only contained in significant form, but in
e worthy employment of material and its
per handling by the workman.

Material ought to respond to the forces tending
its destruction, and its handling should be in
h a fashion as will aid its natural qualities
resistance. Although in pure æsthetics, form
independent of material, and marble and bronze may be considered indifferently as equally appropriate for statuary, none the less their form is not identical, even when they endeavour to represent the same form. If we imagine a work of art in snow, though conceivably the form exist momentarily æsthetically satisfying, the mind would find that fitness were lacking and deem the artist's efforts misapplied upon such fugitive material.

It is well understood that substitutes and subterfuges, equally, are condemned, no matter how cunning or clever. With all the knowledge of our time, we may make blunders, but to err deliberately is to court failure. Willy-nilly architecture has to conform to the touch and test of fitness. It is iconoclastic in its influence.

The preservation of buildings æsthetically celebrated is only accomplished as a result of considerable outlay, and this is directed to the elimination of their inconvenience entailed by their maintenance in a situation out of all recognition different from that in which they originally grew. Whitgift Hospital and the City Churches are examples. Former ages had no such sentiment. In these two cases, it is not the building, but the environment which is at fault. The veneration of ancient buildings may become an incubus and do injury to contemporary citizens. We are a sentimental people and put up with outworn conventions long after we know them to be wrong. There comes a time, however, when, in the interest of self-preservation, we are obliged reluctantly to make a move forward, to enact that haystacks shall not be erected within the city walls, nor roofs thatched, to prohibit timber framing, and so down the centuries to our present problems. Followed to its conclusion, fitness demands that nothing that has ceased to justify existence need survive, and insists that nothing that does not respond to the call of humanity be created. It has been formulated as a creed by the Italian painter and poet Marinetti, who holds that every work of art over twenty years old should be destroyed. We are not prepared to go to such artificial extremes, although there are indications on all sides that the chains of the past hang too heavily about the present. Roads which to-day meander as some far-gone lover wandered through the fields to his tryst, must to-day give place to less romantic rule. Though we isolate and preserve our monuments as footsteps in the Via Appia, fencing them in and tinkering them up, the elimination of the unfit works its unseen will. Useless corners, protuberant features, by what we know to be the nature of things, are doomed to perish. Designers should profit by this obvious lesson—jolts and jars will work their will. The urge seems unkind in its implications, and its speed hugely accelerated by the strenuous, tireless, activity of machinery; we want somewhere to rest. Only when we reach a stage not yet discernible will this be.

We are in the beginning of a renaissance, the ultimate reach of which no man can foretell.



XV–XVI–Century Houses at Robertsbridge, Sussex.

From Sketches by MR. J. A. AVERY-FOWLER.

CORRESPONDENCE.

Devonshire House Site.

SIR,—I venture to trespass on your time, as the Devonshire House site is a matter of general public concern. It is roughly 200 ft. wide and 700 ft. long, after allowing for the widening of Stratton and Berkeley-streets. It is so large an area that if covered with shops and places of amusement the already congested state of the traffic would be made ten times worse. At present the torrent of traffic is so terrifying that a pedestrian has to perch on a refuge and pray for a policeman. On such a site shops would greatly damage the value and residential character of the immediate neighbourhood.

Are we such a "nation of shopkeepers" that the mere fact that bigger rents are paid for shops than for residences is sufficient reason for spoiling the very centre of the Empire?

On this site there is room for three towers of the size and majesty of Pugin's Victoria Tower at Westminster. Surely no one will deny the great beauty and dignity of that tower? Three such towers could be created on the Devonshire House site, and each tower would be 100 ft. away from any other building all round, and would rise from a belt of trees 5 ft. wide. Nobody's light or air need be interfered with in the least degree. The traffic, if such towers are built as residential flats, would be hardly perceptibly increased, and the flats themselves would be both airy and quiet, commanding most interesting views.

Each tower, if 100 ft. by 100 ft. by 300 ft. high, will provide 120 residential service suites of five rooms each. Every suite would have two exits, with access to its neighbours, and in case of emergency, the roof being flat, firemen can operate on any of the three towers. Each suite has its own stone staircase for emergency escape with exit at the bottom out of doors. The inner court, which is 26 ft. square, is for service and drain-pipes and permanent fire-escapes, and has two outlets to the street.

I have lived for six years in a building in St. James's-street containing 30 suites (the same number as in the above scheme) with only one lift and one exit, and invariably at all times of the day and night I go in and out and never meet a soul except the hall porter, although every flat is always let.

Traffic to the three towers would have six drives for setting down and picking up without having to turn around.

I attended Mr. Raymond Unwin's lecture to the R.I.B.A. last Monday week, and was amazed that neither he nor any subsequent speaker mentioned the great difference between the traffic of a shopping quarter and a residential one.

The L.C.C., no doubt, will allow the Devonshire house site to be covered with shops, but they will not even consider the three tower scheme.

C. F. A. VOYSEY.

Charlatans and Pests.

SIR,—I have been very much amused at the correspondence under this heading and the various ideas expressed by the writers.

Some architects appear to be very sore over the idea that anyone should draw a design or plan of a building and be outside of their profession.

What about the professional builder or estate developer who draws his own jobs? Is he to be debarred by a registration backed by Act of Parliament from pursuing his business? Or what about the ladies who have designed houses for themselves all over the country, and made a good job of them, too! Are they to be tied down in their efforts to improve the home? Not every architect is given the wit or brain to elucidate the problems in house and home building.

Let architects prove their worth as able designers, just as any builder has to do, and if they are successful they will have nothing to fear. Associations or societies don't give men brains; and, after all, are just trades unionism, which most architects abhor. Then why drag the medical profession into the discussion? Don't we know, as men in the street, that there are doctors *and doctors*, and all are in their societies, which does not make them better or worse doctors?

A very vital fact in relation to all this talk is the patent fact in life that all discoveries, improvements, and innovations are not generally brought about by the people in trades and professions, but by lobbyists and rank outsiders, who are sometimes ranked as pests. We should all remember the recent triumph of manipulative surgery.

J. H. EDWARDS.

Protection of Iron and Steel.

SIR,—Will some of your readers who have a knowledge of steel and iron work—both internal and external—kindly give me the benefit of their experience as to why metal cannot be as successfully preserved with tar as with red oxide or red lead? I have always been under the impression that the standard practice was to paint all steel and iron structures, bridges, &c., with one of the two latter, but have just come across a specification which calls for all the iron and steel work, both inside and outside a factory, to be tarred.

"ENQUIRER."

"Can Tarnishing be Prevented?"

SIR,—Your correspondent under this heading in December 14 complains of silver and other wares tarnishing even when wrapped in cotton wool and other things.

His description of the building leaves a good deal of necessary detail missing which it is very necessary to know before a definite opinion can be passed on what may be the cause.

1st question would be: Is there a proper damp course at ground line above foundations?

2nd question: What materials are used in making the concrete floors?

3rd question: Is there a sufficient number of ventilation gratings to ensure a free passage of air all through the building?

4th question: Is there proper up-cast ventilators at top of building to carry off condensed moisture?

5th question: What kind of mortar is used in the building of the brick-work?

6th: Is there any provision for excluding moisture which may drift through at window heads and sills in the nature of a damp course for instance?

7th: Is there any chance of the site being in a damp situation and the probability of ground air rising inside of the building?

8th: Was the building erected in wet weather and has sufficient time been allowed to dry out before occupancy?

These and a number of others, which any builder or architect may reasonably ask require to be considered on the spot before any definite case can be stated.

If the correspondent cares to state a little more in a future issue the writer would be pleased to try and help.

J. H. EDWARDS.

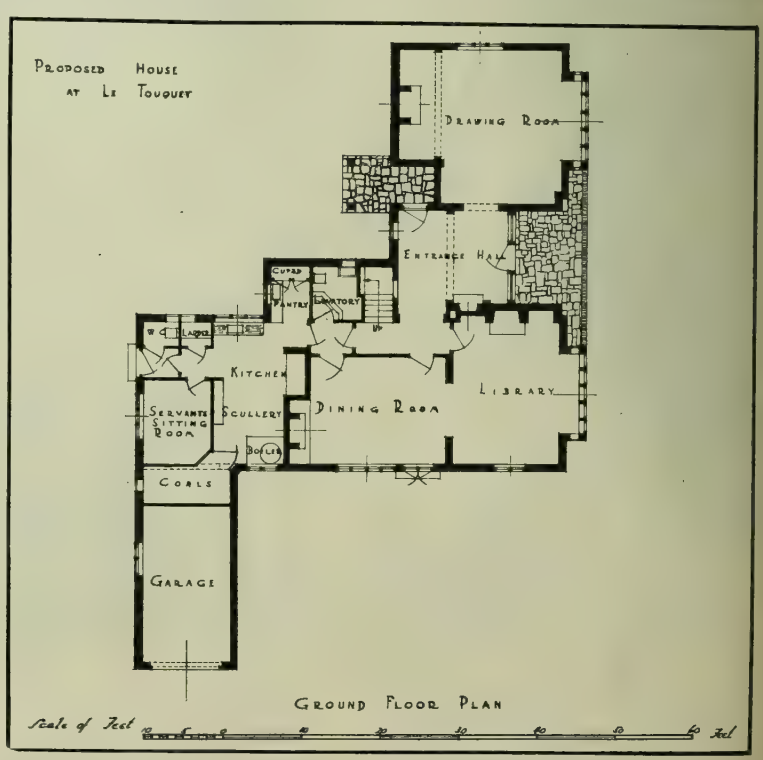
SIR,—Your correspondent inquires why silver goods wrapped in cotton wool and packed in cardboard boxes should tarnish in a particular building. The cause is almost certainly due to the fumes from the gas radiators used for heating the store. He may be interested to know that a special quality of tissue paper is obtainable which would protect the silver to a greater extent. Also that before very long untarnishable silver will be obtainable.

F. HERBERT MANSFORD.

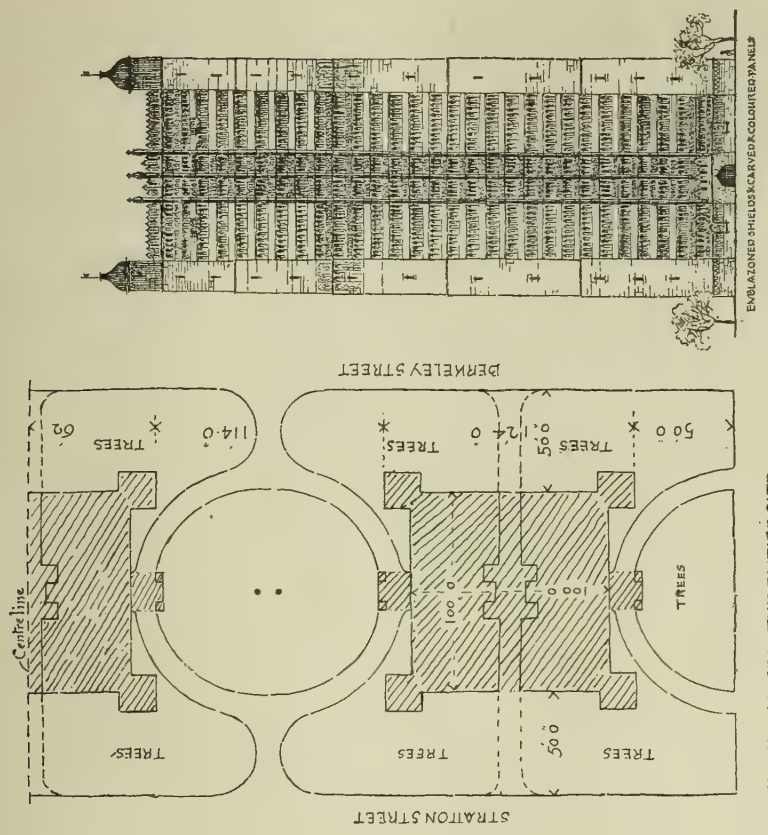
SIR,—Your correspondent in propounding this conundrum in your issue of December 14 gives a number of details as to the construction of the building, but omits some more important data. For instance, is the building in a busy industrial centre or a country town?

Tarnishing of silver is almost invariably due to the presence of traces of sulphur gases in the air surrounding it. In the air of a manufacturing town there are generally sufficient traces to cause tarnishing. If this explanation does not serve, the most significant item in the data given is the heating by gas radiators and absence of flues. This suggests the quality of the gas as the source of the trouble. To determine whether the particular sulphur gas which causes tarnishing is present in the air of the store-room is quite simple. Cut a piece of filter paper into strips—about three inches by half-an-inch will do—and dip one end in a solution made by dissolving nitrate of lead in water. Suspend such strips adjacent to where the silver is stored—if the moistened part gradually turns brown impurity in the air is indicated. The remedy is either to purify the air or prevent its access to the silver. Neither cotton wool nor tissue paper are impervious to air. I suggest either wrapping tightly in waxed paper or coating the silver with colourless lacquer.

NOEL HEATON.



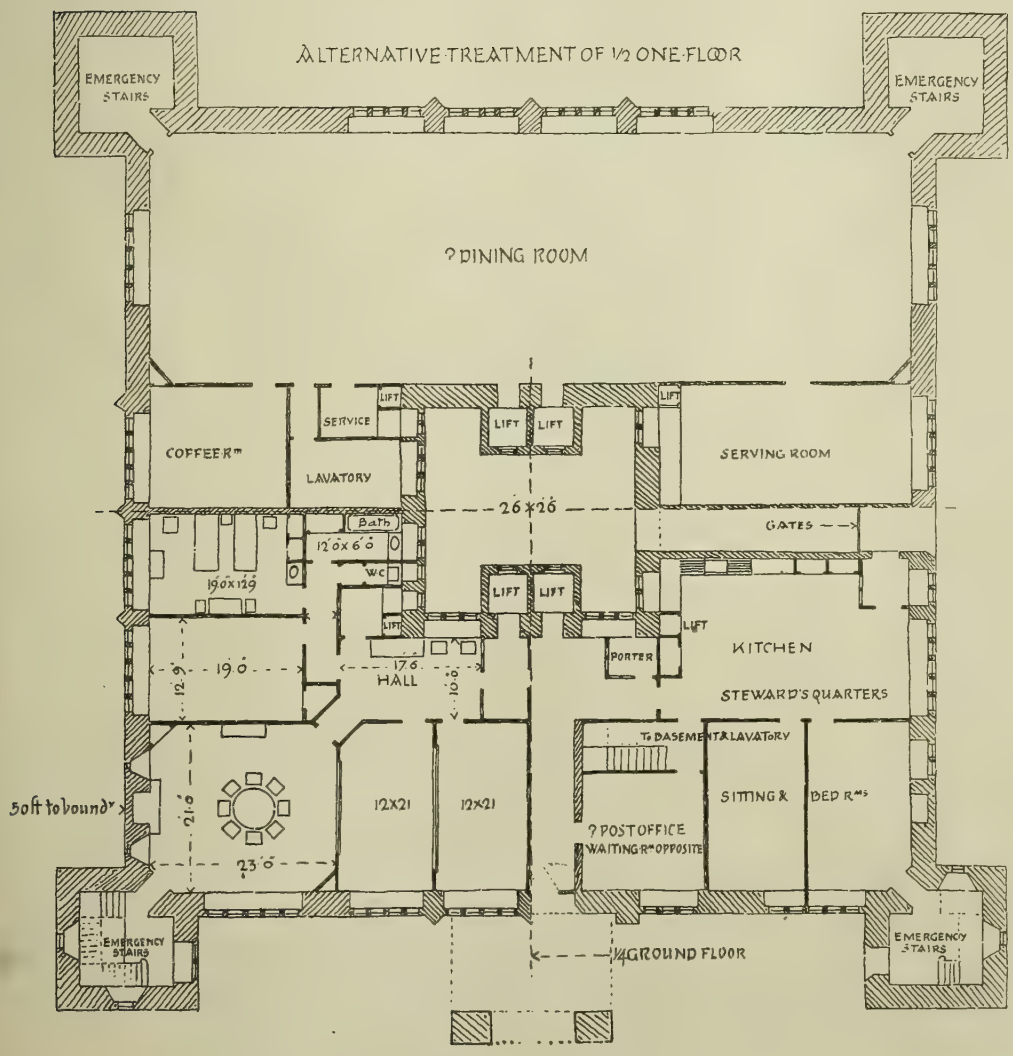
House at Le Touquet, France. MR. A. B. LLEWELYN ROBERTS, Architect.



BLOCK PLAN OF ½ THE ENTIRE SITE.

PICCADILLY.

SCHEME FOR DEALING WITH DEVONSHIRE HOUSE SITE.



(See letter by Mr. C. F. A. Voysey on previous page.)

BIRMINGHAM ARCHITECTURAL SOCIETY.

A somewhat scathing indictment of Birmingham's defects, more particularly from an architect's point of view, was made recently by Mr. Rupert Savage in his presidential address to the Birmingham Architectural Association, entitled, "The Renaissance of Birmingham."

The Renaissance of Birmingham, he said, was not only inevitable in the natural course of growth, but was a movement much overdue. There were few who would deny that Birmingham—the greatest city in England, excluding London—presented an outward aspect unworthy of its commercial greatness. The present state of the city might be summarised as a huge agglomeration of human beings crowded into a formless mass of mean streets and shabby buildings. It had never been planned; it had simply grown in a shapeless form dictated by the apparent needs of the moment. Considering its great size Birmingham was singularly lacking in fine main thoroughfares, and there were few streets having any pretensions to size or dignity. It was a mass without a nucleus. The main roads leading out of the town were ill-defined and tortuous. There were few open spaces, and such as existed were irregular in plan and devoid of buildings of a monumental or impressive character. The shopping area in the centre of the town was small and inadequate, while in the nearer suburbs were miles of miserable shops, the very existence of which seemed superfluous. Some of the outer suburbs were healthy and pleasant, but older residential districts in the inner wards could show large slum areas which could compete in wretchedness with any town in England. The public buildings were few and scattered, and whatever merit they might possess was largely discounted by an absence of logical grouping.

This might appear a somewhat exaggerated indictment of the city's shortcomings, but he wished to emphasise the evil in order to emphasise the necessity of remedial measures.

A commercial aptitude for buying in the cheapest market and selling at the highest price might lead to acquisition of wealth, but was certainly not conducive to an appreciation of the higher aspect of life; nor did it engender a mental attitude favourable to merely æsthetic considerations. But it was just this commercial spirit which was to-day the great bar to all advancement in purely cultural and æsthetic moods in Birmingham. What was needed was vigorous and enlightened leadership. Mr. Neville Chamberlain recently spoke in strong terms respecting the necessity for civic improvements, but he stressed the social rather than the æsthetic side of the question. Amongst the ranks of the City Council there were a number of capable and energetic workers in the cause of betterment, but their energies were directed to strictly utilitarian projects, and there were few indeed who had any lively conception of the great moral value of abstract beauty. Dealing with these aspects of the "betterment" question which more closely concerned the architect's profession—viz., the improvements in town planning and street architecture—the President said the first step was to arouse the interest and enlist the sympathy of the man in the street. The second step was to make a general survey of future developments. The third, and perhaps the most important, was to ascertain what could be commenced now and accomplished during the present generation. There already existed a number of agencies for arousing the interest of the general public and promoting civic patriotism. It was to be hoped that the united efforts of these bodies, aided by a sympathetic attitude on the part of the civic governors, might ultimately elicit some response from their rather unresponsive fellow-citizens. When they came to survey the programme of future developments they quickly came up against the fact that they were dealing with a full-grown (if badly developed) town. Town-planning enthusiasts were apt to forget the existence of vested interests and seated industries, and seemed to think they were planning a new city on an open plain. In the centre of their town, particularly, it was impossible ruthlessly to demolish whole thoroughfares and extinguish old-established commercial interests. Courage and foresight were requisite in preparing a scheme for controlling the future development of the town, but there was also need for a judicious blend of idealism and common sense. Unrestricted idealism might become a serious obstacle in actual achievement. The City Council had been engaged for some years on the task of town planning Birmingham, and much useful work had been done. While they recognised the effort that had been made they, as architects, were inclined to feel that the work done had been influenced solely by technical considerations, and that the æsthetic aspect of town planning had been insufficiently recognised. In many towns the work had been placed in the hands of experienced architects, but in Birmingham it would appear that road-making, sewerage, and traffic control were the sole consideration. There was a very marked contrast between the status of the architect in this country and abroad. In most European countries, and in America, the architect was an important factor in all civic developments, and as a result they saw a remarkable difference between their own towns and those they visited in their foreign travels. What they might hope for, and plan for, in the future development of the city was a complete and comprehensive town plan of the town and suburbs, with due regard to the architectural and artistic aspect of the subject. They also hoped to see the erection of a public hall adequate to the needs of the city, and the provision of a really fine exhibition hall to replace the obsolete Bingley Hall. They might see the renovation of the fine Market Hall, and the rearrangement of the wholesale markets on a coherent plan.

Something ought to be done in utilising the rivers to form an agreeable adjunct to the street scenery, and in the outlying districts the streams and watercourses might be made pleasant features of the public open spaces. The question of slum clearance and provision of new homes for workers was a matter of urgent necessity.

As to what could be done now, or in the immediate future, as the contribution of their generation to the greater scheme, the lecturer urged that the City Council could do a great deal by putting into execution many schemes now under consideration. The most pressing need was for the completion and publication of the town plan for inner Birmingham. The present uncertainty as to street widening and frontage lines was a serious hindrance to freeholders and building owners alike. The Council might proceed with the planning of the new public square at the bottom of Broad-street, and encourage the rebuilding of that street. The scheme for a new thoroughfare across New-street station was a project of the first magnitude, and it was to be hoped would be considered in relation to the remodelling or rebuilding of New-street station, which was at present not only an obstruction but an eyesore. When the Greater Birmingham scheme brought within the city's boundaries certain outlying districts, pledges were given for the provision of sundry local conveniences, such as public baths, libraries, etc. The prosecution of some of these enterprises would not only tend to the embellishment of these localities, but would provide much-needed employment. In the matter of housing, the Council could materially aid the orderly development of new or partly developed districts by inaugurating a building policy having some regard to the amenities of layout and architectural composition. The present type of new house might be economically sound, but left much to be desired in the matter of design. The freeholders could do much to improve the standard of building by relaxing their rigid attitude, and by selling freely to those who desired to build on their own freehold. The prevalent leasehold system was one of the worst causes of poor building in Birmingham. The building owners could do much for the future of the city by taking a wider and more generous view of expenditure on building. Hitherto rent-producing capacity had been almost the only consideration. If we were a nation of shopkeepers, it was surely not necessary that the acquisition of money should dull our senses to all that was fine and noble in our cities.

"CIVIC CONSCIOUSNESS."

The tenth of the series of lectures on Town Planning, given by Mr. William Haywood, F.R.I.B.A., at Birmingham University, was entitled "Civic Consciousness," in the course of which the lecturer said civic consciousness implied a regard for one's town, and a concern for its good order and appearance. Where it existed, public buildings and the general accessories of public life would assume an air of urbane culture proper to life in great towns. Where it was absent—as in most modern industrial cities—the outward character of the community would be that of neglect and disorder; which might be far from representing the actual individual character of its members.

For the best part of a century communities abroad had shown more civic activity than had been exhibited in this country, for reasons which were fairly obvious; nor was it difficult to see that our mood was now changing towards wider interests, many of which depended upon corporate action, and so fostered civic consciousness.

The return to urbanity on their part (they were not always deficient in the expression of public spirit), was parallel with the adoption by other countries of the best fruits of their individualism. The better sort of English home, whether cottage or mansion, had been easily the most appropriate and satisfying architecture in that phase of community life in the world, and to-day the world accepted their ideals of the individual home, and the exclusively residential road, as preferable in most cases to tenement buildings and roads for all purposes.

The tendency of town planning in all countries was to take what was best in the individual contribution of other nations and to engraft it upon local practice, with such adjustments as local conditions might render necessary. The quality in town life abroad of which they stood most in need was that of urbanity, which not only added to the pleasures of existence, but was considered a commercial asset in Germany and America. Dirt, grime and sordid conditions were no longer thought to be a necessary part of industrial efficiency; on the contrary, as the modern welfare movement showed in individual cases, efficiency was found to be at a maximum in pleasant places, which sufficiently explained why commerce in America was the chief force behind civic consciousness. Truly we should profit by following their example.

Royal Institute of British Architects.

The award of the Royal Institute of British Architects prizes and studentships for 1924 will be announced at the general meeting to be held on Monday, January 21, in the meeting-room of the Royal Society, Burlington House, Piccadilly, W. 1. The exhibition of the works submitted will open on Tuesday, January 22, in Gallery No. VI. at the Royal Academy of Arts, Piccadilly, W. 1, and close on Monday, February 4. The exhibition will be open daily free to the public between 10 a.m. and 6 p.m. (Sundays excluded).

OLITICS AND THE BUILDING INDUSTRY.

By JOHN ANGUS.

t was to be expected that a recent article *The Builder* upon Housing and the Labour ty would shock the feelings of those who fer to keep their politics in water-tight partments. In these matters it is well at times to remember the remarks of a nch statesman that the indiscreet words of w politicians did not matter; the opinions he people alone mattered. There is also a xim, much admired a number of years ago, he effect that one ought to aim at learning ething about everything and everything ut something. The individual who pays y a quarter of his income for the "privi-." of being misgoverned considers he has something to say about the building trade. can at least ask for a certain amount of icial detachment from an independent er, when our ideals are being politically loited to the full.

f there is a doubt whether political tters should be considered in a professional technical paper there is no doubt that ny matters relating to buildings are not mpt from criticism simply because they e been taken up by a particular political ty. On the contrary, there is the more d for criticism, and it is almost childish assume that any political party comes into question; it is merely incidental. When become involved as a nation in the respon-lity of building houses we make the prob- a national one, but it still remains an ividual problem for the building industry. agitate for a Government housing scheme ough the Press, and in due course this is owed up with interviews and articles upon Watch the Building Rings," or some other ular scare topic. Consequently, if the eme is wrecked economically, there are nty upon whom the blame can fall: archi-s, builders, workmen, manufacturers, and lding merchants. This is the usual pro-ure in a nutshell; the results we can now ost predict with certainty. If we begin examine the economic flaws, apparently, we in conflict with the idealists, and if we not to discuss the matter we are to assume t all the idealists are in Parliament. This rely proves that it is a misfortune that als should have anything to do with vote-ching.

Many readers are entirely in agreement h the recent article in *The Builder*, and ir regret is not that it discussed a political tter, but that politicians should think it essary to discuss matters relating to the lding trade. Most people are convinced t civilisation does alter, and almost always the better. But it alters so slowly that man lives long enough to witness in his e such fundamental changes as are popularly conceived. Everyone agrees with the insistent cry for reform, but the remedies can only be obtained in a constitutional manner. If it sounds reactionary, a moment's thought would make it clear that there is a world of difference between legislation which secures better conditions and legislation which gives the actual thing plus the better conditions.

The political method of dealing with housing is an excellent example indicating that the end is less important than the means.

1. It is fairly certain that the question of better housing has all along been mixed up with the idea that this could only be obtained by providing houses out of public funds.

2. It is obvious that better housing conditions could be secured through legislation and by-laws.

3. In attempting to supply the worker with a house out of public funds, we are innocently assuming that a burden is being taken from him, whereas there is a distinct probability that he is paying indirectly.

4. We do not know where the border line is to be drawn between those who are to receive and those who *must* provide their own houses.

5. Are we not encouraging the individual to avoid the responsibility for providing a house?

6. What steps have been taken to grant the individual who is willing to build his own house the facilities and privileges he would expect to find in a communal form in any Government housing scheme?

It would seem that our ideals in housing are evidently confined to the political object of trying to secure something (apparently) for nothing. As citizens these matters concern us politically, but they remain problems for architects and builders. The building industry does not depend for its prosperity upon building for its own requirements; it depends upon a country which is prospering upon a sound economic basis. The seamy side of politics sounds an engaging theme for mordant wit if it would serve any useful purpose, but it is well to bear in mind the statement that "to be described as moderate in politics is almost as devastating as to be described as worthy in conduct." The capitalist (whoever he may be) invariably comes in for severe treatment, but does anyone with any knowledge of the building trade believe that this elusive fellow was allowed to build defective houses and defy all building by-laws? Is it possible that a certain type of speculative builder is referred to as the capitalist? He certainly knows more about bad housing conditions than anyone, but if the law allowed the maximum number of houses to the acre, what then?

When we come to the idea that houses must be built as a debt of honour to our soldiers then let us get on with them, first defining some period or quantity when we can assume that our honour has been redeemed. By that time we may have recovered from the widespread post-war malady of wanting to force other people to let you do them good without asking their leave. There is a difference between a demand and a sacrifice. It is curious that we should cover the country and fill our churches with war memorials as tributes, and have to legislate ourselves into making further sacrifices to provide memorials which shall be useful. Let us have the decency at all events to remember that the operation of the Rent Acts ensured a sacrifice from landlords, which, as a contribution towards this debt of honour, must have amounted to many millions. There is a touch of bitter irony in the fact that their contribution automatically prevented houses being built. And we would rather have had the houses.

The question of the capital levy may be said to be a political question, but it is a very vital matter for architects and the building trade. This is not the occasion for a full discussion of the principles of a capital levy, but this much can be said with safety, that very little study is necessary to convince anyone of the utterly unworkable nature of the problem. It must be obvious to every architect that *real* property represents a tangible form of capital, ripe for the tax-gatherer. To estimate the value of a man's property must involve a certain amount of guessing, and guessing will become a fine art. Building property will present as little difficulty as railway debentures, and the hiding of capital will also become a fine art. It is idle to say that the capital levy will not affect property when we know that securities can be realised and transferred abroad if there is any likelihood of the measure coming forward. Everyone may not escape the tax, but the mere fact that they will try represents as hopeless a condition for architecture as could well be imagined. From beginning to end, the subject of building is gradually being surrounded by legal and economic difficulties which go a long way to confirm the old maxim about the fools who build. In short, the capital levy is a tax on those who possess, and it is tolerably certain that in making a choice of visible possessions the building trade must pay a heavy toll. Altogether it is merely childish to believe we shall be any better off if we pretend to pay off a debt by realising our capital and paying ourselves back again. Every thinking person favours the idea that it is not a bad thing to have a large National Debt. It prevents any nation borrowing more and, as Mr. Strachey says, "the less Governments borrow, whether in war or peace, the better."

Although the business transactions of the Government were fantastic in their wastefulness, the layman notes the curious fact that the Labour Party, generally, seems to be partial to various forms of State control. Past experience proves that the architect and builder cease to exist, as individualists, under any system of trusts or combines. They do their own work with their own staffs, and if opinions differ about the economical side of the arrangement, the absence of efficiency and health due to lack of competition leaves no one in any doubt.

These are merely a few ideas which come to mind in thinking over the relation of politics to the building trade. *The Builder* is to be congratulated upon taking up an independent attitude on behalf of those connected with the building industry, and it is to be hoped it will continue to do so without prejudice to anyone's political or party beliefs. Mr. Arnold Bennett, in his illuminating way, tells us that "Intellectual independence involves ideas about things, and individual ideas cannot be obtained without study and reflection. Conversely, study and reflection are bound to result in intellectual independence."



The Chantry School, Martley.
Major Hubert C. Corlette, O.B.E., F.R.I.B.A., Architect.

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ILLUSTRATIONS.

Auckland War Memorial.

We illustrate this week a design by Mr. A. G. R. Mackenzie, F.R.I.B.A., for the Auckland War Memorial and Museum.

Municipal Offices, Colombo.

The design for new Municipal Offices at Colombo, placed second in the recent competition, is by Mr. W. H. Bourne, F.R.I.B.A.

St. Bride's Church, Fleet-street.

This well-known church was designed by Sir Christopher Wren after the destruction of the ancient fabric by the Great Fire of London. It was completed about the year 1680, and additionally embellished in 1699. Since that time it has undergone several repairs, occasioned by having been struck by lightning. The uncommon skill of the architect in devising the means of obtaining so lofty an altitude by the use of so few materials will be best appreciated by referring to the section. The spire is lightened in all its stories by arched openings. The cone that surmounts the belfry in the upper part of the tower was most judiciously conceived, for the purpose of forming a base for the spire to spring from, of greater strength than could otherwise have been produced, and in order to give additional security the stone piers in every story are connected by gunmetal octagonal frames extending horizontally, these features occurring from about the height of the capitals of the pilasters. A unique opportunity for making a measured drawing of the church occurred at the last restoration (1901–2), when the spire was taken down and rebuilt entirely. It was possible to measure every stone (the majority of which had the mason's name cut out on the bed), and, consequently, the illustration shows a spire 232 ft. high to the top of the weather-vane, every part of which is a measured drawing. Referring to the elevation, which conveys an accurate idea of the design and proportions of this spire, the base of the tower is carried up square and crowned by a cornice; this supports a stylobate, or continued plinth, which sustains a cubicle story of the Corinthian order (enclosing the belfry), having a large latticed window on each side, flanked by pilasters and columns; these are covered by circular-headed pediments, a blocking course, and a balustrade. At the angles of the latter are ornamental vases of good proportions, which considerably improve the general effect. Within the balustrade is a circular plinth, forming the basement of the spire, which consists of a series of four stories of different orders, the two lowermost being Tuscan, the third Ionic, and the fourth Composite, or Roman, and from the balls in the surmounting basement the obelisk springs that terminates this fine example of architectural science. A. WILLIAMSON, Lic.R.I.B.A.

Tenterden Housing Schemes.

We illustrate in this issue the housing schemes of the Tenterden Rural District and the Borough of Tenterden, Kent.

The Tenterden Rural District Council has completed 74 houses in all, distributed as follows:—Rolvenden (The Layne), Rolvenden (Poplars Farm), Newenden, Biddenden (Charity Field), Biddenden (Standen), Biddenden (Cotlane), High Halden (Durrant Green), High Halden (Ransley Farm), Woodchurch, Kennardington, Stone-cum-Ebony, Wittersham, Appledore. The contractors were Messrs. D. Godden & Son, Ham-street, Ashford; Mr. W. P. Woodgate, High Halden; Messrs. W. H. Bourne & Son, Woodchurch; and Mr. Lewis Edwards, Hawkhurst.

The Tenterden Borough Council's preliminary schemes comprised 40 houses, 16 of which have not yet been built.

The intention of the Council's was to have an equal number of parlour and non-parlour houses, but the Ministry advised that the parlour type of houses should be omitted in the Rural District. The architect provided many distinct designs in order that there should not be an undesirable amount of repetition in this delightful district of Kent. Further variations were obtained by tile-hanging the upper story and gables of some houses, by finishing some of the exteriors with facing bricks and others with roughcast, and by varying the design of chimney-stacks throughout the whole scheme. Local bricks and tiles of rich colour and texture are used. The various builders employed co-operated in every way, one even obtaining old tiles to cover the roofs of some of the houses.

The architect for both the Rural District and the Borough schemes was Mr. George Hornblower, F.R.I.B.A., of 2, Devonshire-terrace, Portland-place, W.

Mountsorrel War Memorial.

The Mountsorrel war memorial is about to be erected on the Castle Hill, Mountsorrel, Leicestershire, in memory of the Mountsorrel men who fell in the war. The memorial is to be built in granite from the Mountsorrel Granite Co., whose works adjoin the site. The sketch on p. 986 shows the interesting old Butter Market House in the foreground, and gives an idea of the proposed site. Messrs. Stockdale Harrison & Sons, of Leicester, are the architects.

Alterations to Premises for the National Deposit Friendly Society, Croydon.

Considerable alterations have been carried out under the direction of the architects, Messrs. Rees & Archer-Betham, of Croydon, at the newly-acquired premises for the National Deposit Friendly Society. Practically the whole of the interior walls to the ground floor have been removed, thus providing large general office space. A large Secretary's room has been arranged, with access to the side entrance, which leads upstairs to offices let out to various firms. These have been so arranged that the whole of the upper portion of the building can be taken over later by the Society without further alteration. The interior woodwork, screens, &c., were carried out in Columbian pine, stained to a walnut colour and polished, and the entrance doors and fanlight in oiled oak. The illustrations show plans before and after reconstruction, and a working drawing of the architects' design for the altered front.

The heating and sanitary goods were supplied by Messrs. Moorwoods, Ltd.; constructional steelwork by Messrs. Smith, Walker & Co., Ltd. ironmongery by Messrs. Carter & Aynsley, Lt The general contractors were Messrs. Lewi Helby & Tanner, of Croydon.

House at Croydon.

This house is to be built of brick with cemen stucco finish, with red pantiles to the ro Dressings are of red sand-faced bricks. T contract price is £1,150. The architects a Messrs. F. W. Rees, M.S.A., and A. Arche Betham, A.R.I.B.A., of Croydon.

House at Westerham.

This house, when built, will stand with co manding views of the Pilgrims Way. Embodi in the planning are several wishes of the own There will be no cornices and all skirtings are be coved, similar to hospital work. T exterior is in red sand-face bricks with dressin of black bricks; red Broseley tiling to the roo metal casements to all windows; red quar tiles to all window sills, lavatories, &c. T contract price is £3,000.

The architects are Messrs. F. W. Rees, M.S. and A. Archer-Betham, A.R.I.B.A., of 44, Par lane, Croydon.

House at Horley.

This house is to be built of brick, with stuc finish left rough from the float, and with bri dressings in purple-brown sand-faced bric The tiles will be green-tinted Broseley. T architects are Messrs. Rees and Archer-Betha The price of this house works out at abo £1,150. The builders are Messrs. Lewis, Hel & Tanner, of Croydon.

New Premises, Newgate Street.

The block of business premises for Mess Horne Brothers, illustrated on p. 1009, has j been completed at the corner of Newga street and Panyer-alley. During the whole the operations, Messrs. Horne's old premi were retained and kept open for the publ

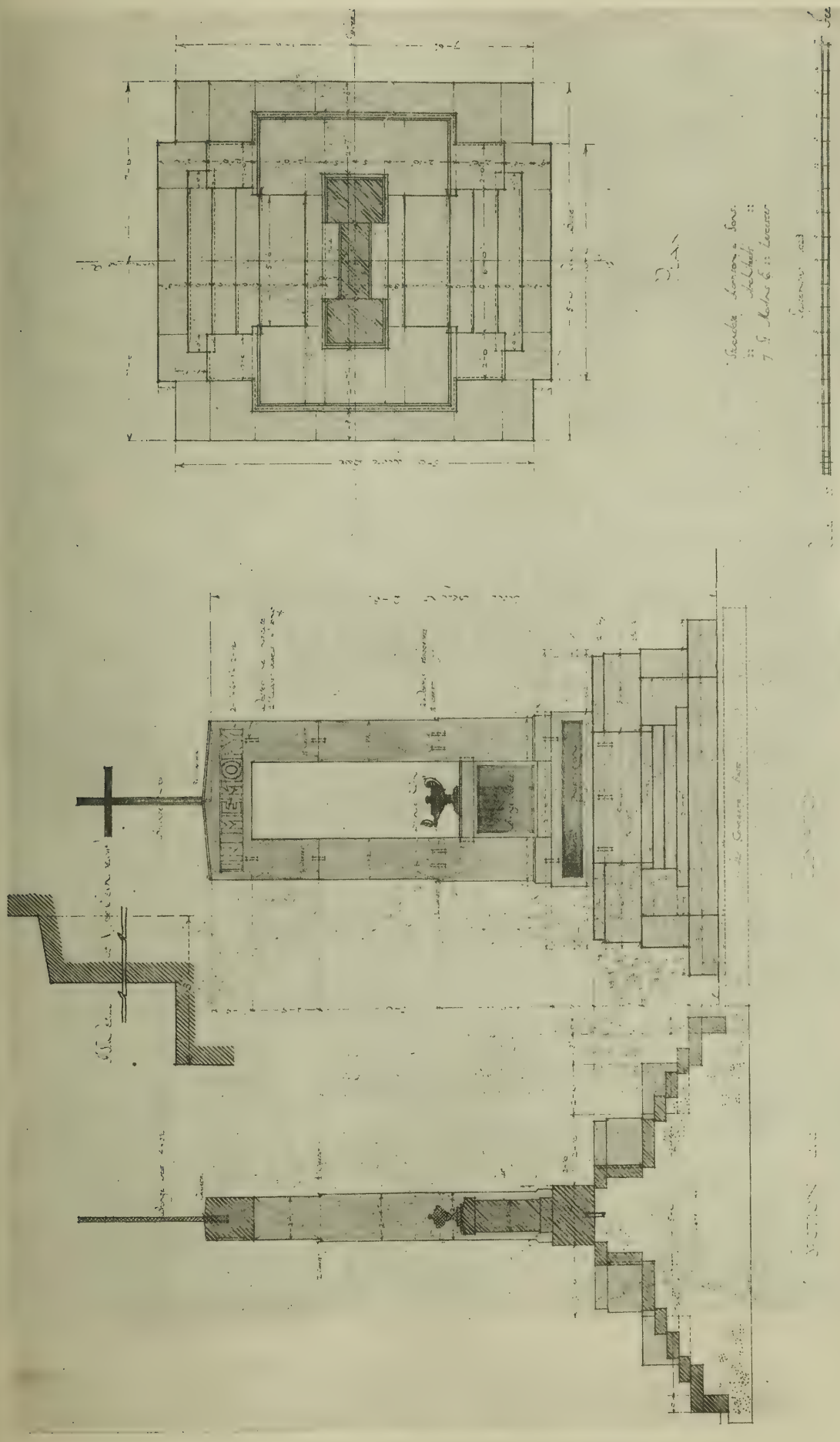
The new building is practically of steel c struction with Portland stone face, and co prises sub-basement, basement, ground, a five upper floors. On the basement floor, addition to showrooms, a large hair-dressi saloon is provided. The ground floor has be planned for island windows and arcades, a the supports to the building above reduced a minimum, the spaces between the stanchic in one case being 40 ft. The design of the bui ing is in the style of the later English Rena sance, and as originally proposed was one sto higher, but was seriously restricted by the rig of adjoining owners, the building being reduc one story and stepped and sloped back on t east side owing to the narrowness of Pany alley.

The architects are Messrs. G. Regin Farrow, F.R.I.B.A., and Sydney R. Turner, Amberley House, Norfolk-street, Strand, conjunction with Mr. S. N. Tacon, head Messrs. Horne Brothers' architectural depa ment, who was responsible for the designing a planning of the shop fittings. The contract were Messrs. Higgs & Hill, Ltd. The ste work was carried out by Messrs. Dawnay & So

Proposed New Edinburgh Art Gallery.

At the opening of the Society of Scotti Artists' Exhibition it was suggested th Huntley House, an historical building in t Canongate of Edinburgh, should be convert into a municipal art gallery.

Lord Provost Sleigh declared the exhibiti open, and said although they had not come any definite decision as to what they would with it, they were awaiting a report from leading architect, and he had no doubt that so advised they would give careful considerati to the suggestion made.

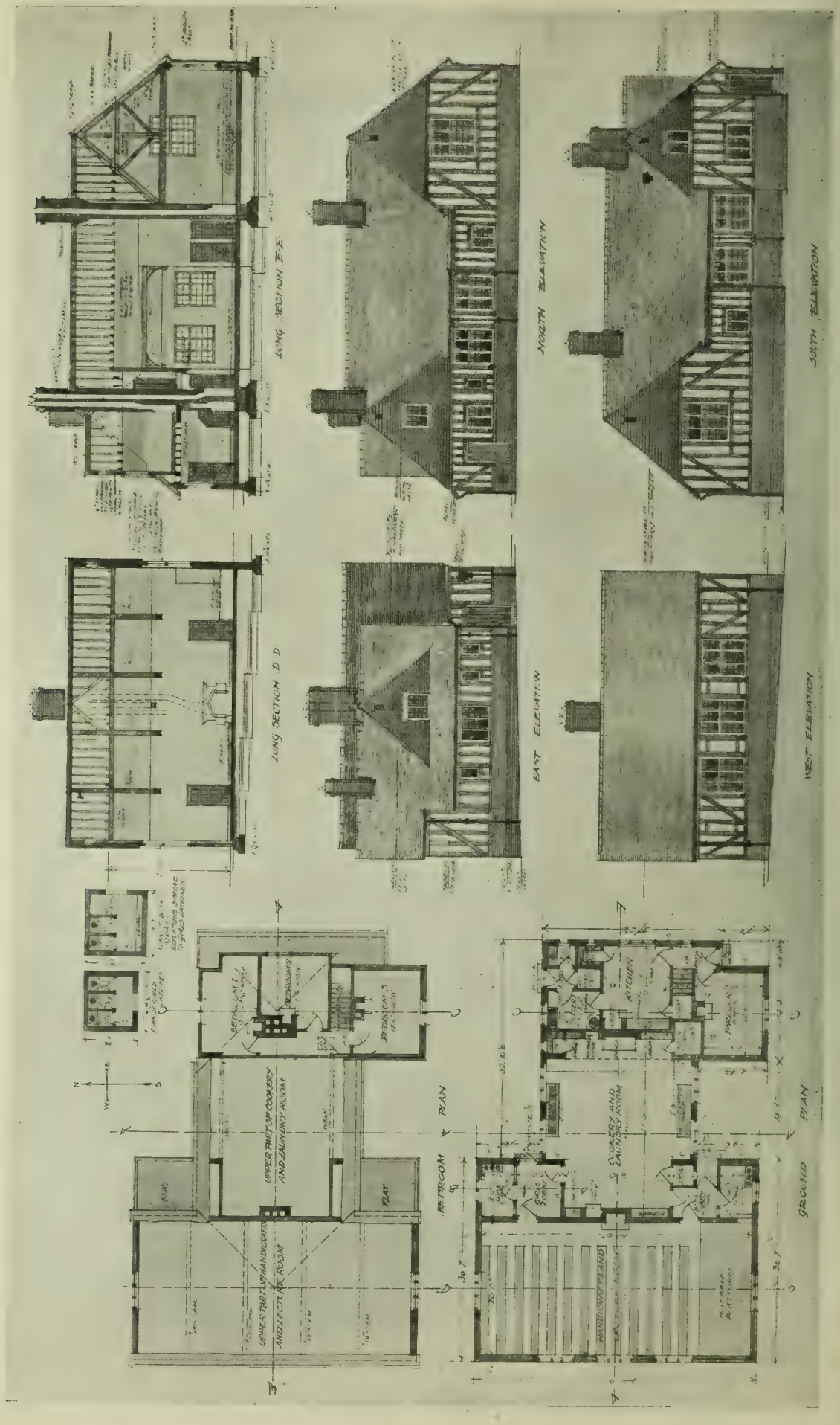


Mountsorrel War Memorial, Leicestershire: Messrs. Stockdale Harrison & Sons, Architects.



VIEW IN ENTRANCE HALL.

House at Guildford, Baltimore, U.S.A. MR. JOHN RUSSELL POPE, Architect.



The Chantrey School, Martley, Worcestershire: A Village Institute and Handicraft Centre.

MAJOR HUBERT C. CORLETTE, O.B.E., F.R.I.B.A., Architect.

[This school comprises: (1) Caretaker's cottage; (2) cookery, laundry, domestic science room; (3) recreation room, with movable stage, to be used also as handicrafts and lecture room. The stage, when not in use, becomes a series of separate tables for carpentry benches, or other working purposes.]



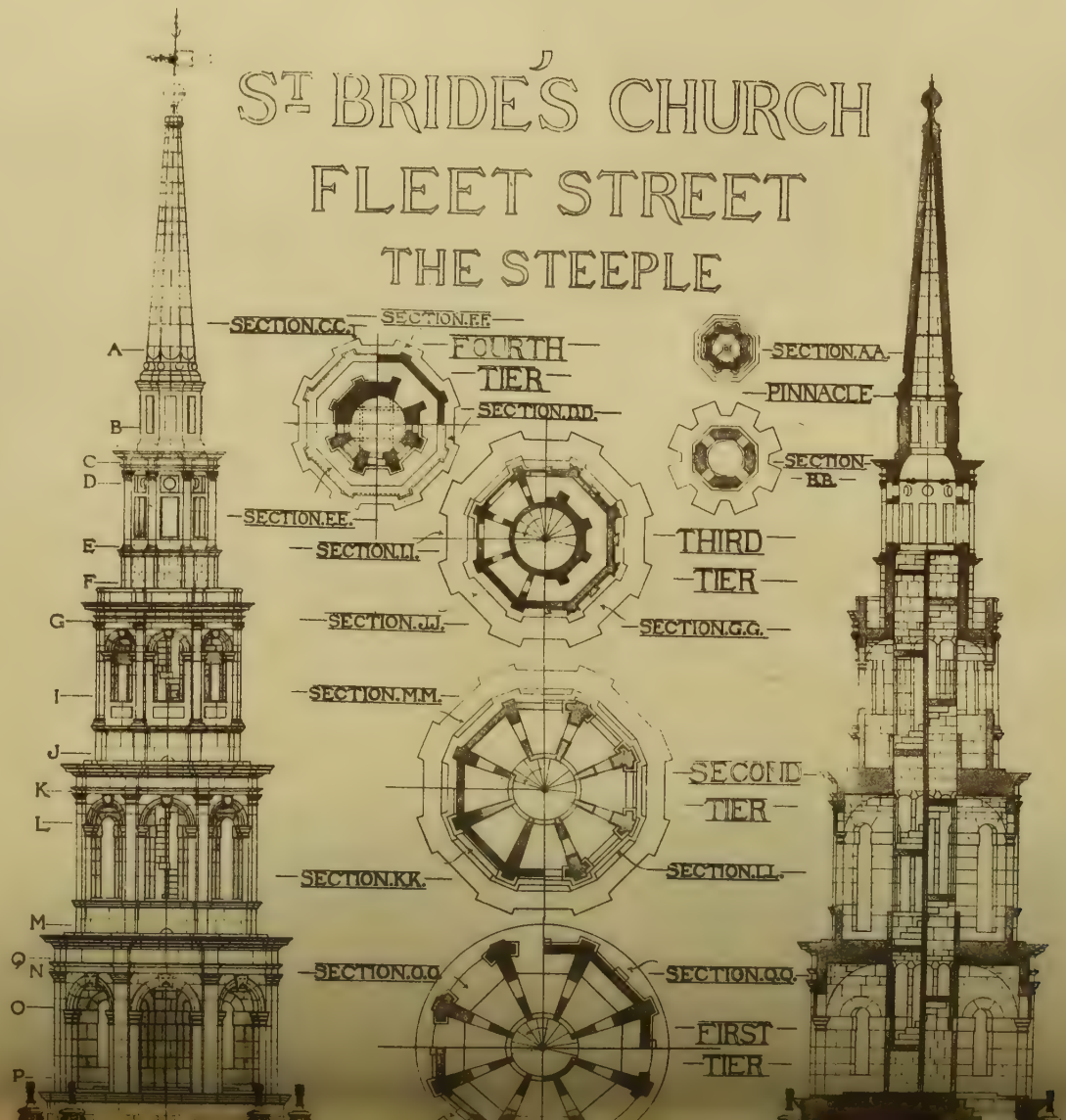
AUCKLAND WAR MEMORIAL AND MUSEUM

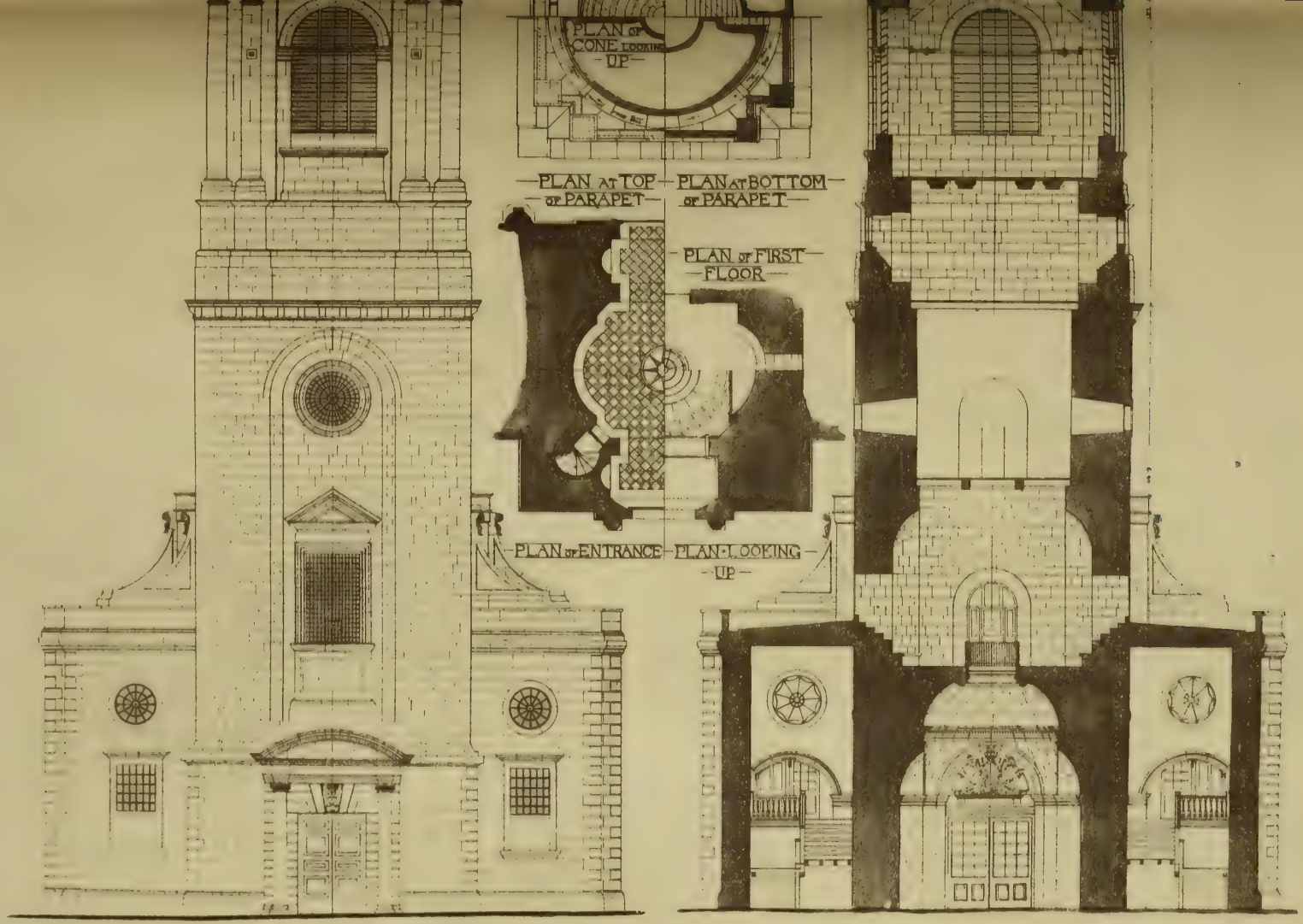
MR. A. G. R. MACKENZIE, F.R.I.B.A., ARCHITECT.



DESIGN BY MR. W. H. BOURNE, F.R.I.B.A.

St BRIDE'S CHURCH
FLEET STREET
THE STEEPLE





MEASURED AND DRAWN BY MR. ARTHUR WILLIAMSON.



House at Le Touquet, France. Mr. A. B. Llewelyn Roberts, A.R.I.B.A. (Messrs. Collcutt & Hamp), Architect.





NEWENDEN.



BACK VIEW OF HOUSES AT STONE-CUM-EBONY.



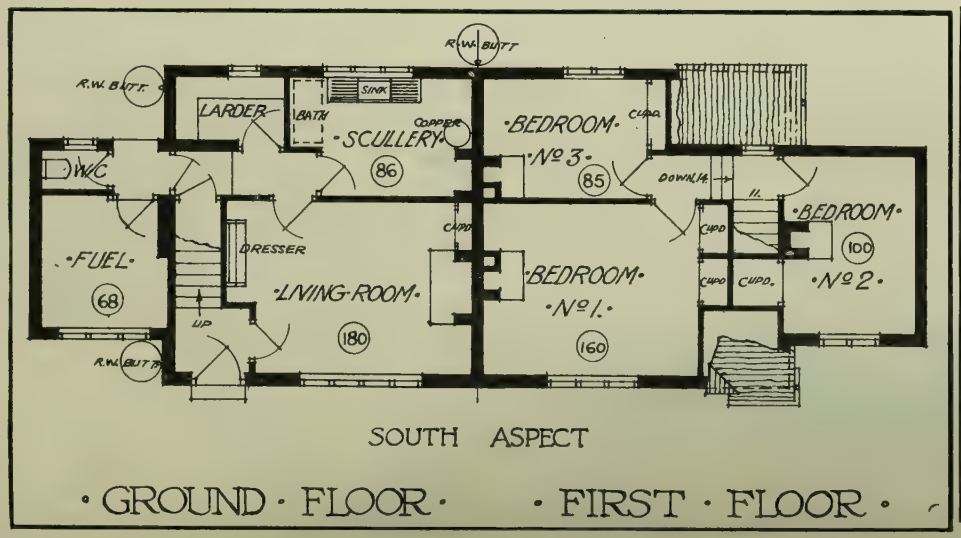
BIDDENDEN.

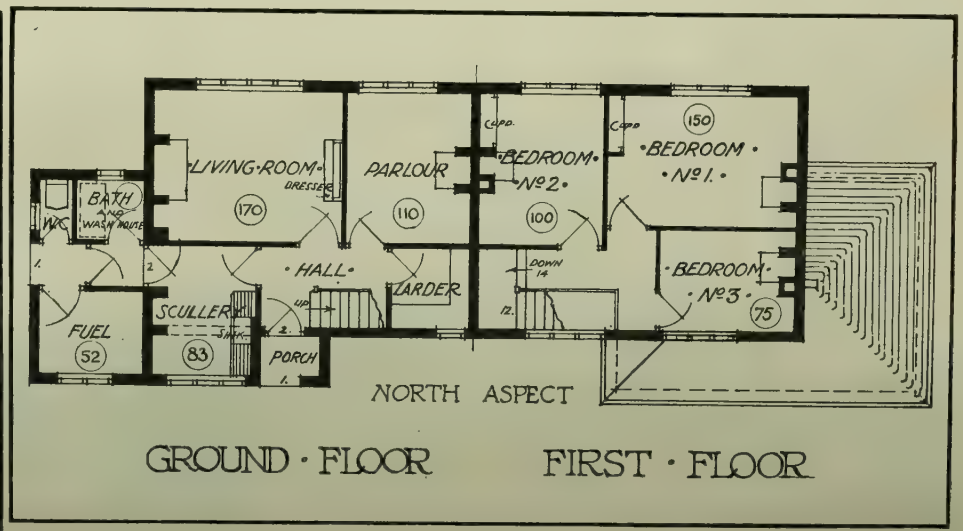
Tenterden Rural District Council Housing Schemes.

MR. GEORGE HORNBLOWER, F.R.I.B.A., Architect. (*See p.* 994.)







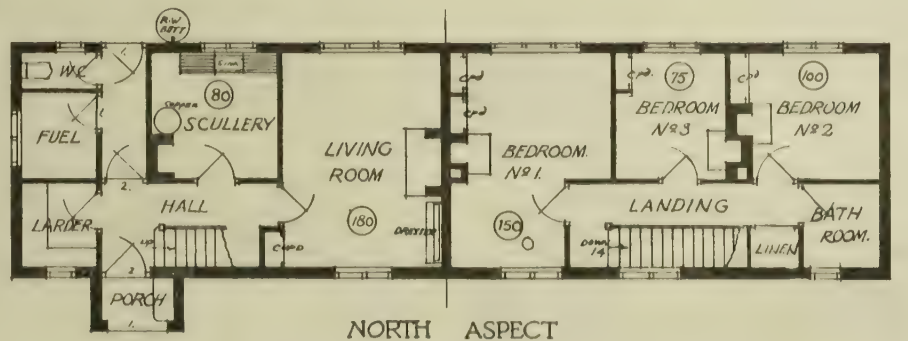


Tenterden Borough Council Housing Scheme.

Mr. George Hornblower, F.R.I.B.A., Architect. (*See p.* 994.)



FRONT ELEVATION.



GROUND FLOOR FIRST FLOOR





Tenterden Rural District Council Housing Scheme: Houses at Appledore.

MR. GEORGE HORNBLOWER, F.R.I.B.A., Architect. (*See p.* 994.)

READING SOCIETY OF ARCHITECTS.

"THE RENAISSANCE AND MODERN POINT OF VIEW."

THE fourth and concluding lecture on architecture, arranged by the Reading Society of Architects in conjunction with the Workers' Educational Association, was given at University College, Reading, recently. The chair was taken by Mr. W. M. Childs, M.A., the Principal of University College, Reading. The lecture, which was on "The Renaissance and Modern Point of View," was illustrated by numerous lantern slides. The lecturer, Mr. W. E. Vernon Crompton, F.R.I.B.A., before proceeding with the consideration of the Renaissance and modern point of view, when applied to architecture, drew attention to three points which must be borne in mind.

First, it was to Greece and Greco-Roman thought that we must look for a true conception of the nature of architecture, as an activity, in which order and beauty were the chief values.

Second, that architecture was fundamentally the expression of an attitude of mind, and consequently was the best example of man's activity that was available whereby the value of civilisation might be tested.

Third, the lecturer proceeded to inquire how it came about that the style of architecture previous to the Renaissance, which they called Gothic, was displaced with such apparent ease, the change they witnessed from Gothic to Renaissance being more of the nature of a break than an evolution, the reason being that the Mediæval scheme of thought was intentionally incomplete. During the Middle Ages certain avenues of thought were forbidden; there was consequently no joy in the untrammelled pursuit of knowledge as an end in itself; such an attitude towards life contained the elements of decay. Further, they must remember that there existed an enormous mass of ancient learning which only awaited discovery: it was the task of the Middle Ages to resume this heritage of knowledge, and in so doing it absorbed that which was eventually to blossom as the Renaissance. The lecturer, with the help of slides of various buildings in Italy, France and England, proceeded to consider the Renaissance point of view with its scheme of values, laying particular stress upon those humanistic qualities of order, reticence, and fastidiousness as to the form and shape of things, which were so prized by the masters of the Renaissance. As Renaissance architecture developed, it became more and more an aristocratic expression, especially in France; a strong tradition was formed in methods of design and technique centralised in the French Academy founded under Richelieu, and later organised by Colbert in the reign of Louis XIV, for the purpose of bringing art into line with the other activities of an aristocratic civilisation, so that it might redound to the stability and credit of the State. He then showed how the principles of architectural town planning which had been evolved by the later Greco-Roman civilisation, but lost during the Dark Ages, were resumed and developed during the Renaissance. The modern point of view might be dated from the decline of the political aristocracy in France and England, and the rise of the new ignorance under which the Renaissance spirit decayed. They then found the ancient activity of building dividing itself quite illogically into two, architecture and engineering, the former being practised somewhat in the manner of a mystery or cult, because it was not understood by the people at large, as it was understood by them during the Renaissance; the latter being purely utilitarian and cut off from the classic humanism of antiquity and the Renaissance, from the beauty of life and the higher spiritual values. This, together with the rise of the Romantic movement in England and France, was the chief influence which accounted for the anomaly in the modern point of view as regarded architecture. A fresh synthesis, based mainly upon the scale of humanistic values of the Renaissance, must prevail among the people generally before a great and consistent school of architecture could rearise in this country.

At the close of the lecture, the Chairman proposed a very hearty vote of thanks to the lecturer, and expressed the hope that the Reading Society of Architects would arrange other similar lectures, as they were invaluable in educating the public in architecture. The need for such education was apparent when the heterogeneous buildings now being erected throughout the country were considered. Everywhere shoddy and unlovely buildings were springing up, and only occasionally was there any evidence of good architectural taste.

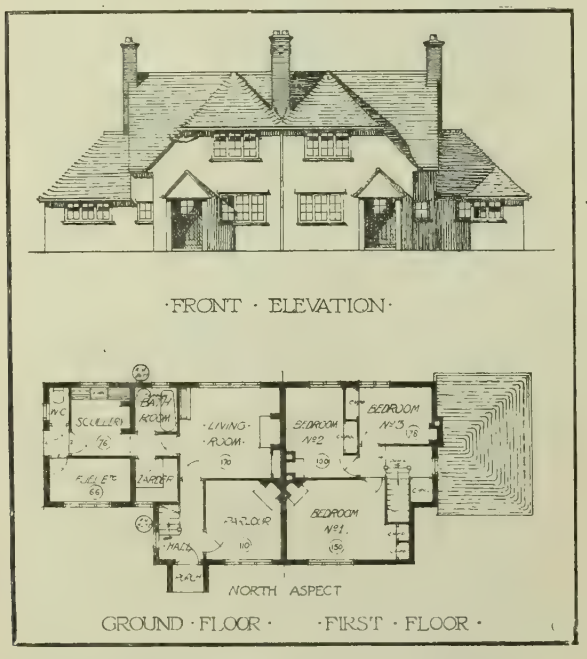
THEATRES AND TOMBS.

Sir Banister Fletcher, at the Central School of Arts and Crafts, in the last of his lectures before Christmas on this subject, on December 19, described various public buildings which played their part in the social life of Athens. Theatres, stadia, agorae, propylaea, and town gates, all helped to reconstruct the daily life of people who went in and out of the town gates, did their business and gossiped in the arcaded agorae, frequented theatres, attended foot races in the stadia, or passed through the propylaea to the temples. These propylaea of massive columns were an evidence the Athenian desired to dignify the approach to the dwelling of the virgin goddess. Through this portico all free-born Athenians must have passed for the religious Panathenaic festival, just as villagers of Oberammergau joined in the Passion Play. Theatres were everywhere; both in the homeland and in the colonies; for drama, religious in origin, was woven into the life of a nation that gave birth to the great fathers of the drama. Greek theatres were not closed up and badly ventilated, but were open to the sky and air, and thus were suited to a race that valued physical fitness above all earthly possessions. The lecturer referred in detail to the typical Theatre of Dionysos, hollowed out of the side of the Acropolis and within the sacred enclosure of the Temple of Dionysos, to which it was connected by beautiful colonnades. There was the central circle of the orchestra, where the chorus danced and chanted the plot; while the few actors spoke their parts from the long straight "logeion" in front of the "skene," and the populace occupied the rising tiers of circling seats. Then there was the great Stadion of Athens in a valley between two hills, which gave long lines of seats for 40,000 spectators. Begun 331 B.C., it was finished by Herodes Atticus, and was now again restored for the revived Olympian games.

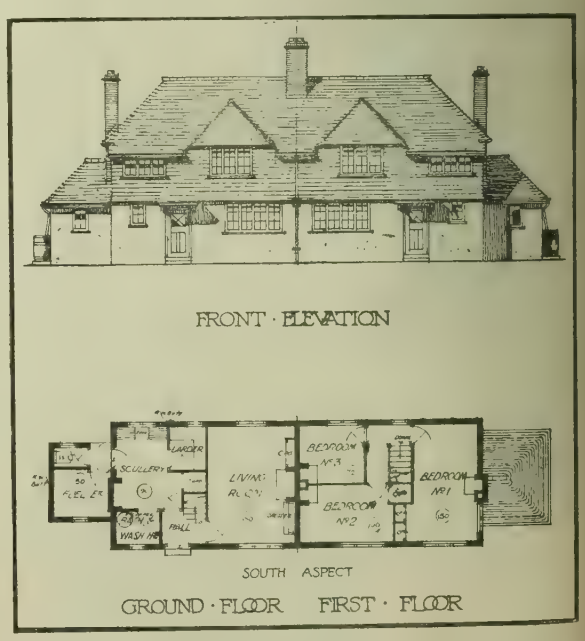
The lectures recommence after Christmas with "Ancient Roman Architecture," the first lecture being on January 16, at 6 p.m., at the Central School of Arts and Crafts.

The Architectural Association.

Miss Isabel Chambers, of the Architectural Association, has been awarded a scholarship for study of architecture in Rome.

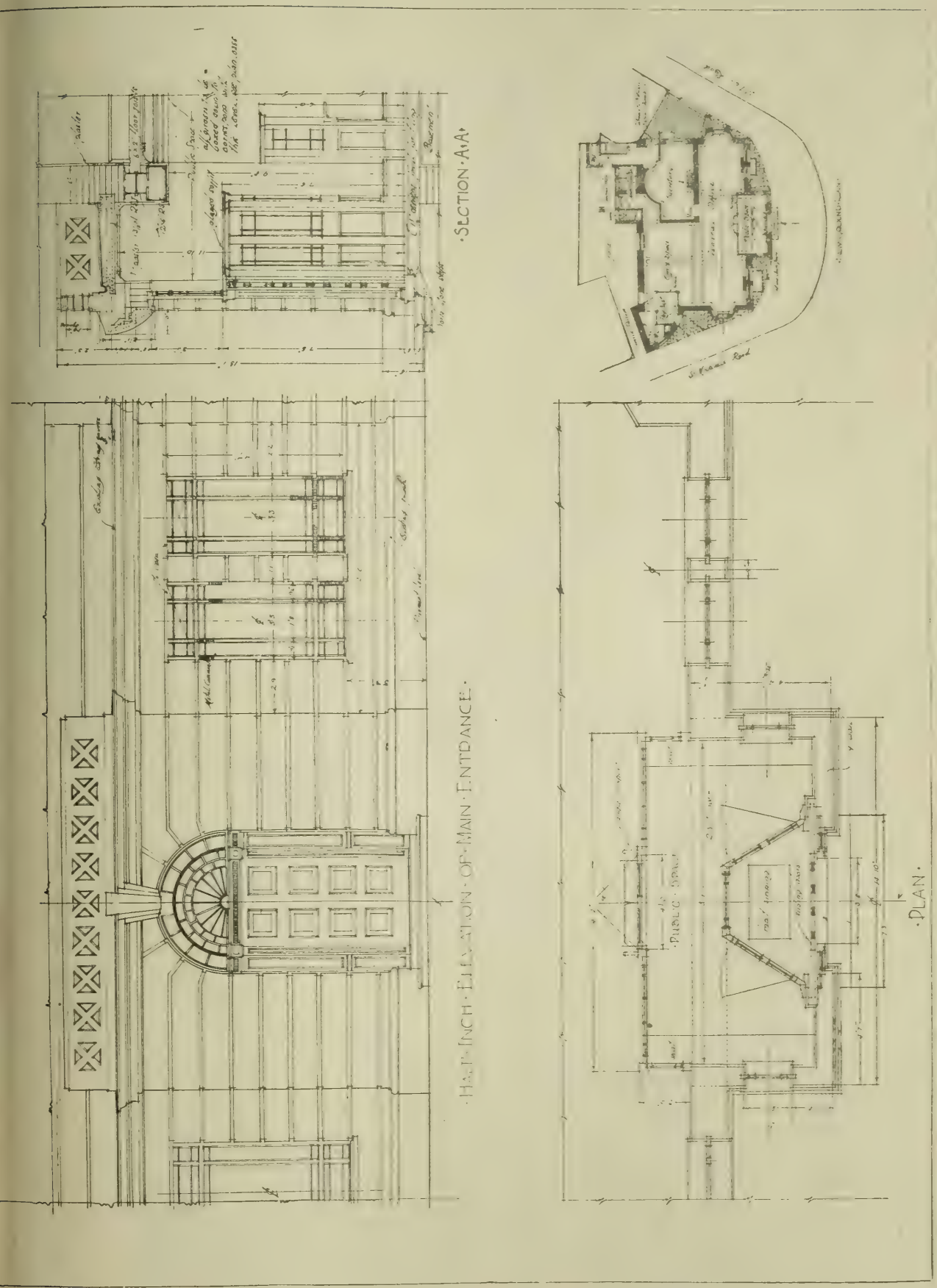


Tenterden Borough Council Housing.

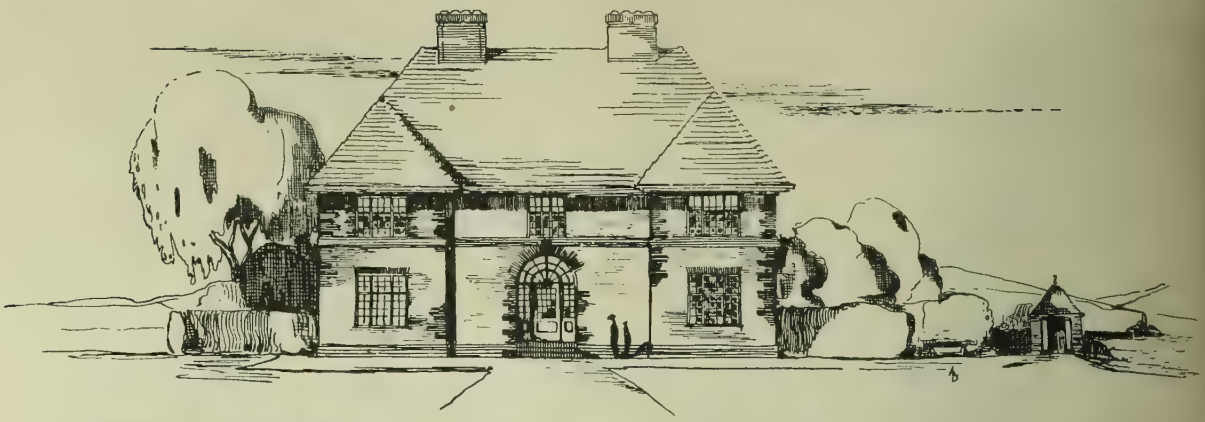


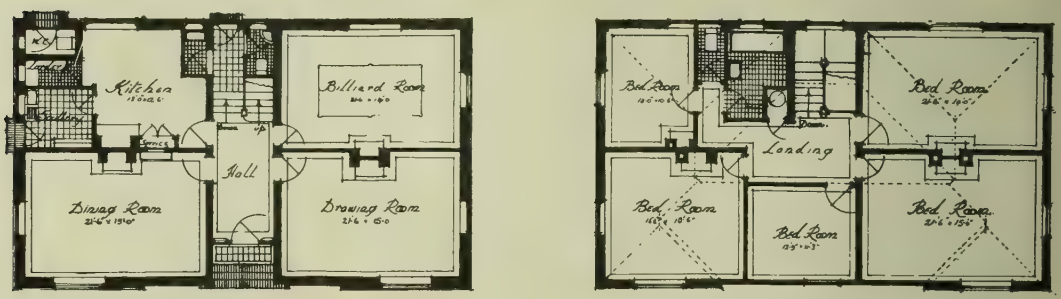
Tenterden Rural District Council Housing.

MR. GEORGE HORNBLOWER, F.R.I.B.A., Architect. (*See p.* 994.)



Alterations at Rumton House, Station Road, Croydon, for the National Deposit Friendly Society. Messrs. Rees & Arcus-Bertram, Architects. (See p. 991.)

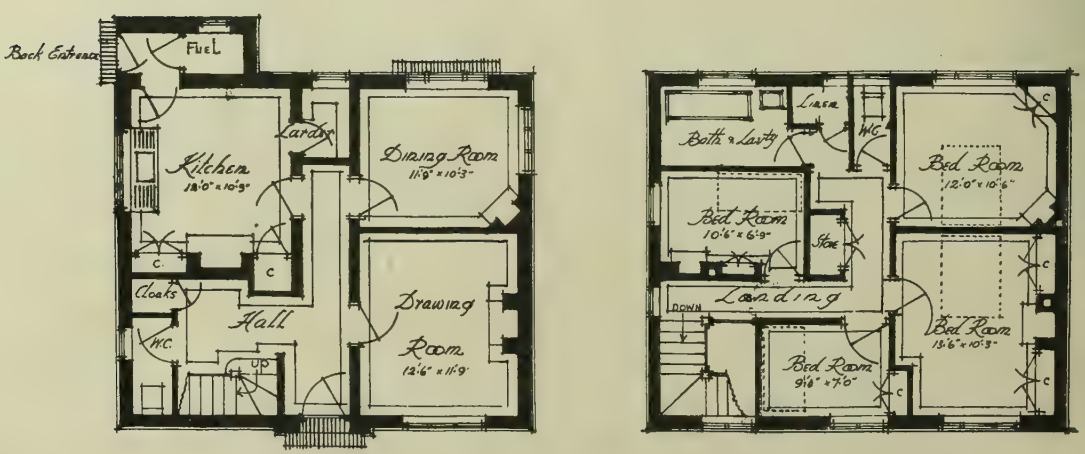




·GROUND PLAN· ·FIRST·FLOOR·PLAN·

House at Westerham, Kent.





·GROUND·FLOOR· ·FIRST·FLOOR·

House at Croydon.

MESSRS. REES & ARCHER-BETHAM, Architects. (*See p.* 994.)

BOOK REVIEW.

ome and Country Arts. By W. R. LETHABY. (London: 26, Eccleston-street, S.W. 1.) Price, 1s.

Professor Lethaby's interesting account of ıe decay and attempted revival of Home and ountry Arts provides much food for thought. hose of us who are old enough to remember ıe general use of hand implements, the flail, ıe sickle and the scythe in English agriculture ay be excused a sentimental clinging to the d time associations that are being swept away machinery, but it must be admitted, whether e like it or not, the machine, once invented, erts a fascination over its human creators d fellow-workers. It extorts from mankind terrible price for its services in rendering dully echanical some at least of those who are sociated with it. Even the noble mechanisms antiquity were not exempt from this law, and en have been worked to death in exquisite ecian galleys or tortured with privation and sease in the confined fo'castles of beautiful iling ships centuries before the special machines at enrich our present-day manufacturers were wn as ore from their respective mines. It ay ultimately come to be recognised that the ly machines which are really beneficial to ankind as a whole are those which, like ueducts or drainage systems, direct the eat force of gravitation without demanding m man more than a reasonable amount of sistance and supervision; but we are not yet ing in an age that recognises any such thing. Against the tendency of the machine to en- ve the man, Professor Lethaby sets up the eal of voluntary happy work of individuals their own homes, or in village clubs, insti- tes and common workshops, where men might themselves make some of the things ey needed—simple furniture, household mend- gs, and the like . . . . Delight in doing and aking will one day have to be refounded in me such scheme of voluntary *recreative* work. present, all the solid forces are against it. ır custom of production for money profit a machine owner is radically opposed to any ethods of producing useful work purely for e joy of making—and what would the cinemas if the people could amuse themselves without ying for machine acting from America?"

Professor Lethaby pays tribute to the excel- nt work done by the women's institutes, and any real return to the practice of Home Art to be made it can only come about by per- ssion and encouragement of the women- lk. The description of the Northumberland mily seated about the fire and carving wooden wls, and the like, will seem delightful to ay-at-home readers whose hair has already a od dash of grey in it, but may not commend elf so highly to the dole fed young men and gh-heeled young ladies to whom its lesson ould do so much good.

xamples of Modern Architecture. (Ed. J. Burrow & Co. Ltd., Cheltenham.) Price 2s. net.

We welcome any publication having as its ject the advancement of architecture and the miliarising of the general public with its best hievements, particularly its best modern hievements, for the older buildings receive r the most part their quota of consideration, hile contemporary works are often ignored. nd no Art can thrive under neglect. This tle series deals for the most part with ork in the west of England. Mr. C. F. W. ening has a reputation which extends beyond s county, although most of the work illus- ated has been carried out in the neighbourhood Bristol. There is a delightful interior of a use at Abbots Leigh, a charming little cottage Portishead, and an elegant shop-front at ifton. Another volume deals with the work Messrs. Stockdale & Shirly Harrison at icester. There are some views of a fine eorgian-looking house and some interesting rehouses and offices. The volume devoted the work of Mr. L. W. Barnard covers a wider ld, and takes in a cottage at Lalk Bay, Cape Colony, a church at Wrexham, and various war memorials. We look forward to the extension of this admirable little series.

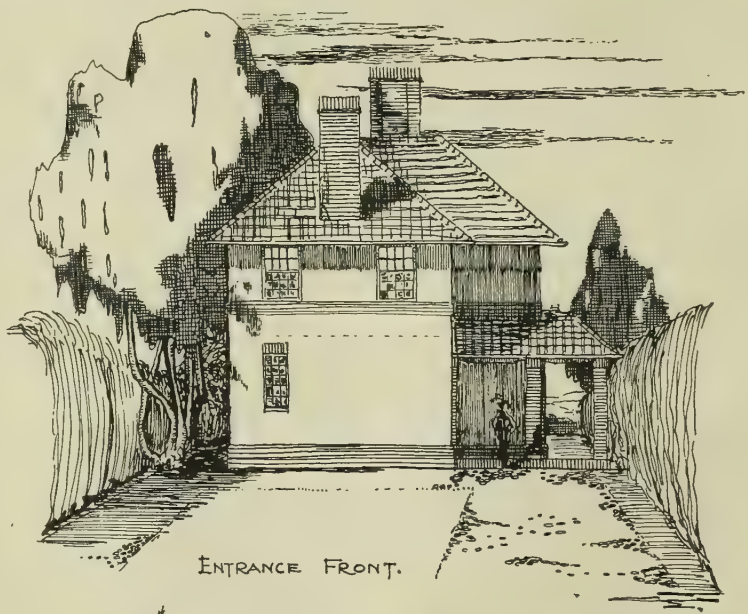
Chats on Old English Drawings. By RANDALL DAVIES, F.S.A. (London: T. Fisher Unwin.) Price 9s. net.

It is pleasant and instructive to read this interesting addition to the well-known "Chats" series. The subject of this volume will appeal to many of our readers, especially architects, who have a taste for acquiring drawings of the character dealt with by the author. It is well that these studies survive, and are still occasionally to be met with by the diligent collector. Their acquisition undoubtedly brings considerably more pleasure to the man with more taste than money, than to the millionaire with more money than taste, his long purse enabling the latter to acquire whatever he may desire without the pleasure of the search. Mr. Davies considers the period of the four Georges, finishing at 1820, a suitable one for this book, but unfortunately this excludes many notable men. There is, however, a possibility of another volume dealing with drawings of the Victorian period, which, to quote Mr. Davies, "might be stretched a little to dovetail in the end of this one." This would embrace those omitted. The eight chapters, preceded by an entertaining introduction, deal with the various branches of drawing, each illustrated with excellent examples from the author's collection. Other examples are from the British Museum. The frontispiece in colour is a charming example of Rowlandson's work, entitled "The Cottage Door," a typical rural English scene. The volume will be readily welcomed, and set the lover of beautiful drawings again afield to rescue, enjoy, and preserve some examples from the pen or pencil of a dead master.

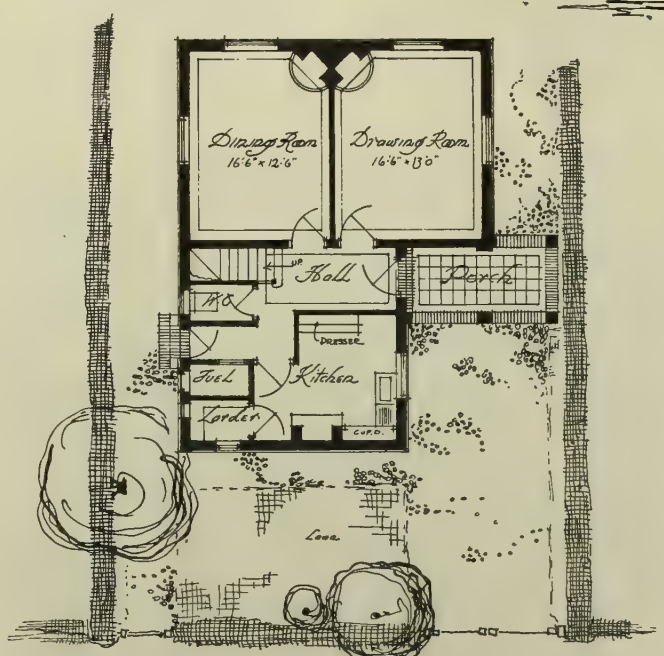
Books Received.

SOME FACTORS RELATING TO THE RE-HOUSING OF SLUM DWELLERS. By John J. Clarke. (London: University Press.) Price 2s. net.

THE PROBLEM OF THE OBELISKS. By R. Engelbach. (London: T. Fisher Unwin, Ltd.) Price 9s. net.



ENTRANCE FRONT.



GROUND PLAN.

House at Horley, Surrey. MESSRS. REES & ARCHER-BETHAM, Architects.

THE ROAD*

By W. R. DAVIDGE.

As Mr. Belloc well says in this book: "We have come to a crisis to-day in the history of the English road. It must be changed—or supplemented—under peril of such congestion as will strangle travel and interchange: that is the interest of the subject to-day." There is no doubt about it. A complete new main road system is, or will shortly be, required throughout the length and breadth of the country. There has been nothing like it since the coming of the steam locomotive forced the construction of railways, with their specialised tracks, and railway embankments and cuttings began to cut up and gash the countryside. The difference, and the only difference, is that the motor on a road surface can tackle gradients impossible for the steam locomotive and its heavy train of vehicles. The choice, and the only choice, is whether we shall in the near future widen all our present highways and alter our whole countryside, or set to work on a complete new system. The latter is by far the most preferable; we cannot spare our pleasant country lanes and the high streets of our smaller towns; and the main streets of our villages will be much too costly to widen.

At present all the new roads that are in process of making will but gather the traffic, and concentrate it into still further bottlenecks in the congested streets of our country towns, or lead it into one or the other of the narrow bridges and narrow streets of such towns as Dartford and Rochester. Much good work has been done by the Ministry of Transport, but it is next to nothing compared with what yet remains to be done. "We are arrived at a chief turning-point in the history of the English highway. New instruments of locomotion, a greater volume of traffic, a greater weight in loads, and vastly increased rapidity in road travel have between them brought us to an issue: either some very considerable and immediate change in the character of the road, or a serious and increasing handicap in our rivalry with other nations through the strain and expense of a worn-out system." Mr. Belloc traces the history of the British trackway from its earliest beginnings. We see how powerful an influence is the soil on which the track lies. Even in those early days the first essential was a dry and well-drained trackway to afford hard going, hence the early British tracks kept almost entirely to the high grounds and the chalk downs. In Roman days the same tracks were in many cases followed, but with the directness of line, irrespective of gradient, which marks the military character of the Roman road. The Roman road is the true and only root of the road system of Britain. When forced marches had to be undertaken it was essential that the distances should be reduced to the minimum, and in the practical absence of wheeled traffic there was no restriction as to gradient, hence the steady and relentless line of the Roman road.

The influence of marshland in deflecting the line of roads is, however, abundantly clear, and in many cases the absence or loss of a portion of the Roman road is due to the original causeway having disappeared in the marshes. Mr. Belloc makes great play with the influence of the marshes on many of the great events in history, and claims that the Russian Orthodox Church and the last Revolution would neither have been, save for the Pinsk marshes. Certain it is that London would never have been where it is but for the marshes that existed elsewhere along the lower Thames.

The modification due to the availability or otherwise of road-making material has also had tremendous influence on the character of the road; for instance, the absence of main roads through the Fens for centuries was not only due to the necessity of maintaining embankments and bridges, but rather from the almost entire absence of hard material.

In dealing with the political influences which have shaped the position and direction of our roads, Mr. Belloc is decidedly in his best vein, and particularly in the scathing scorn which he casts on the vested interests, which are "strangling the communications" in the old age of a wealthy State from the very effect of its wealth. It is a paradox which occurs over and over again in the history of great mercantile cities: their wealth—which should be their greatest help in developing and changing communication—crystallises them. Their ways are laid out for a particular phase of traffic. The land on each side of the streets becomes enormously valuable. The traffic changes in character. New ways are demanded, but they are not built because the compensation required terrifies the reformer. There follows inevitably heavy congestion, and then, if nothing is done, a succeeding phase of decay. According to Mr. Belloc, "the general rule in history is that a city, having reached its highest point of wealth, becomes congested, refuses to ac its only remedy, and passes on from co tion to decay." The main motive is a blu in the science of economics. It is the that the destruction of a number of imagi economic values ("imaginary" because form no part of the total real wealth of State)—to wit, the urban site values—i some way an expenditure of real wealth. far is this from being the case that there perhaps, no example in all history of a gested street system being reformed wit the wealth of the city increasing after change.

The lack of legal powers and the cumb process of obtaining those powers has much to paralyse the hands of the authorities. For centuries in England t was no compulsory power in the hands public authority for the making of a new r and such powers are a comparatively mod development. A road could not be altere even widened, the only compulsory pow being those to secure a levy of labour money for the repair of the highw Nothing in the nature of a general plan, instance, of lateral or coast roads to link the ports has up to the present been feasib

The local system on which English ro have developed has made the roads for most part parochial in character and di tion, though far more picturesque, as trasted with the national system of di routes which is a feature of, for instance, French provinces.

A national road system is an essential n of the present day, and by halting and h tating steps we must inevitably come to c plete and full recognition of this fact. nation is now beginning to take the roads hand, and what has been done so far is the commencement of far greater things to come. A complete new road system necessary.

* "The Road," by Hilaire Belloc. (Published by Charles W. Hobson, for the British Reinforced Concrete Engineering Co., Ltd.) Price 15s.



Academic Dress "Skit," Newcastle-upon-Tyne.

NORTHERN ARCHITECTURAL ASSOCIATION

On December 12, the Northern Architectu Association held their annual dinner at Ne castle-upon-Tyne.

Immediately the guests were seated th arrived an unexpected "deputation" of architects in academic garb, all grotesqu gowned and strangely visaged. The deput tion proceeded to submit a skit upon the rece proposal that architects should adopt acade dress. Included were a president, a fellow, associate, a student and a probationer, a they announced their arrival to the strains "D'ye ken John Peel," by singing:

"We have summoned this meeting here to-d
To show you architects grave and gay,
Who have left their drawing-boards far, f
away,
And we don't care a —— till the morning."

Each in turn gave his own particular versi of the class he represented.

Upon taking their seats the "President was called upon to give his "inaugur address," the character of which can be inferre from the opening remarks:—"Ladies an Gentlemen,—It falls to my unhappy lot a your Deputy Acting Assistant President, ele and select, but without portfolio, to commenc my term of office for the next three hundre and sixty-five minutes by delivering you m inaugural address."

They concluded with their hymn of prais (sung to the tune of "The Church's one Founda tion"). The final chorus was:

We are the builder's bugbear,
For architects are we;
Nobody ever knew us
Without our lingerie.
But since we've put our gowns on
All people now do say,
"Hoch, hoch, mein Gott,
What a jolly posh lot,
Are the architects to-day."

TOWN-PLANNING INSTITUTE.

IR. G. L. PEPLER took the chair at the meeting of the Town-Planning Institute, en Mr. E. R. Abbott opened a discussion " Streets."

IR. ABBOTT said that the word " street " in ordinary acceptation of the term usually lied a roadway more or less built up on er side. This, however, was not by any ns what was meant by " streets " under n-planning schemes. For the purpose of Ruislip-Northwood Town-Planning Scheme definition of " street " in section 4 of the lic Health Act, 1875, was adopted, and as follows:—" Street " includes any high- and any public bridge (not being a nty bridge), and any road, lane, footway, are, court, alley or passage, whether a roughfare or not. The model clauses did , in fact, define a " street," but the struc- e of the clauses did not appear to require h definition, as would be seen later on. It s quite impossible within the limits of one er to refer in detail to the whole of the lel clauses relating to streets, and it was, refore, necessary to confine themselves ner to the principles upon which they had n drafted. Among the definitions perhaps most important to consider was that of standard street," which meant a street structed in accordance with the by-laws in accordance with " such a specification would ordinarily be required by the Council a condition of declaring it to be a highway airable by the inhabitants at large."

ome sets of by-laws prescribed only widths carriage ways, levels, etc., but did not in way define the actual method of con- ction or the materials to be used, and pre- ably the words in inverted commas had n inserted to meet this. It was under- d that the reason for the omission of a ification of materials in the by-laws had n in order to avoid the obligation of the ncil to take over the streets when con- cted in accordance with a specification con- ed in by-laws under Section 20 of the rate Street Works Act, 1892, and thus w upon the Council all the expenses of ping the street in repair during, and per- s entirely re-making it after, building rations had been completed. Quite frankly had grave doubts whether the attempt to a "standard street " under a scheme would satisfactory because what would have been standard street," say, ten years ago would ridiculous in these days, and for all they w in another ten years' time their existing dard would be entirely out of date.

n the two most important cases where the cession " standard street " was mentioned e was an appeal in the first case to ices and in the second to the Minister. re these tribunals to accept the Council's rmination as to what was a " standard et " or were they to go into various speci- ions used from time to time by the ncil? Many Councils had not put in force Private Street Works Act since the war, what was a " standard street " in their s?

ersonally, he thought it would have been erable to leave it to the Council to appor- the cost of the street to be paid for by the ers with the appeals to the justices or he Minister as the case might be. With rd to the construction of new streets, it ld be recollected that under the earlier mes the methods of laying out and con- ction and widening of streets were set out ewhat in detail. The method adopted er the model clauses was to apply the pro- ns of the Private Street Works Act, 1892, he Public Health Act, 1875, section 150, ne making of new streets under a scheme. re was one outstanding feature in the el clauses which was, in his judgment, a t improvement upon clause 4 of the slip-Northwood scheme, which was as follows:—" The following new streets shall be constructed under and in accordance with this scheme and on the lines and of the width indicated on the map, that is to say, the streets or footways numbered 1.....83 and coloured pink on the map."

Although this clause stated that the streets " *shall* be constructed " there was no obligation upon the Council or the owners of the land to construct them, and it was, therefore, somewhat ambiguous, although there were powers enabling the Council to construct any of the streets shown on the map.

The model clause No. 6 stated that the purposes of the scheme should include the execution of street works upon certain lands coloured pink on the map; these lands might include not only lands upon which new streets were to be constructed, but also lands adjoining existing streets which were required for widening. This undoubtedly simplified the procedure, although the model clauses were thereby made somewhat involved.

The earlier schemes immediately upon approval definitely appropriated the lands upon which streets were shown to be constructed as " streets," and the local authority had no power to permit buildings of any kind thereon. The model clause 9 authorised the Council to permit buildings temporary or otherwise upon the lands upon terms pending the construction of the new streets. It seemed very doubtful whether such an authority was desirable, and in view of the new developments in road construction by the Minister of Transport and County Councils it might create difficulties, the Council (borough, urban, or rural) being the only body who could give or withhold consent.

There were now three types of streets with which framers of town schemes were concerned, viz., (1) Arterial roads, (2) main thoroughfares, (3) estate streets. No town-planning scheme could ignore the possibility of the first type having to be constructed, and when one realised the enormous expense in which the country was at present involved, owing to these roads being constructed in a hurry for the purpose of the relief of unemployment, it behoved them to see that ample provision was made in all schemes for securing the sites of such roads and taking powers which would enable them to be made without the expense involved in the actual purchase of the land, because although the compensation or purchase money might be about the same the expenses of purchase were certainly very much greater.

The model clause 6 contemplated the marking on the map of the sites of proposed arterial roads and main thoroughfares, and gave the Council power to declare such site to be (*a*) in the case of a street to be constructed wholly at the public's expense a " highway repairable by the inhabitants at large," in which case no expense (otherwise than by agreement) could be recovered from landowners, or (*b*) declare the site to be a private street, when the Council could put in force the provisions of the Private Street Works Act, enter on the land, construct the street, and recover the whole cost (1) if it be a " standard street " from the frontagers, or (2) if it be a street involving cost beyond that of a " standard street " such portion as represented the cost of a "standard street." The cases in which the site of the street would be declared to be a highway repairable by the inhabitants at large would probably be very few in number as it could very rarely be contended that the new street (even if it be an arterial road) would not be of benefit to adjoining owners. In connection with streets under (*b*) provision was made by the model clause 12 (2) whereby, with the consent of the Council, the street might be constructed in advance of the remainder of the street of a less width than was required by the by-laws.

The model clause No. 12 provided in the first schedule for the laying out of narrow streets for residential areas much on the same lines as the earlier town-planning schemes, and the first schedule specified various types of such streets. There were also provisions whereby landowners would not be charged with the cost of construction of new streets so long as their land was rated as agricultural land, and they would not during that period have to pay interest on the moneys which they would ultimately have to pay.

There was a very useful model clause, No. 8, enabling the Council to construct sewers under any of the sites or proposed streets before the other street works were carried out, and recover the cost when such other works were completed. It was, perhaps, desirable to refer especially to the provisions as to widening of existing highways contained in model clause 9. If the land adjoining that required for the widening had already had buildings erected upon it, the model clause provided that no part of the cost of the widening should be apportioned on the frontagers. If, however, the land was rated as agricultural land and the highway was only to be widened to by-law width the cost might be apportioned on frontagers whose land was rated as agricultural land on both sides of the road, and for this purpose the existing highway, together with the land required for the widening, was to be deemed to be a private street. The Council would, of course, have to pay for widenings beyond by-law width. This seemed to be an improvement upon the Ruislip-Northwood scheme, where in such a case the frontager was not only required to give up the land, but was relieved from all the cost of the street works.

Model clause 11 placed an obligation upon the Council when a plan for a new street was submitted to require owners of land, which in their opinion would be affected by the construction of the new street, to submit plans and particulars of the development of such lands. The clause in the Ruislip-Northwood scheme left it optional to the Council to require such particulars. Neither clause was satisfactory because there was nothing which obliged the owner of the lands submitting the plan of development to carry it out on the lines indicated in the plan.

There were two model clauses which seriously infringed on the rights of the public, namely: Model clause 13, under which the Council might lay out any part of a public highway as a garden or plant it with grass or trees or shrubs—in fact, they might lay out the whole of it except a few feet, and prevent any vehicle being driven along it. The Ruislip-Northwood scheme provided that the carriage-way or footway should not be reduced to a less width than that required by the scheme or the by-laws, as the case might be. Model clause 15 provided that for the purpose of adjusting the boundary of a street the Council might make an exchange of land forming part of the street for other land without any limitation. The Ruislip-Northwood scheme provided that in no case should the land so given up by the Council exceed in area that given up by the owner. In addition, no agreement for exchange should be entered into until after public notice had been given, and four inhabitant householders were given a right of appeal to the justices.

It was, he thought, a matter of regret that in the case of model clause 16, providing for the diversion or stopping up of highways, the proviso in the Ruislip-Northwood scheme enabling the Council to proceed under the Private Street Works Act in cases where the substituted highway included the whole or part of an ancient public footpath repairable by the inhabitants at large had not been inserted.

MR. F. W. BUCKNER (Tilbury U.D.C.) said the construction of the great arterial roads with interlinking by-pass communication was changing the face of the country, and would, he hoped, go far to simplify some of the pro-

blems which had arisen. In many cases, however, traffic routes were being proposed without any relation to town planning, and this was wrong. If the Ministry of Transport was made a subordinate branch of the Ministry of Health the subject might be considered on a truer basis and grave blunders would be avoided. Considerable objection was now being raised to the narrow width of the roads in the housing areas of many local authorities. He knew that the plea of economy in cost of construction and upkeep was put forward in support of these limited widths, but when the restrictions led to congestion and delay and consequent loss of efficiency the practice was wasteful rather than economical in its final result.

Mr. E. J. Elford (Borough Surveyor, Wandsworth) said the reason why by-laws did not specify streets in any detail was obvious. If a street was made up and then afterwards the gas, water, and sewer pipes were laid it meant opening up probably 40 per cent. of the road, and this involved great waste. He was sorry to see that the making up of streets by the owners was rather encouraged. He did not quite understand the author's objection to a standard street, because he took it that the purpose was to fix a basis on which to charge the owner. The owner would be called on only to pay his proportion for a standard street, and not for something better, which was fair to all parties. The powers given to a local authority to construct sewers would be very useful, because it was found that as soon as a sewer was laid within a reasonable distance land was developed.

Colonel E. B. Martin (Salford) regretted that different schedules had been sent out with the model by-laws and with the by-laws for town-planned areas. He agreed as to the narrowness of the streets on the housing sites, and suggested that they should be careful in their endeavour to cheapen the cost of houses not to transfer the cost to the rates.

Mr. Warwick Draper suggested that in dealing with by-laws they had to bear in mind that the construction of private transport roads might have a considerable bearing on the problem.

Mr. I. C. Gibbon (Ministry of Health) said that in framing the model by-laws the Ministry had to apply the general law of the land. The object of the standard street was to have a basis for charging. It was not the practice of the country under by-laws to set up a standard for road construction, and rightly so, because standards of construction changed. It was the custom for engineers to protest against any attempt to reduce standards with regard to streets, but it was not fair to charge the developer more than was necessary for housing requirements. In proportion as they did that they would increase the difficulties of getting houses.

Mr. Abbott said he had written the paper with a view to discussion, and there would be a further opportunity to discuss it. He quite agreed that it was not fair to place on the house developer the cost of roads constructed for through traffic. If they got down to bedrock they knew they could not get anyone to build houses for the working classes at their own expense.

Builder's Estate.

Mr. Harry Wardle, of Milehouse-lane, Wolstanton, Staffs., builder and contractor, left estate of the gross value of £6,581, with net personality £213.

URBAN AMENITY.

The following is a summary of the ninth the series of lectures on Town Planning given Mr. Wm. Haywood, F.R.I.B.A., at Birmingh University :—

The amenity of town structure was not ea analysed ; and it was difficult to indicate way actually producing this quality of attraction cities.

They agreed that certain towns were pleasa that others were imposing ; and some so u and depressing that they saw them as little possible. Yet the residents of ugly towns little to prevent further unpleasant devel ments, although, if they considered the mat it was chiefly by avoiding preventable uglin that they could best prepare conditions favo able to greater amenity.

Before this negative approach towards amen could be made, however, it would be necessa for communities to think more collectively th at present ; and since collective thought h usually been favourable to everything that ma for urban improvement, the increase of amen in city life became largely a matter of arousi public conscience to an appreciation of environment.

In various ways this change of outlook w now taking place. The Town-Planning Ac which were largely inspired by a desire for grea amenity (although they failed to provide a method for giving it legal assistance), had been helpful indirectly, by stirring people a new knowledge of their surroundings ; a in this new interest—now rapidly extending they would find the opportunity they needed giving to their towns that uplift in outwa expression which so many of them lacked.



The Entrance Lodge, Ickleston Grange, Cambridgeshire.

Major Hubert C. Corlette, O.B.E., F.R.I.B.A., Architect.

LEGAL SECTION.

NOTES ON CURRENT CASES.

Covenants against Underletting.

The case, Terrell *v.* Chatterton, which we ted July 28, 1922, has been carried to the ouse of Lords (1923, A.C. 578), and it is of portance as it relates to sub-letting in breach covenant without consent. The facts were rtly as follows: By an agreement, dated rch 11, 1919, the plaintiff had let to the fendant certain premises for a term of five ars from March 25, 1919, at a yearly rent of 35, and under this agreement it was provided at the tenant should not assign, or underlet, or rt with the possession of the said messuage, premises, or the agreement without the nsent in writing of the landlord for that pur- se first had and obtained, such consent not be unreasonably withheld, and as a condition such consent the landlord might require e assignee to enter into an agreement with him ect to observe and fulfil all the obligations d conditions of the agreement. The agree- nt also contained a power of re-entry on lure on the part of the tenant to observe or rform the conditions contained in the agree- nt. On February 14, 1920, the tenant, h the consent of the landlord, had let the floor for a period of three years, to one yor, but on February 28 of the same year e tenant had, without the knowledge and nsent of the landlord, agreed to let the rest the premises, except the top floor, on a rly tenancy to another tenant.

On discovering the existence of this further b-letting the landlord on July 5, 1920, had itten a letter to his tenant determining her ancy and requiring her to surrender the emises.

The action against her was commenced in tober, 1921, and in the statement of claim, er stating that the first sub-letting of the top or had been made with the landlord's consent, was alleged that the second subletting con- tuted a breach on the defendant's part the agreement and a declaration was asked to that effect, and possession of the premises d mesne profits were claimed as from February 1920.

The Judge in the Court of first instance had d that as the tenant had not sublet the whole use without the consent of the landlord there s no breach of covenant. There are cases the effect that covenants not to sublet are not oken by an underletting of only part of the emises (Church *v.* Brown, 1808, 15 Ves. 258; ove *v.* Portal, 1902, 1 Ch. 727; and Wilson *v.* senthal, 1906, 22 T.L.R. 233); this latter case mentioned in reference to a decision under Rent Acts (*The Builder*, March 26, 1920). the Court of first instance the Judge held at as such covenants must be construed ictly in the absence of the words "or any rt of the premises," the covenant did not ply.

The Court of Appeal had held that, even uming that the covenant did not include assignment or underletting of part of the emises, yet in this case the tenant had, in t, dealt with the whole of the premises and dgment was given for the plaintiff, and the ouse of Lords has now affirmed this judgment the Court of Appeal.

The finding of the House of Lords was that tenant had, in fact, broken the covenant ause she had by the second letting parted h or sublet the whole of the premises, whilst covenant provided that she should not ign, sublet or part with possession of the mises. The House of Lords considered the e very plain since the two transactions, the t with consent, but the second without nsent, resulted in the whole of the premises ng parted possession with, or sublet, but we st point out that this decision does not in way touch the point we have mentioned ve that a covenant not to assign, sublet, or t with premises is not broken if only a part is so assigned or sublet; in fact, it is confirmed, for Lord Wenbury in his judgment puts the matter thus: "It is said, and said with truth, that if there be a covenant not to assign or underlet the premises, it is not a breach to assign or sublet part of the premises." That being the law it is extremely important that those letting their houses should protect themselves against the risk of having part of the premises assigned or underlet without their consent, for in all probability the assignment or subletting of a part would have more objectionable features than the subletting of a part, and the remedy is very simple as is shown by Lord Wrenbury's judgment, for all that is required is that in such covenants the words, "or any part thereof," should be inserted.

Vendor and Purchaser Deposit.

The case Chillingworth *v.* Esche, which we noted in our legal section May 25 last, has been reversed on appeal (*Weekly Notes*, November 10). By a document dated July 10, 1922, the plaintiff agreed to purchase a certain property, subject to a proper contract to be prepared by the vendor's solicitors, and acknowledged having paid a sum of £240 as deposit; the purchaser had signed this document and the vendor had added a receipt for the deposit. The vendor also gave an independent receipt for the deposit and both parties had signed a schedule of trade fixtures "under agreement for sale." The vendor's solicitors had sent a proper formal contract for approval and it had been approved by the purchaser's solicitors, but the purchaser did not sign the engrossment and subsequently declined to proceed with the negotiations, and brought an action for the return of the deposit. As shown in our former note, the Court held the deposit could not be recovered, but this judgment has now been set aside by the Court of Appeal. The Court held that the document of July 10, 1922, was not a concluded agreement, but merely a preliminary document "subject to a proper contract," and the parties were not bound until such a contract was executed, and the deposit must be repaid, and that the other documents relied upon, the schedule, &c., did not affect the important words "subject to a proper contract." It was further contended that the deposit was a guarantee that the purchaser meant business, and that as no business resulted it was forfeited, but the Court held that there was no ground for saying that a purchaser by breaking off negotiations forfeited his deposit. The case is not one where default is made in completion under a definite contract of sale, as, for instance, Hall *v.* Burnell (*The Builder*, October 27, 1911), but in any case the way to avoid litigation was definitely to provide by agreement what is to be done with the deposit.

Workmen's Compensation: Assessment of Compensation.

The decision of the House of Lords in three appeals from the Second Division of the Scotch Court of Session, Portland Colliery Co., Ltd., *v.* Murray; John Watson, Ltd., *v.* Quinn; and William Dixon, Ltd., *v.* Madden (1923, A.C. 566), is of importance as it decides what is the position of men who have been partially disabled by accident and who have been given light work when, owing to a change in the conditions of the labour market, their position is made better or worse.

The facts of these three cases are shortly as follows. In the first case a man employed as a miner had sustained an injury by accident that incapacitated him from following his occupation as a miner. Before the accident his average weekly earnings were £2 7s. He was paid full compensation as totally incapacitated for about fifteen months, and then he was given light work on the surface with partial compensation. Then, owing to a general rise in wages, the man's earnings equalled or exceeded what he earned before the accident and compensation was stopped and the man acquiesced in this.

Then came the coal strike in April, 1921, and all work stopped, and the mine became flooded and the man being unemployed commenced arbitration proceedings to obtain compensation. On April 1, when the coal strike commenced, there was a demand for masons' labourers, and before his accident the man had, in periods of inactivity in the mines, worked as such, but he was incapacitated for that form of employment and was classified as unfit in the list of unemployed at the unemployment bureau.

The Sheriff Substitute in the arbitration proceedings had held that the respondent's failure to obtain employment was due, not to his injury, but to the state of the labour market, and that the man's search for work might have been equally unsuccessful had he been uninjured, but that his condition of partial incapacity materially narrowed his chances of obtaining work and he refused the application for compensation, but as the employers had promised the man light work as soon as it was available he had provisionally fixed the compensation he should receive when he should commence light work at 12s. 6d. The Scotch Court of Session held that compensation should not have been refused and remitted the case for the compensation to be assessed.

In the second case a miner had been injured by accident on May 20, 1914, his average weekly earnings then being £2 4s. He was paid full compensation as totally incapacitated to November 8, 1915. Subsequently under an award, dated January 7, 1917, he was paid 10s. 4d. a week as partially incapacitated, and this was continued until May 25, 1920. After that date the compensation had been stopped because owing to the rise in wages the man at surface work was earning more than his average weekly earnings before the accident. From November 1, 1921, the man, owing to a fall in wages, was earning only about £1 6s. a week, or less than his pre-accident wages, and he requested his employers to renew the payment of compensation, but they refused and applied for a review of the award. On the review the arbitrator held that the employers' liability to pay compensation only ended for the limited period between May 25, 1920, and October 31, 1921, while the man was earning wages in excess of his average weekly earnings before the accident, and an award was made of 9s. a week from October 31, 1921.

The Court of Session had affirmed this award. We may here note one point in connection with the case, for if the whole period from May 25, 1920, to January 23, 1922, the date of the hearing, was regarded, the average earnings of the man would exceed his pre-accident average, and the opinion of the Court of Session was asked whether the whole period should not have been considered, but the Court negatived this suggestion.

We do not propose to state the facts in the third case which closely resembled the circumstances of the second case. An award for partial incapacity had been made but terminated when, owing to a rise in wages, the man was earning more than his pre-accident average, but on review an award had been made when wages fell.

The House of Lords in delivering judgment dealt with the three appeals together, and in each case affirmed the decision of the Scotch Court of Session.

The decision of the House was delivered by Lord Dunedin, and it may assist our readers if in the first place we give his very brief summary of the facts: "These appeals have one common feature. In each of them a workman was injured, and after a period of total incapacity was awarded compensation fixed as for partial incapacity, he being able to earn, and *de facto* earning, a certain amount of wages less than the average pre-accident wage earned when he was an uninjured man. Then came a period of inflated wages due to the war with the result that his *de facto* earnings for light work rose to a

greater figure than his average pre-accident wage. In terms of paragraph 3 of the First Schedule of the Act his right to compensation then became suspended. Wages having fallen his earnings no longer exceeded the average pre-accident wage. His physical condition remained the same and the wages earned by him having fallen below the pre-accident rate the question arises whether he is entitled to partial compensation."

The answer given was then in the affirmative, and the following is briefly the reasoning contained in the judgment. The right of compensation rests not on the Schedule but on the first section of the Act: "If in any employment personal injury by accident arising out of and in the course of the employment is caused to a workman his employer shall, subject as hereinafter mentioned, be liable to pay compensation in accordance with the First Schedule of the Act."

The House then referred to the First Schedule par. (*a*) (*b*) which prescribes the liability as to weekly payments and paragraph (3) which is as follows: "In the case of partial incapacity the weekly payment shall in no case exceed the difference between the amount of the average weekly earnings of the workman before the accident and the average weekly amount which he is earning or is able to earn in some suitable employment after or business after the accident. . . ." And then pointed out that this settles the extreme limit of what is to be paid, but it is a rider on the computation of the amount and not a statutory termination or interruption of the state of incapacity and when the words can no longer be applied then there is no bar to the right which the injured man has to be compensated for partial incapacity, and, applying this to the cases before the House the judgment proceeds: "In each case the features are first, partial incapacity found and compensation awarded; second suspension of the payment of compensation owing to the wages actually earned exceeding the pre-accident wage; and third wages actually earned fallen below the pre-accident wage. The right to compensation for partial incapacity then revives and the amount due in respect thereof involves inquiry as to what the man is competent to earn."

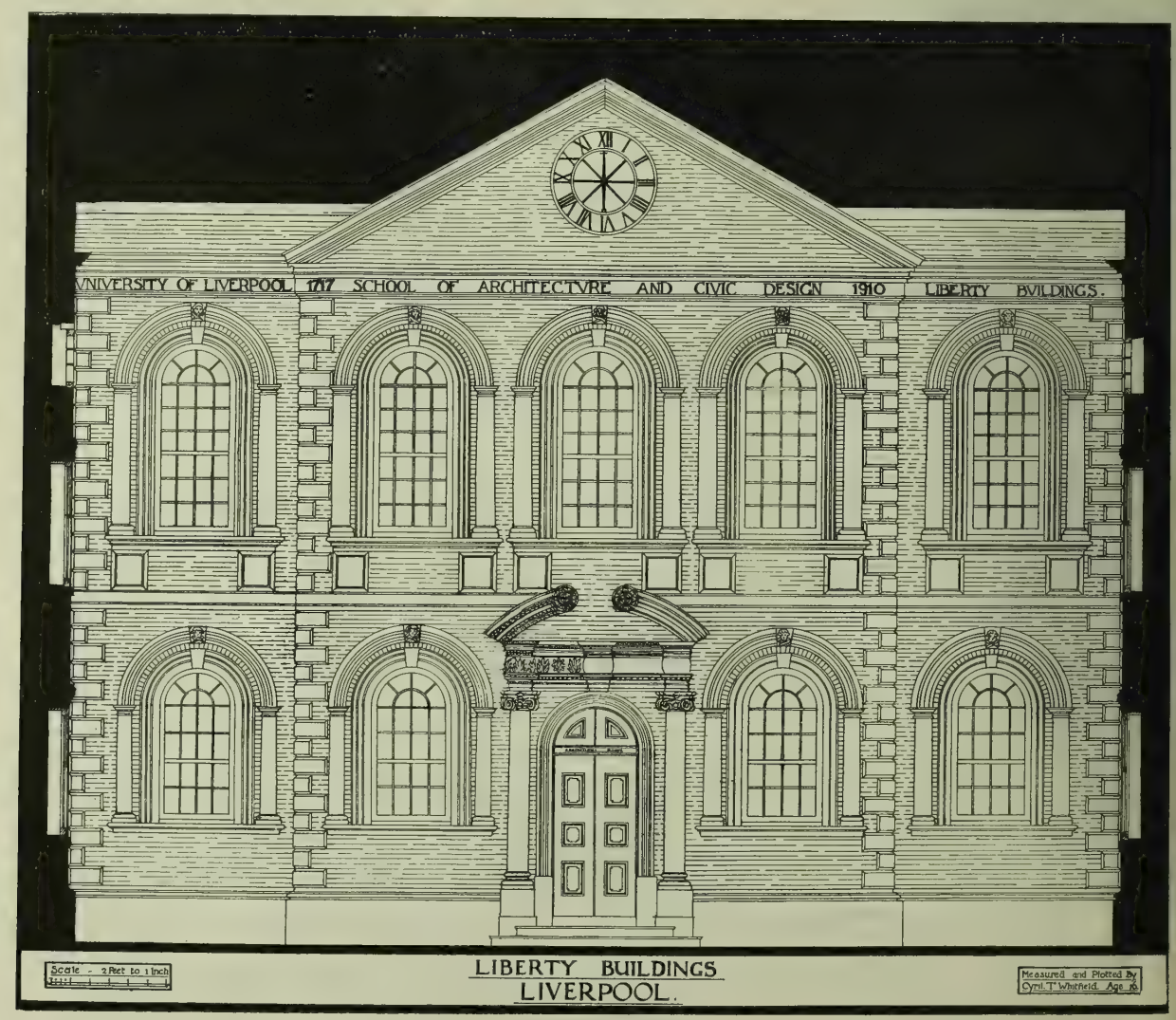
In considering this summary it is necessary to observe that it was pointed out that the existence or non-existence of a standing decree made no difference, which we understand to mean whether in the first instance the payments were made under an award or apart from an award.

Perhaps the chief importance of the decision lies in this, that the employers relied upon the fact that there had been no change in the condition of the workman himself, and a series of cases in which it was held that to allow of an application to review an award there must be a change of circumstances, and that a mere averment that a change has taken place in the labour market and the wages for partial employment have fallen is not sufficient, for the House not only distinguished those cases from these before it but indicated that they might have to be considered in the light of the decisi of that House in the case Macalinden *v.* Nimmo & Co. (1920, A.C. 39, *The Build* March 26, 1920).

In that case it was held that where a man h received an injury and an award had been ma for partial incapacity even though no physic change has occurred in his condition if it c be proved that the injury has had more effe on his chances in the labour market than w anticipated that may be a change of circu stances entitling him to a review.

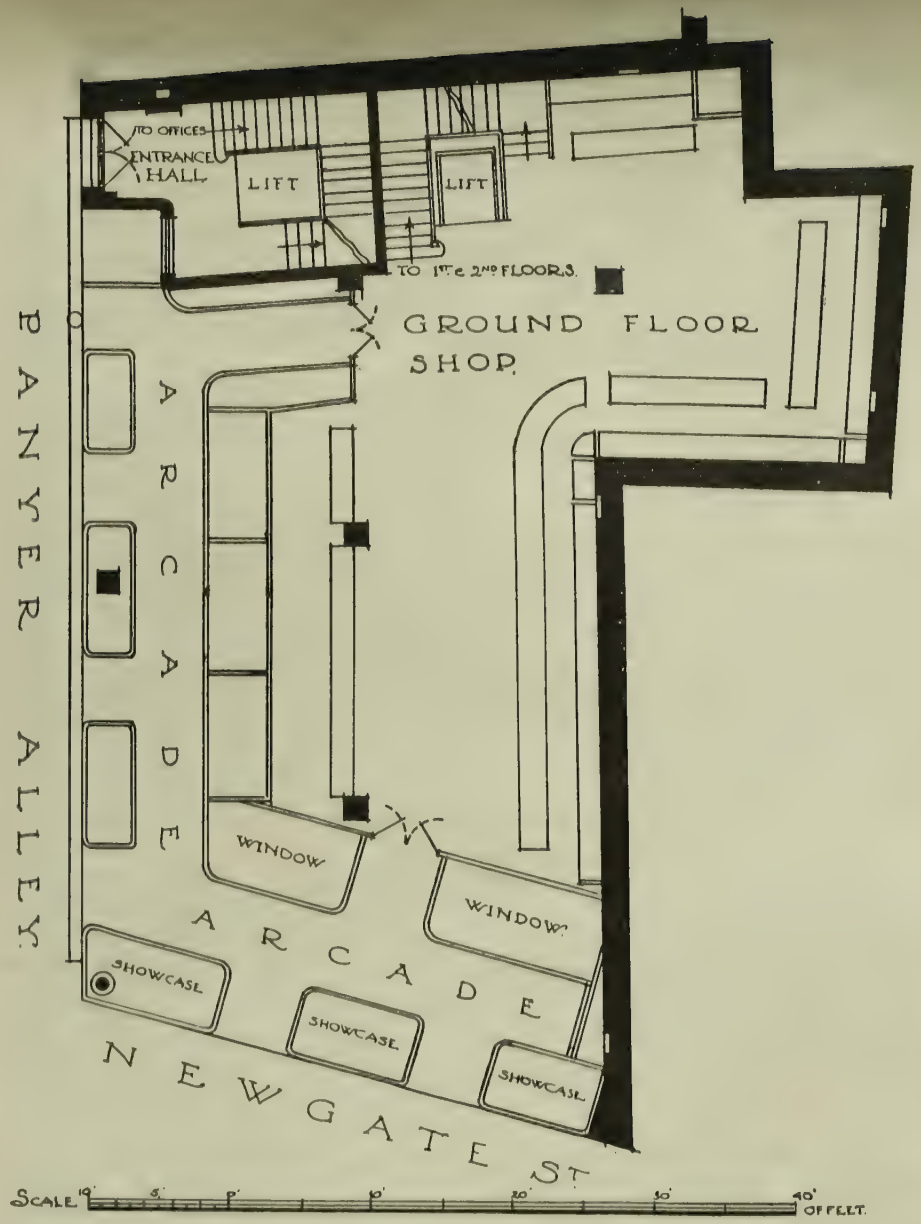
Modern Developments in Town Planning.

Professor Patrick Abercrombie, M.A., the Department of Civic Design at Liverpo University gave a lecture recently at t Engineers' Institution, Cardiff, on this subje Mr. T. Alwyn Lloyd presided. The lectur appealed for the cultivation to a greater exte of the æsthetic element in modern tow planning. He contrasted such treatment t the method at present frequently adopted sweeping away all natural advantages, and h urged that where these advantages existe they should be taken advantage of. H instanced Cardiff Castle as a pleasing contra in the centre of the city. The lecture wa illustrated by lantern slides which showed ho ancient Greece had used the æsthetic element how some modern towns were doing so; an how others were failing.



Measured Drawing of the Old Blue Coat School, Liverpool.

[This measured drawing of the Old Blue Coat School, Liverpool, is by Mr. Cyril T. Whitfield (aged 16 years). The building was at one time used by the School of Architecture, but it is now occupied by offices and studios.]





New Premises in Newgate-street, E.C.

MESSRS. G. REGINALD FARROW, F.R.I.B.A., & SYDNEY R. TURNER, Architects. (*See p.* 194.

THE BUILDING TRADE.

THE WORKMEN'S COMPENSATION ACT AS PASSED.

IN our issue for June 8 we gave a short summary of the provisions of the Government Bill amending the Workmen's Compensation Acts, and now the Bill itself, considerably amended, has become law, it is necessary to examine its provisions with greater precision.

War Additions.

Section 1 repeals the two War Addition Acts of 1917 and 1919, as from December 31, 1923, but there is a proviso as to the additions provided for in those Acts being continued. This proviso has been somewhat altered from the clause which appeared in the Bill, but only in form, and its effect is that the additions provided for in the War Additions Acts shall continue to apply to weekly payments payable to a workman under the Principal Act (the Act of 1906) or under any enactment superseded by that Act in respect of total incapacity arising from an accident which occurred on or before December 31, 1923, so long as the workman remains totally incapacitated, the addition being treated as if it were part of the weekly payment.

Payments on Death of Workman Leaving Children.

Section 2 has been considerably altered and it is as follows:—

"Where a workman leaves a widow or other member of his family (not being a child under the age of 15) wholly or partially dependent upon his earnings, and in addition leaves one or more children under the age of 15 so dependent, then (*a*) if both the widow or other member of the workman's family and such child or children as aforesaid were all wholly dependent upon the workman's earnings, there shall, in respect of each such child be added to and dealt with as part of the compensation payable under paragraph (1) (*a*) of the First Schedule to the Principal Act, a sum equal to 15 per cent. of the amount arrived at by multiplying the average weekly earnings of the workman, or where such earnings are less than £1 then by multiplying £1, or where such earnings exceed £2, then by multiplying £2, by the number of weeks in the period between the death of the workman and the date when the child will attain the age of 15, fractions of a week being disregarded; and (*b*) if the widow or other member of the workman's family or such child or children as aforesaid, or any of them, were partially dependent on the workman's earnings, there shall be paid as part of the compensation under the said paragraph such proportion of the sum which would have been payable under the foregoing paragraph of this section, if all such persons had been wholly dependent as may be agreed upon, or in default of agreement as may, taking into consideration the amount payable under the principal Act, be determined by arbitration under the principal Act to be reasonable, provided that the total amount of compensation payable to the dependants shall in no case exceed £600."

This section is much clearer than the clause in the Bill, but the percentage has been increased from 10 to 15 per cent. and the limit of compensation from £500 to £600.

Variations in Amounts of Compensation.

Section 3 increases the minimum amount of compensation payable in fatal cases. In the First Schedule of the principal Act, paragraph (1) in fatal cases the compensation is based on the average weekly earnings, but a minimum sum of £150 is prescribed; this section increases that minimum sum to £200.

Section 4, subsection (1) amends paragraph 1 (*b*) of the First Schedule of the principal Act by substituting thirty shillings for £1 as the maximum of the weekly payment in respect of total or partial incapacity.

Subsection (2) deals with total incapacity and provides that where the maximum weekly payment payable under the principal Act, as amended by the foregoing sub-section, is less than twenty-five shillings: "The workman shall be entitled during such incapacity to a weekly addition equal to one-half of the difference between such maximum weekly payment and the sum of twenty-five shillings or his average weekly earnings, whichever is the less and such addition shall for all the purposes of the principal Act be treated as if it were part of the weekly payment."

Subsection (3) relates to partial incapacity and the two paragraphs are so complicated we set them out in full.

"In the case of partial incapacity the weekly payment shall, subject to the provisions of paragraph (3) of the said Schedule, be of the following amount:

"(*a*) If the maximum weekly payment, had the incapacity been total incapacity, would have amounted to twenty-five shillings a week or upwards, the weekly payment in case of partial incapacity shall be one-half the difference between the amount of the average weekly earnings of the workman before the accident, and the average weekly amount which he is earning, or is able to earn, in some suitable employment or business after the accident.

"(*b*) If the maximum weekly payment would, had the incapacity been total incapacity, have amounted with such addition, if any, as is provided by subsection (2) of this section, to less than twenty-five shillings, the weekly payment in case of partial incapacity shall be a sum bearing the same proportion to the said difference as the said maximum weekly payment with such addition as aforesaid bears to the amount of the average weekly earnings of the workman before the accident."

It must be mentioned that paragraph 3 of the First Schedule referred to in this subsection provides that in the case of partial incapacity the weekly payment shall in no case exceed the difference between the amount of the average weekly earnings of the workman before the accident and the average weekly amount which he is earning or is able to earn in some suitable employment or business after the accident. The Workmen's Compensation Act was introduced as a measure of rustic justice, the idea being that every workman should be able to obtain compensation without legal assistance or with the minimum assistance. Parliamentary draughtsmen have wrought havoc with this idea, and probably no one would like to advise anyone what is the exact amount of compensation he is entitled to under the above provisions. If this is an example of legislation on rustic principles it is small wonder that a movement is on foot to throw open a University education to all classes, and even then we imagine many University men would prefer any examination paper to having to determine what is the amount of compensation due to an injured workman. Returning to this section of the Act, we may note that subsection (4) repeals the proviso (*b*) to paragraph (1) of the First Schedule of the principal Act which relates to workmen under 21 years of age. But in section 24 subsection (6) in the case of a review of weekly payments, the proviso to paragraph 16 of the First Schedule proviso 1 has been amended, and the proviso now reads:—"Provided that where a workman was at the date of the accident under 21 years of age and the review takes place more than 6 months after the accident and before the workman attains the age of 21 years the amount of the weekly payment may be increased to such an amount as would have been awarded if the workman had at the time of the accident been earning the weekly sum which would probably have been earning at the date of the review if he had remained uninjured."

Waiting Period.

Section 5 provides that compensation shall be payable if the injury disables the workman more than three days from earning full wages at the work at which he was employed, but that it shall not be payable in respect of the first three days on which he is so disabled unless the incapacity lasts for four weeks or upwards.

Certified Schemes.

Section 6 merely provides that if it appears to the Registrar of Friendly Societies that a certified scheme under section 3 subsection 1 of the principal Act no longer complies with the requirements of that section by reason of the foregoing provisions of this Act, it can be amended so as to make it not less favourable to the workman than the corresponding scales contained in the principal Act as amended by this Act. Section 17 contains a provision relating to the conditions on which schemes shall be received.

Accidents and Regulations.

Section 7 is a most important section. It provides that "for the purposes of the principal Act, an accident resulting in the death or serious and permanent disablement of a workman shall be deemed to arise out of and in the course of his employment, notwithstanding that the workman was, at the time when the accident happened, acting in contravention of any statutory or other regulation applicable to his employment, or of any orders given by or on behalf of his employer, or that he was acting without instructions from his employer, if such act was done by the workman for the purposes of and in connection with his employer's trade or business."

This is a very serious alteration in the law, and as we pointed out in our former article when the measure was a Bill (June 8), it will tend to discourage employers from issuing instructions intended solely to secure the safety of their workmen. It will be remembered that under section 1 subsection (2) (*c*) of the principal Act, the law was altered from what it was in the Act of 1897, as regards serious and wilful misconduct, by providing that when the accident results in "death or serious and permanent disablement" wilful misconduct is no qualification to the receipt of compensation. Of late years it has been held that the defence of serious and wilful misconduct can only apply where a man has been acting within the scope of his employment. (See our note to Bourton *v.* Beauchamp, June 25, 1920, and to Moore *v.* Donelly, May 27, 1921, both cases in the House of Lords), but where men have acted in contravention of statutory or other orders they have been held to have acted outside the scope of their employment, that is to say, the accident has been held not to have arisen "out of and in the course of their employment." The above cases and two others which we referred to in our issue of April 14, 1922, illustrate this.

This new section will have the effect of overriding those decisions so long as the man can be shown to have acted "for the purposes of and in connection with his employer's trade or business," and as a narrow construction is put upon the terms "serious and wilful misconduct" under the Act, it is difficult to see what check, if any, will exist so far as compensation is concerned in a workman acting exactly as he feels inclined to. This relaxation of the principle may have indirectly a very serious influence in increasing the risks of those engaged with their fellow workmen, and although undoubtedly there have been some hard cases to the in

nal it may be doubted whether it is a wise to countenance a disregard of statutory ther orders. The differentiation of the to compensation according to whether f the workman have serious consequences to the individual, as has been done in the f wilful misconduct and now is extended done contrary to regulations or orders, e based upon no principle, for at the time et of disobedience is committed the in- nal can have no idea of what the conse- es may be; but it is certainly less objection- where a man is furthering his employer's sts than where he is acting with wilful nduct.

Fishermen.

tion 8 amends the law contained in n 7 of the principal Act, as to crews of g vessels remunerated wholly or mainly hares.

Workmen.

tion 9 extends the definition of "work- " The expression is to include (*a*) persons g for hire with any vehicle or vessel, which tained from the owner under a contract ailment. other than a hire and purchase ment, the owner being for the purposes he Act then deemed to be an employer; rtain persons employed casually for games creation by clubs, in such cases the manager embers of the managing committee being "employer"; and (*c*) persons, not being ers, seamen or apprentices to the sea ce employed on ships mentioned in section 7 he principal Act, if so employed for the oses of the ship or any passengers or mails ey otherwise comply with the definition of rkman." A comma after the word ster" would make the section clearer, as ed in the Act.

Procedure.

ction 10 subsection (1) requires "under lty" notices to be posted up in a prescribed of the requirements of the Acts as to giving e of accidents and the making of claims the procedure to be adopted in the case of trial diseases.

bsection (2) deals with notices of accident ifying section 2 of the principal Act, to ollowing extent:—Want of, or any defect accuracy in, a notice of accident shall not bar to proceedings, if the employer is ed to have had knowledge of the accident any source at or about the time of the ent; or, where the employer is the owner mine or quarry, or the occupier of a factory orkshop (*a*) if such summary as above tioned in subsection (1) has not been posted (*b*) if the accident has been reported by or ehalf of the employer to an inspector of s or factories; (*c*) if the accident has been ed in any register of accidents kept by or ehalf of the employer at the mine, quarry, ry or workshop; (*d*) if the injury has been ed in an ambulance room at the above es.

subsection (3) notice of accident for the ose of section 2 of the principal Act, may iven either in writing or orally to the loyer or to any foreman or other official r whose supervision the workman is loyed, or to any person designated for the ose by the employer.

nd by subsection (4) in every mine, quarry, ry, or workshop a book in a prescribed shall be kept in which the prescribed iculars of accidents may be entered by the red workman, or some other person acting his behalf, and an entry in such book, if e as soon as practicable after the happening e accident, shall be sufficient notice of the lent for the purposes of the said section.

bsection (5) provides that the fact that a man has not given notice of an accident case where the necessity of giving such a e is dispensed with shall not deprive the loyer of his right under paragraph (4) of First Schedule of the principal Act to ire the injured workman to submit himself edical examination.

bsection (6) provides that for the purposes his section the expression "factory or workshop" includes any premises or works to which any of the provisions of the Factory and Workshops Acts, 1901 to 1920, apply, and the expression "prescribed" means prescribed by the Secretary of State.

It must here be pointed out that by section 30, sections 2 to 10, and any amendments in any scheme made in pursuance thereof do not apply to accidents happening before the commencement of this Act.

Section 11 contains some new provisions as to medical referees, but our space does not permit us to consider them here.

Agreements for Lump Sums.

Section 12 relates to recording agreements for lump sums, and this is very important since the decision of the House of Lords in the case of Russell *v.* Rudd, to which we called attention in our Legal Section, April 27, 1923. (See also section 21 below.) In that case it was decided that an agreement for the redemption of weekly payments by a lump sum can be registered although before that the amount of the weekly payment had not been ascertained by arbitration or agreement. This makes it very essential that agreements for lump sums should be carefully scrutinised, and this section now provides that where a memorandum of an agreement for the payment of a lump sum is, under the principal Act, sent for registration, the registrar, or if in pursuance of the principal Act, or this Act, the matter is referred to the judge, the judge shall have power, in accordance with rules of court (*a*) to require either party to furnish him either orally or in writing with such information as he may consider necessary, or to require the attendance of any parties to the agreement before him, and if the information appears insufficient, or conflicting, to require a report as to the workman's condition to be obtained from a medical referee. On failure on the part of either of the parties to comply with any requirement of the registrar under this subsection the registrar may refuse to record the memorandum and refer the matter to the judge, who shall have power to make such an order as he may think just. Where it appears from such report of the medical referee that the prospects of the workman's recovery from incapacity cannot as yet be approximately determined the registrar, or, on appeal, the judge, may refuse to record the memorandum.

There are provisions in this section that any such agreement shall disclose the amount, if any, paid or payable under, or in respect of, the agreement by the employer to the solicitor of the workman as costs, and power is given to the registrar to tax such costs; and there is also a very unusual provision enabling the approved society or committee by which sickness or disablement benefit, under the National Insurance Act, 1911, and the Acts amending that Act, payable to the workman is administered, to send to the registrar objections to the registration of any such agreement, and if attendance of any of the parties is required then the society or committee may also appear.

Section 13 enables an employer to agree that he is liable to pay compensation to a workman who claims to be suffering from an industrial disease without requiring the workman to obtain a certificate from the certifying surgeon, and a memorandum recording the agreement can be registered under paragraph (9) of the second Schedule of the principal Act.

Restrictions on Ending or Diminishing Payments.

Section 14 is extremely important as it introduces a change in the right of the employer to end or diminish weekly payments. Under paragraph 16 of the first Schedule of the principal Act, a weekly payment may be reviewed at the request either of the employer or of the workman, and on such review it may be either diminished or increased, and practically the only restriction has been that some change of circumstances must be shown to have taken place since the weekly payments were awarded.

Section 14 restricts the right of the employer as follows: "An employer shall not be entitled, otherwise than in pursuance of an agreement or arbitration, to end or diminish a weekly payment under the principal Act, except in the following cases (*a*) where a workman in receipt of weekly payments in respect of total incapacity has actually returned to work; (*b*) where the weekly earnings of a workman in receipt of a weekly payment in respect of partial incapacity have actually been increased; (*c*) where the medical practitioner who has examined the workman under paragraph 14 of the First Schedule of the principal Act, has certified that the workman has wholly or partially recovered, or that the incapacity is no longer due in whole or in part to the accident, and a copy of the certificate, together with notice of the intention of the employer at the end of ten clear days from the date of service of the notice to end or diminish the weekly payment by such amount as is stated in the notice, has been served by the employer upon the workman."

In this last-mentioned case, if within the ten days the workman sends to the employer the report of a duly qualified practitioner disagreeing with the certificate so served, the weekly payment shall not be ended or diminished except in accordance with such report, or if and so far as the employer disputes such report, except in accordance with the certificate of a medical referee in pursuance of paragraph 15 of the said Schedule as amended by this Act, then where an application has been made for such a reference under par. (15) there is a provision enabling payments to be made into court pending the settlement of the dispute.

The final sub-paragraph to this section is very precise, that "Nothing in this section shall be construed as authorising an employer to end or diminish a weekly payment in any case in which or to an extent to which, apart from this section, he would not be entitled to do so."

The words at the commencement of this section, "otherwise than in pursuance of an agreement or arbitration," appear to show that the practice as to review remains unaltered, but that except in the specified cases the weekly payments cannot be stopped or diminished *ipso facto* by the employer.

But in connection with this last section, section 15 has also to be considered, for it provides that "A weekly payment payable in respect of an injury happening after the commencement of this Act" (that is, January 1, 1924), "may, at any time after six months from the date of the accident, be reviewed, either at the request of the workman or of the employer, if it is claimed that had the workman remained uninjured and continued in the same class of employment as that in which he was employed at the date of the accident, the average weekly earnings of the workman during the twelve months immediately preceding the review, would, as the result of fluctuations in rates of remuneration have been greater or less by more than 20 per cent. than the average weekly earnings of the workman during the twelve months previous to the accident (or if the weekly payment has been previously varied on a review under this section during the twelve months previous to that review or the last of such reviews), and where such a claim as aforesaid is proved, the weekly payment shall be varied so as to make it such as it would have been if the rates of remuneration obtaining during the twelve months previous to the review had obtained during the twelve months previous to the accident." This section was not in the Bill.

The following section 16 is also new. It provides that if a workman who has so far recovered as to be fit for employment of a certain kind proves to the satisfaction of the judge of the county court (not, be it noticed, to the satisfaction of an arbitrator), that he has taken all reasonable steps to obtain and has failed to obtain such employment, and that his failure to obtain such employment is a consequence wholly or mainly of the injury, the judge shall order that his incapacity shall for the purposes of the principal Act continue to be treated as total incapacity for such period, and subject to such conditions as may be provided by the order without prejudice however to the right of review conferred by paragraph 16 of the First Schedule of the principal Act, but it is provided that

every such order shall be made subject to the condition that it shall cease to be in force if the workman receives unemployment benefit.

Right of Appeal.

Section 18 makes good an omission in the Bill which we deplored in our notice of the Bill (June 8), and embodies a recommendation contained in the Labour Party's Bill. In the case, Harrison *v.* Wythemore Colliery Co. (1922, 2 K.B. 674; *The Builder*, March 30, 1922), it was held by the Court of Appeal under section 1, sub-section (4) of the principal Act, that if in an action brought independently of the Act, to recover damages, the workman, on the failure of that action, exercised his option to have compensation assessed, the exercise of that option put an end to the action, and no appeal could be brought against the decision in the action. The section remodels section 1, sub-section (4) of the principal Act and is intended to give an appeal in such cases, and the option can be exercised either in the court below or in the appellate court. Our space does not permit us to mention in detail all the sections, so we pass over section 19, which introduces some amendments into section 5 of the principal Act, where bankruptcy of employers is the subject, and section 20 which relates to the detention of ships, and this brings us to another section not in the original Bill, section 21.

Registration of Agreements Compromising Claims.

In the case Russell *v.* Rudd in the House of Lords, which we noted April 27, 1923, very difficult questions were raised in connection with an agreement to pay a lump sum compromising any further claim after weekly payments had been made to a workman voluntarily without any proceedings and without formal agreement.

Section 21 seems directed to dealing with some of the questions raised in that case. It provides that where after the commencement of this Act, the person against whom a claim for compensation is made disputes his liability but makes an agreement "whereby in consideration of the payment of a lump sum the claim for such compensation purports to be precluded" the agreement shall be sent for registration as in the case of an agreement for the redemption of weekly payment by a lump sum, and the employer shall not be exempt from liability until the agreement is registered. In considering whether the lump sum is adequate the registrar or the judge shall have regard to the question whether or not liability to pay compensation under the principal Act is doubtful.

Partial Dependency.

Section 22 provides that for the purposes of the principal Act, a person shall not be deemed to be a partial dependant of another person unless he was dependent partially on contributions from that person for the provision of the ordinary necessities of life suitable for persons in his class and position.

Poor Law Relief.

Section 23 contains provisions where an authority has paid out-door relief to a person pending a settlement of his claim to compensation enabling the authority to claim the sums so paid or part of them from the employer. This section it appears to us is not well drawn, and difficulties may arise between the employer and the authority, both as to the question of the liability to the claim for compensation, and the amount due to the authority.

The above is only a brief and incomplete summary of the main provisions of this very complicated Act, and it will be seen that far from simplifying the law it rather complicates it, for apart from the drafting of the Act, it alters the law as contained in some decided cases, and litigation will result in determining to what extent the case law is modified. We cannot but think that the legislature would have a little simplified matters if the principle adopted in the Labour Party's Bill had been followed, of codifying the law in one Statute, as that would have enabled the effect of the amendments more readily to be ascertained.

THE LATE F. J. DOVE.

MR. FREDERICK JOHN DOVE, of Messrs. Dove Brothers, Islington, who passed away on the 18th inst., at the ripe age of 93, was the doyen of the London building trade, and came of a long line of builders. He was born in Islington and well remembered the mail coaches passing along Liverpool-road *en route* from St. Martin's-le-Grand to the north, and open fields interspersed with a few scattered blocks of houses such as Highbury-terrace, Stoke Newington Green, etc., extending from the City-road northwards.

He was educated at the private school of Darnel, a well-known pedagogue of 90 years ago, which had a profound belief in the efficiency of the rod. At a very early age Mr. Dove developed a great ability for drawing and mathematics. After leaving school, and whilst learning the practical side of the trade during the daytime, he attended in the evenings the old School of Design in Somerset House, subsequently for some time studying architecture in the office of Mr. Alex. D. Gough. In the early fifties of the last century he joined his brothers in carrying on the business founded by his father, the late William Spencer Dove.

Very early in his career he took a very keen interest in all matters appertaining to the welfare and organisation of the industry, and was the last survivor of the original founders of the London Master Builders' Association. He was associated with most of the difficulties which occurred in the trade from fifty to twenty years ago, and exercised a powerful influence in moderating the acrimony of the disputes, the workmen and his colleagues regarding his judgment as sound and equitable.

He was for three years (1882 to 1885) President of the L.M.B.A., a member of the old Builders' Society, out of which the L of Builders was formed, and President latter body in 1893, a Trustee and Pr in 1879 of the Builders' Benevolent tion, a Trustee and Treasurer of th vident Institute of Builders' Foreme Clerks of Works, and one of the fo and Vice-President of the Builders' dent Insurance Company, and until years ago an active member of the Bo Directors. He was on the Court and Master of the Tylers' and Bricklayers' pany, Treasurer of the Islington Dispe and a Vice-President of the Orphan W School, in both of which institutions h a very keen interest.

He took an active part in the busin which he was the chief partner until af eightieth year. The majority of the ch built and restored by the firm, totalling hundreds, were carried out under his vision, the building of which he wa ticularly proud being the Priory Church Bartholomew's, Smithfield, the restorat which has been spread over some fifty Other works with which he was intir associated were the foundations of the Courts: St. Mary Abbots Church, Ke ton; the Law Courts Branch of the Ba England; the Wesleyan Central Hall; minster; numerous commercial buildin the City, and country mansions. He m in 1854 Marian Ann, the second daugh Mr. Lionel Prime, builder, of Islington had four sons, the eldest of whom is m ing director of the company, two of his g sons being also in the business.

The interment took place on Saturda in the Old Cemetery, Highgate, after a vice in the Church of St. Mary's, Ho Rise, of which church Mr. Dove was for time warden.



The late Mr. F. J. Dove.

EXPANSION OF BUILDING AND CONSTRUCTION IN INDIA.

LOCAL SELLING RATES.—These may prove interesting to tenderers. Local official orders have been recently filled by contractors as follows:—At Calcutta: 1,000 ft. 5 in. W.I. water pipes, Rs.2,437½; 2,000 ft. 2½ in. ditto, Rs.2,000; apparatus for testing various vacuum brake gear, Rs.7,300; two platform weighing machines, 1 ton capacity, 3 ft. by 3 ft., without track rails, total Rs.1,300; 16 steelyards, weighing 1 to 300 lbs., total Rs.1,360; 315 rolls milled sheet lead, 6 lbs. to square ft. in rolls 30 ft. by 15 in., total Rs.13,504; 1,590 plain galvanised sheets, iron, 8 ft. by 4 ft. by 22 B.W.G., total Rs.10,877. At Delhi: 2,808 ft. 6 in. W.I. water pipes, Rs.6,687; 8,000 ft. 2½ in. ditto, Rs.7,524; one 10 h.p. motor and central gear, Rs.1,775. At Bombay: one petrol gas generating plant, Rs.6,356; four 24 in. gauge locomotives, total Rs.64,800; one 5-ton portable crane, Rs.5,500. At Karachi: 20 tons galvanised iron corrugated sheets, 26 B.W.G., Rs.8,100; 2 sets No. 3 concrete mixers, complete with motors and spares, Rs.124,380, &c.

INDIAN MADE GOODS.—It is pointed out that industries newly started in India cannot in the initial stage compete against established industries in Britain. Recently a tender was put out, and 44 tenders were received from India, England, Belgium, America, Canada, France, and Holland. The lowest Indian tender was 9 per cent. higher than the lowest English tender, even with the addition of c.i.f. charges and Customs duty. The order, valued at many thousands of pounds, was sent to England.

INDIAN PROJECTS.—The Chief Commissioner, Delhi Province, invites offers for the perpetual leasehold of two hotel sites on Queensway, in the new capital area at Delhi. Size and type of hotels to be erected and date ready to open to be stated.

PHARENDA NAUTANWA EXTENSION.—Construction of a railway on the metre gauge from Pharenda station, 25 to 26 miles, *via* Lachmipur and Naikot to Nautanwa, as an integral part of the Bengal & North-Western Railway.

The project of establishing a port on the Orissa coast is receiving attention.

ROAD MAKING.

ON December 14 Col. C. H. Bressey gave a further lecture on this subject at the College of State Management.

The lecturer dealt with the most modern methods of road construction now being used on arterial roads, including tar macadam, pitch grouted macadam, rock asphalte, asphaltic macadam and concrete.

Tar macadam, he said, was particularly valuable where only a low grade stone was obtainable. Slag had a special affinity for tar and made an excellent material, whereas without tar it would be very inferior. The method of pitch grouting introduced by Mr. Brodie was more dependent upon weather conditions than tar macadam.

Rock asphalte was the best, but most expensive, surfacing material, and was only suitable where there was a large volume of traffic, as, unless it was kept well used, it deteriorated. To get the same result at less cost asphaltic macadam, of broken limestone or clinker between, was now being used.

The use of concrete as a surface material allowed of a wide range of road materials, and whereas good road stone was not easily obtainable in the south-east of England, there were few districts in the country where a stone or gravel suitable for concrete was not obtainable at a reasonable cost. To get a satisfactory result bare sufficiency of water should be used, the materials mixed by machinery, and placed in position as quickly as possible, and kept moist for at least fourteen days. This sufficiency was more suitable for new roads than for old, as traffic must be kept off for three weeks or more after the concrete was placed in position.

Samples of various reinforcements were exhibited and the method of laying them described.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brentwood	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Colchester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
E. Glam. (Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Great Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Norwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Helens	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	0/11½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2

(For rates of wages in the Building Trade in Scotland, see page 1014.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

DECEMBER 28.—**Eastbourne.**—CHIMNEY.—Erection of a brick chimney (60 ft. high) at the Eastbourne Union, 123, Church-street, Eastbourne, for the Guardians. Mr. Fredk. G. Cooke, Assoc.M.Inst.C.E., M.S.A. architect, 2, Hyde Gardens, Eastbourne. Deposit £1 1s.

DECEMBER 28.—**London, N.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Palmer's Green, London, N., for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

DECEMBER 28.—**Manchester.**—SORTING OFFICE AND TELEPHONE EXCHANGE.—Erection of a sorting office and telephone exchange at Openshaw, Manchester, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

DECEMBER 28.—**Newport (Mon).**—VARIOUS WORKS.—For erecting, for the B.C. Parks Committee, a tennis pavilion, public shelter and public convenience at Crindau Park, Newport. Borough Engineer, Municipal Chambers, Corn-street, Newport. Deposit £1 1s.

DECEMBER 28.—**Southampton.**—HOSTEL, &C.—Contract No. 1: The erection of a hostel for 45 students (deposit £5 5s.); (2) For the construction of ferro-concrete floors, stairs and flat roofs to the hostel, "Coignet" system (deposit £2 2s.), for the County Borough of Southampton. Mr. A. L. Roberts, County Architect, The Castle, Winchester. Cheques to be made payable and crossed "Lloyds Bank, Ltd. (Capital and Counties Branch), Winchester."

DECEMBER 29.—**Bradford.**—HOUSES.—Housing Scheme No. 12, Lower Grange, Thornton-road, erection of 20 houses, Class "A"; two houses, Class "B." (1) Contractors may tender for separate trades, or for the whole of the works in all trades complete; (2) the tenders shall be based upon fixed prices for labour and materials, for the City of Bradford. Office of the City Architect; Town Hall, Bradford.

DECEMBER 29.—**Ennis.**—REBUILDING.—For the partial restoration of Ennis Civic Guard Barrack, co. Clare. Mr. J. J. Healy, Secretary, Office of Public Works, Dublin. Deposit £1.

DECEMBER 29.—**Harrogate.**—SHED.—Erection of store shed, for the T.C. Mr. C. E. Rivers, Borough Surveyor, Harrogate.

DECEMBER 29.—**Salford.**—ADDITIONS.—For additions to Union Infirmary, Pendleton, for the Board of Guardians. Mr. E. H. Inchley, Clerk, Offices, Eccles New-road, Salford. Deposit £2 2s.

DECEMBER 31.—**Liverpool.**—CHAPEL.—Erection of new Chapel, Earlsfield-road. Mr. Owen Owens, 362, Smithdown-road, Liverpool.

DECEMBER 31.—**Monmouthshire.**—BUILDING AND DRAINAGE.—For the following works, for the Monmouthshire Agricultural Committee:—(1) Erection of a set of farm buildings on holding No. 9, at Great House Farm, Caerwent; (2) general repairs and new drainage at Broadwell Farm, Mathern, near Chepstow. Mr. A. Every-Clayton, County Land Agent, 2, Gold Tops, Newport (Mon).

DECEMBER 31.—**Nottingham.**—GARAGE.—For enclosing the stable yard for a garage at Bagthorpe Institution, for the B.G. Messrs. Ernest R. Sutton & Son, architects, Albion Chambers, King-street, Nottingham.

DECEMBER 31.—**Oldbury.**—HOUSES.—Erection of 20 houses in Queen's-road, Londonderry, for U.D.C. Mr. R. Fletcher, Surveyor, Public Buildings, Oldbury. Deposit £2 2s.

DECEMBER 31.—**Owenbeg, co. Sligo.**—EXTENSION.—For extension of Owenbeg National School, co. Sligo, for Commissioners of Public Works. Very Rev. M. J. Canon Tully, P.P., Easkey, co. Sligo.

DECEMBER 31.—**Pontefract.**—HOUSES.—Erection of 24 houses at Willow Park and 10 at Wakefield-road, for the T.C. Mr. J. E. Pickard, Borough Surveyor, Pontefract. Deposit £2 2s.

DECEMBER 31.—**Rhymney.**—CONVERSION.—For carrying out, for the Monmouthshire Education Committee, the alterations necessary to "The Lawns," Rhymney, to convert same into a central school. Hours and wages conditions in contract. Mr. John Bain, Architect, County Hall, Newport (Mon).

DECEMBER 31.—**Upton Cross.**—PAINTING, &C.—For renovation of the Wesleyan Chapel. Mr. T. Shovel, Upton Cross.

DECEMBER 31.—**Brentford.**—COTTAGE, &C.—For erection of caretaker's cottage and coach-house, at the Isolation Hospital, for the U.D.C. Mr. J. W. Westlake, Surveyor, Council House, Brentford.

JANUARY 1.—**Barnet.**—HOUSES.—Erection of 23 houses at a net inclusive cost of £350 or thereabouts, for the Barnet U.D.C. Contractors can submit their own designs and specifications, or they can quote on the scheme prepared by the Council. Engineer and Surveyor, Council Offices, Wood-street, Barnet.

JANUARY 1.—**Cardiff.**—ALTERATIONS.—For alterations at 2, Neville-street, for Cardiff Board of Guardians. Messrs. Willmott & Smith, 4, Park-place, Cardiff. Deposit £2 2s.

JANUARY 1.—**Newtown.**—BUILDER'S WORK.—For execution of builder's work required in connection with heating installation, &c., at the Workhouse, for the Board of Guardians. Messrs. Davies & Hill, architects, Newtown.

JANUARY 1.—**Ryde, I. of W.**—PAVILION.—Erection of a pavilion in the Esplanade Gardens, Ryde, I. of W., for the B.C. of Ryde. Messrs. Vincent & West, 20, Portland-street, Southampton. Deposit £2 2s.

JANUARY 1.—**Thornton Rust.**—HOUSE.—Erection of a detached house, Thornton Rust, near Aysgarth, for Dr. J. Hutchinson Wood. Mr. P. J. Lucas, architect, 8, King William-street, Strand, W.C. 2.

JANUARY 1.—**Tonbridge.**—HOUSES.—Erection of two or six pairs of houses, for the U.D.C. Mr. W. L. Bradley, surveyor, Tonbridge Castle. Deposit £1 1s.

JANUARY 1.—**Watford.**—COTTAGE.—Erection of cottage on the Radlett Outfall site, Oakridge-lane, in parish of St. Stephen, for R.D.C. Surveyor, 9, Market-place, Watford. Deposit £2.

JANUARY 1.—**York.**—HOUSES.—Erection of 86 houses of the non-parlour type in blocks as follows:—One block of 2, one block of 5, 16 blocks of 4, and five blocks of 3, at their Heworth Housing Estate, York, for the Housing Committee of the York Corporation. Mr. F. W. Spurr, Architect, Guildhall, York. Deposit £2 2s.

JANUARY 2.—**Aberfeldy.**—HOUSES.—Erection of block of four apartment houses and block of two four-apartment houses, for the T.C. Town Clerk, Aberfeldy.

JANUARY 2.—**London E. and Essex.**—STEEL-FRAMED BALCONY AND REPAIRS AND PAINTING.—(1) Erection of steel-framed balcony and verandah at High Wood Hospital for Children, Ongar-road, Brentwood, Essex. (2) Repairs and painting to the Laundry at the Eastern Fever Hospital, The Grove, Homerton, E.9, for the Metropolitan Asylums Board. Office of the Board Victoria Embankment, E.C.4. Deposit £1.

JANUARY 2.—**London, S.W.6.**—CLEANING, PAINTING AND REPAIRS.—Cleaning, painting and repairs: (1) Western Ambulance-Station, Seagrave-road, Fulham, S.W.6; (2) South Western Ambulance Station, Landor-road, Fulham, S.W.6; (3) Mead Works, Carnwath-road, Fulham, S.W.6., for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1 in respect of each work.

JANUARY 2.—**London, S.W.6.**—LINING BUILDING AND CONCRETING.—Work required to be done in lining an existing steel-framed building to form dust-proof cubicles and an external concrete heating pit, at the Mead Works, Carnwath-road, Fulham, S.W. 6, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

JANUARY 2.—**Ossett.**—PAINTING.—For painting 13 houses Northfield-avenue, 14 houses Wilson's-avenue, and 22 houses Manor-road and Teal-street, for T.C. Mr. H. Holmes, Borough Surveyor, Town Hall, Ossett.

JANUARY 2.—**Widnes.**—HOUSES.—For erection of 20 houses, in Lower House-lane, for the T.C. Borough Surveyor, Town Hall, Widnes. Deposit £2 2s.

JANUARY 3.—**Bristol.**—COUNCIL SCHOOL.—For erection of Council School, at Shirehampton, for the T.C. Mr. A. E. Oaten, architect, Phœnix Chambers, 22, Clare-street, Bristol. Deposit £2 2s.

JANUARY 3.—**Omagh.**—HOUSES.—Erection of pairs of semi-detached dwellings, for the U.D.C. J. P. McGrath, architect. Londonderry.

JANUARY 3.—**Southend-on-Sea.**—WALL.—Erec of boundary wall, about 500 ft. in length, at Sut road Cemetery, for the T.C. Mr. R. H. Dyer, Boro Engineer, Municipal Buildings, Southend-on- Deposit £1.

JANUARY 4.—**Porth, South Wales.**—POST OFFIC Erection of a post office at Porth, South Wales, for Commissioners of H.M. Office of Works. Contr Branch, H.M. Office of Works, King Charles-str London, S.W. 1. Deposit £1 1s.

JANUARY 4.—**Stafford.**—HOUSES.—For erection 20 houses in Backwalls North and South, for T.C. W. Plant, Borough Engineer, Borough Hall, Staff Deposit £2 2s.

JANUARY 5.—**Ripley, Derbyshire.**—ALMSHOU —Erection and completion of six almshouses, Greenwich, Ripley, for the Ripley U.D.C. Mr. G. Bird, Town Hall, Ripley, Derbyshire. Deposit 10

JANUARY 8.—**Huddersfield.**—EXTENSIONS.—For tensions to Royd's Hall Secondary School, for T.C. Borough Architect, 26, Ramsden-street, H dersfield. Deposit £1.

JANUARY 8.—**Windermere.**—COTTAGE.—Erection a cottage, wash-house and garage, at Ghyll He Windermere, for Mr. Percy Musgrave. Messrs. J. Grundy & Son, architects, Central Buildings, Ulverst

JANUARY 8.—**Redcar.**—PAVILION.—Erection of pavilion on the foreshore capable of seating 1, persons, for the T.C. Borough Engineer, Redc Deposit £1.

JANUARY 9.—**London.**—DWELLINGS.—For the er tion of a block of dwellings on the Tabard Gar Estate, Southwark, for the L.C.C. Architect, County Hall, Westminster Bridge, S.E. 1. Deposit

JANUARY 9.—**Southport.**—CONVENIENCES.—C struction of underground conveniences in Lord-str for the T.C. Mr. A. E. Jackson, Borough Engine Southport. Deposit £2 2s.

JANUARY 9.—**Tynemouth.**—SCHOOL.—T Education Committee are inviting tenders for t erection of a new elementary open-air school Lovaine-gardens, North Shields, to accommodate children; and also, by the same date, tenders a new elementary school at Spring-gardens, No Shields, providing accommodation for 845 children

JANUARY 10.—**Manchester.**—FLOORS.—For red te cotta and for hollow tile floors required in connect with the extension of the Nurses' Home at Booth H Infirmary, for the Board of Guardians. Mr. F. Overmann, architect, 5, Cavendish-street, All Sain Manchester.

JANUARY 11.—**Catforth.**—ADDITIONS.—Erection additions to Village Hall, Catforth. Mr. W. D Stand architect, "Oak Dene," Catforth, near Preston.

JANUARY 11.—**New Malden, Surrey.**—TELEPHO EXCHANGE.—Erection of a telephone exchange at N Malden, Surrey, for the Commissioners of His Majest Office of Works. Contracts Branch, H.M.O.W., Ki Charles-street, London, S.W.1. Deposit £1 1s

JANUARY 12.—**Dewsbury.**—ALTERATIONS.— alteration of Moorlands Hall, for the T.C. Boro Surveyor, Town Hall, Dewsbury.

JANUARY 15.—**Gateshead.**—TELEPHONE E CHANGE.—Erection of a telephone exchange at Gat head, for the Commissioners of His Majesty's Office Works. Contracts Branch, H.M.O.W., King Charl street, London, S.W.1. Deposit £1 1s. (payable to t Secretary).

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-Masons' layers' Labourers.	Plas- terers'
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/-	
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2	
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 1013.

*JANUARY 15.—**Newport, Mon.**—TELEPHONE REPEATER STATION.—Erection of a telephone repeater station at Newport, Mon, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

JANUARY 15.—**West Bromwich.**—HOUSES.—Erection of 47 houses on Tantany Estate, for T.C. Mr. A. Nickham, Town Clerk, Town Hall, West Bromwich. Deposit £2 2s.

JANUARY 17.—**Salford.**—HOUSES AND FLATS.—Erection of 62 houses and flats on the Weaste Housing Estate, for the T.C. Mr. G. Westcott, architect, 13, Bridge-street, Manchester.

JANUARY 21.—**Reigate.**—NEW LAUNDRY AND EXTENSION OF BOILER HOUSE.—Erection of a new laundry and extension of the boiler house at the Guardians' Institution, Earlswood, for the Reigate B.G. Mr. O. J. Porter, F.S.I., 45, Bedford-row, W.C. 1. Deposit £2 2s.

JANUARY 29.—**Ebbw Vale, Mon.**—STATION BUILDINGS.—For erection of station buildings at Ebbw Vale, Mon, for Great Western Railway Co. Engineer, Newport Station.

JANUARY 31.—**Hemel Hempstead.**—COTTAGES.—Erection of 24 cottages (in sections of 12), for the Borough of Hemel Hempstead. Mr. Walter R. Locke, Borough Engineer and Surveyor, Market-square, Hemel Hempstead. Deposit £1.

FEBRUARY 2.—**London, S.E. 18.**—EXTENSION.—Proposed extension of premises, for the Committee of the Woolwich Catholic Club. The Secretary, Woolwich Catholic Club, 28–30, New-road, Woolwich, S.E. 18.

NO DATE.—**Panteg (Mon).**—HOUSES, &C.—For carrying out, for the Panteg U.D.C., the following works: (1) Erection of twenty houses, at Griffithstown: (2) erection of ten houses at New Inn; (3) street works at Griffithstown. Surveyor to the U.D.C., Pontymoel (Mon).

FURNITURE, MATERIALS, etc.

DECEMBER 29.—**Winchester.**—TAR.—Supply of tar for use on roads to the Southampton C.C. Mr. W. J. Taylor, County Surveyor, The Castle, Winchester.

DECEMBER 31.—**Derby.**—MATERIALS.—Supply to the C.C. of tarmacadam, granite and basalt, iron furnace slag, limestone, bitumen, and other surface dressing material. Mr. J. W. Horton, County Surveyor, St. Mary's-gate, Derby.

DECEMBER 31.—**Gloucester.**—MATERIALS.—Supply to the Gloucestershire C.C. of materials for road repairs. County Surveyor, Shire Hall, Gloucester.

DECEMBER 31.—**Middleton.**—MATERIALS.—Supply of road materials, cement, bricks, &c., to the T.C. for six months. Borough Surveyor, Town Hall, Middleton.

DECEMBER 31.—**Reading.**—MATERIALS.—Supply of broken road materials, gravel, and sand for twelve months, for Berkshire C.C. County Surveyor, Shire Hall, Reading.

JANUARY 1.—**Islington.**—WOOD BLOCKS.—Supply of 42,000 creosoted yellow deal paving blocks to the B.C. Borough Engineer, Islington.

JANUARY 1.—**Norwich.**—ROAD MATERIALS.—Supply to the Norfolk C.C. of tar and bituminous materials, tarred slag macadam, and granite. Mr. S. H. Warren, County Surveyor, Shirehouse, Norwich.

JANUARY 1.—**Wellingborough.**—ROAD MATERIALS.—Supply of slag, tarred macadam, tar, and granite chippings, to R.D.C. Mr. H. G. Cordon, Surveyor, Commercial-place, Wellingborough.

JANUARY 2.—**London.**—SASH LINE, &C.—For supply of sash line, &c., for Commissioners of H.M. Works. Controller of Supplies, H.M. Office of Works, King Charles-street, S.W. 1.

JANUARY 4.—**Romford.**—TAR.—For supply of 40,000 galls. of distilled tar, for U.D.C. Mr. F. G. Beaumont, Surveyor, 73, South-street, Romford, Essex.

JANUARY 5.—**Ipswich.**—MATERIALS.—Supply of road and other materials, to the East Suffolk C.C. Mr. W. Jervis. County Surveyor, County Hall, Ipswich.

JANUARY 5.—**Perth.**—TIMBER.—For hire of timber to be used in erection of Highland and Agricultural Society's Show at Perth, in July. Mr. J. Reid, 55, Blenheim-place, Aberdeen.

JANUARY 5.—**Spilsby.**—GRANITE AND SLAG.—For supply of broken granite, broken slag and slag chippings, for R.D.C. Mr. W. C. Brackenridge, District Surveyor of Highways, Spilsby.

JANUARY 7.—**Egypt.**—PAINTS, &C.—Supply of paints, oils, &c., to the Port and Lighthouses Administration, Egypt. Department of Overseas Trade, 35, Old Queen-street, S.W. Reference 11944 F.E. C6.

JANUARY 7.—**Midhurst.**—ROAD MATERIALS.—For supply of tar macadam, granite, chips, tar, &c., for R.D.C. Mr. A. G. Gibbs, Surveyor, Council Offices, Midhurst.

JANUARY 7.—**Rhondda.**—MATERIALS.—Supply to the U.D.C. of road and other materials. Mr. E. Taylor, Surveyor, Council Offices, Pentre, Rhondda.

JANUARY 7.—**St. Pancras.**—MATERIALS.—Supply of road and other materials, to the Highways, Sewers and Public Works Committee of the B.C. Mr. E. W. Swinstead, Borough Engineer, Town Hall, Pancras-road, N.W.1.

JANUARY 10.—**Worthing.**—ROAD MATERIALS.—Supply of granite chippings, granite dust, broken slag, and tarred slag, for T.C. Borough Surveyor, Municipal Offices, Worthing.

JANUARY 21.—**Egypt.**—STORES.—Supply of stores for one year to the Ports and Lights Administration. Dept. of Overseas Trade, 35, Old Queen-street, S.W. Reference, 12,046–F.E.–G.P.

JANUARY 22.—**Worthing.**—REFINED TAR.—For supply of 50,000 galls. of refined tar, for T.C. Borough Surveyor, Municipal Offices, Worthing.

JANUARY 23.—**Madras.**—PIPES.—Supply of stoneware pipes and specials, ranging from 4 in. to 8 in. diameter, and aggregating a total length of 60,000 lineal ft., for the T.C. Messrs. James Mansergh & Sons, agents, 5, Victoria-street, S.W. Charge 5s.

JANUARY 24.—**Egypt.**—STORES.—Supply of stores for one year to the Dept. of Public Health. Dept. of Overseas Trade, 35, Old Queen-street, S.W. Reference 12,038–F.E.–G.P.

ENGINEERING, IRON AND STEEL.

DECEMBER 29. — **Wellingborough.** — GRITTING MACHINE.—Supply of gritting machine to the R.D.C. Mr. H. G. Cordon, Surveyor, Commercial-place, Wellingborough.

DECEMBER 31.—**Acton.**—HEATING.—For providing hot water radiators for drying firemen's uniforms and executing the necessary work required for heating the engine room at the Fire Brigade Station, for the B.C. Borough Surveyor, Municipal Offices, Acton, W.3.

DECEMBER 31. — **Aldershot.** — STEEL WORK. — Supply of the necessary steel work required for the erection of a gantry, for the T.C. Mr. James Neave, Borough Surveyor, Municipal Buildings, Aldershot.

DECEMBER 31.—**Durham.**—BRIDGES.—Designs and tenders for the supply and erection (optional) of a number of steel girder road bridges, on prepared abutments, for the C.C. Mr. Albert E. Brookes, County Engineer, Shire Hall, Durham. Deposit £2 2s.

DECEMBER 31.—**Finchley.**—METERS.—Supply of meters to the North Middlesex Gas Co., for one year. General Manager, Broadway, Church End, Finchley, N.

DECEMBER 31.—**Gravesend.**—ELECTRIC LIGHTING.—For wiring a number of houses under the wiring scheme of the T.C. Borough Electrical Engineer, Gravesend.

DECEMBER 31.—**Kempton Park.**—ENGINES, &C.—Supply and erection of two reciprocating engines and pumps at Kempton Park Pumping Station, for the Metropolitan Water Board. Chief Engineer's Department, 173, Rosebery-avenue, Clerkenwell, E.C. Deposit £3 3s.

DECEMBER 31.—**London.**—CRANES.—Supply of (*a*) 3-ton travelling crane, and (*b*) 30 cwt. workshop crane, for the Central Car Depot of the L.C.C. Tramway Manager, Victoria Embankment, W.C. Deposit £2.

DECEMBER 31.—**Stourbridge.**—PIPES.—For supply and delivery of 146 tons of 9 in. cast-iron pipes, for Stourbridge and District Water Board. Mr. W. Fiddian, Stourbridge. Deposit £2 2s.

JANUARY 1.—**Georgetown.**—WATERWORKS PLANT.—Supply and erection of a 250 h.p. crude oil engine and centrifugal pumping set, &c., for the T.C. of Georgetown, British Guiana. Messrs. H. H. Humphreys & Sons, 28, Victoria-street, S.W. Deposit £10 10s.

JANUARY 2.—**Dartford.**—HEATING.—For alterations and additions to existing low-pressure hot-water heating apparatus installed in Ward, Blocks Nos. 5 & 7, at Darenth Training Colony, Dartford, Kent, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

JANUARY 2.—**London.**—LIGHTING AND TELEPHONES.—(*a*) For installation of electric lighting at Fever Hospital, Dartford, Kent; (*b*) installation of fire alarm system at South Wharf Smallpox Receiving Station, Trinity-street, Rotherhithe, for Metropolitan Asylums Board. Offices, Victoria-embankment, E.C.4. Deposit £1.

JANUARY 4.—**London.**—HOIST.—Supply to the South Indian Railway Co. of one 40-ton locomotive hoist. Offices, 91, Petty France, S.W. 1. Charge 10s.

JANUARY 4.—**London.**—HYDRAULIC PLANT.—Supply of hydraulic plant to Director-General, India Store Department, Branch No. 12, Belvedere-road, S.E.1.

JANUARY 5.—**Droitwich.**—PIPES.—Supply of 400 lin. yds., more or less, of 3-in. cast-iron British standard coated water pipes and specials, for the T.C. Mr. H. Hulse, Borough Surveyor, 105, Friar-street, Droitwich.

JANUARY 7.—**Bracebridge (Lincoln).**—CENTRAL HEATING.—For supply and provision of system of central heating and hot-water service at the Mental Hospital, for the Committee of Visitors. Mr. E. G. Phillips, Queen's Chambers, King-street, Nottingham. Deposit £10 10s.

JANUARY 7.—**Bristol.**—DOCK.—For construction of Eastern Arm, Royal Edward Dock, Avonmouth, for Docks Committee. Mr. Thomas A. Peace, Chief Engineer, Port of Bristol. Deposit £15.

JANUARY 7.—**Hove.**—CONCRETE SEA WALL, &C.—Constructing a concrete sea wall, incline, steps and other works incidental thereto and in connection therewith in extending the King's Esplanade, for the B.C. of Hove. Borough Surveyor, Mr. H. H. Scott, Town Hall, Hove. Deposit £2 2s.

JANUARY 7. — **London, S.E.** — CONSTRUCTIONAL WORK.—Construction of a roof of steel and glass and of a machinery platform of steel girders and concrete in No. 1 Shaft, Rotherhithe Tunnel, for the L.C.C. Chief Engineer, The Old County Hall, Spring Gardens, S.W. 1. Deposit £3.

JANUARY 7.—**Meathop.**—SLUICE.—Construction of a reinforced concrete tidal sluice on Meathop Marsh, Westmorland, for the Meathop and Witherslack Drainage Board. Mr. E. A. Fulton, Secretary, 14, Finkle-street, Kendal. Deposit £1 1s.

JANUARY 7.—**Smethwick.**—GASHOLDER TANK.—Excavation for and construction of a mass concrete gasholder tank, 187 ft. 6 in. diameter by 37 ft. 6 in. deep, for the T.C. Mr. E. Hardiker, Engineer, Gas Works, Rabone-lane, Smethwick. Deposit £2.

JANUARY 8.—**Birmingham.**—BRIDGES.—For the reconstruction of masonry and steel girder road bridges over the River Tame and the Tame Valley Canal, at Salford Bridge, Erdington, for T.C. Mr. H. H. Humphries, City Surveyor, Council House, Birmingham. Deposit £5.

JANUARY 8.—**Sandgate.**—GROYNE.—Erection of iron and wood groyne on the Sea foreshore, for the U.D.C. Mr. C. Law-Green, Surveyor, Council Offices, Sandgate, Kent.

JANUARY 10.—**Barking.**—ELECTRICAL INSTALLATION.—For complete lighting installation at power station of the County of London Electric Supply Co. Manager, Offices, Moorgate-court, Moorgate-place, E.C. Deposit £5 5s.

JANUARY 10. — **Portsmouth.** — QUAY, &C. — For construction of reinforced concrete quay wall, &c., in connection with widening of Portsmouth Camber. Mr. A. W. Ward, Borough Engineer, Town Hall, Portsmouth. Deposit £3.

JANUARY 15.—**Toronto.**—SLUDGE PUMP.—Supply and erection at main sewage pumping station of centrifugal sludge pump, for the T.C. Dept. of Overseas Trade. 35, Old Queen-street. S.W. Reference 12614/ED/EC/2.

JANUARY 16. — **Glasgow.** — REFUSE DISPOSAL WORKS.—Tenders and designs for proposed refuse disposal works at Govan, Glasgow. Mr. W. Greig, Superintendent of Cleansing, 20, Trongate, Glasgow.

JANUARY 16.—**Stoke-on-Trent.**—CRANE.—Fifty-ton electrically-driven overhead travelling crane. Borough Electrical Engineer, Stoke-on-Trent. Deposit £2.

JANUARY 17.—**New Zealand.**—PIPES, &C.—Supply of 10 in., 12 in., and 21 in. steel pipes and fittings, for the Orongorongo-Karori Water Main. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

JANUARY 19.—**Depwade.**—HEATING, &C.—Supply of steel vertical boiler, horizontal semi-Diesel oil engine, dynamo and motors and accumulators, wiring for power and lighting, supply and fixing apparatus for hot-water heating and domestic hot-water supply, at the Poor Law Institution. Vulcan Boiler & General Insurance Co., Ltd., 67, King-street, Manchester. Deposit £1 1s. each for five sections.

FEBRUARY 5.—**Egypt.**—PUMPING PLANT.—For supply and erection of a pumping plant to replace an existing steam plant at Qussassin. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, S.W.1. Charge 10s.

FEBRUARY 5.—**New Zealand.**—GIRDER SPANS.—Supply of plate girder spans to the Public Works Tender Board, New Zealand, for the Stratford Main Trunk Railway. Department of Overseas Trade, 35, Old Queen-street, S.W. Reference 12569/ED/EC.

FEBRUARY 11.—**Gainsborough.**—PUMPING PLANT.—For engine and pumping plant, for the U.D.C. Mr. S. W. Parker. Waterworks Engineer, Council Offices, Gainsborough. Deposit £2 2s.

FEBRUARY 14.—**Argentine.**—POWER STATION.—For the construction of a central electric power station of 15,000 h.p., for the Argentine State Oilfields Administration. Department of Overseas Trade, 35, Old Queen-street, S.W.

MAY 1. — **China.** — BRIDGE. — The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W. 1. Reference 11647/F.E./E.C. 2.

NO DATE.—**Nottingham.**—BRIDGE.—For the widening of Trent Bridge, for the T.C. Mr. T. Wallis Gordon, City Engineer, Guildhall, Nottingham.

ROAD, SANITARY, AND WATER WORKS.

DECEMBER 28.—**Failsworth.**—SANITARY.—(*a*) For conversion of 18 privies to waterclosets; (*b*) For supply of 18 sets of sanitary fittings for same. Mr. J. W. E. Brown, Town Hall, Failsworth, near Manchester.

DECEMBER 29.—**Birmingham.**—ROADS.—For the following street works: (1) Bournville-lane, reconstruction of carriageway with tarred macadam; (2) Green-lane, Small Heath, reconstruction of carriageway with tarred macadam; (3) Bristol-road, Selly Oak, providing and laying 3,000 yds. sup. of tarred macadam; (4) Burney-lane, widening and provision of sewers; (5) Rowlands-road, South Yardley, widening and reconstruction, for the T.C. Mr. Herbert H. Humphries, City Engineer, Council House, Birmingham. Deposit £2 each contract.

DECEMBER 29.—**Dorking.**—ROADS.—For making-up a portion of South-terrace, for the U.D.C. Mr. S. S. Gettings, Surveyor, Council Offices, Dorking. Deposit £2 2s.

DECEMBER 29.—**Featherstone.**—SEWER.—For relaying of about 1¼ miles of 15 in. diameter outfall sewer (cast-iron and stoneware pipe), for the U.D.C. Mr. Samuel Chesney, Council Offices, Featherstone, near Pontefract. Deposit £2 2s.

DECEMBER 29.—**Southam.**—WATERWORKS.—Supply of 294 tons of 5 in., 4 in., and 3 in. cast-iron spigot and socket pipes; laying about 12,130 lineal yds. of 5 in., 4 in., and 3 in. cast-iron pipes, &c.; and construction of a concrete reservoir at Rectory Farm, Southam, for the R.D.C. Messrs. Taylor & Wallin, Commercial Union Buildings, 47, Pilgrim-street, Newcastle-on-Tyne. Deposit £5 5s.

DECEMBER 29.—**Southwick.**—ROADS.—For making up the carriage-way of St. Aubyns-road, Fishersgate, for the U.D.C. Mr. G. W. Warr, Surveyor, Town Hall, Southwick, Sussex. Deposit £1 1s.

DECEMBER 31.—**Lancaster.**—ROADS.—For paving and other works in Victoria-avenue, for the T.C. Mr. F. Hill, Borough Surveyor, Lancaster.

DECEMBER 31.—**Edinburgh.**—SANITARY WORK.—Reconstruction of sanitary equipment, at 18, Wilkie-place, Leith, for the Parish Council. Mr. J. M. Johnston, 47, Charlotte-street, Leith.

DECEMBER 31.—**Gravesend.**—SEWER.—For constructing a 30 in. cast-iron main effluent sewer (about 134 yds.) into the River Thames, for the T.C. Mr. Frederick T. Grant, engineer, 4, Woodville-terrace, Gravesend. Deposit £1.

DECEMBER 31.—**Hammersmith.**—ROADS.—For (1) compressed asphalte (Waterloo-street); (2) asphalte macadam (part of Blythe-road); and (3) tarred slag macadam (seven roads), for the B.C. Mr. R. H. Clucas, Borough Engineer, Hammersmith, W.

DECEMBER 31.—**Newbiggin-by-the-Sea.**—WATER MAINS.—For laying 425 yds. of 3 in. water main fittings, for the U.D.C. Surveyor, Council Offices, Newbiggin-by-the-Sea. Deposit £1.

DECEMBER 31.—**Stafford.**—WATER MAINS.—For laying 2,470 yds. of 6 in. dia. cast-iron pipes and special castings; also for laying 650 yds. of 21 in. dia. reinforced concrete pipe sewer, for T.C. Mr. W. Plant, Borough Engineer, Borough Hall, Stafford. Deposit £2 2s.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£	s.	d.
Best Stocks	4	2	0
Second Hard Stocks	3	17	0

Per 1,000. Delivered at London Goods Stations.

	£	s.	d.
Flettons, at			
King's Cross	2	13	3
Do. grooved for plaster	£	15	3
Do. Bullnose	3	8	3
Best Stourbridge Fire brick :—			
2½ in.	11	3	0
GLAZED BRICKS—			
Best White Ivory, and Salt Glazed Stretchers	22	0	0
Headers	21	10	0
Quoins. Bull-nose and 4½ in. Flats	28	10	0
Best Blue Pressed Staffs.	9	11	6
Do. Bullnose	10	1	6
Blue Wire Cuts	7	11	6
3 in.	13	2	0
D'ble Str'tch'rs	30	10	0
D'ble Headers	27	10	0
One Side and two Ends	31	10	0
Two Sides and one End	32	10	0
Splays and Squints	30	0	0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s.	d.		s.	d.
2 in. per yd. super	2	0	3 in. per yd. super	2	11
2½ in. "	2	6	4 in. "	3	6

	s.	d.		
Thames Ballast	10	6	per yard.	
Pit Sand	14	9	" "	
Thames Sand	15	6	" "	delivered
Best Washed Sand	15	6	" "	2 miles
¾ in. Shingle for Ferro-Concrete	14	0	" "	radius
½ in. " "	15	0	" "	Padding-ton.
¾ in. Broken Brick	10	6	" "	
Pan Breeze	5	6	" "	

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6 51/- alongside at Vauxhall in 80-ton lots.

	£	s.	d.
Ferrocrete per ton extra on above	0	10	0
Super Cement	4	8	0
Roman Cement	8	15	0
Parian Cement	5	15	0
Keene's Cement, White	5	15	0
" Pink	5	10	0
Plaster, Coarse, Pink	3	0	0
" " White	3	12	6
" Fine	5	12	0
Sirapite, Coarse	3	9	6
" Finish	3	17	6
Grey Stone Lime	2	10	9
Chalk Lime	2	10	9
Best Ground Blue Lias Lime	2	13	6
Hair	17	0	0
Granite Chippings	1	12	0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s.	d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2	9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2	11½
PORTLAND STONE—		
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4	4
Do. do. delivered on road wagons at above stations, per ft. cube	4	5
White basebed, 3d. per ft. cube extra.		

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7	/-
Random blocks from 10 ft. and over "	17	/-
Sawn two sides "	27	/-
Sawn three or four sides "	32	/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s.	d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5	3
6 in. rubbed two sides, ditto "	5	9
3 in. sawn two sides slabs (random sizes) "	2	1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1	5½
1½ in. to 2 in. ditto, ditto "	1	3

HARD YORK—

Delivered at any Goods Station London.

Scappled random blocks. Per Ft. Cube	5	6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5	4½
6 in. rubbed two sides ditto "	6	0½
4 in. sawn two sides slabs (random sizes) "	2	10
3 in. ditto. ditto "	2	5
2 in. self-faced random flags. Per Yard Super	7	11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s.	d.
Plain per ft. cube	6	6
Moulded " "	7	9
Cills " "	8	3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	24 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅜	21/-	1¼	33/6
½	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅜	17/6
½	22/-
1	26/-

BATTENS

Inches	s.	d.	
⅜ × 2	2	4	per 100 ft.

SAWN LATHS.

Per bundle					0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2	0	to	0	2 6
⅜ in. do. do.	0	1	6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1	9	to	0	2 6
Cuba Mahogany	0	3	0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0	0	to	50	0 0
American Whitewood planks, per ft. cube	0	14	0	to	0	16 0
Best Scotch Glue, per cwt.	4	10	0	to	—	
Liquid Glue, per cwt.	4	7	0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£	s.	d.		£	s.	d.
24 by 12	37	12	6	18 by 10	21	2	6
22 by 12	34	0	0	18 by 9	18	12	6
22 by 11	31	5	0	16 by 10	17	12	6
20 by 12	29	15	0	16 by 8	13	15	0
20 by 10	25	12	6				

TILES.

	Per 1,000 f.o.r. London. £	s.	d.
Best machine-made tiles from Broseley or Staffordshire district	5	7	6
Ditto hand made ditto	5	12	6
Ornamental ditto	5	17	6
Hip and valley tiles (per dozen) Hand made	0	9	6
Hip and valley tiles (per dozen) Machine made	0	9	0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—	£	s.	d.
R. S. Joists, cut and fitted	13	10	0
Plain Compound Girders	15	10	0
" Stanchions	17	10	0
In Roof Work	20	10	0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£	s.	d.	Diameter.	£	s.	d.
⅛ in.	16	10	0	⅝ in. to ⅛ in.	13	10	0
¼ in.	14	10	0	⅛ in. to 2⅞ in.	13	0	0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discount, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¾	3½d.
4 in.	1/4	1/1¾	3½d.
4½ in.	1/5¼	1/4	4d.
5 in.	1/7¾	1/5¼	5d.
O.G. GUTTERS.			
3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6¼	1/2¾	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9¼	1/6¼	4d.
5 in.	2/1¾	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7¼	1/1¾	1/8
2½ in. "	1/9½	1/4	2/0¼
3 in. "	2/1½	1/8	2/5¾
3½ in. "	2/6¼	1/11½	2/10½
4 in. "	2/11¾	2/4¼	3/5¼

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0¼	2 2¼	2 8
2½ in. "	3 6¼	2 5¾	3 3¾
3 in. "	4 2¼	2 8	4 0½
3½ in. "	4 7	3 3¾	4 8½
4 in. "	5 1	3 9¼	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. "	6 3	6 8	11 4
5 in. "	7 6	11 6	18 2
6 in. "	8 10	14 4	23 5

Per ton in London.

IRON—	£	s.	d.		£	s.	d.
Common Bars	13	10	0	to	14	10	0
Staffordshire Crown Bars—good merchant quality	14	0	0	..	15	0	0
Staffordshire "Marked Bars"	17	0	0	..	18	0	0
Mild Steel Bars	12	10	0	..	13	10	0

METALS (*Continued*).

	£	s.	d.		£	s.	d.
Steel Bars, Ferro-Concrete quality, basis price	13	0	0	..	14	0	
Hoop iron, basis price	16	10	0	..	17	10	
" Galvanised	31	0	0	..	32	0	
Soft Steel Sheets, Black—							
Ordinary sizes to 20 g.	15	0	0	..	16	0	
" " 24 g.	16	0	0	..	17	0	
" " 26 g.	18	0	0	..	19	0	
Sheets Flat Best Soft Steel, C.R. & C.A. quality—							
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21	10	0	..	22	10	
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22	10	0	..	23	10	
Ordinary sizes, 6 ft. by 2 ft. to 26 g.	24	10	0	..	26	10	
Flat and Galvanised Corrugated Sheets—							
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21	10	0	..	22	10	
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22	0	0	..	23	0	
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24	0	0	..	25	0	
Sheets Galvanised Flat, Best quality—							
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23	10	0	..	24	10	
Best Soft Steel Sheets, 22 g. and 24 g.	24	10	0	..	26	10	
Best Soft Steel Sheets, 26 g.	26	0	0	..	27	0	
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20	10	0	..	22	0	

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/- to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£	s.	d.
LEAD—Sheet. English, 4 lb. and up	41	10	
Pipe in coils	42	0	
Soil Pipe	45	0	
Compo pipe	47	10	

NOTE—Country delivery, 30s. per ton extra: lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 1 cwt., 1s.6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

	£	s.	d.	
Old lead, ex London area, at Mills per ton	27	0	0	.. —
Do., ex country, carriage forward per ton	28	0	0	.. —

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	4 in.
7/6	10/-	14/-	23/-	30/- 42/- per doz

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1½ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz
8 lbs. S. traps	35/-	45/-	66/-	126/-

COPPER—	£	s.	d.	
Strong Sheet per lb.	0	2	3	.. —
Thin " "	0	2	4	.. —
Copper nails "	0	2	3	.. —
Copper wire "	0	2	4	.. —
TIN—English Ingots "	0	2	6	.. —
SOLDER—Plumbers' "	0	1	1	.. —
Tinmen's "	0	1	3	.. —
Blowpipe "	0	1	5	.. —

PAINTS, &c.

	£	s.	d.
Raw Linseed Oil, in pipes per gallon	0	3	10
" " " in barrels "	0	4	0
" " " in drums "	0	4	3
Boiled " " in barrels "	0	4	4
" " " in drums "	0	4	7
Turpentine in barrels "	0	6	6
" in drums (10 gall.) "	0	6	9
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	56	5	0

GENUINE WHITE LEAD PAINT—

"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered 70 10 0

Red Lead, Dry (packages extra) per ton	43	0	0
Best Linseed Oil Putty per cwt.	0	16	0
Filocol per cwt.	0	15	6
Size. XD Quality per lkn.	0	3	0

(Concluded on next page.)

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths	3½d.	32 oz. fourths	8½d.
15 ,, thirds	4½d.	32 ,, thirds	10½d.
21 ,, fourths	5d.	Obscured Sheet, 15 oz.	4d.
21 ,, thirds	6½d.	21 ,,	5½d.
26 ,, fourths	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
26 ,, thirds	7½d.	En'lled 15 ,, 5½d., 21 ,,	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4½d.
3/16 Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal flatting	ditto	1 0 6
Hard drying Oak	ditto	0 18 0
Fine Hard drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 0
Knotting (patent)		1 5 6
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Guirass Black Enamel		0 7 0

Diaries for 1924.

Pocket diaries specially produced for the business man, the motorist, the engineer, the gardener and poultry keeper, the wireless enthusiast, the housewife, the schoolboy and schoolgirl, the Boy Scout and Girl Guide, are all included in the 1924 editions of Messrs. Charles Letts & Co.'s well-known series of diaries. There are also desk pads, large desk "scribbling" diaries, wall calendars, large loose-leaf diaries, and plain pocket-diaries, in great variety, so that it should not be a difficult matter for the most fastidious to select a diary suited to his special needs from Messrs. Letts's publications; in fact, it seems the only difficulty which might arise is in making a choice from amongst so many admirable productions. The binding and production are of the excellent quality associated with this firm's productions, and the memoranda given should be of great value to those for whom it is intended.

The Cinematograph Industry.

An exhibition at the new headquarters of Messrs. J. Springer, Ltd., 152-158, Wardour-street, W.1, was opened on December 17. There may be seen everything connected with the cinematograph industry, giving the maximum of service at the minimum of cost, evidence of which is forthcoming in the new Springer projector, which is available at a very low figure. The showrooms are decorated throughout with "Ornastele," a new British production of compressed steel. This embossed metal, resembling lincrusta, is very effective, and may be easily fixed to the ceiling and walls, quickly converting a bare building into an elaborately decorated picturehouse; it is fire-resisting and damp-proof and can be painted to suit any colour scheme. Equipment for construction, reconstruction, furnishing and outfitting of the cinema, from a complete projection plant down to the smallest every-day want of the exhibitor, is to be found at this emporium.

COMPETITIONS & CONTRACTS.

(*Continued from page 1015.*)

JANUARY 1.—**Ealing.**—ROADS.—Formation of new road, connecting Gunnersbury-avenue with Gunnersbury-lane, and the improvement of Windmill-road, for the B.C. Mr. W. R. Hicks, Borough Engineer, Town Hall, Ealing. Deposit £1 1s.

JANUARY 1.—**Enfield.**—SEWERAGE WORKS.—For construction of 1,500 yds. run of stoneware pipe sewer, &c., at Botany Bay, for the U.D.C. Mr. H. R. Crabb, Surveyor, Public Offices, Enfield. Deposit £2 2s.

JANUARY 1. — **Erith.** — ROADS. — Making-up Woolwich-road and Erith-road, Belvedere, for the U.D.C. Surveyor, Bexley-road, Erith. Deposit £1.

JANUARY 1.—**Macclesfield.**—WATER MAINS.—For the laying of 3¼ miles of 15 in., about one-third of a mile of 18 in., 12 in., 6 in., and 3 in. cast-iron pipes, &c., for the T.C. Mr. Herbert Lapworth, 15, Victoria-street, Westminster, S.W.1. Deposit £5 5s.

JANUARY 1.—**Rotherham.**—SEWER.—For construction of 9 in. stoneware pipe sewer, manholes, &c., in Herringthorpe-lane and Barnby Moor main road, in Parish of Whiston, for R.D.C. Mr. C. O. Rawstron, Surveyor, Council Offices, Grove-road, Moorgate, Rotherham.

JANUARY 2.—**Ossett.**—FOOTPATHS.—For asphalting or concreting footpaths in Northfield-avenue, Sowood-avenue, Wilson's-avenue, Manor-road and Teall-street, for T.C. Mr. H. Holmes, Borough Surveyor, Town Hall, Ossett.

JANUARY 2.—**West Ham.**—PAVING.—For laying granite sett and wood block paving in six streets, for the B.C. Borough Engineer, Town Hall, West Ham, E. Deposit, £1

JANUARY 3.—**Durham.**—SEWERAGE.—For a sewer 850 yds. in length of 9 in. sanitary and cast-iron pipes, at Willington, for the U.D.C. Mr. J. H. Gardner, surveyor, North Dene, Willington, co. Durham.

JANUARY 3.—**Hay (Breconshire).**—WATER CONDUIT.—For necessary works to bring water from springs above Heolinon Farmhouse to Penheolinon, Llandefalle. Mr. Penry C. Lloyd, Estate Offices, Hay.

JANUARY 3.—**Salford.**—ROADS.—For making-up two streets on Weaste Housing Site, for T.C. Borough Engineer, Town Hall, Salford.

JANUARY 4.—**Beddington and Wallington.**—SEWERAGE WORKS.—Laying of about 201 lineal yds. of 9 in. diameter stoneware pipe sewer in Stanley Park-road, Wallington, for the U.D.C. Mr. S. F. R. Carter, Surveyor, Council Offices, Wallington. Deposit £1.

JANUARY 5.—**Peterborough.**—SEWAGE WORKS.—For construction of sewage disposal works, at Eye (Northamptonshire), for the R.D.C. Mr. G. A. Penwill, surveyor, 33, Queen-street, Peterborough. Deposit, £2 2s.

JANUARY 7.—**Barnsley.**—ROADS.—For making-up three back roads within the Borough, for T.C. Borough Engineer, Fairfield House Offices, Barnsley.

JANUARY 7.—**Beckenham.**—ROADS.—For construction of three new roads on Elmers End Estate, for the U.D.C. Mr. J. A. Angell, Surveyor, Council Offices, Beckenham. Deposit £2.

JANUARY 7. — **Catherington, Hants.** — WATER MAINS AND DRAINAGE.—Providing and laying at Cowplain, in the Parish of Catherington, about 1,950 yds. lineal of 6 in. cast-iron water mains; also 900 yds. 4 in. and 2,800 yds. 3 in. ditto, and other drains, &c. Mr. G. E. Vernon-Inkpen, 40, Commercial-road, Portsmouth. Deposit £3 3s.

JANUARY 7. — **Hendon.** — ROADS. — Making-up Ravenscroft-avenue (second portion), Elmcroft-avenue, Beechcroft-avenue, Clifton-gardens, Brookside-road, Hodford-road (second portion), Greenfield-gardens, and Wycombe-gardens, for the U.D.C. Mr. A. O. Knight, Surveyor, Town Hall, Hendon, N.W. 4. Deposit £5 5s.

JANUARY 7.—**Hendon.**—SEWER.—Construction of 600 yds. of 9 in. stoneware pipe sewer, &c., at Uphill-road and Marsh-lane, Mill Hill, for the U.D.C. Mr. A. O. Knight, Surveyor, Town Hall, Hendon, N.W. 4. Deposit £3 3s.

JANUARY 7.—**Kingston-on-Thames.**—ROADS.—For making up Dawson-road, for the B.C. Borough Surveyor, Chattern Lodge, Kingston-on-Thames.

JANUARY 8.—**Hampton.**—ROADS.—For the making up of the Gloucester-road, for the U.D.C. Mr. Sidney H. Chambers, Surveyor, Public Offices, Hampton. Deposit £2 2s.

JANUARY 8.—**Northam.**—WATER MAINS.—For providing and laying about 4½ miles of 6 in. cast-iron pipes, for the U.D.C. Mr. W. J. Barnes, Northam U.D.C. Office, 24, Bridgeland-street, Bideford, Devon.

JANUARY 9.—**Crediton.**—ROADS.—For strengthening and re-surfacing (1) Rock-road, a length of 4½ miles; and (2) Black Dog, about 3¼ miles, for the R.D.C. Mr. F. Horbury, Surveyor, Fordton, Crediton. Deposit £1 1s.

JANUARY 10.—**Epsom.**—ROADS.—For making-up Manor-road (part of), Cecil-road, Derby-road, Salisbury-avenue, Cheam, for R.D.C. Mr. T. E. Ware, surveyor, Waterloo-road, Epsom.

JANUARY 14.—**Hemel Hempstead.**—WATER MAIN.—Provision and laying of 550 yds. of 4 in. cast-iron water main, at Markyate, for the R.D.C. Mr. T. H. Lighbody, 16, Alexandra-road, Hemel Hempstead.

JANUARY 14.—**Mitcham.**—ROADS.—For making up Ashbourne-road, for the U.D.C. Surveyor, Broadway House, London-road, Mitcham.

JANUARY 19.—**Manchester.**—SEWERS.—Construction of main drainage work, for the T.C. City Engineer, Town Hall, Manchester. Deposit £10 10s.

NO DATE.—**Hunsworth.**—ROADS.—For laying 1,000 yds. of 12 in. × 8 in. kerb and channel, for the U.D.C. Mr. P. O. Ashworth, Clerk, 5, Greek-street, Leeds.

Competitions.

(*See Competition News, page 988.*)

Auction Sales, Tenders, etc.

JANUARY 1.—**Ashtead, Surrey.**—Messrs. Fuller, Horsey, Sons & Cassell will sell, *re* Alban Richards & Co., Ltd., by order of Mr. D. L. Honeyman, the Receiver for the debenture holders, in lots, at the Joinery Works, Ashtead, Surrey, modern high-class woodworking machinery, four steam wagons and trailers, &c. Auctioneers, 11, Billiter-square, E.C. 3.

JANUARY 8.—**Bristol.**—Messrs. Fuller, Horsey, Sons & Cassell will sell, in lots, *re* W. Alban Richards & Co., Ltd., by order of Mr. D. L. Honeyman, Receiver for the debenture holders, at the Royal Hotel, Bristol, builders' and contractors' plant laying at the Royal Edward Granary, Avonmouth Dock, at Town Hill, Swansea, and other depots. Auctioneers, 11, Billiter-square, E.C.3.

JANUARY 15.—**London, N.W.**—Messrs. J. T. Skelding & Co. will sell, by order of Messrs. Tims, Beckett & Partners, Ltd., unreserved clearance sale of the whole of the capital at the works, 38, Harlesden-road, Willesden-lane, N.W., stock of timber, plant and machinery of van and wagon builders, shoeing and general smiths. Auctioneers, 48, Gresham-street, E.C.2.

JANUARY 15 AND 16.—**London, E.9.**—Mr. F. H. Clark will sell, at the National Projectile Factory, Hackney Marshes, E.9, absolutely without reserve, timber and material resultant of the demolition of the above factory. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W.18.

JANUARY 17.—**North Finchley, N.**—Messrs. Wheeler & Wright will sell the remaining portions of the Westbury Estate at the Torrington Hotel. Auctioneers, adjoining Woodside Park Station, N.

JANUARY 22.—**London, W.**—Messrs. J. T. Skelding & Co. will sell, by order of Messrs. Selfridge & Co., Ltd., at the Yard, Balderton-street, Oxford-street, W., important unreserved sale of the capital surplus of builders' and contractors' plant and machinery, timber, stores and effects. Auctioneers, 48, Gresham-street, E.C.2.

JANUARY 24.—**County Down.**—Messrs. Garnet W. Holt & Co. will sell, by public auction, the Crowreach Quarries, Newry, with yard, machinery, plant, &c., on the premises at Catherine-street, Newry, to be sold in two lots. Auctioneers, Newry.

JANUARY.—**London, W.1.**—Messrs. Knight, Frank & Rutley, in conjunction with Messrs. Oakden & Co., will sell, at the Hanover-square Estate Room (unless previously disposed of), by direction of the Eastbourne Waterworks Company, freehold commercial site of about 4¼ acres, with railway facilities and including detached double-fronted residence and factory or warehouse buildings, &c. Auctioneers, 20, Hanover-square, London, W.1.

Public Appointments.

DECEMBER 28.—**Battersea, S.W.11.**—Junior Assistant, Architectural Assistant and Engineering Assistant required in the Borough Engineer's Dept. Mr. Edwin Austin, Town Clerk, Town Hall, Battersea.

DECEMBER 31. — **Liverpool.**—Three experienced temporary Architectural Assistants required in the Land Steward and Surveyor's Architectural Department by the Finance Committee of the City of Liverpool. Mr. Walter Moon, Town Clerk, Municipal Buildings, Liverpool, endorsed "Architectural Assistant."

JANUARY 1. — **Leeds.** — Instructor in Architectural Construction and Design required at the Leeds School of Art in the Department of Architecture. Director of Education, Education Offices, Calverley-street, Leeds.

NO DATE.—**Grimsby.**—Architectural Assistant (temporary), with experience of housing schemes. Twelve months' engagement. Borough Engineer, 170 Victoria-street, Grimsby.

NEW BUILDINGS IN SCOTLAND.

Dundee.—The Dundee Education Authority has decided to purchase Ashcliffe House, the site in Perth-road being suggested as suitable for the erection of a new Harris Academy. It is stated that the purchase price is about £3,000.

Thornton.—The Kirkcaldy District Committee of the Fife County Council has agreed to sell a portion of the housing site at Thornton to a syndicate for £300. on the understanding that the ground is used for the erection of houses, and that the lay-out prepared by the District Committee's architect is adhered to.

Airdrie.—The Lanarkshire Education Authority has authorised the extension of the Manual Instruction Department at the Academy Secondary School. The estimated cost is £5,700.

Musselburgh.—The Town Council propose to submit plans to the Board of Health for the erection of 28 houses at Monktonhall.

New Monkland.—The Lanarkshire Education Authority has forwarded plans to the Scottish Education Department for their approval of a special school for invalid children for Old and New Monkland areas.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
½ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d	2d.

STAIRCASES.

		1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets		2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed		1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	54	0
Do. Do. in flats	"	52	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	11d.	1/8	1/11	3/5	4/2	
Do. service	"	1/7	2/1	2/6	3/10		
Do. soil	"						6/10
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	" "	2	6
Do. Do. Keen's	" "	3	6
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations :—T.C. for Town Council; U.D.C. for Urban District Council: R.D.C for Rural District Council: E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERYSTWYTH.—Plans have been passed by B.C. for alterations and additions to Pier Pavilion. As result of Ministry of Health public inquiry the T.C. has received sanction to loan of £12,270 for sewerage scheme. The Channel Excursion Steamers, Ltd., have put forward an Aberystwyth service scheme to T.C. It will entail construction of landing stage at estimated cost £4,000 to £5,000, and company suggests a loan of amount from G.W.R. Co. The Council is examining proposals.

AMMANFORD.—Sanction has been received by U.D.C. to borrow £17,460 for acquisition of electric light undertaking. The Council has decided to proceed with erection of new reservoir, to hold 200,000 gallons, at estimated cost of £3,800, and to lay duplicate line of water mains at estimated cost £3,500.

BEDFORD.—Plans passed by T.C.: Mr. E. H. C. Inskip, outbuildings, Kimbolton-road; Simplex Works, lavatory and cloak room, Elstow-road; Mr. H. Bowler, two houses, Tennyson-road.

BELFAST.—Plans passed by T.C.: Six houses, Luxor-gardens, for J. McMillan; house, Balmoral-avenue, for N. McNaughton; 4 houses, Kilhorne-gardens, for R. J. & F. Kerr; alterations, Chichester-street, for W. Brown & Sons; 5 houses and shop and house, Beechmount-avenue, for the Belfast Building Guild, Ltd.; rebuilding premises at rear of Royal-avenue, for the trustees of the late J. Johnston; shop and houses, Newtownards-road, for Wm. McNelly; shop and house, Divis-street, for Mrs. A. Hadly; shop and house, Abingdon-street, for J. H. Dowling; 3 houses, Park-road, for R. McIntyre; house, Kincora-avenue, for W. & J. Robinson; shop and stores, Old Park-road, for A. M. Dougan; shop and house, Elm-street, for J. R. McKenna; 2 houses, Wandsworth-road, for G. Mercer; shop and house, Cliftonville-road and Oldpark-avenue, for H. & W. Pollock; shop and house, Grosvenor-road, for A. D. Forde; additions to factory, Cupar-street, for Messrs. J. & T. Greeves; shop and house, Grosvenor-road, for Mr. A. Ford (architect, Mr. J. W. C. Porte); 2 semi-detached villas, Oldpark-road, for Mr. A. E. Fair (architect, Mr. Thomas Houston); villa, Sandown-road, for Mrs. V. Neill (architects, Messrs. Taggart & Silk); shop and house, Woodstock-road, for Mr. John Crawford (architect, Mr. R. Lynn); stores and engine house, Sydenham-road, for Mr. M. Hamilton Bodel (architect, Mr. Wm. Crook); classrooms, University-road and College-gardens, for the Governors of the Methodist College (architects, Messrs. Hobart & Heron); 2 semi-detached villas, North-road, for Mr. George Mercer; house, Finvoy-street, for the East Belfast Building Society; addition to store, Duncrue-street, for Mr. Wm. Davidson (architects, Messrs. Munce & Kennedy); 6 semi-detached villas, Sandown-road, for Mr. Wm. Evans; villa, Balmoral-avenue, for Mr. A. W. Stewart (architect, Mr. John Seeds); villa and motor garage, Newforge-lane, for Mr. T. B. Johnston (architects, Messrs. Tulloch & Fitzsimon).

BRECON.—The Ministry of Health has agreed, upon conditions, to make grant to cost of T.C. high-level water scheme. The Surveyor has reported imperative need of renewal of filter beds, estimate £1,000. Tenders are to be invited by T.C. for erection of ladies' lavatories.

BRISTOL.—The T.C. has adopted a report of the Docks Committee recommending the construction and equipment of the eastern arm of Royal Edward Dock, Avonmouth, at a cost of £1,000,000.

CARMARTHENSHIRE.—The Llandovery Town Council has applied to Ministry of Health for sanction to erect 50 houses to replace uninhabitable dwellings.—The Carmarthen Town Council has applied to Government for sanction to use and convert the prison, disused under 1922 Prisons scheme, into dwellings. The Council has further decided to consider scheme for extension of roadway over Town bridge, and repairs necessary to bridge. Grants for same, as bridge is main way to West Wales, are expected from G.W.R. Co., Ministry of Transport, and County Council.—The Llanelly B.C. is to grant site at Llanerch for erection of 52 houses under G.W.R. employees housing scheme. The Council Education Committee wishes part of Llanerch site to erect new school.

CLAYGATE.—Plans passed: Messrs. Trollope & Colls, 28 houses.

CLITHEROE.—Mr. M. K. North, an official of the Ministry of Health, has conducted an inquiry into an application by the R.D.C. for sanction to borrow £630 for the purpose of connecting the village of Wiswell with the sewerage works at Barrow. There was no opposition.

CRICKHOWELL.—The Board of Guardians has decided to invite tenders for reconstruction of brick bakery system, and is to consider installation of new steam bakery.

DUBLIN.—Plans passed: Re-building 98, Upper Church-street, for Mr. Francis O'Hanlon; 2 cottages, Strandville-avenue, North Strand, for Miss Ryan.

EBBW VALE.—The U.D.C. Education Committee has submitted scheme and estimate of expenditure of £30,000 on additional school accommodation provision in the New Year to Board of Education for sanction. A new school on Gautre site is included in scheme, and Markets School is to be reconstructed. Additions to present premises alone are estimated at £4,000.

EPSOM.—Plans have been approved by the R.D.C. for a house at Spa Bottom, Fairmile Heath, for Mr. H. Bull.

GATESHEAD.—A scheme has been commenced for the erection of new Sunday school premises for the Bensham-road Wesleyan Church.

GLAMORGANSHIRE.—The renovation of the Church Hall, Creigiau, will shortly be undertaken. The workshops of the Pont-Rhondda Institute for the Blind are shortly to be extended; a grant of £400 toward the cost has been received from the Arthur Pearson Memorial Fund. The Ministry of Transport has made grants of 50 per cent. of cost of Caerphilly road-widening scheme, estimate £9,000, and Radyr road diversion, estimate £9,000, to be put in hand by Cardiff B.C., and for widening Duke-street—Castle-street, estimate £16,000, by the same authority. The C.C. is to construct new road into Aberdare Valleys, alongside Glamorgan Canal, which is to include a viaduct construction across the valley at Abercynon. It was reported at a meeting of the Penarth U.D.C. that £5,000 had been earmarked by Roads Board for improvement of Cogau Hill. Applications will be considered at next meeting of Council for sanctions to erect 30 houses at Pyle. The Council of the South Wales and Mon University College at Cardiff have decided in view of success of their appeal for £250,000, to proceed with new University building at Cathays Park, Cardiff, and has instructed preparation of plans, bills of quantities, &c., for major portion of new buildings, including chemistry and physics laboratories. The foundations for buildings are already prepared.

GORSEINON.—Tenders are to be invited for the reconstruction of Gorseinon bridge by the Swansea R.D.C. The question of forming and equipment of a fire brigade is being considered by Council.

KING'S LYNN.—Plans passed by T.C.: Lay-out plan of building estate, Tennyson-avenue, for Messrs. Perkins & Collins.

LEADGATE.—The U.D.C. have approved plans submitted by the Consett Iron Co., Ltd., for the erection of 157 houses.

LITTLEHAMPTON.—The U.D.C. has approved of the plans for a new fire station, &c., at an estimated cost of £1,500.

LONDON (BERMONDSEY).—Sanction has been given to the B.C. by the L.C.C. to borrow £21,497 for paving and sewer works.

LONDON (BETHNAL GREEN).—The B.C. has received sanction from the L.C.C. to borrow £9,491 for sewer reconstruction and paving works.

LONDON (LEWISHAM)—Plans passed by B.C.: A. Durbin, 3 houses, Baring-road; G. W. Smith & Son, re-drainage, 123 & 123A, High-street and 24, Lewisgrove; H. Woodham & Sons, 20 garages, Blythe-vale; Clarke & Hampton, 2 houses, Baring-road; P. J. Waller, 3 garages, Devonshire-road; H. R. Watt, 10 houses and garages, Bromley-road; Young & Hall, rebuilding of "Bricklayers' Arms," High-street, Sydenham; F. W. Kiddie, bungalow, Baring-road; W. Doddington, addition to biscuit factory, Manor-lane.

MONMOUTHSHIRE.—Grant of 50 per cent. has been promised County Council of cost (estimate £5,000) of widening Usk–Crumlin road. The Monmouth Board of Guardians have received plans for proposed extension of workhouse casual wards.

NEWPORT (MON)—The Borough Engineer has been instructed to investigate sites for proposed new Town Hall, and also the extension of existing building. The T.C. is considering the building of a crematorium.

PEMBROKESHIRE.—Estimates have been submitted to Haverfordwest R.D.C. for proposed work of reconstruction of Dale-Milford road. The amount is £16,212, and grant has been applied for. The G.W.R. Co. has notified Tenby T.C. that it wishes to put in hand immediately the construction of approaches to the golf links.

PENARTH.—A deputation of the U.D.C. has waited on Ministry of Health for sanction to proceed immediately with erection of pavilion and grand stand on R.F.C. ground, which is to be rented to the club.

PLYMOUTH.—The Corporation are to erect at once additional houses at Prince Rock and North Prospect. Tenders are being invited for the building of 28 houses of the two-flat type at Prince Rock, at an estimated cost of £17,920, and tenders are being accepted for 72 houses at North Prospect, at a cost of £29,780, and 120 houses at the same place, at a cost of £55,520.

RHAYADER.—The Rhayader R.D.C. having received assurance of free land and haulage, has decided to expend £800 on reconstruction of portion of Pant-y dwr-road.

SHEFFIELD.—Plans passed by T.C.: Two houses, Springhouse-road, for Mr. W. Lynch; house and garage, Millhouses-lane, for Mr. W. B. Barber; three houses, Silver Hill-road, for Mr. J. A. Wragg; house, Trap-lane, for Mr. J. Higginbottom; house, Rundle-road, for Mr. Alexandra Downie.——The Education Committee are submitting plans and estimates to the Board of Education for their approval for the proposed extensions to Firth Park Secondary School. The plans make provision for 10 additional classrooms, an assembly hall to accommodate 447 scholars, a gallery to accommodate 70 scholars, and a platform to accommodate 31 scholars. Provision is also made for two large science laboratories and two lecture rooms, in addition to the conversion of block of stables into two dining rooms, enlargement of kitchen with the necessary stores and larder. Cloak-room and lavatory accommodation is being provided for 516 scholars. The estimated cost of these extensions, which are one-story high, is £28,460 if carried out in brickwork, but if stone is used the cost will be about £30,000.

* See also our List of Contracts, Competitions, etc.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*. ‡ Denotes *recommended for acceptance*. § Denotes *accepted subject to modifications*.

BARNSLEY.—For making-up (1) Salisbury-street; (2) Kensington-road; (3) Canning-street; (4) Dillington-square; (5) Dumfries-row, for the T.C. Borough Engineer, Fairfield House Offices Barnsley :—

(1) J. Richardson, Barnsley	£1,566 0 0
(2) H. Hibbert & Sons, Barnsley	1,498 19 3
(3) S. Taylor, Barnsley	325 0 0
(4) S. Taylor, Barnsley	222 0 0
(5) S. Taylor, Barnsley	173 2 6

BINGLEY.—Erection of a modern residence at Heaton-road, for Mr. Haigh :—

Mason's work—
E. Fearnley & Sons, Bradford.
Macadam work—
Tunstall's Rock Asphalte Co., Ltd., Leeds.

BRADFORD.—Reconstruction of premises in Hall Ings, for the Bradford *Telegraph* Newspaper Co., Ltd. Mr. Percy Turner, architect, Bank-street :—

Mason—J. & P. Obank, Idle.
Joiner—W. Farnish & Sons, Bradford.

BRADFORD. — For asphalte work to roofs, basement and gutters at Messrs. Montague Burton's super premises in Kirkgate, Bradford. Mr. H. Wilson, architect :—

Messrs. Tunstall's Rock Asphalte Co., Ltd., Leeds.

BRADFORD.—Erection of surgery and drug store at Blenheim-road, Manningham, for Dr. Hayes Smith:—

Main contract—Oliver Booth & Sons, Bradford.

CHRISTCHURCH.—For extension to Nurses' Home at Fairmile House, for the B.G. :—

W. F. Drew, Ltd., Chalford, Stroud	£5,733 13 2

CLACTON-ON-SEA.—For erection of residence. Mr. G. H. B. Gould, architect, Station-road, Clacton-on-Sea :—

Henry R. Collins, Clacton	£3,509 0 0
Arthur J. Arnold, Chelmsford	3,307 9 2
F. W. King, Clacton	3,300 0 0
Cubitt & Gotts, Ipswich	3,263 0 0
Henry Potter, Chelmsford	3,216 0 0
William Church, Lowestoft	3,207 8 0
Canler & Sons, Clacton	3,023 15 0
Horace Smith & Sons, Clacton	2,997 10 0
Field & Son, Clacton	2,990 0 0
Allen & Jeffers, Clacton	2,980 0 0
*Percy J. Turner, Ipswich	2,887 0 0

DUMBARTON.—Laying of new water mains in Alexandria, Bonhill and Jamestown, for the Vale of Leven District Committee of the Dumbarton County Council:—

Messrs. D. & J. M'Callion, Dumbarton.

EDMONTON.—For alterations at laundry at Edmonton House, for the B.G. :—

*Humphries & Co., Knightsbridge, S.W. £2,807

EDMONTON.—For levelling roadway at entrance to Institution, for the B.G. :—

*Grounds & Newton, South Tottenham £924

GREASBOROUGH.—As the result of a communication from the Ministry of Health, the U.D.C. has decided to accept the tender of Hanwell & Co., Rotherham, for the erection of 8 bungalows. Previously the Council had provisionally accepted a local tender at £21 per bungalow.

IPSWICH.—Erection of portion of school at Nacton-road, Ipswich, for the T.C. :—

*J. Noller £4,851

LONDON.—For construction of coal bunkers at Greenwich Power Station, for the L.C.C. :—

Tenderer.	*Original tender.*	*Amended tender.*
K. Holst & Co., S.W.1	£27,915	£31,830
J. Mowlem & Co., Ltd., S.W.1	29,238	—
Do. (alternative)	29,792	—
Do. (alternative)	37,192	—
Do. (alternative)	37,671	42,621
Peter Lind & Co., S.W.1	29 800	30,500
Industrial Constructions, Ltd., S.W.1	32,015	33,368
Do. (alternative)	32,859	34,243
Christina & Nielson, S.W.1	38,475	—
Anglo-Danish Concrete Construction Co., Ltd., W.C.2	40,650	—
D. G. Somerville & Co., Ltd., S.W.1	44,500	
Baldry, Yerburgh & Hutchinson, Ltd., S.W.1	46,130	—
Do. (alternative)	44,630	—
Holloway Bros. (London), Ltd., S.W.1	47,400	—
The Yorkshire Hennebique Contracting Co., Ltd., Leeds	56,000	—
A. Jackaman & Son, Ltd., Slough	56,790	—
Holliday & Greenwood, Ltd., S.W.	60,735	—
The Foundation Co., Ltd., W.C.2	Actual cost plus 10 per cent., together with 2½ per cent. a month on purchase value of contractors' heavy plant.	

The Highways Committee reported that as the result of negotiations with various tenderers, Industrial Constructions, Ltd., had agreed to carry out the work on a fixed price basis at £34,876, and this offer the Committee recommended.

LONDON.—For the maintenance of 22 tar macadam carriage-ways, for the St. Marylebone B.C. :—

*Constable, Hart & Co. £1,743 10 5

LONDON.—Construction of roadway in part of Sandhurst-road, for the Lewisham B.C. :—

	Per super yd.
Acme Flooring & Paving Co. (1904), Ltd.	£1 3 10
Improved Wood Pavement Co., Ltd.	1 3 10
Henry Woodham & Sons, Ltd.	1 3 9
John Mowlem & Co., Ltd.	1 3 5
William Griffiths & Co., Ltd.	1 3 3
*W. Manders & Co.	1 1 11

LONDON.—For extension of electricity mains, for the Bethnal Green B.C. :—

W. T. Henley's Telegraph Works Co., Ltd.	£14,357 15 5
Callenders Cable & Construction Co., Ltd.	14,138 13 7
W. T. Glover & Co., Ltd.	13,833 6 4
*British Insulated & Helsby Cables, Ltd.	13,676 15 6

LONDON.—For the erection of a potting shed and lavatory in St. John's Wood grounds, for the St. Marylebone B.C. :—

*J. Simpson & Son	£317



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LEICESTER.—For erection of house, Western Park, for Mr. J. H. Harwood. Mr. H. Bland, surveyor, 221, Fosse-road North Leicester :—

Crow Bros.	£2,722
Cottman Bros.	2,630
Robinson	2,621
Bradford	2,609
Potter	2,601
*Elliott	2,449

NEWTON ABBOT.—For erection of lavatory in Market-street, for the U.D.C. Mr. C. D. White, Surveyor, Town Hall, Newton Abbot :—

*F. J. Lealley & Son, Newton Abbot	£1,139

PENARTH.—For erection of 22 houses at Cornerswell Gardens site, for the U.D.C. :—

‡Messrs. H. Beavis & Son, Cardiff.	£10,970

PENDOYLAN.—For re-erection of five cottages for the Parish Council. Mr. H. R. Evans, Clerk, Brynteg, Pendoylan, near Cowbridge :—

Cox & Sons, Cardiff	£877 18 9
Gale & Co., Cardiff	579 4 6
*J. R. Thomas, Pontypridd	560 0 0

REDCAR.—For erection of gasholder, for the T.C. :—

*Furness Shipbuilding Co.	£10,500

ROMFORD.—For construction of concrete tank and other works in connection with water supply to Havering, for the R.D.C. Mr. W. J. Grant, surveyor, South-street, Romford :—

*R. Stroud, Ilford.

ROTHERHAM.—For the erection of school in Badsley Moor-lane, for the T.C. :—

Chadwick & Co., Rotherham	£5,389

SOUTH MIMMS.—For the addition of sculleries to cottages, for the R.D.C. :—

*W. Slough, Barnet	£780

STOCKTON-ON-TEES.—For conversion of 400 privy middens and pan closets, for the T.C. Borough Engineer, Victoria Buildings, Stockton-on-Tees :—

J. C. Watson Stockton-on-Tees	£3,038 9 3

STOCKTON-ON-TEES.—For sewerage and street paving works at Blue Hall Estate, for the T.C. Borough Engineer, Victoria Buildings, Stockton-on-Tees :—

J. Pearson, Ltd., Stainton-in-Cleveland	£971 0 7

STRETFORD.—For (*a*) reconstruction of greenhouse in Longford Park, and (*b*) erection of shed at Cemetery, for the U.D.C. :—

*Grimshaw & Thomas.	(*a*) £225 and (*b*) £120

WORSBOROUGH.—For construction of 9 in. pipe sewer, Yews-lane, for the U.D.C. Mr. T. Shield, Surveyor, Saville House, Worsborough Bridge.

H. Hibbert, Barnsley	£426 1 6
T. Hollingworth & Sons, Huddersfield	315 1 0
Dole & Lund, Rotherham	246 11 6
Wm. Guest, Blacker Hill	227 18 6
C. Romans, Worsborough Bridge	214 18 0
*Ralph B. Porter, Worsborough Dale	187 2 10

YEADON.—Rebuilding of boundary wall at New Scarborough, for the Yeadon U.D.C. :—

Mark Smith, Yeadon.

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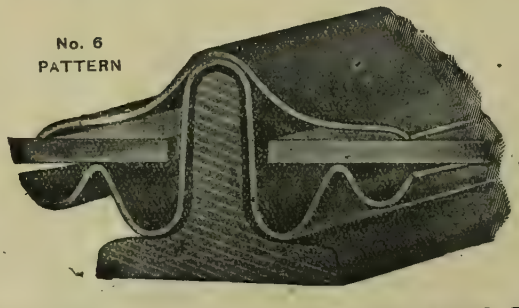
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